DEPARTMENT OF THE AIR FORCE
AIR UNIVERSITY (AETC)

30 June 2025

MEMORANDUM FOR CCAF EDUCATION CENTERS

FROM: CCAF/CC

SUBJECT: CCAF 2022-2024 Catalog Extension Notification

1. The Community College of the Air Force (CCAF) 2022-2024 Catalog is hereby extended until further notice. This extension is due to ongoing exploration of incorporating the CCAF Catalog into the Air University (AU) Catalog. All policies, procedures, and guidance outlined in the 2022-2024 CCAF Catalog will remain in effect until the CCAF Catalog is integrated into the AU Catalog, a new CCAF Catalog is published, or superseding guidance is issued.

2. Please direct any questions or concerns regarding this matter to the CCAF Educations Services Flight at ccaf.edservices@us.af.mil.

R. SEAN DANAHER, Lt Col, USAF
Commander & Commandant, CCAF

Air University

Community College of the Air Force

2022 – 2024 General Catalog
Number 22

The Community College of the Air Force, Maxwell AFB, Gunter Annex, Alabama, is an institution of higher learning dedicated to the enlisted Airmen and Guardians of the Department of the Air Force. The Community College of the Air Force is part of Air University. Air University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate, masters and doctoral degrees.

Change 3
Current as of 30 June 2025

The statements set forth in this catalog outline the current rules, regulations and policies of the Community College of the Air Force and are for informational purposes only. They should not be construed as the basis of a contract between the student and the college. While the provisions of this catalog will normally be applied as stated, the college reserves the right to change any provision listed in this catalog. It is the responsibility of each student to read and understand the provisions of this catalog.

Table of Contents

Message From The Commandant and Vice Commandant *4*

Telephone & Staff Directory *5*

General Information 9

History of the Community College of the Air Force 10

Accreditation and Degree Granting Authority 11

Privacy Act 11

Academic Integrity 12

The CCAF System 12

Advisory Bodies 14

The CCAF Degree 15

The Student 16

Academic Information 18

Education Documents 29

Degree Programs 31

Professional Credentialing 111

Off-Campus Instructional Sites 121

Course Descriptions 124

Terms & Acronyms 234

Index 237

Memberships 240

This catalog is available on-line at
https://www.airuniversity.af.edu/barnes/ccaf

Message From The Commandant …

Welcome to the Community College of the Air Force! Our college is a federally-chartered degree-granting institution that serves the Department of the Air Force's enlisted total force. We partner with more than 110 off-campus instructional sites and 300 education and training sections located worldwide, and more than 1,500 civilian academic institutions to serve more than 300,000 active, guard, and reserve enlisted personnel, making CCAF the world's largest community college system.

We strive to meet the demands of the Department of the Air Force's increasingly expeditionary environment and at the same time help Airmen and Guardians achieve their educational goals by capitalizing on job-related training and education as part of flexible degree completion programs.

On the following pages you'll find information about our associate of applied science degree programs, our professional credentialing programs, and our institutional accreditation. So whether you're a prospective or current student, an education counselor, a recruiter, or a commander, we've designed this catalog to provide valuable information about higher education opportunities with CCAF.

Lt Col Kevin R. Pond

Message From The Vice Commandant …

Welcome to the Community College of the Air Force. Our team is proud to serve you as you leverage the greatest training in the world into academic credit and an associate of applied science degree in your Air Force Specialty. We look forward to continuing a relationship as you capitalize on your experience and training, in preparation for an outstanding career...and for life after. Our Department of the Air Force continues to develop and take on emerging and evolving missions, and the accredited education and training delivered through the Community College of the Air Force will ensure Airmen and Guardians are always prepared for any challenge, no matter where in the world it arises.

CMSgt Alexius J. Reid

Telephone & Staff Directory …

100 South Turner Boulevard
Maxwell AFB, Gunter Annex, Alabama 36114-3011
Point of Contact: (334) 649-extension / DSN: 749-extension
Fax: (334) 649-5101/5106

CCAF Homepage: https://www.airuniversity.af.edu/barnes/ccaf

Office	Symbol	Extension
Commandant	CC	5150
Vice Commandant	CV	5152
Squadron Superintendent	SUPT	5013
Commandant's Secretary	CCA	5150
Administration & Support	CSS	5157
Dean	DE	5153
Plans & Programs	XP	5042
Plans & Programs Superintendent	XP-1	5138
Institutional Effectiveness	XPA	5034
Associate Dean of Academic Affairs	DEA	5012
Superintendent	DEA-1	5013
Curriculum & Training	DEAX	5061
Course Management	DEAM	5063
Medical & Support Degree Programs	DEAS	5030
Operations & Logistics Degree Programs	DEAT	5050
Credentialing Programs	DEAL	5020
Associate Dean of Student Services & Outreach	DES	5112
Superintendent	DES-1	5154
Education Services & Campus Relations Director	DESO	5022
Campus Relations	DESOC	5070
Education Service	DESOE	5021
Media and Distance Learning	DESOM	5074
Enrollment Management	DESS	5080
Student Advocacy	DEST	5026
Strategic Communication	DESV	5074
AF Credentialing Opportunities On-Line (AF COOL)	DESA	5115
AU-ABC & GEM	DESM	5010

Command Section

Lt Col Kevin Pond .....Commandant
PhD, Virginia Polytech Inst & State Univ; MS, Univ of Texas; BS, Univ of Texas

CMSgt Alexius Reid ..... Vice Commandant
BA, Ashford Univ; 3 AAS, CCAF; PMC;

Dr. Hank Dasinger .....Dean
PhD, Univ of Georgia; Ed.S, Auburn Univ; MS E.D, Auburn Univ-Montgomery; BS, Univ of Alabama

MSgt Ian Rowswell.....Operations Superintendent
BA, Univ of W. Georgia; AAS, CCAF

SSgt Katlyn English .....Command Support

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Capt Alec Ferguson.....Director, Plans & Programs
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Chad Williams..... Director, Institutional Effectiveness
MPA/MS, Troy Univ; BA, Paine College; 2 AAS, CCAF; CIC-III; PMC; Project Management Certificate, Villanova Univ

Academic Affairs

J.R. Breeding..... Associate Dean
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SMSgt Matthew Northrup.....Superintendent
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Earnest Beeman..... Curriculum Specialist
MS, Dallas Theological Seminary; MS, Air University; BA, Southeastern Bible College

Patricia McCormick ..... Curriculum Specialist
MS, College of Idaho; BS, Park College; AAS CCAF

Course Management

Jeffrey Offhaus.....Course Manager
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Medical & Support Degree Programs

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MAED/BS, Trident Univ International; AAS, CCAF; AAS Metropolitan Community College

TSgt Christina LaRiccia.....Degree Program Manager
BS, Rocky Mtn. College; 2 AAS, CCAF; CIC-III; CPhT Certification

TSgt Shannon Ross.....Degree Program Manager
MPH, Univ. of New England; BS, Univ. of New Hampshire; AAS, CCAF

TSgt Justin Miller .....Degree Program Manager
BS, American Military Univ.; AAS, CCAF; NREMT Certification

TSgt Wesley Bear .....Degree Program Manager
BS, University of Maryland Global Campus; AAS, CCAF; CompTIA A+, Security+ Certifications

TSgt Eric Hempen .....Degree Program Manager
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TSgt RoShonda McGhee .....Degree Program Manager
AAS, CCAF; CompTIA A+, Security+, IT Ops Specialist Certification, CIW User Interface Designer, ITIL Foundation Certification

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AAS, CCAF

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TSgt Curtis Hunt.....Degree Program Manager
AAS, CCAF

SSgt Chase Benfield .....Degree Program Manager
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SSgt Izrahiah Ben Israel.....Degree Program Manager
AAS, CCAF

SSgt Janay Jones.....Degree Program Manager
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SSgt Jessica Long .....Degree Program Manager
AAS, CCAF

SSgt Gustavo Rizzo .....Degree Program Manager
AAS, CCAF

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TSgt Grant Schneider.....Degree Program Manager
AAS, CCAF

TSgt Tien Tran.....Degree Program Manager
AAS, CCAF; AAS, Belmont Technical College; CompTIA A+, FCC GROL, FAA A&P Certification

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SSgt Cody Williams .....Degree Program Manager
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SSgt Precious Tonkins .....Degree Program Manager
BA, Campbell Univ; AAS, CCAF

SSgt Joseph Hayes .....Degree Program Manager
AAS, CCAF

SSgt Brandon Moore.....Degree Program Manager
AAS, CCAF

SSgt Ashley Sherry .....Degree Program Manager
AAS, CCAF

SSgt Brittney Vazquez.....Degree Program Manager
AAS, CCAF

SSgt John Clark.....Degree Program Manager

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Jason Smith .....Director
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3 AAS, CCAF; Security+ Certification

TSgt Brian Haga ..... Program Manager
BS, Embry-Riddle Univ; AAS, CCAF; FAA A&P Certification

TSgt Patrick McParlane ..... Program Manager
AAS, CCAF; FAA A&P Certification

TSgt Tate Young..... Program Manager
AAS, CCAF; FAA A&P Certification

SSgt Christian Winningham..... Program Manager

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MS/BS, National American Univ; AAS, CCAF

TSgt Ryan Carter .....Affiliated Schools Manager
AAS, CCAF

SSgt Brandi Stephenson.....Affiliated Schools Manager
AAS, CCAF

Education Services

MSgt Andy Mohammed .....Flight Chief
2 AAS, CCAF; PMC; CompTIA A+, Net+, Sec+ Certifications

TSgt Tobey Houck..... Active Duty Liaison
AAS, CCAF

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Benny Seawright.....Chief, Media & Distance Learning
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Enrollment Management

MSgt Summer Melillo .....Associate Registrar
MS.Ed, Troy Univ; BAAS, Eastern New Mexico Univ; AAS, CCAF; ISD Certification

Patsy Imler ..... Lead Education Technician

Donna Jones ..... Lead Education Technician

Mitzie Findley ..... Education Technician

Sharon Hooper ..... Education Technician
AS, JP Tech College

Eartha Howard..... Education Technician

Melissa Hudson ..... Education Technician

Patricia Webster ..... Education Technician

Kathy Wright ..... Education Technician

Student Advocacy

MSgt Ellainne Bay..... Reserve Liaison
MS/BS, Trident Univ; 2 AAS, CCAF; PMC; ISD Certification

Student Services

A1C Braxton Comer .....Student Services Technician

A1C Allison Ganapamo.....Student Services Technician

A1C Nathaniel Hernandez.....Student Services Technician

A1C Tywayne Reynolds.....Student Services Technician

Air Force Credentialing Opportunities On-Line (AF COOL)

Benito Perez..... Program Manager
BS Univ of Puerto Rico; AAS, CCAF

Sachiko Cleveland..... Program Manager
MBA, Columbia Southern Univ; BA, American Military Univ; AAS, CCAF

Arthur Rousseau..... Program Manager
MS, Trident Univ International; BS, Faulkner Univ; 2 AAS, CCAF

General Information

The Air Force has always recognized the positive effects of education on enlisted Airmen and Guardians and continually established various programs to meet the needs of the Department of the Air Force, its personnel, and society as a whole. One of the most notable programs is the Community College of the Air Force (CCAF). The college is one of several federally chartered degree-granting institutions; however, it is the only 2-year institution exclusively serving enlisted personnel. The college awards the Associate of Applied Science (AAS) degree upon completing program of instruction within the applicable discipline designed for an Air Force specialty.

Air University Mission:

Educate and develop Air, Space, and Cyberspace warrior-leaders in support of the National Defense Strategy.

Air University Vision:

The intellectual and leadership-development center of the Air and Space Forces.

CCAF Mission:

Elevate the Enlisted profession by advancing technical and leadership capability across the career through degrees, credentials, and related programs to support recruiting, retention, career transition efforts and mission capability and readiness.

CCAF Vision:

The community college of choice, providing a path to higher learning for those with a calling to serve.

Core Values

The core values of the Department of the Air Force are:

Integrity First
Service Before Self
Excellence in All We Do

History of the Community College of the Air Force

Prior to instituting CCAF, a true career development pattern for enlisted Airmen did not exist. At the time, civilian institutions gave little, if any, recognition to the academic value of enlisted education and technical training completed in Air Force schools. Anyone who desired to complete their higher education while moving about the world knows the problems of completing their education goals and losing credit between different colleges. One of the pillars which CCAF was built is the *Utah Project.*

The real impetus for CCAF occurred in 1967 with what was called the *Utah Project.* Representatives of the Utah Division of Vocational and Technical Education met with representatives of the Utah Air Force Association (AFA) and the Aerospace Education Foundation's Educational Technology and Advisory Committee.

During the project, the state of Utah tested the use of Air Force technical training course materials in its two-year colleges. Utah state officials found these materials to be equal to, and in most cases, superior to those used in its colleges. Although Air Force training was shown to be at least equal to the best post-secondary technical education available, there was no system for translating the military work into terms understood and recognized by the civilian sector.

Since it was demonstrated that Air Force courses could be taught in Utah vocational institutions at the post-secondary college level, CCAF planners pursued the idea of transcribing direct credit for these courses in Air Force schools. By using the semester-hour unit as the common denominator, Air Force training could be combined with civilian institutional coursework into a true career education pattern. CCAF was initially founded to overcome the problem areas in career-related education programs, program continuity, credit transfer, and civilian recognition.

The *Community College of the Air Force* concept evolved in the early 1970s as a means of gaining recognition for Air Force training. Led by General George B. Simler, commander of Air Training Command (ATC), Air Force visionaries recognized the need to enhance the skills of noncommissioned officers as technicians, leaders and citizens. Representatives of Air Training Command, Air University (AU) and the Air Force Academy held a series of conferences in 1971 to discuss the need for increased development of noncommissioned officers as managers of Air Force resources. The conferees recommended the founding of an Air Force community college and on 9 November 1971, General John D. Ryan, Air Force Chief of Staff, approved the establishment of CCAF. The Secretary of the Air Force approved the activation plan on 25 January 1972, and the college was established 1 April 1972 at Randolph AFB, Texas.

The seven major Air Force training schools—the five Air Force Schools of Applied Aerospace Sciences, the USAF School of Health Care Sciences and the USAF Security Service School—provided the technical portion of CCAF's credential when the college was activated. The program model combined the technical education offered by Air Force schools, a core of General Education from accredited civilian institutions of higher education and management education from Air Force or civilian sources.

The college mailed its first official transcript on 9 November 1972 and issued its first credential, the Career Education Certificate, on 23 August 1973. As the college gained prestige, increasing numbers of enlisted people registered and more Air Force technical, special and professional schools joined the CCAF system. As a result, as many as 143 such schools have been affiliated with the college after meeting rigorous standards for participation. The SACS Commission on Occupational Education Institutions accredited the college on 12 December 1973.

By the mid-1970s, many civilian consultants were reporting that CCAF standards exceeded the minimum requirements of associate degree programs in civilian community colleges and the Air Force sought degree-granting authority for the college from Congress. President Gerald R. Ford signed Public Law 94-361 on 14 July 1976 authorizing the ATC commander to confer the AAS degree.

A site review committee, composed of nationally recognized educators appointed by the US Office of Education (USOE), evaluated the college in October 1976. After favorable recommendations by the committee and successful public hearings in Washington DC, the Commissioner of Education certified degree-granting authority in January 1977 before the USOE. Success of the effort can mainly be attributed to the testimony given in USOE hearings by Lieutenant General John Roberts, Chief Master Sergeant of the Air Force Thomas Barnes, Dr. Jerome Lysaught (chairman of the CCAF Advisory Committee) and Colonel Lyle Kaapke. The college awarded its first AAS degree in April 1977.

Since charter clarification in 1975 limited the Commission on Occupational Education Institutions to non-degree granting institutions, the college immediately began the transition to the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC). After CCAF underwent a rigorous self-study and met accreditation standards, the SACSCOC accredited the college on 12 December 1980 to award the AAS degree. During this accreditation process, the administrative offices relocated to Maxwell AFB, Alabama, on 1 April 1979. The SACSCOC reaffirmed CCAF's accreditation on 9 December 1986.

On 1 July 1993, CCAF realigned under Air University, which became the educational component of the re-designated Air Education and Training Command (AETC). However, AETC Commander remained the degree-granting authority for the college until 28 October 2004. On that date, degree-granting authority changed to the Air University Commander when President Bush signed the Fiscal Year 2005 National Defense Authorization Act.

The college again underwent an extensive self-study and visits from SACSCOC reaffirmation teams during 1993-1996. Subsequently, on 25 June 1997 the SACSCOC reaffirmed CCAF's accreditation until the year 2006. The college participated in the Air University effort to gain accreditation by the SACSCOC. On 25 June 2004, SACSCOC notified Air University that their application for accreditation was approved, retroactive to 1 January 2004. From 2007-2009, CCAF participated in Air University's accreditation reaffirmation effort through SACSCOC. On 8 December 2009 SACSCOC announced the reaffirmation of Air University's accreditation for a 10-year period. CCAF is now accredited through Air University by the SACSCOC until 2019. In December 2019, SACSCOC reaffirmed Air University's accreditation for another 10-year period

Over the years the college has grown both in numbers and recognition. With more than 270,000 registered students, the college is the largest multi-campus community college in the world. Its 111 off-campus instructional sites are located in 37 states, and 9 foreign locations. More than 6,300 CCAF faculty members provide quality instruction for the personal and professional development of enlisted Airmen and Guardians. More than one million transcripts have been issued in the last 10 years. Since issuing its first degree in 1977, the college has awarded more than 570,000 AAS degrees.

Accreditation and Degree-Granting Authority

CCAF is a part of Air University. Air University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award the associate, masters and doctoral degrees. The associate's degree from CCAF is awarded under the authority of Air University. Questions about the accreditation of Air University may be directed in writing to the Southern Association of Colleges and Schools Commission on Colleges at 1866 Southern Lane, Decatur, GA 30033-4097, by calling (404) 679-4500, or by using information available on SACSCOC's website (www.sacscoc.org).

Privacy Act

Air University as a federal military education institution must adhere to the guidelines of the Privacy Act of 1974 to protect the confidentiality and integrity of student records. The Department of Education, Family Policy Compliance Office, considers AU a DOD Section 6 school, solely funded by the DOD under 10 *United States Code (USC)* Section 2164, and it is therefore exempt from the Family Educational Rights and Privacy Act

(FERPA). Though not required to by law, AU complies with its basic tenets whenever possible. The university is committed to protecting, to the maximum extent possible, the right to privacy of all individuals for whom it holds information and/or records.

Academic Integrity

Air University is uncompromising in its adherence to a code of ethics, morality, and conduct related to scholarship and academic activity. Values such as honesty, trust, fairness, respect and responsibility form the basis of academic integrity. These values are fundamental elements sustaining the reputation and credibility of this institution's students and faculty, and the value of the education it delivers and the degrees it awards.

The CCAF System

Administrators, faculty, classrooms, laboratories, academic advisors and students are located throughout the world. What is often perceived as nontraditional about the college is its organization and administration that provides instruction at numerous locations because of the geographic dispersion of the students pursuing their Air Force occupations. Civilian collegiate institutions provide the course work to satisfy CCAF's General Education Requirement (GER) of the degree programs and may also provide supplemental courses to satisfy Technical Elective, Program Elective, and Leadership, Management and Military Studies (LMMS) requirements not completed at CCAF schools. Although this broad geographical separation is unusual, the college is organized into a single, highly effective educational system.

Administrative Center

Ryan Hall, CCAF Administrative Center Maxwell AFB, Gunter Annex, Alabama

The administrative staff brings together all elements of the system under the matrix authority of Air Force Instruction 36-2648, *Community College of the Air Force*. CCAF was located at Randolph AFB, Texas, during 1 April 1972-15 January 1977; at Lackland AFB, Texas, during 16 January 1977-31 March 1979; at Maxwell AFB, Alabama, during 1 April 1979 – 4 November 2008; at Maxwell AFB, Gunter Annex, Alabama, since 5 November 2008.

Commandant

The CCAF commandant—chief executive officer with command authority—accomplishes the CCAF mission. The administrative staff translates off-campus instructional site's (affiliated school) curricula into semester-hour academic credit, develops course descriptors, designs and manages AAS degree programs, maintains record of student achievement and progress toward degree completion, ensures system schools maintain standards required for accreditation compliance, distributes official catalogs and other publications, and provides guidance to the worldwide network of academic advisors. The following have served as CCAF commanders/commandants:

Col John L. Phipps ..... 1 April 1972
Col Lyle D. Kaapke ..... 1 September 1975
Col Lyle E. Darrow ..... 9 June 1980
Lt Col William E. Flinn, Jr. *(interim)* ..... 16 August 1982
Col Rodney V. Cox, Jr. ..... 19 October 1982
Col Russell A. Gregory ..... 24 May 1988
Lt Col James L. Antenen *(interim)* ..... 2 April 1992
Col Paul A. Reid ..... 19 June 1992
Col Tamzy J. House ..... 3 July 1996
Col James M. McBride ..... 4 March 1999
Lt Col Jeffery K. Little *(interim)* ..... 15 December 2001
Col Eric A. Ash ..... 29 April 2002
Col Thomas D. Klincar ..... 3 June 2005
Lt Col Raymond W. Staats ..... 27 July 2007
Lt Col Timothy W. Albrecht ..... 8 June 2009
Lt Col Jonathan T. Hamill ..... 23 June 2011
Lt Col Michael J. Artelli ..... 30 July 2013
Lt Col Nathan J. Leap ..... 19 June 2015
Lt Col Nathan P. Sherman ..... 8 June 2017
Lt Col Melanie M. Presuto ..... 14 June 2019
Lt Col Kevin R. Pond ..... 22 June 2021

Off-Campus Instructional Sites

Air Force and other service schools that provide formal occupational technical training and Enlisted Professional Military Education (EPME) may voluntarily affiliate as an off-campus instructional site and become part of the CCAF system. Course work offered by off-campus instructional sites may satisfy part or all of the technical education; leadership, management and military studies; and/or program elective requirements.

Instructional programs are conducted in both traditional learning and distance learning environments. Each off-campus instructional site is a component of a worldwide CCAF educational system.

Education Services

The Air Force provides academic advisement and financial assistance to enlisted Airmen and Guardians in planning and pursuing their educational goals. The Education and Training Section (E&TS), commonly known as Education Services Office, is located at each Air and Space Force installation and is composed of professional educational administrators, guidance counselors, academic advisors, education technicians/specialists and proctored testing examiners.

CCAF Advisors located within the E&TS, or Air National Guard (ANG) Base Education and Training Managers (BETM) counsel students and serve as the direct link between the student and CCAF. CCAF

Advisors guide students toward degree completion and work with civilian collegiate institutions to arrange for course offerings needed to satisfy CCAF AAS degree requirements.

E&TS personnel also administer the College-Level Examination Program (CLEP), Defense Activity for Non-Traditional Education Support (DANTES) Subject Standardized Tests and Excelsior College Examinations.

CCAF Advisors and training technicians coordinate with CCAF Education Services for ANG and AFRC personnel. The point of contact for ANG and AFRC affairs is CCAF Education Services (CCAF/DEAC), 100 South Turner Boulevard, Maxwell AFB, Gunter Annex, Alabama 36114-3011; (334) 649-5021 or DSN 749-5021.

Air University Board of Visitors

The Air University Board of Visitors (BOV) is a public board chartered to provide independent advice and recommendations on matters pertaining to the educational, doctrinal, and research policies and activities of Air University. The Air University BOV, under the provisions of the Federal Advisory Committee Act (FACA) of 1972, as amended, shall provide the Secretary of the Air Force, through the Commander and President of Air University, independent advice and recommendations on matters pertaining to the educational, doctrinal, and research policies and activities of Air University. The Air University BOV's CCAF subcommittee is charged to provide independent advice and recommendations to the Air University BOV on matters pertaining to technical applied sciences and undergraduate programs.

The Air University BOV membership is selected from experts in the fields of education, public service, business and industry, and defense. Members normally serve annually renewable terms (up to a maximum of eight years) as Special Government Employees (SGEs). Members are invited to serve on the board and subcommittees by the Air University Commander and President in the name of the Chief of Staff of the United States Air Force.

The board meets twice a year—in the spring and the fall, normally at Maxwell AFB, Alabama. Subcommittees meet annually and subcommittee chairs out-brief to the main board. The board presents a written report with its views and recommendations to the Air University Commander and President. This report is then presented to the Chief of Staff and Secretary of the United States Air Force.

The Air University BOV's CCAF subcommittee is charged to provide independent advice and recommendations to the Air University BOV on matters pertaining to technical applied sciences and undergraduate programs.

The Advisory Bodies

In addition to the Air University BOV CCAF Subcommittee, the college attains advice and recommendations from two CCAF advisory panels. All Advisory Panel members are Regular Government Employees (RGEs) and selected by CCAF from within the Air Force.

Affiliated Schools Advisory Panel (ASAP)

The ASAP provides a forum for addressing issues of mutual concern to both CCAF and affiliated schools. The ASAP meets annually to review policies, procedures, affiliation requirements and actions that concern CCAF affiliated schools. The ASAP consists of representatives from the CCAF staff; formal technical and specialized training schools; Enlisted Professional Military Education schools; command-sponsored schools, Headquarters Air Education and Training Command (AETC); and Title 10 representatives from the Air Force Reserve Command (AFRC) and Air National Guard (ANG). The ASAP encourages schools to participate in CCAF and serves the best interests of students by ensuring support and compliance with institutional accreditation requirements.

Education Services Advisory Panel (ESAP)

The ESAP provides a forum for addressing issues of mutual concern to both CCAF and the Air Force education services community. The ESAP meets annually to review and recommend actions concerning CCAF academic polices, administrative procedures and processes. Its primary focus when making recommendations is the student body. The ESAP advises the CCAF Commandant on issues of concern to students, education services, and AFRC and ANG training personnel; reviews CCAF academic policies and administrative procedures that affect off-campus Education and Training Staff (ET&S); and advises the CCAF Commandant on marketing methods that will enhance participation in the college. The ESAP consists of representatives from the CCAF staff, Headquarters USAF and major commands, base-level E&TS, and Title 10 ANG and AFRC participants.

CCAF Policy Council

Academic policies are developed by the Policy Council and approved by the CCAF Commandant. The CCAF Policy Council is composed of representatives from all elements of the CCAF system. Chaired by the CCAF Dean of Academic Affairs, the policy council submits recommendations concerning academic policies, AAS degree programs, award of credit, academic standards, affiliation of Air Force schools and other policy matters through the CCAF Commandant to the Air University Board of Visitors CCAF Subcommittee for guidance and synchronicity. Students, faculty members, counselors, administrators and other interested personnel may submit suggestions to the CCAF Policy Council by writing to CCAF/DE, 100 South Turner Boulevard, Maxwell AFB, Gunter Annex, Alabama 36114-3011.

The CCAF Degree

The AAS degree is a two-year undergraduate degree similar to the Associate of Arts (AA) and the Associate of Science (AS) degree. Unlike AA and AS degrees, which are designed primarily as transfer degrees, the AAS degree is designed for students who intend to enter the workforce following graduation from their program. While some students who earn an AAS degree may transfer to a four-year college or university to pursue a bachelor's degree, some AAS courses are not granted transfer equivalency credit, nor will they fulfill the General Education requirements of a bachelor's program. The AAS degree is designed for those students who plan to seek employment based upon the competencies and skills attained through these programs. While not designed to meet the needs of students who transfer to a four-year institution, portions of the CCAF AAS degree and associated credit may transfer depending on the policies of the receiving college or university. However, the Air University Associate-to- Baccalaureate Cooperative (AU-ABC) program connects CCAF graduates with online 4-year degree programs. The AU-ABC program includes postsecondary institutions with institutional accreditation.

Student Learning Outcomes

All CCAF graduates will meet the following learning outcomes. These outcomes are the overarching outcomes encompassed in all CCAF AAS degree programs:

1. Graduates will demonstrate satisfactory knowledge and skills identified in the Career Field Education and Training Plan (CFETP) Specialty Training Standard (STS) for their career field.
2. Graduates will meet nationally-normed average scores for General Education courses to include critical thinking, oral communication, written communication, reading, mathematics, humanities, and the social and natural sciences related to the Educational Testing Services Proficiency Profile.
3. Graduates will demonstrate proficiency in leadership, management, and military studies.

The Student

Students should review the information contained within this CCAF General Catalog to become aware of the college's process, procedures, and their rights as a student in CCAF programs. This information does not replace or supersede procedures that guide actions under the *Uniform Code of Military Justice* (*UCMJ*), disciplinary or administrative actions provided for in other DOD directives, Air Force instructions, or AETC instructions.

As a member of the US Armed Forces, the student abides by the *Uniform Code of Military Justice*. A student is briefed on the code upon initial entrance into active duty and periodically thereafter. A copy of this code is also available in the legal office on each Air and Space Force installation. Additionally, a student must follow the standards of behavior established by the off-campus instructional site.

CCAF students are required, as a condition of good standing and continued registration, to conduct themselves in a manner that does not discredit the CCAF system or the Air Force.

Plagiarism, cheating, submitting fraudulent academic documentation and other forms of academic dishonesty are prohibited. Any action punishable under the Uniform Code of Military Justice (UCMJ) involving direct or indirect participation in, or support of, academic misconduct as determined by the Dean of Academic Affairs, may result in suspension and/or expulsion from CCAF.

Student Rights and Grievances

Any Air University student has rights to present a program-related grievance or to appeal adverse action taken against him/her to leadership using the channels outlined in Air University Instruction 35-2602 and those supplemented by CCAF off-campus instructional site.

Student Complaints

CCAF students have the right to formally present in writing a program-related grievance or complaint. A complaint is defined as a formal written submission by a student related to a grievance against a school, a program, or the College. Before making formal written complaints, students are encouraged to seek resolution by discussing grievances or complaints informally at the lowest appropriate level within the organizational chain of command. To pursue a formal complaint, students must notify the appropriate level in the chain of command in writing using the AU Form 6, *Student Complaint/Grievance Application*, in accordance with the guidance established by CCAF. For academic matters, this generally means working with course instructors, CCAF Advisors, department chairs, and deans, as applicable. For nonacademic matters, this generally means working through supervisory channels before addressing them to higher-level command channels or the inspector general system. However, individuals have the right to file a complaint with the inspector general at any level without going through supervisory/command channels first. When elevating to a higher level authority, the student is responsible for notifying the current level authority in writing. The highest decision authority for resolving a formal complaint is the school commander or equivalent.

A student who has a grievance about CCAF's formal complaint-handling process after a final decision is given may appeal in writing to the CCAF Commandant. Decisions made at this level are final.

Guidance will be published and readily available in documents such as student handbooks, course syllabi, and published instructions. Faculty and staff attempt to resolve the complaint in a timely manner at the lowest level or organizational authority.

Each off-campus instructional site maintains an adequate process for addressing student complaints. The policies and procedures are to provide a means to resolve legitimate student complaints quickly and at the most appropriate level of responsibility.

Feedback

Student participation is integral to the future development and continuous improvement of the college. This feedback is incorporated into every phase of CCAF's strategic planning process that continually impacts policies and procedures, course and program reviews, off-campus instructional site operations and educational support services.

A student can offer feedback through a number of avenues. Some ways include classroom feedback; follow-up surveys by the schools, the college, the student leaders at each off-campus instructional site; and the formal exception to policy process. There are off-campus instructional site representatives who also address student interests on the Policy Council, Affiliated Schools Advisory Panel and Education Services Advisory Panel.

A student may also provide feedback by visiting the CCAF website at https://www.airuniversity.af.edu/Barnes/CCAF/ and using the e-mail link or through the Air Force Virtual Education Center (AFVEC) at https://afvec.us.af.mil.

Student Services

Students should always utilize CCAF Advisors assigned to their local E&TS or BETM for assistance in CCAF academic matters. CCAF Advisors are specially trained in CCAF policies and procedures, academic advisement, and financial assistance opportunities. Utilizing CCAF Advisor services will ensure smooth progression towards reaching the student's educational goals and prevent unnecessary actions.

CCAF Education services is available to CCAF Advisors and students for assistance in unique student issues. Students should work through the CCAF Advisor assigned to their local E&TS or BETM for assistance in unique academic issues. The CCAF Advisor should contact CCAF Education Services if the issue cannot be resolved locally.

The Air Force recognizes off-duty activities as an essential part of the everyday life of its enlisted force and provides a variety of activities in which a student may participate. Activities include: bowling centers, chapels, clubs, family support centers, fitness centers, hobby shops, libraries, community centers, life skills centers, theaters, and swimming pools.

CCAF Online Services

CCAF Online Services provides students and CCAF Advisors with timely and accurate CCAF academic information, derived from CCAF's official system of record, to assist in degree progression. CCAF Online Services includes information pertaining to: student information and Web Progress Report (WebPR), transcripts, in-transfer credit and the Civilian Course Conversion Table (CivCCT), credentialing, resources and publications, course descriptions, and more. CCAF Online Services is accessible through the Air Force Virtual Education Center (AFVEC) at https://afvec.us.af.mil. Common Access Card (CAC) is required.

Web Progress Report (WebPR)

CCAF provides the CCAF Web Progress Report (WebPR) to students and CCAF Advisors for electronic access to the student's CCAF academic record and degree plan. The WebPR provides information pertaining to degree program registration and requirements, CCAF course completions, application of credit, other institution transcripts received and processed, and status of degree completion progression. The WebPR is unofficial and credit application may change when in the best interest of the student. The WebPR is available within the CCAF Online Services, accessible through the Air Force Virtual Education Center (AFVEC) at https://afvec.us.af.mil. Common Access Card (CAC) is required.

Academic Information

Admission

Developing military personnel to meet Air and Space Force needs is Air University's primary mission. A student body with diverse cultural and professional backgrounds in national security organizations promotes new and different approaches to planning and problem solving that enrich the learning process. Therefore, Air University and the CCAF also offers its educational programs to Air Force Reserve Command, Air National Guard, and select members of US sister services (US Navy, US Marine Corps, US Army, and US Coast Guard). Finally, as part of the US military assistance programs, enlisted military members from other countries may enroll in the courses delivered at several CCAF off-campus instructional sites.

Personnel who apply for CCAF degree programs, meet all eligibility criteria, and have submitted all required documentation are then considered for admission in applicable CCAF programs.

Before enlisting in the Air Force, an individual completes the Armed Services Vocational Aptitude Battery (ASVAB) and meets standards in accordance with Air Force requirements. Composite scores of the ASVAB indicate academic and career field aptitude. These scores help match the individual's aptitudes and abilities with Air Force career areas during initial assignment to a career field. These scores are used as an indicator of the student's potential to make satisfactory progress in a career-related degree program.

Enrollment and Registration

Eligibility to participate in CCAF AAS degree programs are specified in 10 USC 9415. Enlisted Airmen and Guardians in the Regular Active Air Force and the Selected Reserve serving in the ANG, the AFRC or as an Individual Mobilization Augmentee (IMA) are eligible to pursue a CCAF AAS degree. A Reserve member must be in pay category A, B, E or J and be a unit member or regular participant in paid inactive duty training, unit training assemblies and annual training. Those classified with a Personnel Accounting Symbol (PAS) Code S7 (Inactive Ready Reserve, IRR) are not authorized to pursue a CAF AAS degree.

Other service enlisted members (US and international) assigned to a CCAF off-campus instructional site (affiliate school) and serving as CCAF faculty are eligible to pursue a CCAF AAS degree. DoD civilian employees, contract employees, and dependents may not pursue a CCAF AAS degree.

When assigned to an Air Force specialty, enlisted Airmen and Guardians are admitted to the college as a registered student in the CCAF AAS degree program designed for their Air Force specialty. This status does not change until the college receives formal academic notice or receives an official transcript showing completion of accredited civilian college course work or national tests applicable to their degree program

A student who has separated, retired or commissioned is no longer eligible to pursue a CCAF AAS degree. If a student separates and joins the active Reserve forces, automatic registration is made in the CCAF AAS degree program corresponding to the student's Primary Air Force Specialty Code (AFSC).

Automatic Registration

Effective 15 February 1991, all eligible enlisted Airmen and Guardians are automatically registered in the degree program designed for their Primary AFSC, Special Duty Identifier, or Reporting Identifier. All new enlisted accessions (Airmen) are admitted and registered in the degree program designed for the designated Primary AFSC, normally during the fourth week of Basic Military Training.

Degree Program Eligibility

A student may register in an initial and subsequent degree program applicable to their primary, secondary, tertiary or fourth AFSC, Special Duty Identifier, and/or Reporting Identifier as reflected on the current Military personnel Data System (MilPDS) record. To register in a CCAF degree program, the student must be qualified to hold and maintain the degree-applicable Air Force specialty per AFMAN 36-2100, *Military Utilization and Classification* requirements. Duty and Control specialties are not considered for degree program eligibility.

A student serving in a Special Duty Identifier or Reporting Identifier that is not applicable to a degree program may register in the degree program applicable to their secondary AFSC reflected on the current MilPDS record and qualified to maintain the specialty and/or skill level per AFMAN 36-2100, *Military Utilization and Classification* requirements.

Other service enlisted members (US and international) assigned to a CCAF off-campus instructional site (affiliate school) and serving as CCAF faculty are eligible to pursue the CCAF AAS degree applicable to the occupational specialty which they instruct, and the Instructor of Technology and Military Science Degree.

AFSC Conversions and Mergers

AFSC conversions or mergers may impact degree program eligibility when the converted or merged AFSC is cataloged to a different degree program. When this occurs, the formal training curriculum of the previous AFSC may not be applicable to the academic discipline of the degree program which the converted or merged AFSC is cataloged.

Initial and subsequent degree program eligibility is dependent on whether the student's converted or merged AFSC requires completion of mandatory formal technical training for the new AFSC. If a student's converted or merged AFSC is cataloged to a different degree program, the student is eligible for both degrees, provided the student completed formal technical training requirements for both AFSCs. The student is not eligible for both degrees if formal technical training requirements is not completed for the new AFSC.

If completed formal technical training in the previous AFSC applies to both degree programs, the student will choose to remain in the previous degree program during the period of registration or register in the degree program which the converted or merged AFSC is cataloged. With either degree, the student will have earned the specialty-related CCAF degree.

Degree Time Limit

Registration in a degree program is limited to six years from date of registration. A student registered in a first degree and does not graduate within the 6-year registration period will be automatically registered in the degree program applicable to the primary AFSC and in the most current catalog. A student who does not graduate within the 6-year period of registration, and their primary AFSC is not assigned to a specific degree program, will not be registered.

The exception to the 6-year registration policy is the Instructor of Technology and Military Science (ITMS) degree program. A student registered in the ITMS degree program has two years from the registration date to graduate. A student who does not graduate within the 2-year registration period will be dis-enrolled. The student may re-register in the ITMS degree program provided he or she is assigned as a CCAF faculty member, meets all other requirements for registration, and by following the CCAF Student Action Request procedures. Other service enlisted members (US and international) assigned to a CCAF off-campus instructional site (affiliate school) and serving as CCAF faculty must complete all degree requirements prior to completion of CCAF faculty duty.

Grading Policy

Academic performance of CCAF credit-awarding military courses are determined and reported by using a pass or fail system. A student successfully completing a CCAF credit-awarding military course is reported to the CCAF Registrar who records a grade of "P" (Pass) or "S" (Satisfactory). This grade of "P" or "S" equates to a grade of "C" or better.

All courses are taught at the collegiate level. CCAF off-campus instructional sites employ a variety of instructional methods and assessment techniques designed to ensure successful achievement and attainment of desired learning outcomes. Course completion requirements, including grading standards, are provided to the student at the beginning of each course.

Definition of a Credit Hour

CCAF operates under the semester-hour system and follows commonly accepted practices in higher education for determining the amount and level of academic credit awarded military programs or courses delivered at off-campus instructional sites. A credit hour represents the amount of work (classroom lecture, laboratory, or clinical) represented in achieving intended learning goals and outcomes verified by evidence of student's measured achievement. Qualified CCAF staff follow best practices to evaluate and determine the amount and level of credit awarded for programs or courses. All CCAF credit-bearing programs or courses conform to the following method for computing credit hours. It is an institutionally-established equivalency that reasonably approximates the following:

A credit hour consists of 45 instructional contact hours. Contact hours may consist of classroom, direct faculty, or self-paced instruction and out of class student work. An equivalent amount of work for other academic activities including laboratory work, independent research and writing, and other academic work may lead to the award of credit hours.

The Air University established guideline for computing a credit hour is a minimum of one hour of classroom or self-paced instruction, plus a minimum of two hours of out-of-class student work each week, for approximately 15 weeks results in an average of 45 instructional contact hours.

Types of Academic Credit

Institutional Credit

Institutional credit is credit earned and awarded through formal instruction offered by the institution awarding the degree. CCAF institutional credit is awarded for credit-bearing courses delivered by off-campus instructional sites (affiliate schools) and taught by qualified CCAF faculty. The academic discipline (Technical Core) requirements of the CCAF degree must be satisfied by institutional credit earned from formal specialty-related technical training.

Air University's accrediting body (SACSCOC) requires at least 25% of the credit hours required for the degree to be earned through instruction offered by the institution awarding the degree. Therefore, to graduate in a 60 semester hour program, the student must have at least 15 semester hours of institutional credit earned and applied through formal instruction delivered at a CCAF off-campus instruction site (affiliated school).

Non-institutional Credit

Non-institutional credit is credit earned for professional certificates or other noncredit educational experiences outside a collegiate course for which academic credit is awarded. Non-institutional credit may be awarded for industry certifications, Upgrade Training (UGT), Special Duty Qualification Training (SQT), American

Council on Education (ACE) credit recommendation for non-accredited military courses, and other learning experiences outside a collegiate course. Additionally, credit accepted in-transfer from other accredited institutions are non-institutional credit. The academic discipline (Technical Core) requirements of the CCAF degree may not be satisfied by non-institutional credit. However, degree-applicable non-institutional credit may satisfy Technical Elective or Program Elective requirements.

In-Transfer Credit

In-transfer credit is credit awarded from other accredited institutions that are accepted for use by the institution awarding the degree. The academic discipline (Technical Core) requirements of the CCAF degree may not be satisfied by in-transfer credit. However, in-transfer credit may satisfy Technical Elective, Leadership, Management and Military Studies, Program Elective, and General Education requirements.

Acceptance of credit in-transfer practices shall be consistent with accepted practices of institutionally accredited, degree-granting institutions of higher education. Credit accepted in-transfer from accredited institutions must also comply with in-transfer credit procedures as approved by Air University. The college accepts in-transfer course credit that meet the criteria in the Degree Programs section. CCAF determines the credit to be accepted in-transfer from accredited, degree-granting institutions that do not record course completion in credit hours. This credit is non-institutional credit and does not apply towards the 25% institutional credit requirement (commonly referred as residency).

Courses completed with a "C" or higher at accredited other institutions may be accepted in-transfer for application to CCAF AAS degree programs. Grades of "D, F, C/D, I, or W" are not acceptable in-transfer. Courses must be degree program-applicable and cannot duplicate credit previously applied from other sources.

CCAF provides students and CCAF Advisors the Civilian Course Conversion Table (CivCCT) to assist in determining other institution courses that may be accepted in-transfer to satisfy CCAF subject requirements. The CivCCT lists other institution courses that have been evaluated by CCAF and its applicability toward degree subject areas. Only those courses that have been evaluated by CCAF are listed. A specific course that is not listed does not represent that the course is not acceptable for in-transfer. Prior to enrolling in other institution's course, students and CCAF Advisors should utilize CivCCT to determine if it is acceptable for in-transfer toward CCAF degree requirements. The CivCCT is available within the CCAF Online Services, accessible through the Air Force Virtual Education Center (AFVEC) at https://afvec.us.af.mil. Common Access Card (CAC) is required.

Courses completed at foreign institutions are considered on an individual basis when submitted with a course-by-course evaluation from a member of the American Association of Collegiate Registrars and Admissions Officers or National Association of Credential Evaluation Services.

The General Education Mobile (GEM) program connects CCAF students with online General Education courses offered by institutionally accredited colleges and universities.

Credit by Examination

A maximum of 30 semester hours of degree-applicable examination credit may be applied to satisfy degree requirements. Credits may be applied for United States Armed Forces Institute (USAFI), the Defense Language Proficiency Test, DANTES Subject Standardized Test (DSST), College-Level Examination Program (CLEP), Excelsior College Exams (ECE) (formerly Regents and ACT/PEP) if the score meets the ACE-recommendation. Examination credit may be applied once CCAF receives the original test score report from the administrating agency. This credit is non-institutional credit and does not apply towards the 25% institutional credit requirement (commonly referred as residency).

Examination credit documented on other college or university transcripts will not be accepted.

American Council on Education (ACE) Credit Recommendation

Credit may be awarded for some civilian training and courses delivered at non-CCAF affiliated Department of Defense (DoD) schools. In cases where these non-accredited institutions do not award credit for course completion nor offer transcripts, credit recommendations from the *ACE Guide to the Evaluation of Educational Experiences in the Armed Services* or the *National Guide to Educational Credit for Training Programs* may be used. ACE credit recommendations may apply toward the technical elective, LMMS or program elective areas of degree programs. Courses must be program-applicable and not duplicate credit previously applied from other sources. ACE credit recommendation is non-institutional credit and does not apply towards the 25% institutional credit requirement (commonly referred as residency). CCAF will only add ACE-recommended credit when a student is registered in a degree program, the credit can be applied toward degree requirements, and the credit is needed to graduate. CCAF will transcribe ACE credit recommendation from an official ACE Registry Transcript or Joint Service Transcript (JST).

Department of Defense & Other Service Schools

If the Department of Defense (DoD) and other service schools are accredited and issue transcripts, the college will consider accepting the credit in-transfer.

Many enlisted Airmen and Guardians attend other service or Department of Defense schools for initial or advanced technical training instead of Air and Space Force formal technical training courses. The college does not award credit for these courses if the school is not part of the CCAF system. These courses may have an evaluation by the American Council on Education (ACE) for credit recommendation. However, the college may award non-institutional credit to students completing initial skills training at these schools.

A CCAF student completing training with an other military service may apply that credit toward a CCAF AAS degree if the training has an ACE credit recommendation. Courses with ACE credit recommendation must be degree program-applicable and not duplicate credit previously applied from other sources. ACE credit recommendation is non-institutional credit and does not apply towards the 25% institutional credit requirement (commonly referred as residency). See the *Guide to the Evaluation of Educational Experiences in the Armed Services* (American Council on Education Guide) for credit information on non-accredited DoD courses that may apply to a CCAF AAS degree.

Some other service-specific courses do not have ACE credit recommendations due to various reasons. Unfortunately, students attending those courses will not have ACE credit recommendations to record on the CCAF student record.

Double-Counting Credit

Credit applied in a previous degree may not be double-counted in a subsequent degree. Double-counting involves the practice of awarding credit for the same academic activity on two separate degrees. Thus, the practice of reusing credit for the same course on two different degrees is not authorized. Course credit may be used to satisfy only one requirement of a degree and may not be used again for a requirement in another degree (double-counting). The exception is course credit used to satisfy a General Education requirement may be used again to satisfy the same General Education requirement in a subsequent degree (2nd), but may not be reused in a 3rd degree or beyond.

Credit Splitting

Credit splitting is the application of "left-over" credit from a quarter-hour converted course. Credit accepted in-transfer and combining the partial credit hours to form a complete hour, and applying those combinations to satisfy a degree program requirement is not authorized. This is not a sound academic best practice and is not in alignment with a coherent course of study or degree program integrity.

Transcripts

All transcripts submitted from other accredited institutions for credit in-transfer evaluation must be ***official and in English***. CCAF will only accept transcripts sent from the institution directly to CCAF. CCAF will not accept transcripts marked "Issued to Student" or faxed copies.

Transcripts ***are not*** accepted if provided by students, counselors, recruiters, or any other third party.

CCAF cannot evaluate and interpret foreign academic credentials. A student must obtain an external (commercial) evaluation of course work taken at foreign institutions. Evaluations are not required for foreign institutions that hold acceptable accreditation and are listed in the *Accredited Institutions of Postsecondary Education*, published by the American Council on Education (ACE).

A student must request *two* official copies of their foreign transcript in English. One copy is evaluated by a foreign transcript evaluation service and one mailed directly to CCAF. Armed forces or general evaluations are not acceptable for this purpose. CCAF accepts a detailed, course-by-course evaluation of foreign documents from any National Association of Credentialed Evaluation Services (NACES) member. The student must pay all costs to obtain the evaluation. The student must request the course-by-course evaluation be sent directly to CCAF from the service conducting the foreign evaluation.

Quarter-Hour Conversion

CCAF operates on the semester-hour system. The student must be aware that course credit in-transfer from an institution that operates under the quarter-hour system is not the same as a semester-hour and course credit value in-transfer will be affected. All college transcripts using the quarter-hour system will be converted to semester- hour value before in-transfer decision and transcribing to a student record. The table below provides the quarter-hour conversion to semester-hour value:

Quarter Hours	Semester Hours	Quarter Hours	Semester Hours
1	1	6	4
2	1	7	5
3	2	8	5
4	3	9	6
5	3	10	7

Advanced Standing

A student attains advanced standing (registration status code 2 or 5) after completing 45 semester hours of degree-applicable course work and completion of an acceptable General Education course or examination credit. At this point a CCAF Advisor should provide special guidance to complete degree requirements.

Non-Degree Seeking Student

A non-degree seeking student is an individual who is not eligible to register in a CCAF AAS degree program, but one who completed a CCAF credit-bearing course. This is normally a degreed enlisted Airman and Guardian, member of an other military service (US or international), officer, or DoD civilian employee. The non-degree seeking student may obtain a CCAF transcript.

For individuals that do not have a CCAF student record established and is requesting a CCAF transcript for the first time, the individual must provide their full name, SSN, date of birth, branch of service (if military),

and a copy of the course completion certificate(s). Documents may be e-mailed to registrar.ccaf@us.af.mil or mailed to:

CCAF/DESS
100 S. Turner Blvd
Maxwell AFB, Gunter Annex AL 36114-3011

*****A signature is required for release of the transcript*****

Degree Program & Catalog Change

The college encourages a student to complete the program of initial registration. However, the student may request a change to another program if eligible. The Associate Dean of Academic Affairs authorizes degree program changes. A student may also elect to move from the catalog of registration to the current catalog. In either case, the student is obligated to abide by all policies and program requirements of the catalog registered in.

Subsequent Degree

A student may register in a subsequent degree program applicable to their primary, secondary, tertiary or fourth Air Force specialty as reflected on the current MilPDS record. The student must be qualified to maintain the specialty and/or skill level per AFMAN 36-2100, *Military Utilization and Classification* requirements.

A student will not be registered in a degree program or awarded a degree that was previously designed for that specialty.

Credit applied in a previous degree may not be double-counted in a subsequent degree. The exception is course credit used to satisfy a General Education requirement may be used again to satisfy the same General Education requirement in a subsequent degree (2nd), but may not be reused in a third degree or beyond.

Students holding a Chief Enlisted Manager (CEM) or superintendent-level position are not eligible to register in subsequent degree programs unless they also had completed formal specialty-related technical training in the specific specialty applicable to the subsequent degree program. Some CEM and superintendent-level specialties extend from multiple specialties which qualify for different CCAF degree programs and may not have been trained, qualified, or worked in. In these cases, the student serves primarily as workforce managers. It is not appropriate to graduate students who have not worked or progressed in the specialty, nor completed formal technical training for award of the specialty and application toward a degree.

A student desiring to register in a subsequent degree program may do so by submitting a CCAF Student Action Request through the CCAF Advisor at the E&TS or BETM.

Graduation Information

Eligibility

The student must satisfy all degree program requirements before retirement, separation, or being commissioned. The completion date of the final school term, testing date or date of a course completion certificate, must be before the change in status.

Specialty and Skill-Level Requirement

The student may earn one degree designed for the specific PAFSC, SDI or RI held. At the time of degree completion, the student must be qualified to hold and maintain the degree-applicable specialty and at least the Journeyman (5-skill level) in that specialty per AFMAN 36-2100, *Military Utilization and Classification* requirements. This does not apply to SDIs, RIs and AFSCs that do not have the Journeyman (5-skill level).

A student registered in a degree program with a specialty that does not have a Journeyman (5- skill level) is eligible to graduate with only the Apprentice (3-skill level).

Technical Education Requirement

To graduate, the student must complete sufficient credit-bearing formal specialty technical training applied toward the academic discipline (Technical Core) of the degree. At least nine semester hours of CCAF institutional credit must be applied toward the academic discipline (Technical Core) requirements.

Technical Elective requirements may be satisfied by institutional or non-institutional credit, approved credit in-transfer from other accredited institutions, testing credit, ACE credit recommendations, or credit awarded for approved professional credentialing.

Institutional Credit (Residency) Requirement

SACSCOC requires at least 25% of the credit hours required for the degree to be earned through instruction offered by the institution awarding the degree. Therefore, to graduate in a 60 semester hour program, the student must have at least 15 semester hours of institutional credit earned and applied through formal instruction delivered at a CCAF off-campus instruction site (affiliated school).

Intent to Graduate

All degree graduates must submit an intent to graduate. The CCAF Advisor or E&TS staff submits the *CCAF Student Action Request* to nominate the student as a degree candidate and notifies the student of candidacy status. A student is not considered for nomination as a degree candidate until CCAF receives all required documentation, which includes the completed CCAF Student Action Request nominating the student for graduation, official transcripts, military course completion certificates, and/or other source documents prior to the published class cutoff date. All degree program requirements (reflected on the unofficial Web progress Report (WebPR)) must be ***completed*** and all transcripts must be ***received*** at CCAF ***prior*** to submitting the intent to graduate.

Students should consider the time necessary for grade processing for courses completed at other institutions, scoring processes for nationally recognized examination programs, and transit time for official transcripts needed for credit in-transfer decisions. After a student meets all requirements, the college notifies the nominating E&TS of degree completion.

All degree requirements must be satisfied before separation, retirement or commissioning and a student must have been registered in a degree program before that date. The completion date of the final school term, testing date or date of a course completion certificate, must be before the change in status.

Intent to Graduate Cut-off Date

CCAF graduates students each business day of the year. The college has two graduating classes each year—April and October. CCAF must receive degree candidate nominations and required supporting documentation on or before the last Friday in February and August to be in the respective graduating class. All documents

and nominations after that date will be processed in the next graduating class. Diplomas are mailed to the E&TS about one week after the official class closeout.

Degree Award Date

The student's degree award date is the date CCAF receives all final documents and the submitted CCAF Student Action Request for the student's intent to graduate.

Students should not assume CCAF AAS degree requirements are automatically completed upon successful completion of required courses from an other institution or that this is the date they will be a CCAF graduate. The student MUST satisfy all requirements, including submitting the intent graduate, ***before*** the close out of an Enlisted Performance Report (EPR) or individual award. CCAF's policy is not to backdate any student's graduation date to satisfy requirements for promotion, Senior Rater Endorsement, EPR, award packages, etc. Once a degree has been awarded, the degree title or graduation date will not be changed.

Verification

Upon completion of the graduation quality assurance process, the CCAF student information system sends a notification message to the nominating E&TS. A consolidated graduate listing (Candidate Status) within the Advisor Reports of CCAF Online Services is available for CCAF Advisors to verify the graduation status of students at their location. The CCAF Advisor should notify the graduate with a congratulatory e-mail and information about the graduation ceremony.

Separated Students

Separated or retired students may be awarded the degree registered in provided all degree requirements were completed prior to the date of separation or retirement. The CCAF Advisor may submit a CCAF Student Action Request and state in the Remarks section: "Student completed all requirements before separation." The student may only file an intent to graduate for the degree registered in prior to separation, retirement or commissioning. The student is ineligible to register in or earn a subsequent degree.

Seriously Wounded, Ill or Injured Airmen and Guardians (Wounded Warrior Act)

Seriously wounded, ill, or injured former and retired enlisted Airmen and Guardians who commenced but did not complete a CCAF AAS degree and/or CCAF credentialing program may continue participation after separation or retirement. To qualify, the individual must have been awarded a 9W-series Reporting Identifier (RI) for combat or duty related injuries or illnesses as reflected in the Military Personnel Data System. Degree program participation is limited to the program of registration at the time of separation or retirement. These individuals have 10 years from their separation or retirement date, or from 30 December 2011 if they separated or retired between 12 September 2001 and 30 December 2011, to complete program requirements.

Statute of Limitation

A student has six years from retirement, separation, or being commissioned to file an intent to graduate provided all degree requirements were completed prior to the date of separation, retirement, or commissioning. The student is only eligible for the degree registered in at the time of separation. The student is not eligible for a subsequent degree.

Washback

Every effort is made to ensure the student successfully completes CCAF courses by carefully designed teaching

and learning activities, appropriate assessment and evaluation processes, and personal assistance. If all avenues are exhausted and academic achievement continues below acceptable limits, the student may under some circumstances repeat a portion or the entire course—this is referred as ***washback***. A washback is reported to the CCAF Registrar as a course graduate only after successfully completing the entire course. A student can withdraw from CCAF courses after obtaining permission from the off-campus instructional site commander or designated representative.

Degree Program Withdrawal

A registered student who has separated, retired or been commissioned shall be withdrawn. Since participating in a degree program is voluntary, a student may formally request withdrawal from the degree program in which the student is registered. To request withdrawal from a degree program, the student must contact their E&TS to submit a CCAF Student Action Request.

Exception to Policy Process

Policies and program requirements are established for sound academic reasons. Occasionally *extenuating circumstances* arise that may warrant an exception to policy. Exception to policy requests are only considered for the degree program which the student is registered, the student will be a degree candidate if the exception to policy is approved, and the student is qualified to maintain specialty and/or skill level per AFMAN 36-2100, *Military Utilization and Classification* requirements.

Although it is impossible to describe all the reasons to request an exception to policy, the following are a few ***invalid*** reasons:

- Student believes similar exceptions have been approved in the past.
- Student needs one or two hours to graduate.
- Student will retire, separate or be commissioned shortly.
- Student did not know about a certain requirement.
- Student needs to be awarded the degree for EPR, promotion, or employment consideration.

Alone, without extenuating circumstances and justifications, none of these reasons are valid. Each request is evaluated on its own merit, independent of all other requests. The evaluation is based on the justification provided, coupled with the student's degree progress since degree program registration. To warrant approval, the exception to policy request ***must prove*** the student deserves consideration not normally afforded to other CCAF students, is an educationally sound action, does not violate SACSCOC accreditation principles and standards, and is consistent with standard procedures practiced at most accredited institutions of higher learning.

A student desiring an exception to policy for academic program requirements must initiate and coordinate the exception to policy request through the CCAF Advisor. The CCAF Advisor provides guidance and submits the exception to policy request to CCAF Education Services. Exception to policies are considered only if approval of the exception will make the student a graduate. The student has the right to submit an appeal to the exception to policy decision to the CCAF Dean of Academic Affairs.

CCAF does not provide an exception to policy for CCAF-awarded credentialing programs. All published program requirements must be successfully completed.

No Fault Exception to Policy

Degree program registration and graduation eligibility requires the student to hold the degree program-

applicable specialty (AFSC, SDI or RI) and appropriate skill level. A no fault exception to policy may be considered for a student whose specialty is removed from military records due to mandatory medical, retraining, or career field conversion/merger reasons. A student desiring a no fault exception to policy must contact the CCAF Advisor for guidance on submitting a no fault exception request to CCAF Education Services. The Associate Dean of Academic Affairs is the final authority for no fault exceptions to policy.

To qualify for no fault exception:

- Conditions or circumstances must be beyond the student's control.
- Student must be registered and pursuing the degree applicable to the specialty (AFSC, SDI or RI) at the time of loss of specialty.
- The no fault exception to policy request must be submitted to the CCAF Education Services within one year of removal of specialty.
- The Journeyman (5 skill-level) or higher must have been attained prior to removal of the specialty.
- Degree requirements must be completed within one year.

The no fault exception request must clearly explain conditions and/or circumstances that led to the removal from the specialty. Acceptable documents include:

- Official Air Force Form 2096, *Classification/On-The-Job Training Action*, reflecting the specialty and awarded skill level, SDI, or RI was held and date of removal.
- Medical documents with physician's memo or diagnosis, stating the exact disqualifying medical reasons, and/or a memo from the student's commander explaining why disqualified or removed from the specialty.
- Memo from the student, explaining the situation and requesting consideration of no fault exception.

Educational Documents

It is the responsibility of the admitted, registered, and non-degree seeking student to provide CCAF with their proper educational documentation.

To initiate a record update, the student must contact the CCAF Advisor at the E&TS or BETM. To progress in a CCAF AAS degree, the student must submit appropriate educational documentation reflecting course completion. The issuing institution or agency must mail these documents directly to the CCAF Registrar:

CCAF/DESS
100 South Turner Boulevard
Maxwell AFB, Gunter Annex Alabama 36114-3011

Appropriate documents may include:

- Official transcript of applicable course work completed at accredited institutions. Transcripts must be official and provided directly from each institution attended. A transcript reflecting other institution's course credit in-transfer are not acceptable.
- Official transcript from the Educational Testing Service reflecting CLEP or DANTES tests taken at a certified DANTES testing site.
- Foreign transcript with an external course-by-course evaluation from American Association of Collegiate Registrars and Admission Officers or National Association of Credential Evaluation Services member. Foreign transcripts must be official and in English or accompanied by an English translation from the evaluation service.
- Request for Verification of Course Completion of an off-campus instructional site course that was not reported to CCAF or added to the student's academic record.
- Official verification of professional credentialing (certification, licensure, or registry).
- Official verification of successfully completing a course conducted by or for US Government agencies for which the American Council on Education recommends credit.

Document Update

The college updates student records from educational documents submitted on behalf of the student. A student should not update records more than once a year unless applying for commission, before separation or retirement, or when it may result in degree completion.

Documents are processed in the order of receipt. When documents arrive at CCAF, and upon credits being posted to student records, program managers assess progress toward degree requirements.

Fraudulent Document

The Enrollment Management and Academic Affairs ensure the authenticity of each document. CCAF staff authenticates course credit in-transfer, degrees, diplomas, certificates, and credentialing. All fraudulent documents are provided to the CCAF Registrar for appropriate action when fraud is suspected, including disenrollment and/or legal action. The offending student is disenrolled and their CCAF transcript will be annotated with "student was disenrolled for submitting fraudulent documents."

Requesting a CCAF Transcript

CCAF provides several options for ordering an official transcript. The official CCAF transcript is printed and mailed, free of charge, to the address of choice. CCAF transcripts are processed in the order of receipt and delivery time depends on the option used. CCAF does not offer electronic transcripts at this time. All official CCAF transcripts are printed and mailed. For more information on the available options, visit the transcript section of CCAF's website at website at https://www.airuniversity.af.edu/Barnes/CCAF.

Information Release

It is Air University's and CCAF's policy that a student must authorize release of their educational record to a third party. An exception to this policy is when the requester is an Air Force organization authorized to collect such records for official purposes. In all other cases, students must submit a release letter (with an original signature) to the CCAF registrar. The student must state what information to release and to whom the information may be released. Though not required to by law, AU complies with the intent of the Federal Family Educational Rights and Privacy Act of 1974, 5 *USC* 301, 10 *USC* 8013, and Executive Order 9397, which dictate the policy regarding release of student data. These directives specify that an educational record may not be released without the student's written consent specifying which records are to be released and to whom.

Professional Credential

The term *"Credential"* refers to professional certifications, licensures or registries. CCAF AAS degree technical and/or program elective requirements may be satisfied by credit awarded for specific national professional credentials. Students are responsible for contacting their E&TS and provide copies of issued credentials and supporting documentation. Additional information concerning professional credentials is available on page 110.

A student holding a degree-relevant national professional credential should contact their E&TS to request official written verification be sent to CCAF Credentialing Programs, CCAF/DEAL, 100 South Turner Boulevard, Maxwell AFB, Gunter Annex, Alabama 36114-3011. The credentialing agency will forward appropriate documentation to CCAF/DEAL for verification and loading of credential to student records.

Credentials must be current in order to be awarded CCAF academic credit. Enlisted Airmen and Guardians who have allowed an awarded credential(s) to expire or lapse are no longer certified or hold that credential. An expired credential is no longer valid and the person may no longer exercise the privileges granted of that credential. CCAF will not load national professional credentials to student records and award academic credit if the credential has expired or lapsed.

To determine the professional credentials that can be used in a degree program, refer to the degree plans of this catalog. To obtain a listing of all national professional credentials approved by CCAF for award of credit visit https://www.airuniversity.af.edu/barnes/ccaf.

See the Professional Credentialing section for information on CCAF credentialing programs and the Air Force Credentialing Opportunities On-Line (AF COOL).

Degree Programs

This section contains the CCAF's AAS degree program requirements. Degree programs are developed by Air and Space Force technical experts, civilian or military consultants and reviewed by the Commandant, Dean of Academic Affairs, Associate Dean of Academic Affairs, Policy Council, and Air University. CCAF AAS Degree Programs are developed for the *technical* disciplines of specific occupational specialties and designed to provide graduates with knowledge, skills and theoretical background for enhanced performance as technicians within the respective occupational specialty and noncommissioned officers.

Associate of Applied Science Degree

The AAS degree is offered in the following broad career areas:

- Operations
- Logistics
- Medical
- Support

Degree Requirements

A student must complete all degree requirements before separating, retiring or becoming a commissioned officer.

The AAS degree consists of a minimum of 60 semester hours. Degree plan requirements are distributed as follows:

	Semester Hours
Technical Education	24
Leadership, Management & Military Studies	6
*General Education	15
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3
*Program Elective	15
Total	60

*Note: The Paralegal degree requires 18 semester hours of General Education (addition of a 3 semester hour General Education elective) and 12 semester hours of program elective.

Leadership, Management and Military Studies, General Education, and Program Elective requirements are standard for all programs.

Exceptions may be required to satisfy specialized/programmatic accreditation or specific certification requirements.

Skill Level Requirement

A student must hold at least the Journeyman (5 skill- level) in the appropriate AFSC at time of degree completion. The exception to holding the Journeyman (5-skill level) level are students in a specialty that do not have the Journeyman (5-skill level) and Other Service faculty.

Institutional Credit Requirement (Residency)
(15 semester hours)

At least 25% of the credit hours required for the degree must be earned through formal instruction delivered by CCAF schools. Therefore, to graduate, the student must have at least 15 semester hours of CCAF institutional credit earned and applied. Note: Upgrade Training (UGT), Special Duty Qualification Training (SQT), and credentialing credit is not institutional credit.

Technical Education Requirement
(24 semester hours)

Twenty-four semester hours are required to fulfill the technical education requirement. Technical Core must be satisfied by institutional credit earned through formal instruction delivered by CCAF schools. At least nine semester hours of CCAF institutional credit must be applied in Technical Core. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Refer to the degree program for specific degree requirements and information regarding in-transfer credit. Requests to substitute comparable courses in any subject or course are approved by the Associate Dean of Academic Affairs.

Technical education requirements are generally satisfied by specialty entry-level and advanced degree- applicable courses delivered at off-campus instructional sites and

credit earned for specialty Upgrade Training/Special Duty Qualification Training. However, additional technical education requirements may be satisfied by application of courses accepted in-transfer, testing credit, or issued professional credentials approved by CCAF.

The following criteria apply to courses accepted in-transfer to the technical education requirement:

- Must be collegiate course work directly relevant to the discipline of the CCAF AAS degree.
- Must be from an accredited institution or recognized as a candidate for accreditation, or ACE credit recommendation.
- Must be taught by faculty who meet the minimum faculty professional preparation requirements of the Southern Association of Colleges and Schools Commission on Colleges.
- Must be listed and identified in the offering institution's general catalog.
- Must have been completed with the equivalent of a "C" grade or better.
- Must not be developmental, preparatory, remedial, refresher or review.
- Must not duplicate or significantly overlap another course or test credit applied to specific education requirements of the degree program.

Leadership, Management & Military Studies Requirement
(6 semester hours)

The Leadership, Management and Military Studies (LMMS) requirement may be satisfied by applying enlisted professional military education, civilian courses accepted in-transfer, and/or by testing credit. However, the preferred method of fulfilling the LMMS requirement is through completion of Airman Leadership School, NCO Academy and/or the Air Force Senior NCO Academy.

The following criteria apply to courses accepted in-transfer to the LMMS requirement:

- Must be from an accredited institution or recognized as a candidate for accreditation, or ACE credit recommendation.
- Must be taught by faculty who meet the minimum faculty professional preparation requirements of the Southern Association of Colleges and Schools Commission on Colleges.
- Must be listed and identified in the offering institution's general catalog.
- Must emphasize the fundamentals of management and management of human resources. Examples of *acceptable* courses: Principles of Management, Personnel Management, Human Resource Management, Principles of Supervision and Organizational Behavior. Examples of *unacceptable* courses: Small Business Management, Managerial Accounting, Financial Management, Labor and Management Relations, Management Information Systems, and other specialized management or business courses.
- Must have been completed with the equivalent of a "C" grade or better.
- Must not be developmental, preparatory, remedial, refresher or review.
- Must not duplicate or significantly overlap another course or test credit applied to specific education requirements of the degree program.

General Education Requirement
(15 semester hours)

The General Education requirement is satisfied by applying courses accepted in-transfer or by testing credit. The following criteria apply to courses accepted in-transfer to the General Education requirement:

- Must be from an accredited institution or recognized as a candidate for accreditation, or approved college-level examination (CLEP/DSST).
- Must be taught by faculty who meet the minimum faculty professional preparation requirements of the Southern Association of Colleges and Schools Commission on Colleges.
- Must be listed and identified in the offering institution's general catalog as satisfying the institution's freshman and sophomore general education graduation requirement designed for transfer, Associate of Arts or Associate of Science degrees.

- Must have been completed with the equivalent of a "C" grade or better.
- Must not be developmental, preparatory, remedial, refresher or review.
- Must not duplicate or significantly overlap another course or test credit applied to specific education requirements of the degree program.
- Must not be a special topic or problem, workshop, or similar course.
- Must not be narrowly focused on skills, techniques and procedures peculiar to a particular occupation.

General Education requirements are as follows:

Written Communication.....3
English composition. Applicable written communication courses must satisfy the delivering institution's writing and composition requirement for graduation. **Not acceptable courses** include business communication and technical writing.

Oral Communication.....3
Speech/Public Speaking. Courses that prepare students to present effective public speeches to persuade, debate or argue in a clear, concise and logical manner. Emphasis on organization and delivery of public speeches. **Not acceptable courses** include group and interpersonal communication.

Mathematics.....3
Intermediate Algebra or a college-level mathematics. Three semester hours of mathematics are required for graduation. However, if an acceptable General Education college-level mathematics course is applied as an applicable technical course, a natural science course may be substituted for mathematics. **Not acceptable courses** include: accounting; business, consumer, technical, or computer mathematics; beginning or elementary algebra; statistics (taught outside the mathematics department); history of mathematics; and mathematics for elementary and secondary teachers.

Social Science.....3
Courses from the following disciplines are acceptable: anthropology, archaeology, culture, economics, geography, government, history, political science, psychology and sociology designed to impart knowledge, develop skills, and identify goals concerning elements and institutions of human society.

Humanities..... 3
Courses in fine arts (criticism, appreciation, historical significance), foreign language, literature, philosophy and religion are acceptable. **Not acceptable** include applied courses that teach how to play a musical instrument, perform a dance routine, sculpt or draw an art form and sign language.

Program Elective Requirement
(15 semester hours)

The following may satisfy program elective requirements:

- Courses applicable to the technical education, LMMS or General Education requirements.
- Natural science courses that meet the General Education requirement application criteria. Courses in biological, physical and earth space science are acceptable. Appropriate natural science courses are freshman and sophomore courses that satisfy the delivering institution's natural science requirement for graduation. **Not acceptable** courses are science for elementary and secondary teachers, health, nutrition, and hygiene.
- Air Force Culture and Learning Center (AFCLC) courses.
- Foreign language credit earned at the Defense Language Institute.
- A maximum of 9 semester hours of CCAF technical course credit otherwise not applicable to the program of registration.

General Education Goal and Learning Outcomes

The goal of the CCAF General Education requirement is to stimulate critical, innovative thinking and intellectual curiosity by providing graduates the foundational skills, knowledge and attitudes expected of informed and responsible citizens. Graduates will integrate, synthesize and apply knowledge in mathematics, social sciences and humanities, written and/or communication.

Graduates will be able to:

1. Write with clarity and precision for diverse audiences and understand and interpret the written expression of others.
2. Organize and deliver oral presentations to persuade,

debate, argue or inform in a clear, concise and logical manner.

3. Understand and apply mathematical concepts and reasoning in problem solving.
4. Appreciate and value human individual differences, societies and the many expressions of culture.
5. Apply critical thinking skills as versatile problem solvers with enhanced mental agility and adaptability.

The Degree Programs by Air Force Specialty

The tables on the following pages indicate degree program eligibility for Air Force Specialty Codes (AFSC), Reporting Identifiers (RI) and Special Duty Identifiers (SDI). A student at the superintendent or chief enlisted manager level or a student with an SDI or RI not listed below may register in CCAF programs related to the second, third or fourth (not duty/control) Air Force Specialty.

* Applies to students that may have insufficient institutional credit to satisfy the academic discipline (Technical Core) of the vocational degree. The student may need to register in the Military Technology & Applied Sciences Management degree.

Specialty	Program Title	Code	Flight	DSN/Ext
1A0X1	Aviation Operations	4VCB	DEAT	5050
1A1X1	Aviation Operations	4VCB	DEAT	5050
1A2X1	Aviation Operations	4VCB	DEAT	5050
1A3X1	Air & Space Operations Technology	4VAS	DEAT	5050
1A6X1	Aviation Operations	4VCB	DEAT	5050
1A8XX	Intelligence Studies and Technology	9INZ	DEAT	5050
1A9X1	Aviation Operations	4VCB	DEAT	5050
1B4X1	Cybersecurity	0CYC	DEAS	5030
1C0X2	Aviation Management	1AVY	DEAT	5050
1C1X1	Air Traffic Operations and Management	2IAA	DEAT	5050
1C3X1	Emergency Management	9IMY	DEAS	5030
*1C5X1	Air & Space Operations Technology	4VAS	DEAT	5050
1C6X1	Air & Space Operations Technology	4VAS	DEAT	5050
1C7X1	Aviation Management	1AVY	DEAT	5050
1C8X3	Electronic Systems Technology	4VHP	DEAS	5030
1D7X1A	Information Systems Technology	0IYY	DEAS	5030
1D7X1B	Information Systems Technology	0IYY	DEAS	5030
1D7X1D	Cybersecurity	0CYC	DEAS	5030
1D7X1E	Information Systems Technology	0IYY	DEAS	5030
*1D7X1K	Information Systems Technology	0IYY	DEAS	5030
1D7X1R	Electronic Systems Technology	4VHP	DEAS	5030
1D7X1Z	Computer Science Technology	0CYY	DEAS	5030
1D7X2F	Information Systems Technology	0IYY	DEAS	5030
1D7X3C	Electronic Systems Technology	4VHP	DEAS	5030
1H0X1	Aerospace Physiology Technology	7GAN	DEAS	5030
1NXXX	Intelligence Studies and Technology	9INZ	DEAT	5050
1N4X1A	Cybersecurity	0CYC	DEAS	5030
1N7X1	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
1P0X1	Aircrew Safety Systems Technology	4VAT	DEAT	5050

Specialty	Program Title	Code	Flight	DSN/Ext
1S0X1	Occupational Safety	9IIY	DEAT	5050
1T0X1	Survival Instructor	2IBS	DEAT	5050
1U0X1	Air & Space Operations Technology	4VAS	DEAT	5050
1U1X1	Aviation Operations	4VCB	DEAT	5050
1W0X1	Meteorology	8FYY	DEAT	5050
1Z1X1	Personnel Recovery	7GDP	DEAT	5050
1Z2X1	Strategic Operations Management	1BAA	DEAT	5050
1Z3X1	Strategic Operations Management	1BAA	DEAT	5050
1Z4X1	Meteorology	8FYY	DEAT	5050
2A0X1	Avionic Systems Technology	4VHS	DEAT	5050
2A2XX	Avionic Systems Technology	4VHS	DEAT	5050
2A3X3	Aviation Maintenance Technology	4VAD	DEAT	5050
2A3X4	Avionic Systems Technology	4VHS	DEAT	5050
2A3X5	Avionic Systems Technology	4VHS	DEAT	5050
2A3X7	Aviation Maintenance Technology	4VAD	DEAT	5050
2A3X8	Aviation Maintenance Technology	4VAD	DEAT	5050
2A5X1	Aviation Maintenance Technology	4VAD	DEAT	5050
2A5X2	Aviation Maintenance Technology	4VAD	DEAT	5050
2A5X4	Aviation Maintenance Technology	4VAD	DEAT	5050
2A6X1	Aviation Maintenance Technology	4VAD	DEAT	5050
2A6X2	Aerospace Ground Equipment Technology	4VAB	DEAT	5050
2A6X3	Aviation Maintenance Technology	4VAD	DEAT	5050
2A6X4	Aviation Maintenance Technology	4VAD	DEAT	5050
2A6X5	Aviation Maintenance Technology	4VAD	DEAT	5050
2A6X6	Aviation Maintenance Technology	4VAD	DEAT	5050
2A7X1	Metals Technology	4VLB	DEAT	5050
2A7X2	Nondestructive Testing Technology	4VXR	DEAT	5050
2A7X3	Aircraft Structural Maintenance Technology	4VAN	DEAT	5050
2A7X5	Aircraft Structural Maintenance Technology	4VAN	DEAT	5050
2A8XX	Avionic Systems Technology	4VHS	DEAT	5050
2A9XX	Avionic Systems Technology	4VHS	DEAT	5050
2F0X1	Logistics	1AMY	DEAT	5050
2G0X1	Logistics	1AMY	DEAT	5050
2M0X1X	Electronic Systems Technology	4VHP	DEAS	5030
2M0X2	Missile & Space Systems Maintenance	4VAK	DEAT	5050

Specialty	Program Title	Code	Flight	DSN/Ext
2M0X3	Mechanical & Electrical Technology	4VGA	DEAS	5030
2P0X1	Microprecision Technology	4VIA	DEAT	5050
2RXXX	Maintenance Production Management	4VJG	DEAT	5050
2S0X1	Logistics	1AMY	DEAT	5050
2T0X1	Transportation	1ATY	DEAT	5050
2T1X1	Transportation	1ATY	DEAT	5050
2T2X1	Transportation	1ATY	DEAT	5050
2T3X1	Vehicle Maintenance	4VKC	DEAT	5050
2T3X7	Maintenance Production Management	4VJG	DEAT	5050
2W0X1	Munitions Systems Technology	4VRA	DEAT	5050
2W1X1	Aircraft Armament Systems Technology	4VRY	DEAT	5050
2W2X1	Nuclear Weapons Systems Technology	4VHJ	DEAT	5050
3E0X1	Mechanical & Electrical Technology	4VGA	DEAS	5030
3E0X2	Mechanical & Electrical Technology	4VGA	DEAS	5030
3E1X1	Mechanical & Electrical Technology	4VGA	DEAS	5030
3E2X1	Construction Technology	4VEB	DEAS	5030
3E3X1	Construction Technology	4VEB	DEAS	5030
3E4X1X	Mechanical & Electrical Technology	4VGA	DEAS	5030
3E4X3	Entomology	3ALC	DEAS	5030
3E5X1	Construction Technology	4VEB	DEAS	5030
3E6X1	Maintenance Production Management	4VJG	DEAT	5050
3E7X1	Fire Science	9IFY	DEAS	5030
*3E8X1	Explosive Ordnance Disposal	4VRC	DEAS	5030
3E9X1	Emergency Management	9IMY	DEAS	5030
3F0X1	Human Resource Management	1AOY	DEAS	5030
3F1X1	Hospitality and Fitness Management	1FRS	DEAS	5030
3F2X1	Education & Training Management	2BAC	DEAS	5030
3F3X1	Management Engineering Technology	1AWY	DEAS	5030
3F4X1	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
3F5X1	Information Management	1AUY	DEAS	5030
3G0X1	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
3H0X1	Aerospace Historian	9DHK	DEAS	5030
3NXXX	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
3P0X1X	Criminal Justice	9IJY	DEAS	5030
4A0X1	Health Care Management	7GCY	DEAS	5030
4A1X1	Logistics	1AMY	DEAT	5050

Specialty	Program Title	Code	Flight	DSN/Ext
4A2X1	Biomedical Equipment Technology	7GAA	DEAS	5030
4B0X1	Bioenvironmental Engineering Technology	7GAM	DEAS	5030
4C0X1	Mental Health Services	7GAP	DEAS	5030
4D0X1	Dietetics & Nutrition	7GAD	DEAS	5030
4E0X1	Public Health Technology	7ECY	DEAS	5030
4H0X1	Cardiopulmonary Laboratory Technology	7GDA	DEAS	5030
4J0X2	Physical Therapist Assistant	7GAI	DEAS	5030
4N0X1X	Practical Nursing Technology	7GAL	DEAS	5030
4N1X1	Surgical Services Technology	7GEA	DEAS	5030
4P0X1	Pharmacy Technology	7GAH	DEAS	5030
4R0X1	Diagnostic Imaging Technology	7GDH	DEAS	5030
4R0X1A	Nuclear Medicine Technology	7ABJ	DEAS	5030
4R0X1B	Diagnostic Medical Sonography	7GDK	DEAS	5030
4R0X1C	Diagnostic Imaging Technology	7GDH	DEAS	5030
4T0X1	Medical Laboratory Technology	7GAF	DEAS	5030
4T0X2	Histologic Technology	7GAE	DEAS	5030
4V0X1	Ophthalmic Technician	7GDI	DEAS	5030
4Y0X1	Dental Assisting	7GBC	DEAS	5030
4Y0X2	Dental Laboratory Technology	7GBB	DEAS	5030
5C0X1A	Information Systems Technology	0IYY	DEAS	5030
5C0X1D	Cybersecurity	0CYC	DEAS	5030
5C0X1N	Information Systems Technology	0IYY	DEAS	5030
5C0X1R	Electronic Systems Technology	4VHP	DEAS	5030
5C0X1S	Information Systems Technology	0IYY	DEAS	5030
5IXXXX	Intelligence Studies and Technology	9INZ	DEAT	5050
5J0X1	Paralegal	1CAM	DEAS	5030
5R0X1	Human Services	9IKY	DEAS	5030
5S0X1	Air & Space Operations Technology	4VAS	DEAT	5050
6C0X1	Contracts Management	1CAO	DEAS	5030
6F0X1	Financial Management	9GEC	DEAS	5030
7S0X1	Criminal Justice	9IJY	DEAS	5030
8A200	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
*8B000	Education & Training Management	2BAC	DEAS	5030
*8B100	Education & Training Management	2BAC	DEAS	5030
8C000	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030

Specialty	Program Title	Code	Flight	DSN/Ext
*8F000	Human Resource Management	1AOY	DEAS	5030
8LXXX	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
8P100	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
8RXXX	Human Resource Management	1AOY	DEAS	5030
8T000	Instructor of Technology and Military Science	2IBB	DEAT	5030
9L000	Military Technology & Applied Sciences Management	1BYZ	DEAS	5030
9S100	Scientific Analysis Technology	4VES	DEAT	5050

The Degree Programs and Academic Specialty Codes

Program Title	Code	Page
Aerospace Ground Equip Technology	4VAB	41
Aerospace Historian	9DHK	42
Aerospace Physiology Technology	7GAN	43
Air & Space Operations Technology	4VAS	44
Air Traffic Operations & Management	2IAA	45
Aircraft Armament Sys Technology	4VRY	46
Aircraft Structural Maint Technology	4VAN	47
Aircrew Safety Systems Technology	4VAT	48
Aviation Maintenance Technology	4VAD	49
Aviation Management	1AVY	50
Aviation Operations	4VCB	51
Avionic Systems Technology	4VHS	52
Bioenvironmental Engineering Technology	7GAM	53
Biomedical Equipment Technology	7GAA	54
Cardiopulmonary Laboratory Technology	7GDA	55
Computer Science Technology	0CYY	56
Construction Technology	4VEB	57
Contracts Management	1CAO	58
Criminal Justice	9IJY	59
Cybersecurity	0CYC	60
Dental Assisting	7GBC	61
Dental Laboratory Technology	7GBB	62
Diagnostic Imaging Technology	7GDH	63
Diagnostic Medical Sonography	7GDK	64
Dietetics & Nutrition	7GAD	65
Education & Training Management	2BAC	66
Electronic Systems Technology	4VHP	67
Emergency Management	9IMY	68
Entomology	3ALC	69
Explosive Ordnance Disposal	4VRC	70
Financial Management	9GEC	71
Fire Science	9IFY	72
Health Care Management	7GCY	73
Histologic Technology	7GAE	74
Hospitality & Fitness Management	1FRS	75
Human Resource Management	1AOY	76
Human Services	9IKY	77
Information Management	1AUY	78
Information Systems Technology	0IYY	79
Instructor of Tech & Military Science	2IBB	80
Intelligence Studies & Technology	9INZ	81
Logistics	1AMY	82
Maintenance Production Management	4VJG	83
Management Engineering Technology	1AWY	84
Mechanical & Electrical Technology	4VGA	85
Medical Laboratory Technology	7GAF	86
Mental Health Services	7GAP	87
Metals Technology	4VLB	88
Meteorology	8FYY	89
Microprecision Technology	4VIA	90
Military Technology & Applied Sciences Mgmt	1BYZ	91
Missile & Space Systems Maintenance	4VAK	92
Munitions Systems Technology	4VRA	93
Nondestructive Testing Technology	4VXR	94
Nuclear Medicine Technology	7ABJ	95
Nuclear Weapons Systems Technology	4VHJ	96
Occupational Safety	9IIY	97
Ophthalmic Technician	7GDI	98
Paralegal	1CAM	99
Personnel Recovery	7GDP	100
Pharmacy Technology	7GAH	101
Physical Therapist Assistant	7GAI	102
Practical Nursing Technology	7GAL	103
Public Health Technology	7ECY	104
Scientific Analysis Technology	4VES	105
Strategic Operations Management	1BAA	106
Surgical Services Technology	7GEA	107
Survival Instructor	2IBS	108
Transportation	1ATY	109
Vehicle Maintenance	4VKC	110

Aerospace Ground Equipment Technology (4VAB)

CIP: 29.0401

Occupational Specialty 2A6X2

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Aerospace Ground Equipment Troubleshooting 9
Aerospace Ground Equipment Electrical and Electronic Fundamentals 9
Aerospace Ground Equipment Familiarization ... 9
Aerospace Ground Equipment Fundamentals 9
Aerospace Ground Equipment Generator Sets 9
Air Compressors 6
Auxiliary Aerospace Ground Support Equipment 9
Bomb Lift Equipment 6
Diesel Engine Maintenance 6
Gas Turbine Engines 6
Introduction to Ground Heaters 6
Introduction to Ground Support Air Conditioners 9
Introduction to Hydraulic Test Stands 6

Technical Elective ..... *Maximum Semester Hours*

Algebra-Based Physics 3
CCAF Upgrade Training 15
Specialty-Related Subjects In-Transfer 9
Technical Mathematics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*

Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Aerospace Historian (9DHK)
CIP: 54.0108

Occupational Specialty 3H0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Writing for Airpower Historians	6
Aerospace Historian Resource Management	3
Historical Operations in Contingency and War	4
Independent Research and Historical Writing	9
Introduction to Air Force Unit History	9
Methods of Historical Research	9
Philosophy and Methods in History	9

Technical Elective ..... *Maximum Semester Hours*

Aerospace Science	9
Advanced Writing	9
Archival Management	3
CCAF Upgrade Training	15
Computer Science	6
Human Communications	6
Interviewing	3
Leadership & Management	3
Logic	3
Managerial Communications	3
Military Science	3
Philosophy	3
Political Science	6
Statistics	3
Unit Historian Development	9
United States History	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General

Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Aerospace Physiology Technology (7GAN)
CIP: 26.0912

Occupational Specialty 1H0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Introduction to Aerospace Physiology	6
Life Support Equipment Systems	6
Hyperbaric Chamber Operations	6
Instructional Methodology	6
Physiological Training Management	6
Respiratory & Circulatory Physiology	3
Survival Training	6

Technical Elective ..... *Maximum Semester Hours*

CCAF Upgrade Training	15
Computer Science	6
Emergency Medicine	3
General Biology	3
General Chemistry	3
General Psychology	3
Guidance and Counseling	3
Human Anatomy & Physiology	3
Introduction to Aeronautical Science	3
Meteorology	3
Microbiology	3
Molecular and Cell Biology	3
Physics	3
Pre-Calculus/Calculus	6
Specialty-Related Subjects In-Transfer	9
Statistics	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Air & Space Operations Technology (4VAS)

CIP: 29.0305

Occupational Specialty 1A3X1, 1C6X1, 1U0X1, 5S0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core	*Maximum Semester Hours*
Aerospace Control & Warning System Operations	9
Airborne Missions Systems	12
Airborne Radio Operations	6
Airborne Warning and Control Systems	6
Aircraft Computer Systems	6
Aircrew Fundamentals	6
Aircrew Qualification	6
Aircrew Trainer/Simulator/Flying Training	6
Electronic Warfare Systems	3
Geospatial Intelligence Fundamental	9
Intelligence Fundamentals	9
Introduction to Remotely Piloted Aircraft	6
Orbit Principles & Perturbations	6
Radar Identification Equipment	3
Radio Communications Theory	6
Remotely Piloted Aircraft Crew Qualification	6
Remotely Piloted Aircraft Sensor Operator	9
Remotely Piloted Systems	15
Space Operator Qualification	12
Space System Event Processing	6
Space Systems Operations	18

Technical Elective	*Maximum Semester Hours*
Aviation/Flight Safety	3
CCAF Upgrade Training	15
College Algebra or higher-level Mathematics	3
Electricity/Electronics	6
FAA Private Pilot License	6

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Air Traffic Operations & Management (2IAA)
CIP: 49.0105

Occupational Specialty 1C1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Control Tower Operations	3
Advanced Radar Approach Control	3
Air Traffic Control Facility Management	6
Air Traffic Control Fundamentals	6
Air Traffic Control Non-Radar Procedures	3
Air Traffic Control Radar Procedures	3
Airspace Management	6
Basic Control Tower Operation	3
Basic Radar Approach Control	6
Computer System Administrator	6
Network System Administrator	3
Terminal Instrument Procedures	6
Unix Operating System	3
Visual Flight Control	3

Technical Elective ..... *Maximum Semester Hours*

Aeronautical Science	3
Airport Management	3
Aviation Principles	9
CCAF Upgrade Training	15
Climatology/Meteorology	3
Computer Science	6
Federal Aviation Laws/Regulations	6
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Aircraft Armament Systems Technology (4VRY)
CIP: 29.0403

Occupational Specialty 2W1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Aircraft Armament Systems 12
Advanced Aircraft Armament Systems Maintenance Laboratory 12
Advanced Aircraft Automatic Weapons Laboratory 6
Aerospace Ground Equipment Handling, Support and Maintenance 6
Aircraft Armament Launch/Ejection Systems 12
Aircraft Armament Systems 12
Aircraft Armament Systems Maintenance 12
Aircraft Automatic Weapons 12
Aircraft Electrical Fundamentals……..3
Aircraft Electrical Systems 9
Aircraft Maintenance Fundamentals 9
Aircraft Munitions Loading/Unloading Laboratory 12
Intermediate Aircraft Armament Systems Maintenance Laboratory 6
Munitions Systems Maintenance 9
Weapons Control Systems Maintenance 6
Weapons/Munitions Safety 6

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Computer Science 6
Corrosion Control 3
Electricity/Electronics 6
General Chemistry/Algebra-based physics 8
Heavy Equipment Operation/Maintenance 3
Hydraulic/Pneumatic Power 3
Industrial Safety 3
Maintenance Management 3
Materials & Processes 3
Munitions Systems 9
Nuclear Weapons Systems 9
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Aircraft Structural Maintenance Technology (4VAN)
CIP: 46.0607

Occupational Specialty 2A7X3, 2A7X5

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Composites/Bonded Structures 6
Aircraft Corrosion Control 6
Aircraft Maintenance Fundamentals 6
Aircraft Protective Coatings 3
Aircraft Special Fasteners and Repair 3
Aircraft Specialized Structural Repair 6
Fundamentals of Aircraft Structural Maintenance 12
Fundamentals of Low Observable Materials 9
Maintenance of Low Observable Materials 12

Technical Elective ..... *Maximum Semester Hours*
Aircraft Aerodynamics 3
Algebra-Based Physics 3
CCAF Upgrade Training 15
Computer Science 6
Engineering Graphics / Blueprint / Technical Drawings 3
FAA Airframe/Powerplant Certification 12
General Chemistry 3
Hazardous Materials 3
Industrial Safety 3
Maintenance Management 6
Materials & Processes 3
Quality Assurance 3
Specialty-Related Subjects In-Transfer 9
Technical Mathematics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... ***Semester Hours***
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Aircrew Safety Systems Technology (4VAT)
CIP: 49.0199

Occupational Specialty 1P0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Life Support 9
Automatic Parachutes 6
Basic Life Support 3
Basic Life Support Equipment 3
Chemical, Biological, Radiological, Nuclear Cell Operations 3
Flight Safety Management 3
Inspection/Maintenance of Survival Equipment 6
Maintenance of Aircrew Night Vision Devices 3
Parachute Inspection & Maintenance 9
Principles of Survival 3
Sewing and Fabrication Procedures 3

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
College Algebra or Higher Math 3
Computer Science 6
FAA Parachute Rigger Certifications 6
FCC General Radio Operator's License 9
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Aviation Maintenance Technology (4VAD)

CIP: 47.0607

Occupational Specialty 2A3X3, 2A3X7, 2A3X8, 2A5X1, 2A5X2, 2A5X4, 2A6X1, 2A6X3, 2A6X4, 2A6X5, 2A6X6

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Aircraft Maintenance 12
Advanced Aircraft Accessory Systems Maintenance..... 12
Advanced Aircraft Propulsion Maintenance 12
Advanced Airframe Systems Maintenance 12
Advanced Helicopter Airframe and System Maintenance..... 6
Advanced Propulsion Systems Maintenance 12
Aircraft Electrical/Environmental System Fundamentals..... 9
Aircraft Electrical/Environmental Systems Maintenance..... 18
Aircraft Fuel System Fundamentals..... 9
Aircraft Fuel System Maintenance 18
Aircraft Hydraulic System Fundamentals 9
Aircraft Hydraulic System Maintenance 18
Aircraft Maintenance Fundamentals..... 6
Aircraft Maintenance 18
Aircraft Operation..... 6
Aircraft Propeller Inspection and Repair 3
Aircraft/Propulsion Systems Inspection..... 6
Aircraft Systems and Components..... 6
Aircraft Turbine Engine Fundamentals 9
Aircraft Turbine Engine Maintenance.....18
Aircraft Weight & Balance 3
Aircrew Egress Systems 9
Aircrew Egress Systems Maintenance..... 18
Auxiliary Power Systems..... 6
Control and Warning Systems 6
Flight Control Systems..... 6
Fundamentals of Avionic Systems 3
Fundamentals of Electricity/Electronics..... 9
Helicopter Engine and Transmission..... 6
Helicopter Maintenance 18
Helicopter Semi-rigid Flight Controls 6
Landing Gear Systems..... 6
Quality Assurance..... 3

Technical Elective..... *Maximum Semester Hours*

Aircraft Aerodynamics 3
Algebra-Based Physics..... 6
Aviation Safety 3
CCAF Upgrade Training 15
Computer Science 6
Corrosion Control 6
FAA Airframe/Powerplant Certification 12
Hazardous Materials 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***

Written Communication (English Composition)..... 3
Oral Communication (Speech) 3
Mathematics..... 3
Social Science..... 3
Humanities..... 3

Aviation Management
(1AVY)
CIP: 49.0104

Occupational Specialty 1C0X2, 1C7X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Airfield Management 9
Advanced Aviation Resource Management 9
Airfield/Airport Management..... 12
Airfield Safety & Operations..... 9
Aviation Resource Management 12
Squadron Aviation Resource Management 12

Technical Elective ..... *Maximum Semester Hours*
Aeronautical Science 3
Climatology/Meteorology 3
CCAF Upgrade Training 15
College Algebra or Higher Math 3
Computer Science 6
Federal Aviation Administration Aircraft Dispatcher Certification 12
Federal Aviation Administration Regulations ... 6
Federal Communication Commission General Radio Operator's License..... 9
Flight Operations/Procedures..... 9
General Aviation/Flight Safety..... 6
Leadership & Management 6
Principles of Accounting..... 6
Project Management Institute Certifications 6
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics..... 3
Social Science..... 3
Humanities..... 3

Aviation Operations
(4VCB)
CIP: 49.0104

Occupational Specialty 1A0X1, 1A1X1, 1A2X1, 1A6X1, 1A9X1, 1U1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Aircrew Operations	6
Advance Flight Performance Planning	3
Aerial Gunner Principles & Procedures	3
Aircraft Flight Performance	3
Aircraft Load Planning	6
Aircraft Loadmaster Operations	12
Aircraft Systems Familiarization	12
Aircraft Weight & Balance	6
Aircrew Ground Training	9
Aircrew Fundamentals	18
Aircrew Qualification	9
Air Refueling Operations	9
Air Refueling Flying Training	6
Cargo Aircraft Operations	9
Flight Attendant Culinary/Food Preparation	6
Flight Attendant Principles/Procedures	9
Flight Engineer Operations	18
Helicopter Operations	12
Introduction to Aircraft	3
Loadmaster Airdrop	3
Remotely Piloted Aircraft Pilot Operations	18
Special Missions Aviation Operations	12
Trainer/Simulator/Flying Training	18

Technical Elective ..... *Maximum Semester Hours*

Aviation/Flight Safety	3
CCAF Upgrade Training	15
Climatology/Meteorology	6
College Algebra or Higher Math	3
FAA Flight Engineer Certification	8
FAA Private Pilot License	6
Federal Aviation Administration Regulations	3
Human Factors in Aviation/Flight Physiology	3
Introduction to Aviation/Aeronautics	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Avionic Systems Technology (4VHS)
CIP: 47.0609

Occupational Specialty 2A0X1, 2A2XX, 2A3X4, 2A3X5, 2A8XX, 2A9XX

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Advanced Avionics Maintenance	9
Aircraft Avionic Maintenance Fundamentals	6
Aircraft Electrical/Environmental Systems	9
Aircraft Maintenance Fundamentals	6
Aircraft Systems and Components	6
Automatic Flight Control Systems	9
Automatic Test Station Maintenance	12
Avionic Test Equipment	12
Electricity/Electronics	12
Electronic Warfare Systems	12
Engine Instrument Systems	9
Flight Instrument Systems	12
Fundamentals of Avionic Systems	9
Inertial Navigations Systems	9
Infrared Sensor Systems	9
Integrated Avionics Systems	9
Radar Navigation Systems	9
Radar Systems	12
Radio Communication Systems	9
Radio Navigation Systems	9
Solid-State Theory/Applications	6
Transmitter and Receiver Systems	6
Weapons Control Systems	9

Technical Elective ..... *Maximum Semester Hours*	
Aviation Safety	3
CCAF Upgrade Training	15
College Algebra or Higher Math	6
Computer Science	6
FAA Airframe/Powerplant Certification	12
FCC General Radiotelephone Operator's License	9
Quality Assurance	3
Soldering Techniques	3
Specialty-Related Subjects In-Transfer	9
Statistics	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Bioenvironmental Engineering Technology (7GAM)
CIP: 14.0501

Occupational Specialty 4B0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Epidemiology Prevention and Infection Control	6
Epidemiology Survival and Prevention	6
Bioenvironmental Engineering	6
Bioenvironmental Protection	6
Biological Chemical Hazards	6
Hearing Conservation	3
Ionizing Radiation Management	6
Disaster Medicine	6
Occupational Environment	3

Technical Elective ..... *Maximum Semester Hours*

Biology	3
Calculus	3
CCAF Upgrade Training	15
Chemistry	3
Computer Science	3
Statistics	3
Occupational Health & Safety Technologist Certification	3
Physics	3
Organic Chemistry	3
Specialty-Related Subjects In-Transfer	9
Thermodynamics	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Biomedical Equipment Technology (7GAA)
CIP: 51.0401

Occupational Specialty 4A2X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Diagnostic Imaging Systems.....9
Advanced Field Medical Systems 6
Advanced Medical Laboratory Systems.....3
BMET Electronic Principles I 6
BMET Electronic Principles II.....6
BMET Troubleshooting Principles.....9
Computer System Configuration/Troubleshoot...6
Computer-Based Medical Systems.....3
Dental and Sterilizer Systems.....6
Diagnostic Imaging Equipment I.....9
Diagnostic Imaging Equipment II 9
Information Technology and Field Equipment....9
Introduction to Medical Equipment.....6
Manager Functions in Biomedical Equipment 3
Medical Field Equipment Support.....6
Medical Laser Systems.....3
Medical Support Equipment.....6
Physiological Monitoring Equipment.....6
Surgical Equipment 9
System Security and Network Admin 6
Telemedicine 6
X-Ray Systems Technology 6

Technical Elective ..... *Maximum Semester Hours*
AAMI Anatomy and Physiology.....3
AAMI CBET Medical Equipment Operation.....3
AAMI CBET Medical Equipment Troubleshooting.....3
AAMI Electronics Fundamentals 3
AAMI Healthcare Facility Safety.....3
Biomedical Equipment Technology 3
CCAF Upgrade Training.....15
CompTIA Certification.....3
Computer Science 6
Human Anatomy & Physiology.....3
Medical Terminology.....3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities.....3

Cardiopulmonary Laboratory Technology (7GDA)
CIP: 51.0915

Occupational Specialty 4H0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Cardiopulmonary Procedures..... 9
Cardiopulmonary Anatomy & Physiology..... 6
Cardiopulmonary Instrumentation 3
Cardiopulmonary Invasive Diagnostic Procedures..... 12
Cardiopulmonary Management..... 3
Cardiopulmonary Medicine 6
Cardiovascular Noninvasive Diagnostic Procedures..... 12
Clinical Respiratory Therapy 8
Intermediate Respiratory Therapy 6
Mechanical Ventilation..... 12
Medical Terminology 3
Neonatal & Pediatric Care 3
Pulmonary Diagnostic Procedures 9
Respiratory Care 6
Respiratory Therapy 6

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Computer Science 6
Critical Care Air Transport 3
Emergency Medicine 3
Medical Readiness 3
Pharmacology 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech) 3
Mathematics 3
Social Science.....3
Humanities 3

The Commission on Accreditation for Respiratory Care and Commission on Accreditation of Allied Health Education Programs accredit the Cardiopulmonary Laboratory Apprentice courses (Phase I and II).

Computer Science Technology (0CYY)
CIP: 11.0101

Occupational Specialty 1D7X1Z

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Computer Systems Familiarization 6
Cyber Security 3
General Maintenance Training 3
Introduction to System Software……3
Microcomputer Software Application……4
Network Fundamentals……...4
Principles of Database Applications……...9
Software Engineering 12

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training ..... .12
College Algebra or Higher-Level Mathematics 6
CompTIA Certification..... 9
Computer Science..... 6
Data Structures 3
Discrete Math 3
Global Information Assurance Certification 6
ISC² Certification..... 6
Microsoft MCSE Certification 6
Physics 3
Specialty-Related Subjects In-Transfer 9
Statistics..... 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Construction Technology
(4VEB)
CIP: 15.1001

Occupational Specialty 3E2X1, 3E3X1, 3E5X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Planning/Design Requirements of Soil and Pavements.....6
Advanced Roof Maintenance, Inspection & Repair 3
CE Organization & Work Force Management ...3
Construction Equipment Operator 9
Construction Structural Apprentice 6
Construction Survey 6
Contingency Maintenance 3
Contract Construction Inspector 6
Flexible Pavements 3
Fundamentals of Contingency Operations 3
Fundamentals of Data Collection 3
Fundamentals of Surveying 6
Geographic Information Systems 6
Metallic Inert Gas (MIG) Welding 3
Metals Layout & Fabrication 9
Oxyacetylene Welding 6
Site Planning, Facility Design, Soils and Pavement Testing 9
Rigid Pavements 6
Shielded Metal Arc Welding 3
Soils/Pavement Plan & Design 3

Technical Elective ..... *Maximum Semester Hours*
Blueprint Reading.....3
CCAF Upgrade Training 15
College Algebra/Trigonometry/Calculus.....3
Computer Aided Drafting.....3
Computer Science 6
General Physics.....3
Specialty-Related Subjects In-Transfer.....15
Technical Writing 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Contracts Management
(1CAO)
CIP: 52.0202

Occupational Specialty 6C0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Contract Solicitation and Award 6
Government Contract Application.....6
Introduction to Contracting 3
Principles of Contract Administration.....6

Technical Elective ..... *Maximum Semester Hours*
Business Law 3
CCAF Upgrade Training 15
Computer Science 6
Contingency Contracting 3
Contract Law 6
Federal Acquisition Regulation 3
Fundamentals of Cost & Price Analysis 3
Human Relations 3
Introduction to Business 3
Labor Relations 3
Legal Considerations in Contracting 3
Materiel Management 3
Purchasing Principles.....9
Pricing & Negotiation 6
Principles of Accounting 3
Principles of Economics (Macro/Micro) 6
Principles of Marketing 3
Specialty-Related Subjects In-Transfer.....9
Statistics.....3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Criminal Justice
(9IJY)
CIP: 43.0104

Occupational Specialty 3P0X1X, 7S0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. (Exception: Not required for 7S0X1). A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Special Investigation	15
Antiterrorism	3
Combat Arms Instructor	6
Counterintelligence & Law	9
Criminal Investigations	21
Criminal Law	9
Electronic Security System Operator	3
Expeditionary Counterintelligence	9
Firearms Maintenance	6
Fundamentals of Ground Combat Skills	6
Fundamentals of Law Enforcement	9
Ground Defense Leadership & Management	6
Integrated Base Defense Management	6
Introduction to Criminal Justice	6
Introduction to K-9 Training Techniques	12
Introduction to Security	6
K-9 Detection Techniques	9
K-9 Operations	6
Law Enforcement Administration	6
Marksmanship Laboratory	9
Police Safety & Survival Tactics	6
Principles of Traffic Collision Investigation	9
Protective Service Operations	6
Security Forces Evaluations & Measurement	3
Sex Crimes Investigation	6
Special Weapons & Tactics	9
Specialized Mobile Security Functions	12
Support Weapons Qualification	3
Weapons Marksmanship	6

Technical Elective ..... *Maximum Semester Hours*

CCAF Upgrade Training	15
Constitutional Law	3
Corrections	6
Criminalistics/Forensic Science	3
Criminology	3
Emergency Medicine	4
General Psychology	3
General Sociology	3
Instructional Methodology	9
Juvenile Justice	3
Police Community Relations	3
Specialty-Related Subjects In-Transfer	9
Traffic Management/Investigation	6

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Cybersecurity
(0CYC)
CIP: 29.0207

Occupational Specialty 1B4X1, 1D7X1D, 1N4X1A, 5C0X1D

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Analysis and Reporting 6
Battlefield Network Security 3
Communication Network Security 6
Communication Signals Collection & Processing 6
Communications Theory 6
Computer System Familiarization 6
Critical Analysis 6
Cyber Defense & Countermeasures 8
Cyber Laws & Ethics 6
Cyber Systems 4
Cybersecurity 6
Cybersecurity Laboratory 6
Cyberspace Fundamentals 8
Cyber Surety 8
Cyber Surety Management 6
Digital Network Intelligence 6
General Maintenance Training 3
Geospatial Intelligence Fundamentals 3
Intelligence Fundamentals 6
Intelligence Operations Laboratory 6
Intelligence, Surveillance, and Reconnaissance Fundamentals 6
Intermediate Target Development 3
Network Fundamentals 6
Network Security Configuration 6
Network Traffic Analysis 3
Operating System Foundation 9
Programming/Scripting Languages 9
Signals Intelligence Threat Warning Collection and Processing 3
Signal Theory & Analysis 4
Telephony Networks Security 6
UNIX Operating System 3

Technical Elective ..... *Maximum Semester Hours*
Advanced Cybersecurity 6
CCAF Upgrade Training 15
Certified Ethical Hacker Certification 3
CISCO Certifications 6
College Algebra or Higher-Level Math 6
CompTIA Certifications 8
Global Information Assurance Certifications 6
Public Key Management 3
Red Hat Certifications 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Dental Assisting
(7GBC)
CIP: 51.0601

Occupational Specialty 4Y0X1, 4Y0X1H

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Oral Hygiene	6
Cardiopulmonary Resuscitation	3
Basic Dental Sciences	3
Basic Dental Theory	3
Dental Clinical Concepts	3
Dental Clinical Applications I	6
Dental Clinical Applications II	6
Medical Readiness	3

Technical Elective ..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
Computer Science	6
DANB General Chairside Procedures	3
DANB Radiation Health Safety	3
DANB Infection Control Procedure	3
General Chemistry	3
General Psychology	3
Human Anatomy & Physiology	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The Commission on Dental Accreditation of the American Dental Association accredits the Dental Assistant Apprentice Course. CCAF Dental Assisting graduates have the opportunity to become certified through the Dental Assisting National Board by examination.

Dental Laboratory Technology (7GBB)

CIP: 51.0603

Occupational Specialty 4Y0X2

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Advanced Porcelain Techniques	15
Advanced Removable Prosthodontics	12
Complete Dentures Part II	6
Dental Lab Fundamentals	3
Fixed Partial Dentures	6
Full Metal Restorations	6
Functional and Esthetic Fixed Prosthodontics	8
Fundamentals of Complete Dentures	3
Medical Readiness	3
Removable Partial Dentures I	3
Removable Partial Dentures II	6

Technical Elective ..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
Computer Science	6
General Chemistry	3
NBCDLT Certified Dental Technician	15
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The Commission on Dental Accreditation of the American Dental Association accredits the Dental Laboratory Apprentice Course. CCAF Dental Laboratory Technology graduates have the opportunity to become certified through the National Board for Certification in Dental Laboratory Technology by examination.

Diagnostic Imaging Technology (7GDH)
CIP: 51.0907

Occupational Specialty 4R0X1, 4R0X1C

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Radiographic Procedures.....10
Computed Tomography.....6
Introduction to Radiographic Physics.....6
Introduction to Radiologic Technology.....6
Mobile Radiography.....6
Radiographic Anatomy & Physiology.....6
Radiographic Imaging Equipment & Film Processing.....9
Radiographic Nursing Procedures.....3
Radiographic Procedures.....18
Radiography Clinical.....12
Special Radiographic Procedures.....3
Technical Aspects of Radiology.....3

Technical Elective ..... *Maximum Semester Hours*
American Registry of Radiologic Technologists Certification.....12
CCAF Upgrade Training.....15
Magnetic Resonance Imaging.....9
Mammography.....3
Medical Readiness.....3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics.....3
Social Science.....3
Humanities.....3

The Joint Review Committee on Education in Radiologic Technology accredits the Diagnostic Imaging Apprentice course.

Diagnostic Medical Sonography (7GDK)
CIP: 51.091

Occupational Specialty 4R0X1B

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Diagnostic Sonography	6
Diagnostic Ultra Sonography Clinical I	3
Diagnostic Ultra Sonography Clinical II	3
Diagnostic Ultra Sonography Practicum I	6
Diagnostic Ultra Sonography Practicum II	3
Medical Readiness	3
Ultrasonic Scanning I	6
Ultrasonic Scanning II	6
Ultrasonic Scanning III	6

Technical Elective ..... *Maximum Semester Hours*

American Registry of Radiologic Technologists Certification	3
CCAF Upgrade Training	15
Computer Science	6
Human Anatomy and Physiology	3
Medical Terminology	3
Physics	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Dietetics & Nutrition (7GAD)
CIP: 51.3199

Occupational Specialty 4D0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Diet Therapy & Nutrition.....10
Hospital Food Services.....6
Introduction to Food Preparation.....9
Nutritional Management & Accounting.....6

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training.....15
Computer Science.....6
Dietary Manager/Food Protection Professional Certification.....6
Fitness & Health.....6
General Biology.....3
General Chemistry.....3
Human Anatomy & Physiology.....3
Medical Readiness.....3
Principles of Accounting.....3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics.....3
Social Science.....3
Humanities.....3

Education & Training Management (2BAC)

CIP: 13.0499

Occupational Specialty 3F2X1, 8B000, 8B100

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. 8B100s must complete the Military Training Leader course to register in this program. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Military Training Leader 3
AIC Instructional Methodology 6
Analysis, Design, Development, Implementation and Evaluation 3
Development & Management of Training Programs 6
Flight Commander & MTI Supervisor 3
Instructional System Development 3
Managerial Communications 3
Military Training Instructor 3
Military Training Instructor Fundamentals 6
Military Training Leader 6
Military Training Leader Guidance & Counseling 6
Supervision of Instruction 3
Technical Writing 3
Use of Computers in Training 6

Technical Elective ..... *Maximum Semester Hours*

CCAF Upgrade Training 15
CCAF Special Duty Qualification Training 8
Computer Science 6
Curriculum Development 3
Educational/Developmental Psychology 3
Educational Technology 3
General Psychology 3
General Sociology 3
Public Relations 3
Specialty-Related Subjects In-Transfer 9
Statistics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***

Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Electronic Systems Technology (4VHP)

CIP: 15.0303

Occupational Specialty 1C8X3, 1D7X1R, 1D7X3C, 2M0X1X, 5C0X1R

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Networking 8
Antenna Installation 6
Cable Construction & Install 3
Cable Splicing and Sealing 3
Cable Testing 3
Communications Network Equipment Laboratory 3
Communications Network Testing 3
Communications System Fundamentals 6
Cyber Security 6
Cyber Surety Management 3
Fiber Optic Cable Splicing 3
General Maintenance Training 6
Intermediate Communication Networking 6
Introduction to AC Circuits 6
Introduction to Computer Networks 6
Introduction to DC Circuits 6
Introduction to Electromagnetic Devices 6
Introduction to Power Supplies 3
Missile Electrical Principles 8
Network Fundamentals 9
Pole Climbing Fundamentals 6
Radar Principles 3
Tower Climb and Rescue 3
Underground Cable Splicing 3
VHF/UHF Transceiver 3

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
College Algebra or Higher-Level Mathematics 3
CompTIA Certification 9
Computer Science 6
Computer Systems Maintenance & Operations 6
Digital Electronic Circuits 6
FCC General Radio Operator's License 9
High-Reliability Soldering 3
Industrial Safety 3
Quality Assurance 3
Radio Communication Theory 9
Solid-State Theory/Applications 6
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

The Electronics Technicians Association International accredits the Comm Cables & Antenna Systems apprentice course and Fiber Optic Cable Installation course.

Emergency Management
(9IMY)
CIP: 43.0302

Occupational Specialty 1C3X1, 3E9X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Command & Control Operations..... 6
Advanced Emergency Management 3
CBRN Protective/Detection Equipment.....6
CBRN Cell Operations 6
Command & Control Countermeasures 6
Command & Control Operations.....3
Command & Control Operations Leadership.....6
Command & Control Operations Specialty Training 6
Command Post Fundamentals.....9
Command Post Management 3
Communication System Operations.....12
Disaster Prep & Emergency Management.....6
Emergency Operations.....6
Instructor Fundamentals.....3
Joint Nuclear Command & Control.....6
National Military Command Systems/CJCS Emergency Action.....3
National Military Command Systems/CJCS Nuclear Command.....3
Warfare Defense.....6

Technical Elective ..... *Maximum Semester Hours*
Cartography/Map Reading 3
CCAF Upgrade Training 15
Climatology/Meteorology 3
Computer Science.....6
General Chemistry.....3
Industrial Safety/Hygiene.....3
Inventory Management.....3
Resource Management 3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Entomology
(3ALC)
CIP: 26.0702

Occupational Specialty 3E4X3

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Environmental Awareness	6
Environmental Compliance	6
Environmental Support Equipment	3
Pest Management	12
Pesticide & Dispersal Equipment	3
Vegetation Management	6

Technical Elective ..... *Maximum Semester Hours*	
Botany/Plant Disease	6
CCAF Upgrade Training	15
Computer Science	6
General Biology	3
General Chemistry	3
General Physics	3
Hazardous Materials	6
Hydrology	3
Industrial Safety	6
Microbiology	3
Pollution Prevention	3
Principles of Ecology	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Explosive Ordnance Disposal (4VRC)
CIP: 29.0404

Occupational Specialty 3E8X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Explosive Ordnance Disposal.....6
Fundamentals of Explosive Ordnance Disposal..6
Introduction to Explosive Ordnance Disposal.....6

Technical Elective ..... *Maximum Semester Hours*
Accident Prevention.....3
Basic Photography (Camera/Video Operations) .3
Blueprint Reading/Schematic Diagrams.....3
CCAF Upgrade Training.....15
Computer Science.....6
Electricity/Electronics.....9
Emergency Medicine.....3
General Chemistry.....6
Hazardous Materials.....6
Heavy Equipment Operations.....3
Industrial Safety.....3
Industrial X-Ray/Non-Destructive Inspection 3
Inventory Management.....3
Investigative Techniques.....3
Map & Compass Reading.....3
Nuclear Science.....6
Specialty-Related Subjects In-Transfer.....15
Statistics.....3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Financial Management
(9GEC)
CIP: 52.0899

Occupational Specialty 6F0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Accounting Principles/Payment Process 6
Advanced Financial Analysis 9
Advanced Travel & Relocation Accounting.....9
Budgeting 9
Federal Budget Execution & Distribution 9
Financial Customer Support-Total Force 9
Financial Management in Contingency Operations.....6
Financial Management Principles & Payment 3
Financial Management Publication Analysis 3
Introduction to Microsoft Office Suites.....3
Military & Civilian Financial Operations.....9
Military Allowances & Entitlements.....9
Military Pay Deductions and Allowances 9

Technical Elective ..... *Maximum Semester Hours*
Business Law.....3
Business Finance 3
Business Mathematics.....3
CCAF Upgrade Training.....15
Computer Science 6
Leadership & Management 6
Managerial Communications.....3
Money & Banking.....3
Principles of Accounting.....3
Principles of Marketing.....3
Principles of Microeconomics/Macroeconomics 3
Specialty-Related Subjects In-Transfer 9
Statistics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Fire Science
(9IFY)
CIP: 48.0203

Occupational Specialty 3E7X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Aerospace Vehicle Firefighting	6
Advanced Hazardous Material	6
Basic Hazardous Materials	3
Emergency Medical Response	6
Fire Protection Fundamentals	6
Fire Service Rescue	9
Principles/Methods of Teaching	6
National Incident Management Systems	3
Structural Firefighting	6
Structural Fire Ground Operations	6
Supervisory Firefighter	9

Technical Elective ..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
Computer Science	6
General Chemistry	9
NREMT EMT Certification	6
Specialty-Related Subjects In-Transfer	9
Technical Writing	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The International Fire Service Accreditation Congress accredits fire protection apprenticeship, The Journeyman and craftsman courses.

Health Care Management
(7GCY)
CIP: 51.0701

Occupational Specialty 4A0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Fundamentals of Health Care Administration ... 6
Health Care Management 6
Health Service Occupational Management 6
Hearing Conservation 3
Medical Readiness 3
Patient Centered Medical Home Operations 6

Technical Elective ..... *Maximum Semester Hours*
Accounting 3
CCAF Upgrade Training 15
Computer Science 6
CompTIA Certification 12
Finance 3
Human Anatomy & Physiology 9
Human Resource Management 3
Introduction to Business 3
ISC^2 Certification 3
Leadership & Management 3
Legal Aspects of Health Care 3
Managerial Communications 3
Medical Coding 6
Medical Ethics 3
Medical Terminology 3
Medical Transcription 3
Principles of Supervision 3
Principles of Management 3
Project Management Institute Certifications 6
Registered Health Information Technician Certification. 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Histologic Technology
(7GAE)
CIP: 51.1007

Occupational Specialty 4T0X2

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Autopsy Procedures 6
Clinical Chemistry 4
Cytopreparatory Techniques 3
Histologic Clinical Practicum I 6
Histologic Clinical Practicum II 6
Histologic Specimen and Stains 6
Histologic Technology Laboratory I 9
Histologic Technology Laboratory II 9
Introduction to Histotechnology 3
Medical Readiness 3
Medical Terminology 3
Microbiology 4

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Computer Science 6
Histologic Technician-American Society of Clinical Pathologists Certification 12
Human Anatomy & Physiology 8
Human Biology 8
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Hospitality and Fitness Management (1FRS)
CIP: 52.0901

Occupational Specialty 3F1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Fitness and Health	6
Fitness and Sports Management	3
Food Services Operations Management	3
Introduction to Food Services	9
Introduction to Services	3
Lodging Operations/Management	3
Services Readiness	3

Technical Elective ..... *Maximum Semester Hours*	
Baking & Decorating	3
Business/Managerial Communications	3
Business/Hospitality Law	3
CCAF Upgrade Training	15
Computer Science	6
Contract Management	3
Financial Management	3
Food Service Sanitation and Safety	3
Health/Nutrition	3
Hospitality and Fitness Technology	3
Human Anatomy and Physiology	6
Human Relations and Customer Service	3
Introduction to Business	3
Introduction to Hospitality	3
Inventory/Storeroom Management	3
Leadership & Management	6
Office Management	3
Principles of Accounting	3
Principles of Economics (Macro/Micro)	3
Principles of Marketing/Sales	3
Quantity Food Production	3
Recreation Safety & First Aid	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Human Resource Management (1AOY)
CIP: 52.1001

Occupational Specialty 3F0X1, 8F000, 8RXXX

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation, exception 8F000 & 8RXXX. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives. 8F000 & 8RXXX must complete formal training course for the SDI to enroll in this program.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***
Career Development & Management 9
Compensation & Benefits 6
Customer Relations 6
Customer Service 9
Deployment Issues & Readiness 9
Human Resource Counseling & Intervention 9
Human Resource Deployment 6
Human Resource Development 12
Human Resource Selection Methods & Techniques 9
Individual & Family Support 6
Introduction to Human Resource Information Systems 9
Introduction to Human Resource Management 9
Manpower & Personnel Base-Level Systems 6
Personnel Administration 9
Quality Force Management 6
Recruitment Production & Management 9
Salesmanship 9
Strategies in Human Resource Management 9
Unit Administration 6

Technical Elective ..... ***Maximum Semester Hours***
Business Ethics 3
Business Law 3
Business/Managerial Communications. 6
CCAF Upgrade Training 15
CCAF Special Duty Qualification Training 9
Computer Science 6
Employment Law 3
General Psychology 3
HR Certification Institute Certifications 12
Labor Relations 3
Leadership & Management. 3
Microcomputer Software Applications. 3
Organizational Behavior 3
Principles of Management 3
Principles of Supervision 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Human Services
(9IKY)
CIP: 45.1101

Occupational Specialty 5R0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Chapel Resource Management 3
Chaplain Corps Readiness 6
Introduction to Chaplain Corps 6
Spiritual and Crisis Support 6

Technical Elective ..... *Maximum Semester Hours*
Abnormal Psychology 3
CCAF Upgrade Training 15
Computer Science 6
Counseling/Crisis Intervention 3
ul u l un n 3
Ethics 3
General Psychology 3
General Sociology 3
Group Dynamics 3
Interviewing Techniques 3
Introduction to Human Services 3
Leadership and Management 6
Managerial Communications 3
Marriage & Family 3
Social Problems 3
Social Psychology 3
Social Work 3
Specialty-Related Subjects In-Transfer 9
Statistics 3
World Religions 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Information Management
(1AUY)
CIP: 52.0201

Occupational Specialty 1D7X1K, 3F5X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Administration Programs 6
Advanced Administration Programs 3
Advanced Information Management 3
Advanced Personnel Administration 3
Computer System Familiarization 3
Cyber Surety 3
General Maintenance Training 3
Information Management 9
Intermediate Information Management 3
Introduction to Administration 6
Introduction to Administration Management 3
Introduction to Computer Systems & Network
Knowledge Management 3
Management Fundamentals 6
Network Fundamentals 6
Personnel Administration 9
Postal Operations 3
Records Management 3
Unit Administration 3

Technical Elective ..... *Maximum Semester Hours*
Business/Managerial Communications 3
CCAF Upgrade Training 15
CompTIA Certification 9
Computer Science 6
Database Design/Management 3
Desktop Publishing 3
Global Information Assurance Certification 6
Human Resource Management 3
Information Security 3
ISC2 Certification 4
Leadership and Management 6
Office Equipment 3
Principles of Accounting 3
Principles of Business 3
Principles of Management 3
Specialty-Related Subjects In-Transfer 9
Technical Writing 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Information Systems Technology (0IYY)

CIP: 11.0401

Occupational Specialty 1D7X1A, 1D7X1B, 1D7X1E, 1D7X2F, 5C0X1A, 5C0X1N, 5C0X1S

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Computer Networking 3
Advanced Networking 6
Advanced Networking II 3
CISCO Unified Communication Management 3
Command/Control Communication Countermeasures 6
Communication Network Equipment Operation 3
Communication Security Analysis 3
Communication Systems Fundamentals 3
Communication Systems Operations 3
Computer System Administrator 3
Computer System Familiarization 6
Computer System Security 3
Cryptographic Systems/Devices 6
Cyber Defense & Countermeasures 6
Cyber Security 3
Cyber Support Quality Assurance 3
Cyber Surety 12
Cyber Surety Management 6
Cybersecurity Laboratory 6
Frequency Management Applications 12
General Maintenance Training 6
Intermediate Communication Networking 6
Introduction to Computer Systems & Network Management 3
Introduction to Computer Networks 6
Network Fundamentals 6
Network Fundamentals II 3
Network Systems Administration 9
Operating Systems 9
Principles of AC Circuits 3
Principles of Computer Systems 6
Principles of DC Circuits 3
Principles of Digital Logic Circuits 3
Principles of Electronic Communication 6
Principles of Power Supplies 3
Project Management 6
Systems Planning/Engineering 3

Technical Elective ..... *Maximum Semester Hours*

AWS Certifications 6
CCAF Upgrade Training 15
Certified Information Privacy Certifications 3
Cisco Certification 6
Cloud Computing Fundamentals 3
College Algebra or Higher-Level Mathematics 3
CompTIA Certifications 9
Computer Maintenance & Troubleshooting 3
Computer Programming 6
Computer Science 6
Database Management and Design 3
Global Information Assurance Certifications 6
ISC^2 Certification 6
Microsoft MCSE Certification 6
Mobile Devices & Applications 3
Project Management Institute Certifications 6
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***

Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Instructor of Technology & Military Science (2IBB)

CIP: 13.9999

Occupational Specialty This program is offered to Air and Space Force and other service (US and international) enlisted personnel who are assigned to a CCAF off-campus instructional site and teaching a CCAF degree-applicable course.*

Degree Requirements (60 semester hours):
To register, at least the Journeyman (5 skill-level) or fully qualified equivalent (Other service personnel), complete 3 semester hours of CCAF-approved instructional methodology coursework and hold their specialty-related CCAF degree or an equivalent degree from a civilian college is required. To graduate, registrants must complete the 12-semester hour CCAF Teaching Internship and complete program within 2 years from registration date. ** A minimum of 15 semester hours of CCAF institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Academic Guidance & Counseling 3
***CCAF Teaching Internship 12
Computer-Based Instruction 6
Curriculum Development 3
Evaluation of Instruction 6
***Instructional Methodology 12
Instructional Systems Development 6
Instructor Fundamentals 6
Principles of Instruction.....6
Supervision of Instruction 3
Technical Writer Principles 3
Tests & Measurements 3

Technical Elective ..... *Maximum Semester Hours*
Adult/Vocational Education 3
Aircrew Instructor Flight Training 9
****CCAF Special Duty Qualification Training 8
****CCAF Upgrade Training.....15
Computer Science 6
Educational/Developmental Psychology 3
Educational Leadership 3
Educational Technology 3
Foundations of Education.....3
*****Related Formal Specialty Training 6
Specialty-Related Subjects In-Transfer.....9
Statistics 3
Technical Writing.....3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

*Personnel holding the 1T0X1 AFSC are not eligible.
**Other Service Instructors may register as the initial degree. 8T000 is exempt from the requirement to hold a career-field-related degree.
*** Required to complete technical core requirements.
****CCAF UGT and SQT credit may be applied if specialty is related to the subject matter being taught.
*****A maximum of 6 semester hours of formal specialty training may be applied if related to the subject matter being taught.

Intelligence Studies and Technology (9INZ)

CIP: 29.0201

Occupational Specialty 1A8X1X, 1A8X2X, 1N0X1, 1N1X1A, 1N2X1X, 1N3X1X, 1N4X1B, 1N4X2, 1N7X1, 1N8X1, 5IXXXX

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Intelligence Operations Planning 6
Airborne Communications Systems 9
Airborne Intelligence Fundamentals 6
Aircrew Fundamentals.....9
Analysis and Reporting 18
Basic Morse Code.....6
Cartography 3
Communication Signals Collection & Processing.....12
Communications Theory 6
Conventional Weapons Application.....6
Critical Analysis 6
Cyberspace Fundamentals and Operations.....12
Digital Network Intelligence 12
Electronic Intelligence Collection & Processing.....10
Electronic Intelligence Fundamentals Theory 6
Full Motion Video Analysis 3
Geographic Intelligence Fundamentals 3
Geospatial Intelligence Fundamentals.....18
Imagery Analysis.....12
Intelligence Fundamentals.....12
Intelligence Operations Laboratory 12
Intelligence, Surveillance & Reconnaissance (ISR) Fundamentals.....9
Intelligence, Surveillance & Reconnaissance (ISR) Platforms and Sensors.....6
Intermediate Target Development.....3
Intermediate Technical Languages.....15
Introduction to Electronic Signals.....6
Introduction to Worldwide Forces.....6
Military Operations 9
Mission Planning and Support 6
Predictive Battlespace Awareness.....6
Signal Theory and Analysis 18
Signals Intelligence Applied Mathematics.....6
Signals Intelligence Threat Warning Processing.....3
Survival Training.....6
Targeting Fundamentals.....6
Theory/Fundamentals of Electromagnetic Spectrum 9
Voice Communications/Intelligence Theory.....6

Technical Elective ..... *Maximum Semester Hours*

College Algebra.....3
CCAF Upgrade Training 15
CompTIA Security+ Certification 6
Computer Science 6
Cultural/International Studies 6
Geography 3
Project Management Institute Certifications 6
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Logistics
(1AMY)
CIP: 52.0203

Occupational Specialty 2F0X1, 2G0X1, 2S0X1, 4A1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***
Advanced Logistics Planning 3
Aerial Bulk Fuel Delivery 6
Airlift/Terminal Operations and Management ... 3
Automated Logistics Plans 6
Cryogenic Fundamentals 3
Deployment Planning & Procedures 6
Expeditionary Medical Readiness/WRM 3
Fuel Hydrant & Air Transport Systems..... 6
Fuels Analysis 3
Fuels Force 3
Fuels Fundamentals 3
Fuels Management 6
Fuels System Maintenance Laboratory 3
Fuels Systems Maintenance & Operations..... 6
Inventory Management 3
Liquid Oxygen Storage Tank Maintenance 3
Logistics Automated Systems 3
Logistics Feasibility Analysis Capability 3
Logistics Maintenance Support 3
Logistics Management 3
Logistics Planning 9
Maintenance Supply Systems Operations 6
Materiel Storage & Distribution 3
Medical Logistics 3
Medical Logistics Management & Storage 6
Medical Material Management..... 6
Medical Readiness Contingency Operations..... 3
Operation of Fuel-Servicing Vehicles..... 3
Oxygen/Nitrogen Plant 3
Quality Control of Aircraft Fuels 3
Stock Control..... 3
Supply Management 3
War Reserve Material & Document Control..... 3

Technical Elective ..... ***Maximum Semester Hours***
CCAF Upgrade Training 15
College Algebra or Higher Math 3
Computer Science 6
Environmental Protection Procedures 3
General Chemistry 6
Hazardous Materials..... 3
Human Resource Certification Institute
Certifications (HRCI) 6
Industrial Safety..... 3
Introduction to Petroleum Industry..... 3
Introduction to Transportation 3
Managerial Communications 3
Microeconomics/Macroeconomics 6
Project Management Institute Certifications 6
Principles of Accounting 6
Principles of Purchasing 3
Production/Operations Management 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***
Written Communication (English Composition)..... 3
Oral Communication (Speech) 3
Mathematics 3
Social Science..... 3
Humanities 3

Maintenance Production Management (4VJG)
CIP: 29.0499

Occupational Specialty 2R0X1, 2R1X1, 2T3X7, 3E6X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advance Maintenance Management 6
Civil Engineering Maintenance Systems Analysis 3
Civil Engineering Unit Control Center Operations 6
Fleet Management 3
Introduction to Civil Engineering Operations 6
Introduction to Maintenance Management Analysis 9
Introduction to Maintenance Management..... 3
Introduction to Maintenance Scheduling 12
Introduction to Supply Management..... 6
Maintenance Management Software Applications..... 3
Maintenance Systems Analysis & Scheduling.... 3
Motor Vehicle Fleet Management..... 6
Principles of Maintenance Management 3
Vehicle Management 3

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Computer Science 6
Environmental Compliance..... 3
Human Resource Management 3
Human Resource Certification Institute Certification..... 3
Industrial Safety..... 3
Project Management Institute Certifications 3
Quality Assurance..... 3
Specialty-Related Subjects In-Transfer..... 9
Statistics..... 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition)..... 3
Oral Communication (Speech)..... 3
Mathematics 3
Social Science..... 3
Humanities 3

Management Engineering Technology (1AWY)
CIP: 28.0799

Occupational Specialty 3F3X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Expeditionary Manpower Management 3
Management Engineering.....6
Manpower & Personnel Base-Level Systems.....3
Manpower Requirements Determination.....6
Workcenter Management & Process Improvement 6

Technical Elective ..... *Maximum Semester Hours*
Budgeting 3
Business/Managerial Communications 3
CCAF Upgrade Training 15
College Algebra..... 3
Computer Science..... 3
Computer Aided Drafting..... 3
Data Collection & Analysis..... 3
Economics (Macro/Micro) 3
Human Resource Management..... 3
Industrial Engineering 3
Organizational Design and Change..... 3
Principles of Accounting 3
Principles of Management 3
Project Management..... 3
Project Management Institute Certifications 6
Quality Control/Quality Assurance..... 3
Specialty-Related Subjects In-Transfer 9
Statistics..... 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Mechanical & Electrical Technology (4VGA)
CIP: 15.0599

Occupational Specialty 2M0X3, 3E0X1, 3E0X2, 3E1X1, 3E4X1X

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
AC & Refrigeration Fundamentals 6
Airfield Lighting Systems 6
Construction of Overhead Electrical Distro 3
Electrical & Electronic Control 3
Electrical Distribution Systems 3
Electrical Fundamentals 3
Electrical Power Generation/Distribution 3
Emergency Airfield Lighting System 3
Engine System & Associated Equipment 6
Environmental Control Systems 9
Fuel Subsystems 3
Generator Set Operation & Aircraft Arrest Barriers 3
Heating Systems Maintenance 3
Heating Systems Operations 6
HVAC & Refrigeration Contingency 6
HVAC/R & Civil Engineering Organization 3
Hydrant System Maintenance 3
Launch Facility Access/Security 3
Maintenance of Aircraft Arrest System 3
Maintenance Orientation 3
Mobile Generator Set Theory & Operations 6
Power Line Equipment & Pole Climbing 3
Power Production Equipment 3
Refrigeration & AC Systems 6
Special Purpose Electrical Systems 3
Special Tools and Equipment 6
Specialized Fuel System/Tank Entry 6
Utility Fundamentals 3
Water & Waste Distribution System 3

Technical Elective ..... *Maximum Semester Hours*
Air Distribution & Filtering Systems 3
Alternate Heating & Cooling 3
Blueprint Reading/Schematic Diagrams 6
Building Codes & Ordinances 3
Control Systems/Maintenance 6
CCAF Upgrade Training 15
Electricity/Electronics 3
Engine Principles 3
Environmental Awareness 3
Environmental Compliance 3
Fire-Suppression Systems 6
General Chemistry 9
General Physics 4
Hazardous Materials 6
Industrial Safety 3
Mechanics of Soils 3
Motor, Starter & Control Devices 6
Natural Gas Distribution 6
Quality Assurance 3
Specialty-Related Subjects In-Transfer 9
Technical Mathematics 3
Welding/Pipefitting 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

The DoD Environmental Protection Agency accredits the Missile and Space Facilities apprentice course.

Medical Laboratory Technology (7GAF)

CIP: 51.1004

Occupational Specialty 4T0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Bacteriology 9
Blood & Specimen Collection.....6
Blood Bank.....6
Blood Group Systems.....6
Blood Smears & Complete Blood 6
Chemistry Laboratory.....15
Clinical Chemistry.....15
Clinical Lab Procedures.....3
Hematology 9
Introduction to Anatomy 6
Introduction to Clinical Biochemistry 6
Immunology / Blood Banking 3
Medical Laboratory Fundamentals.....6
Medical Microbiology 6
Mycology, Parasitology, & Virology 6
Serology.....3
Transfusion Services.....6

Technical Elective ..... *Maximum Semester Hours*

American Society for Clinical Pathology Certification.....15
Biochemistry 3
Biology 3
Body Fluids & Urinalysis.....3
CCAF Upgrade Training.....15
Computer Science 6
Human Anatomy & Physiology 3
Immunohematology 3
Medical Terminology.....3
Organic/Inorganic Chemistry.....3
Pathology 3
Psychology 3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours

Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities.....3

The National Accrediting Agency for Clinical Laboratory Sciences accredits the Medical Laboratory Apprentice course.

Mental Health Services
(7GAP)
CIP: 51.1502

Occupational Specialty 4C0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Behavioral Health Administration 3
Behavioral Health Clinical 6
Behavioral Health Counseling.....6
Behavioral Health Interviewing.....6
Introduction to Behavioral Health 3
Introduction to Psychopathology I 6
Introduction to Psychopathology II 6
Medical Readiness.....3
Psychiatric Behavioral Interventions.....3

Technical Elective ..... *Maximum Semester Hours*
Abnormal Psychology.....3
CCAF Upgrade Training 15
Computer Science 6
Drug and Alcohol Abuse Counselor Certification.....6
Emergency Medicine.....3
General Biology 6
General Psychology.....3
Human Anatomy and Physiology 6
Nursing (Mental Health Related) 6
Pharmacology.....3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Metals Technology
(4VLB)
CIP: 15.0611

Occupational Specialty 2A7X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Computer Numerical Control 6
Heat Treatment 6
Inert Gas Shielded Welding.....3
Lathe Operations 9
Machine Shop Fundamentals 9
Maintenance Orientation 3
Metal Arc Welding 3
Milling Operations 9
Oxyacetylene Welding 3

Technical Elective ..... *Maximum Semester Hours*
Algebra-Based Physics 3
CCAF Upgrade Training 15
Computer Science.....6
Corrosion Control 3
Computer Aided Drafting/Engineering Graphics.....6
FAA Airframe/Powerplant Certification 12
General Chemistry.....3
Hazardous Materials 3
Industrial Safety.....3
Maintenance Management 3
Materials & Processes.....3
Physical Testing of Materials 3
Specialty-Related Subjects In-Transfer 9
Technical Mathematics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Meteorology
(8FYY)
CIP: 40.0404

Occupational Specialty 1W0X1, 1Z4X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Weather Management....12
Assault Zone Operations 6
Battlefield Airman Basic Physical Training....3
Central Weather Facility....9
Communication Systems Operations....3
Landing and Dropzone Operations....6
Maps and Compass....6
Macroscale Analysis Techniques 3
Macroscale Analysis/Synoptic Forecast Technique 6
Macroscale Analysis/Synoptic Forecast Laboratory 3
Mesoscale Analysis Techniques....3
Mesoscale Analysis Laboratory....6
Mesoscale/Microscale Forecast Techniques....6
Mesoscale/Microscale Forecast Laboratory 6
Meteorology I 6
Meteorology II....6
Meteorological Reports & Charts....6
Psychology of Environmental Stress....3
Satellite Picture Interpretation 3
Situational Tactics 6
Space Weather Support 15
Special Weapons 3
Synoptic Analysis Techniques....6
Synoptic Analysis Laboratory 6
Tactical Weather Operations 3
Underwater Diving Principles 5
Weather Fundamentals 3
Weather Radar Operation....9

Technical Elective ..... *Maximum Semester Hours*
Algebra-Based Physics....3
CCAF Upgrade Training 15
College Algebra or Higher Level Mathematics....6
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*
Written Communication (English Composition)....3
Oral Communication (Speech)....3
Mathematics 3
Social Science....3
Humanities 3

Microprecision Technology (4VIA) CIP: 15.0404

Occupational Specialty 2P0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Applied Physical Measurements I 6
Applied Physical Measurements II 9
Applied Physical Measurements III 3
Basic Electronic Principles and Circuits 15
Calibration/Repair of Electronic & RF Equipment 18
Calibration/Repair of Frequency Generation Equipment 6
Calibration/Repair of Frequency Stand Equipment 6
Calibration/Repair of Meters 6
Calibration/Repair of Oscilloscopes 6
Calibration/Repair of Physical and Dimensional Equipment 6
Electronic Measurements 9
Engine Measurement Systems 3
General Maintenance Training 6
Introduction to Metrology 6
Introduction to Precision Measurement Equipment Optics/Optical Measurement 6
Precise Time and Frequency Calibration Systems 6
Precision Measurement Equipment Laboratory Operations 6
Principles of AC Circuits 3
Principles of Amplifiers and Wave Generating Circuits 3
Principles of DC Circuits 3
Principles of Digital Logic Circuits 3
Principles of Electromagnetic Devices 3
Principles of Electronic Communications 3
Principles of Power Supplies 3
Radio Communication Theory 3

Technical Elective ..... *Maximum Semester Hours*
American Society for Quality – Certified Calibration Technician Certification 6
CCAF Upgrade Training 15
College Algebra or Higher Level Math 3
Computer Science 6
General Chemistry 6
Industrial Safety 3
Physics 6
Quality Assurance 3
Specialty-Related Subjects In-Transfer 9
Technical Mathematics 3
Technical Writing 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Military Technology & Applied Sciences Management (1BYZ)

CIP: 29.0601

Occupational Specialty 1N7X1, 3F4X1, 3G0X1, 3NXXX, 8A200, 8C000, 8LXXX, 8P100, 9L000, (*)

Degree Requirements (60 semester hours):
A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through Enlisted Professional Military Education and/or formal technical education (**).

Academic Discipline (39 semester hours):
The academic discipline is a combination of *Applied Military & Management Science* and *Applied Military Operations & Technology*. A minimum of nine (9) semester hours must be applied in each of the area of Applied Military & Management Science and Applied Military Operations & Technology. The remaining credit may be applied from non-institutional and in-transfer credit.

Applied Military & Management Science (9 SHs Minimum)

	Maximum Semester Hours
Air University Culture & Language	6
Business Management	3
Business Principles	3
ALS Leadership & Management I	6
ALS Managerial Communications I	6
ALS Military Studies I	6
NCOA Leadership & Management II	6
NCOA Managerial Communications II	6
NCOA Military Studies II	6
SNCOA Leadership & Management III	6
SNCOA Managerial Communications III	6
SNCOA Military Studies III	6
SNCOA Organizational Theory & Behavior	3
BMT Military Studies	6
Force Capabilities	3
International Relations	3
Human Resource Management	3
Military Doctrine	3
Military History	3
Military Instruments of Power	3
Military Intelligence	3
Military Theory	3
National Security Policy	3
Organizational Theory & Behavior	3
Principles of Leadership	3
Principles of Management	3
Principles of Supervision	3
Profession of Arms	3
Strategic Management	3

Applied Military Operations & Technology (9 SHs Minimum)

	Maximum Semester Hours
CCAF Upgrade Training	15
CCAF Special Duty Qualification Training	8
Computer Science	6
Foreign Area Studies	3
Military Operations	3
National & Military Strategy	3
Operational Technologies & Communications	3
Professional Credentials	12
Specialty-Related Technical Training	9
Specialty-Related Subjects In-Transfer	9

Professional Electives (6 semester hours): Courses to augment, extend or enhance the student's professional development. May include courses related to the academic areas of the profession, profession of arms, language acquisition, computer/information science, engineering, ethics, warfare and operations, leadership, military strategy, logistics, management skills, psychology, organizational behavior, and political Science, or other approved courses. May be completed through an AU/CCAF credit-awarding course, in-transfer from an accredited institution, or approved college-level credit-by-exam (CLEP, DSST).

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

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* Other occupational specialties with insufficient credit-bearing formal training may be eligible on case-by-case basis.

**Sources of Institutional Credit: EPME, AFSC Technical Training (CCAF-affiliated), BMT Military Studies, AF Culture & Language Center Courses, other Air University Courses.

Missile and Space Systems Maintenance (4VAK)
CIP: 29.0407

Occupational Specialty 2M0X2

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Missile Maintenance Laboratory.....3
Equipment Operation Laboratory.....6
General Maintenance Training.....6
Handling Vehicle/Auxiliary Equipment.....3
Launch Base Fundamentals.....6
Launch Control Facility Systems.....6
Launch and Space Vehicles.....3
Missile Electrical Principles.....9
Missile Familiarization I.....15
Missile Familiarization II.....6
Missile Maintenance.....12
Missile Maintenance Laboratory.....15
Occupational & Industrial Safety.....3
Quality Assurance.....6
Security & Access Systems.....9
Suspension/Test Equipment.....6

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training.....15
Computer Science.....6
Corrosion Control.....3
Electronic Technician Association Certification.....3
Specialty-Related Subjects In-Transfer.....9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics.....3
Social Science.....3
Humanities.....3

Munitions Systems Technology (4VRA)
CIP: 29.0408

Occupational Specialty 2W0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Munitions Logistics Planning 6
Advanced Munition Production Planning 9
Advanced Munitions Systems 6
Accident Investigation 3
Missile, Explosives and Nuclear Safety 6
Munitions Accountability Procedures 3
Munition and Hazardous Material Storage 3
Munitions Inspection Procedures 6
Munitions Systems Maintenance 6
Munitions Systems Laboratory 9
Safety Management 3
Weapons Movement 3
Weapons Safety Program Management 6

Technical Elective .... *Maximum Semester Hours*
Aircraft Armament Systems 6
CCAF Upgrade Training 15
College Algebra or Higher Math 3
Computer Science 6
Corrosion Control 3
Electricity/Electronics 6
Hazardous Materials 3
Heavy Equipment Operation/Maintenance 3
Hydraulic/Pneumatic Power 3
Industrial Safety 3
Logistics Management 3
Maintenance Management 3
Nuclear Weapons Systems 6
Principles of Accounting 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Nondestructive Testing Technology (4VXR)
CIP: 29.9999

Occupational Specialty 2A7X2

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***

Advanced Nondestructive Inspection Techniques	3
Eddy Current/Bond Testing	6
Fundamentals of Nondestructive Inspection	12
Liquid Penetrant Inspection	6
Magnetic Particle Inspection	6
Radiographic Inspection	12
Spectrometric Oil Analysis	6
Ultrasonic Inspection	6

Technical Elective ..... ***Maximum Semester Hours***

Algebra-Based Physics	3
ASNT Certifications	12
CCAF Upgrade Training	15
Computer Science	6
Corrosion Control	3
Engineering Graphics	3
FAA Airframe/Powerplant Certification	6
Hazardous Materials	3
Industrial Safety	3
Maintenance Management	6
Materials & Processes	3
Specialty-Related Subjects In-Transfer	9
Technical Mathematics	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	***Semester Hours***
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Nuclear Medicine Technology
(7ABJ)
CIP: 51.0905

Occupational Specialty 4R0X1A

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Administrative Procedures 3
Applied Nuclear Medicine Chemistry 3
Applied Nuclear Medicine Math 6
Applied Nuclear Medicine Physics 6
Clinical Diagnostic Imaging I 6
Clinical Diagnostic Imaging II 6
Clinical Diagnostic Imaging III 6
Clinical Radiation Safety 3
Nuclear Laboratory Procedures 6
Nuclear Medicine Procedures I 6
Nuclear Medicine Procedures II 6
Nuclear Medicine Didactic Review 4
Patient Care in Nuclear Medicine 6
Radiation Instrumentation I 6
Radiation Instrumentation II 6
Radiation Safety & Procedures 6
Radiopharmacy 6

Technical Elective ..... *Maximum Semester Hours*
American Registry of Radiologic Technologists Nuclear Medicine Registry 12
CCAF Upgrade Training 15
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Nuclear Weapons Systems Technology (4VHJ)
CIP: 28.0605

Occupational Specialty 2W2X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Munitions Accountability Procedures 3
Nuclear Weapons Functions & Operations 6
Nuclear Weapons Management……10
Nuclear Weapons Maintenance 6
Nuclear Weapons Movement/Shipping..... 4
Nuclear Weapons Systems 12
Reentry Systems Maintenance 6

Technical Elective ..... *Maximum Semester Hours*
Algebra-Based Physics 3
Aircraft Armament Systems 9
CCAF Upgrade Training 15
Computer Science 6
Corrosion Control 3
Electricity/Electronics 6
General Chemistry 3
Hazardous Materials/Environmental Management 3
Heavy Equipment Operation/Maintenance 3
Hydraulic/Pneumatic Power 3
Industrial Safety 3
Logistics/Production Planning 6
Maintenance Management 3
Munitions Systems 9
Principles of Accounting 3
Reactor Technology 3
Statistics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech) 3
Mathematics 3
Social Science.....3
Humanities 3

Occupational Safety
(9IIY)
CIP: 15.0701

Occupational Specialty 1S0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Accident Investigation & Reporting.....6
Accident Prevention Management.....3
Advanced Occupational & Industrial Safety 3
Mishap Prevention.....3
Occupational & Industrial Safety 3
Safety Fundamentals.....3
Safety Management I.....3
Safety Management II 3

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Computer Science 6
Electricity/Electronics 6
Environmental Science.....3
General Chemistry.....6
Introduction to Public Administration 6
Risk Management.....3
Specialty-Related Subjects In-Transfer 9
Statistics 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Ophthalmic Technician
(7GDI)
CIP: 51.1803

Occupational Specialty 4V0X1, 4V0X1S

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Ocular Anatomy & Physiology	6
Ocular Pathology and Triage	6
Ophthalmic Clinical	6
Ophthalmic Fundamentals	6
Ophthalmology I	6
Ophthalmology II	6
Optics	6
Patient Care and Testing Procedures	6
Surgical Ophthalmology	6
Visual Acuity and Correction	6

Technical Elective ..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
College Algebra or higher-level Mathematics	6
Commission on Paraoptometric Certifications	8
Computer Science	6
General Biology	4
General Chemistry	4
Medical Readiness	3
Ocular Pharmacology	3
Office Management	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The Accreditation Council on Optometric Education accredits the Ophthalmic Apprentice course.

Apprentice course graduates are eligible to take the Certified Paraoptometric Technician examination.

Paralegal
(1CAM)
CIP: 22.0302

Occupational Specialty 5J0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A student may need to complete the Air Force Paralegal Apprentice (PAC) and Craftsman (PCC) courses to satisfy the technical core requirement. A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core	***Maximum Semester Hours***
Advanced Civil Law and Claims	3
Advanced Military Justice	6
Civil Law	9
Claims Administration	3
Estate Planning & Probate	3
*Ethics and Professional Responsibility	3
General Law and Estate Planning	6
International Law	3
Introduction to Legal and Professional Communications	3
Law Office Management	6
Law Office Supervision & Training	3
Legal Claims & Tort Administration	6
Legal Claims & Tort Investigation	3
Legal Research & Writing	9
Legal Research Writing II	6
Military Justice	6
Non-Judicial Punishment	3
Operations and International Law	3
*Paralegal Ethics	3
Post-Trial Administration	3
Pre-Trial Administration	9
Quality Force Management	9

Technical Elective	***Maximum Semester Hours***
CCAF Upgrade Training	15
Computer Science	6
Contract Law	3
Criminal Law	3
Criminal Procedures	3
Environmental Law	3
Evidence	3
Family Law/Domestic Relations	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (12 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (18 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	***Semester Hours***
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

This degree program is approved by the American Bar Association.

*Legal Ethics must be completed as part of degree program and must be applied in technical core.

NOTE: Paralegals may not provide legal services directly to the public except as permitted by law.

Personnel Recovery
(7GDP)
CIP: 29.0399

Occupational Specialty 1Z1X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Advanced Survival Techniques	6
Air Operations	6
Emergency Medical Response	6
Evasion & Recovery	3
General Principles of Survival	6
Ground Operations	3
Marksmanship Laboratory	6
Mountain Travel	6
Pararescue Indoctrination	6
Physical Conditioning	6
Special Survival Techniques	6
Underwater Diving Principles and Procedures	18

Technical Elective ..... *Maximum Semester Hours*

CCAF Upgrade Training	15
Computer Science	6
Human Anatomy and Physiology	6
Physical Geography	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Pharmacy Technology
(7GAH)
CIP: 51.0805

Occupational Specialty 4P0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Fundamentals of Pharmacy	15
Inpatient Pharmacy Operations	6
Introduction to Outpatient Pharmacy	6
Introductory Pharmacy	12
Medical Readiness	3
Pharmacy Administration & Supply	6
Pharmacy Calculations I	3
Pharmacy Calculations II	3
Pharmacy Clinical	3
Pharmaceutical Preparation	6
Pharmacy Therapeutics I	6
Pharmacy Therapeutics II	6
Pharmacy Therapeutics III	3

Technical Elective ..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
Computer Science	6
Emergency Medicine	3
General Biology	4
General Chemistry	8
Human Anatomy & Physiology	4
Organic Chemistry	8
Pharmacy Technician Certification	12
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The American Society of Health-System Pharmacists accredits the Pharmacy Apprentice course.

Physical Therapist Assistant (7GAI)
CIP: 51.0806

Occupational Specialty 4J0X2, 4J0X2A

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Anatomy, Pathophysiology, and Kinesiology ...12
Clinical Screening, Rehabilitation and Therapeutic Modalities 6
Foundations of Physical Therapy 3
Introduction to Clinical Pathophysiology 6
Introduction to Orthotics and Lab 3
Introduction to Physical Therapy 6
Medical Readiness 3
Orthotics Lab Materials and Processes 6
Orthotic Fabrication I 6
Orthotic Fabrication II 6
Occupational Therapy I 3
Occupational Therapy II 3
Occupational Therapy Clinical 3
Physical Therapy Practicum 9
Principles of Foot Orthotics I 6
Principles of Foot Orthotics II 6
Principles of Lower Extremity Orthotics I 6
Principles of Lower Extremity Orthotics II 6
Principles of Spinal Orthotics I 3
Principles of Spinal Orthotics II 3
Principles of Upper Extremity Orthotics 6
Specialize Orthopedic Footwear 6
Therapeutic Exercises and Procedures 6

Technical Elective ..... *Maximum Semester Hours*
Advanced Physiology 3
CCAF Upgrade Training 15
Computer Science 6
Human Anatomy and Physiology 3
Human Growth and Development 3
Medical Terminology 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Practical Nursing Technology (7GAL)

CIP: 51.3999

Occupational Specialty 4N0X1, 4N0X1B, 4N0X1C, 4N0X1D, 4N0X1F

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Aeromedical Evacuation Equipment	3
Aerospace Nursing	3
Anatomy and Physiology	6
Basic Nursing	6
Clinical Practicum	6
Emergency Department Practicum	3
Emergency Medical Service Practicum	6
Emergency Medical Technician - Basic	6
Emergency Medical Technician II - Basic	3
Emergency Service Management	3
Field Medicine Management/First Response	3
Genitourinary Diseases/Disorders	6
Health Professions Education and Training	6
Human Anatomy & Physiology	3
Introduction Clinical Practicum	3
Introduction Clinical Practicum (IDMT)	6
Introduction Emergency Medical Technician	3
Inpatient Unit Practicum	3
Intermediate Nursing	6
Management Common Medical Disorders	6
Medical Readiness	3
Medical Readiness Planning	6
Nursing Staff Development	6
Organization/Administration of Aeromedical Evacuation	3
Outpatient Unit Practicum	3
Physical Examinations and Medical Standards	6

Technical Elective..... *Maximum Semester Hours*	
CCAF Upgrade Training	15
Computer Science	6
Emergency Medicine	12
General Biology	9
General Chemistry	9
General Psychiatry	9
Medical Terminology	3
National Registry of Emergency Medical Technicians Basic Emergency Medical Technician	6
Nutrition	3
Pharmacology	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

The National Registry of Emergency Medical Technicians accredits the Aerospace Medical Services apprentice course.

Public Health Technology
(7ECY)
CIP: 51.2299

Occupational Specialty 4E0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*

Communicable Diseases	3
Food Safety & Sanitation	3
Hearing Conservation	3
Medical Entomology	3
Medical Fundamentals	3
Medical Readiness	3
Occupational Health	3
Public Health Airman Readiness	3
Public Health Operations	3

Technical Elective ..... *Maximum Semester Hours*

Anatomy & Physiology	3
Biology	3
Biostatistics	3
CCAF Upgrade Training	15
Chemistry	3
Community Health	3
Computer Science	6
Environmental Health	3
Epidemiology	6
Health Care Administration	3
Nutrition	3
Occupational Medicine/Industrial Hygiene	3
Principles of Management	3
Specialty-Related Subjects In-Transfer	9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses	*Semester Hours*
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Scientific Analysis Technology (4VES)
CIP: 29.0499

Occupational Specialty 9S100

Degree Requirements (60 semester hours):
A student in the 9S100 reporting identifier does not have skill levels; therefore, none are required for graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Applied Technical Physics 6
Advanced Maintenance Management 6
Basic Electronic Circuits 6
Communication Systems Theory 6
Computer Networks 6
Computer Operations 6
Computer System Administrator 6
Detection Systems 6
Electronic Mathematics 6
General Maintenance 6
Introduction to Electronics 6
Network Systems Administration 6
Principles of AC Circuits 3
Principles of DC Circuits 3
Satellite Detection Systems 6
Seismic Analysis 6
Seismic Equipment Operation 6
Seismic Station Operation 9
Seismic Techniques 6
Sensing Systems Maintenance 9
Soldering Techniques 3
Troubleshooting Techniques 6
Unix Operating System 3

Technical Elective ..... *Maximum Semester Hours*
Algebra-Based Physics 3
CCAF Special Duty Qualification Training 9
College Algebra or higher-level Mathematics 3
CompTIA Certifications 6
Computer Science 6
General Chemistry 3
Meteorology 6
Physical Science 3
Red Hat Certifications 3
Solid-State Theory/Applications 6
Specialty-Related Subjects In-Transfer 9
Statistics 3
Technical Writing 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses ..... *Semester Hours*
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Strategic Operations Management (1BAA)
CIP: 28.0601

Occupational Specialty 1C2X1, 1C4X1, 1Z2X1, 1Z3X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*	
Air Traffic Control Fundamentals	6
Air Traffic Control Non-Radar Procedures	3
Air Traffic Control Radar Procedures	6
Assault Zone Operations	4
Basic Control Tower Operations	3
Battlefield Airman Basic Physical Training	5
Communication System Operations	3
Intermediate Control Tower Operations	3
Landing and Drop Zone Operations	4
Map and Compass	4
Parachuting Jumpmaster	4
Physical Conditioning	3
Psychology of Environmental Stress	3
Situational Tactics	3
Special Weapons	3
Tactical Air Command and Control Management	3
Tactical Air Operations	3
Terminal Instrument Procedures	3
Underwater Diving Principles	5
Visual Flight Control	3

Technical Elective ..... *Maximum Semester Hours*	
Computer Science	3
CCAF Upgrade Training	15
College Algebra or Higher-Level Mathematics	3
FCC General Radio Operator's License	9
General Chemistry/Algebra Based Physics	9
Leadership & Management	3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... *Semester Hours*	
Written Communication (English Composition)	3
Oral Communication (Speech)	3
Mathematics	3
Social Science	3
Humanities	3

Surgical Services Technology (7GEA)
CIP: 51.0909

Occupational Specialty 4N1X1, 4N1X1B, 4N1X1C, 4N1X1D

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***

Fundamentals to Central Sterile Supply 3
Introduction to Orthopedic Care/Surgery 3
Introduction to Surgical Technology 6
Medical Readiness 3
Non-Sterile Duties/Surgical Technology 3
Operating Room Nursing Practicum 3
Orthopedic Techniques with Lab I 3
Orthopedic Techniques with Lab II 6
Otolaryngology Clinical I 3
Otolaryngology Clinical II 6
Otolaryngology Techniques I 3
Otolaryngology Techniques II 6
Sterile Duties / Surgical Tech 6
Surgical Services / Clinical Setting 3
Surgical Supplies & Equipment 3

Technical Elective ..... ***Maximum Semester Hours***

CCAF Upgrade Training 15
General Biology 3
General Psychology 3
Human Anatomy & Physiology 9
Medical Terminology 3
Microbiology 3
Pathophysiology 3
Pharmacology 3
Principles of Surgical Technology 3
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***

Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Survival Instructor
(2IBS)
CIP: 29.0399

Occupational Specialty 1T0X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... *Maximum Semester Hours*
Advanced Survival Techniques 6
*CCAF Teaching Internship-SERE 12
Evasion & Recovery 3
General Principles of Survival 6
*Instructional Methodology 3
Physical Conditioning 3

Technical Elective ..... *Maximum Semester Hours*
CCAF Upgrade Training 15
Emergency Medicine 6
International Terrorism 3
NREMT Emergency Medical Technician Certification 6
Specialty-Related Subjects In-Transfer 9

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

*A 12 semester hours CCAF Teaching Internship-SERE and 3 semester hours of CCAF-approved instructional methodology coursework are required to complete the Technical Core requirement.

Transportation
(1ATY)
CIP: 49.9999

Occupational Specialty 2T0X1, 2T1X1, 2T2X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***
Aerial Port Operations 9
Air Passenger Processing & Services 6
Air Transportation Instructor 3
Air Transportation Standardization and Evaluation 3
Aircraft Cargo Loading 15
Aircraft Load Planning 3
Airlift of Dangerous Materials 9
Airlift Ops Planning 3
Airlift/Terminal Operation Management 3
Cargo Aircraft Operations 6
Cargo Preparation 6
Cargo Processing & Documentation 6
Ground Transportation Manager 9
OLVIMS Dispatcher Fundamentals 3
Operator Maintenance/Vehicle Specialty 6
Surface Transportation Dangerous Materials 6
Traffic Management 6
Training, Validation & Operations (TVO) Examiner 3
Vehicle Operators Course 6

Technical Elective ..... ***Maximum Semester Hours***
Business Mathematics/Statistics 3
CCAF Upgrade Training 15
Computer Science 6
Human Relations 3
Industrial Safety 3
Introduction to Aviation/Aeronautics 6
Introduction to Business 3
Introduction to Logistics 3
Physical Distribution 6
Principles of Accounting 3
Principles of Economics 6
Principles of Marketing 3
Quality Assurance 3
Warehouse Storage & Operations 3

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... ***Semester Hours***
Written Communication (English Composition) 3
Oral Communication (Speech) 3
Mathematics 3
Social Science 3
Humanities 3

Vehicle Maintenance
(4VKC)
CIP: 47.0699

Occupational Specialty 2T3X1

Degree Requirements (60 semester hours):
At least the Journeyman (5 skill-level) must be held at the time of graduation. A minimum of 15 semester hours of CCAF Institutional credit must be applied to graduate and can be fulfilled through technical education, LMMS, and/or Program Electives.

Technical Education (24 semester hours):
A minimum of nine (9) semester hours of CCAF institutional credit awarded from specialty-related formal training must be applied toward Technical Core subject requirements. Technical Electives may be satisfied by CCAF credit or other sources in-transfer.

Technical Core ..... ***Maximum Semester Hours***
Advanced Automotive Maintenance 6
Advanced Specialized Support Vehicle Maintenance.....9
Automatic Transmissions.....6
Computer Control System Fundamentals.....6
Diesel Engines & Maintenance.....9
Electromechanical Circuits and Systems 9
Fleet Management.....6
Fuel Subsystem Mechanical 3
Fuel System Maintenance Laboratory.....6
Hybrid Vehicles Service and Technology 6
Internal Combustion Engines 3
Operation & Maintenance of Refueling Vehicles 6
Operation & Maintenance of Material Handling Equipment.....6
Overview of Vehicle Maintenance.....6
Specialized Support Vehicles 12
Vehicle Brakes/Steering/Suspension Systems 6
Vehicle Electrical Systems 6
Vehicle Fuel/Emission Systems 3
Vehicle Heating & Air-Conditioning.....6
Vehicle Power Train Fundamentals 6
Vehicle Winterization/Corrosion Control 3
Welding Operations 6

Technical Elective ..... ***Maximum Semester Hours***
CCAF Upgrade Training 15
College Algebra or Higher Math.....3
Computer Science.....6
Environmental Compliance 3
Industrial Safety 3
Introduction to Business.....3
Quality Assurance….....3
Specialty-Related Subjects In-Transfer.....15

Leadership, Management & Military Studies
(6 semester hours): Professional military education, civilian management courses accepted in-transfer and/or by testing credit.

Program Elective (15 semester hours): Courses applying to technical education, LMMS or General Education requirements; natural science courses meeting General Education requirement application criteria; foreign language credit earned at Defense Language Institute; maximum 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of registration.

General Education (15 semester hours): Applicable courses must meet the General Education Requirement (GER) subject criteria and in-transfer requirements.

Subjects/Courses..... Semester Hours
Written Communication (English Composition).....3
Oral Communication (Speech).....3
Mathematics 3
Social Science.....3
Humanities 3

Professional Credentialing

Credentialing assists the professional development of enlisted Airmen and Guardians by broadening their knowledge and skills. Blending Air and Space Force technical training and education with industry-based skill sets and professional credentialing processes benefits the Air Force by molding more diverse and qualified technicians to maintain critical and valuable national defense assets. Enlisted Airmen and Guardians benefit by being provided the education and credentials needed by highly technical Air and Space Force career fields.

Enlisted Airmen and Guardians will also possess highly valued skills needed by the industry when they transition from the Air Force. End result: the Air and Space Forces and industry benefit immensely by receiving highly trained, qualified, experienced and disciplined technicians – a valuable payback on investment. This section provides students with information concerning national professional credentialing opportunities related to their specific degree program and career field.

Some Air and Space Force and civilian occupations have certain professional and technical standards. The process of meeting these standards and earning official recognition is referred to as ***credentialing***. The term ***"Credential"*** refers to professional licensure or registry, or certification which documents an individual's level of competency and achievement in a specific profession.

Governmental and private organizations set credentialing standards to ensure that individuals meet the standards for their profession.

There are two primary types of credentialing: ***Licensure*** and ***Certification***.

Licensure is a credential normally issued by federal, state or local governmental agencies. A license is issued to individuals to practice in a specific occupation (i.e., medical license for doctors). Licenses are typically mandatory for employment in selected fields and federal or state laws or regulations define the standards that individuals must meet to become licensed.

Certification is a credential normally issued by non-governmental agencies, associations, schools or industry-supported companies. A certification is issued to individuals who meet specific education, experience and qualification requirements. These requirements are generally established by professional associations, industry or product-related organizations. Certification is typically an optional credential; although some state licensure boards and some employers may require a specific certification(s).

Credentialing is important to the Air and Space Forces and our enlisted Airmen and Guardians for several reasons:

- Helps develop a more diversely skilled workforce
- Broadens professional development of our enlisted Airmen and Guardians
- Validates professional knowledge and skills gained through Air and Space Force technical education and training
- Helps prepare our enlisted Airmen and Guardians meet mission challenges of the future
- CCAF awards collegiate credit to enlisted Airmen and Guardians who possess certain national professional credentials that satisfy applicable technical education and program elective requirements
- Some civilian colleges and universities award credit toward academic degrees
- Saves Air Force tuition assistance funds toward degree program completion
- Prepares enlisted Airmen and Guardians for transition to civilian life

- Federal, state or local law may require specific credentials to perform some jobs
- Employers may require a specific credential(s) as a prerequisite for employment or pay higher salaries to credentialed employees
- Credentials may improve promotion potential
- Credentials demonstrate to employers that enlisted Airmen and Guardians are on par with their civilian peers

Enlisted Airmen and Guardians should consider pursing occupational-related credentials while serving in the Air Force to increase their Air Force occupational skills, broaden their professional development and be better prepared for transition.

Students interested in pursuing professional credentials should contact the credentialing agency for information on credentials, eligibility requirements and testing procedures. Graduates of CCAF degree programs or courses accredited by credentialing agencies should contact the credentialing agency for requirements and processes.

To support documentary evidence of training, skills and practical experience, students are highly encouraged to maintain records of all previous and current education, training and qualifications.

CCAF Credit

CCAF AAS degree technical elective or program elective requirements may be satisfied by credit awarded for specific national professional credentials. Students are responsible for contacting their E&TS and provide copies of issued credentials and supporting documentation.

Students may earn CCAF collegiate credit for certain national professional credentials that are approved by CCAF to satisfy applicable technical education and program elective requirements.

A student holding a degree-applicable national professional credential should contact their E&TS or BETM to request official written verification be sent to CCAF Credentialing Programs, CCAF/DEAL, 100 South Turner Boulevard, Maxwell AFB, Gunter Annex, Alabama 36114-3011. The credentialing agency will forward appropriate documentation to CCAF/DEAL for verification and loading of credential to student records.

Credentials must be current in order to be awarded CCAF academic credit. Enlisted Airmen and Guardians who have allowed an awarded credential(s) to expire or lapse are no longer credentialed. An expired credential is no longer valid and the person may no longer exercise the privileges granted of that credential. CCAF will not load national professional credentials to a student record, nor award credit, if the credential has expired or lapsed.

To determine the professional credentials that can be used in a degree program, refer to the degree plans of this catalog. To obtain a listing of all national professional credentials approved by CCAF for award of credit visit https://www.airuniversity.af.edu/barnes/ccaf.

See the Professional Credentialing section for information on CCAF credentialing programs and the Air Force Credentialing Opportunities On-Line (AF COOL).

Students are responsible for contacting their E&TS to submit verification letters to the credential issuing agency. The agency will forward appropriate documentation to the CCAF Credentialing Programs Flight (CCAF/DEAL) for verification and loading of credential to student records.

To determine the professional credentials that can be used in a degree program, refer to the degree plans of this catalog. To obtain a listing of all national professional credentials that are approved by CCAF for award of

credit, visit Professional Certifications at **https://www.airuniversity.af.edu/barnes/ccaf.**

Contact your base E&TS for procedures to apply professional credentials to your CCAF academic record. Professional credentials must be validated.

Exception to Policy Process

CCAF does not have an exception to policy for CCAF-awarded credentialing programs. All published program requirements must be successfully completed. Exception to policy requests will not be accepted.

Air Force Credentialing Opportunities On-Line (AF COOL)

AF COOL is a valuable resource for enlisted Airmen and Guardians. The AF COOL Program is managed by CCAF and provides a research tool designed to increase an enlisted Airman and Guardian's awareness of national professional credentialing and funding opportunities available for all Air Force enlisted occupational specialties. AF COOL also provides information on specific occupational specialties, civilian occupational equivalencies, specialty-related national professional credentials, credentialing agencies, and professional organizations. AF COOL includes information such as:

- Background information about civilian credentials, including eligibility requirements and resources to prepare for an exam.
- Identify credentials relevant to an AFSC, Special Duty Identifier (SDI), and Reporting Identifier (RI).
- Learn how to fill gaps between Air and Space Force training, experience, and civilian credentialing requirements.
- Information on AF COOL funding opportunities to pay for credentialing coursework, textbooks, exams, associated fees, and recertification.
- Resources available to enlisted Airmen and Guardians that can help them gain civilian job credentials.

For information concerning national professional credentials applicable to specific occupational specialties, visit the AF COOL website at **https://afvec.us.af.mil/afvec/af-cool.**

The AF COOL Program Office is the focal point for the AF COOL program and can be contacted at DSN 749-5115 or (334) 649-5115; or the AFVEC messenger application at https://afvec.us.af.mil/afvec/af-cool.

Joint Service Aviation Maintenance Technician Certification Council

The Department of Defense (DoD) established the Joint Service Aviation Maintenance Technician Certification Council (JSAMTCC) to serve as the functional advisory body to each respective United States military service's aircraft maintenance division and the HQ Federal Aviation Administration (FAA).

The JSAMTCC is the military focal point for *FAA Aviation Mechanic - Airframe and Powerplant (A&P) Certification*. Other JSAMTCC responsibilities include: ensuring FAA's continued recognition of formal military aviation maintenance technical training and practical experience; maintaining DoD continuity with HQ FAA; managing and administering the joint-service A&P Certification Program; identifying and recommending qualified and eligible active duty, guard and reserve component personnel of the US Armed Forces to the FAA for the FAA Mechanic Certificate with Airframe and/or Powerplant ratings; and providing resources to assist technicians in meeting FAA eligibility requirements.

Resources provided in the Joint-service A&P Certification Program are designed to fill the gaps between military education, training and experience, and civil aviation industry standards.

The JSAMTCC also reviews aircraft maintenance technician training and practical experience from a FAA perspective, providing a unified assessment and recommendations to each military service and the FAA. For more information concerning the JSAMTCC, contact CCAF/DEAL at DSN 749-5020 or 649-5020. Or visit **https://www.airuniversity.af.edu/barnes/ccaf** or E-mail ccaf.faa@us.af.mil.

Air Force Airframe and Powerplant Certification Program

CCAF continuously strives to increase and broaden the skills, knowledge and experiences of enlisted Airmen and Guardians. The Air Force Airframe and Powerplant (A&P) Certification Program is one such effort designed to enhance professional development and skills of aircraft maintenance technicians.

The Air Force A&P Certification Program is offered to active duty, guard and reserve enlisted Airmen and Guardians in select aircraft maintenance AFSCs. The program directly supports the mission of CCAF in that FAA credentialed technicians help enhance combat readiness, contributes to recruiting, assists in retention of highly skilled technicians and supports the career transition of enlisted Airmen and Guardians. Furthermore, the program helps develop a more well-rounded and diverse Air Force aircraft maintenance professional.

The Air Force A&P Certification Program was developed by the Department of Defense (DoD) to streamline and improve the *FAA Aviation Mechanic – A&P Certification* process for the military. The program provides aircraft maintenance technicians the opportunity to pursue *FAA Aviation Mechanic - A&P Certification* based on training, education and practical experience as specified in Title 14, Code of Federal Regulations (CFR), Part 65.77-*Certification: Airmen Other Than Flight Crew Members*; Subpart D - Mechanics. Completing the program requirements detailed in the Air Force A&P Certification Program Qualification Training Package (QTP) will fill gaps in training and experience, ensuring technicians meet CFR Part 65.77 eligibility requirements.

Upon successful completion of the Air Force A&P Certification Program, CCAF will issue a CG-G- EAE-4 Form, *Certificate of Eligibility* and FAA Form 8610-2, *Airman Certificate and/or Rating Application*. These documents qualify enlisted Airmen and Guardians for written and oral/practical exams without the need to seek authorization from the FAA Flight Standards District Office (FSDO).

Students are encouraged to maintain copies of past and present Career Field Education and Training Plans (CFETP), training certificates and other pertinent job qualification and training records, both military and civilian.

Eligibility: Active duty, guard and reserve technicians who possess at least a 5-skill level in one of the following aircraft maintenance AFSCs are eligible to enroll:

2A0X1, 2A090, 2A2X1, 2A2X2, 2A2X3, 2A3X3, 2A3X4, 2A3X5, 2A3X7, 2A3X8, 2A390, 2A300, 2A5X1, 2A5X2, 2A5X4, 2A590, 2A500, 2A6X1, 2A6X3, 2A6X4, 2A6X5, 2A6X6, 2A690, 2A691, 2A600 (except AGE), 2A7X1, 2A7X2, 2A7X3, 2A7X5, 2A790, 2A8X1, 2A8X2, 2A9X1, 2A9X2, and 2A9X3.

- Technicians who cross-trained out of aircraft maintenance are eligible to enroll provided they were awarded the 5-skill level in a AF A&P Program eligible aircraft maintenance AFSC prior to cross-training and have not been out of the aircraft maintenance AFSC more than 2 years.
- Once an individual retires, separates or is commissioned, they are no longer eligible to participate in the Air Force A&P Certification Program.

The Air Force A&P Certification Program is managed and administered by the CCAF Credentialing Programs Flight. For more information: **https://www.airuniversity.af.edu/barnes/ccaf** or contact CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or E-mail ccaf.faa@us.af.mil.

FAA Certification Credit

CCAF awards 30 semester hours for the *FAA Aviation Mechanic - A&P Certification* and 18 semester hours for the *FAA Aviation Mechanic - Airframe or Powerplant Certification*. This credit is awarded to students enrolled in a CCAF degree program which accepts certification credit toward the program's technical education requirement. Refer to the applicable degree program for the maximum semester hours that may be used to satisfy technical education requirements.

Students possessing FAA certification should contact the base education center for procedures to report certification to CCAF/DEAL.

CCAF Instructor Certification Program

CCAF offers the CCAF Instructor Certification (CIC) Program for qualified faculty who teach CCAF collegiate-level credit-awarding courses at a CCAF off-campus instructional site. The CIC is a professional credential that recognizes the faculty member's extensive faculty development training, education, and qualification required to teach a CCAF course, and formally acknowledges the faculty member's practical teaching experience.

The CIC Program is a three-level program consisting of three specific levels of achievement.

- CIC-I: designed to formally recognize an individual as a qualified CCAF faculty and their professional accomplishment.
- CIC-II: designed to formally recognize the faculty member's advanced professional accomplishment beyond the CIC-I.
- CIC-III: designed to formally recognize the faculty member's advanced professional accomplishment beyond the CIC-II or Occupational Instructor Certification (OIC).

Eligibility: Qualified CCAF faculty who meet CIC Program requirements are eligible. Once faculty member leave CCAF faculty duty, they are no longer eligible for the CIC.

- A qualified instructor is a CCAF faculty member who has completed the CCAF faculty development program and is assigned to a CCAF off-campus instructional site and teaching a CCAF course. The instructor may be an officer, enlisted, civil service, contractor, other-service, or foreign-service member.
- Instructor Assistants, Student Instructors, Guest Lecturers, Subject-Matter Experts, Speakers of Opportunity, approved EQILD instructors and instructors who do not teach a CCAF course are not eligible.

The awarded CIC is recorded on the faculty member's official CCAF academic record and transcript.

The CIC Program replaced the CCAF Occupational Instructor Certification (OIC) Program, which officially closed on 1 January 2011.

The CIC program is managed and administered by the CCAF Credentialing Programs Flight. To obtain more information and program procedures, refer to the CCAF Campus Affiliations Policies and Procedures Guidelines (PPG) or visit **https://www.airuniversity.af.edu/barnes/ccaf** or contact CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or create a ticket at https://auservicedesk.af.edu/.

Civilian Teacher Certification

Vocational Instructor Certification

Individuals interested in teaching at a vocational school or community college should contact the applicable state board of education to determine qualification and certification requirements. For more information, visit **http://www.ed.gov/about/contacts/state/index.html?src=ln**.

Florida Professional Educator Certification

Florida Statute 1012.56 allows CCAF faculty to meet some of Florida's K-12 certification requirements. The statute enables faculty members to meet Florida's general knowledge, and professional preparation and teacher competence requirements if the individual:

- Taught fulltime for at least two semesters at an accredited college that awards at least an associate degree (CCAF);
- Submits Letter of Verification provided by CCAF;
- Holds at least a bachelor's degree;
- Passes the Professional Educator Exam; and
- Passes one of Florida's subject knowledge exams.

Contact the CCAF Credentialing Programs Flight to obtain a Letter of Verification. CCAF cannot provide a Letter of Verification for individuals who have not served as a CCAF faculty member.

Florida Statute 1012.56 provides easier transition for CCAF faculty members into a second career as a K-12 teacher in Florida. For more information contact Mr. Ron Burton at (850) 201-8320 or Ron.Burton@tcc.fl.edu.

Instructional Systems Development Certification Program

CCAF offers the Instructional Systems Development (ISD) Certification for qualified course/curriculum developers, writers and managers who are formally assigned to an off-campus instructional site to develop/write and manage CCAF collegiate-level credit awarding courses. The ISD Certification is a professional credential that recognizes the course/curriculum developer/writer's or manager's extensive training, education, qualifications and experience required to develop/write and manage CCAF courses.

The certification also recognizes the individual's ISD qualifications and experience in planning, developing, implementing and managing instructional systems. The program is designed to broaden faculty and professional development.

Eligibility: Qualified officer, enlisted, civilian and other service curriculum writers and managers are eligible for the ISD Certification. Once an individual leaves curriculum writer or manager duty, they are no longer eligible for the ISD Certification.

The awarded ISD certification is recorded on the official CCAF academic record and CCAF transcript.

The ISD Certification Program is managed and administered by the CCAF Credentialing Programs Flight. To obtain more information and program procedures, refer to the CCAF Campus Affiliations Policies and Procedures Guidelines (PPG): **https://www.airuniversity.af.edu/barnes/ccaf** or contact the CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or create a ticket https://auservicedesk.af.edu/.

Off-Campus Instructional Sites

The off-campus instructional sites of CCAF are responsible for developing, validating and delivering CCAF credit-bearing courses. The courses are subject to increase and decrease in credit-hour value based on revisions and evaluations designed to meet the immediate needs of the Air and Space Forces. The credit hours for CCAF courses entered on the student transcript reflect the semester hour value of the courses when they were completed.

Becoming an off-campus instructional site and part of the CCAF system is a voluntary process. Schools interested in becoming an off-campus instructional site with CCAF should contact Campus Relations:

CCAF/DES
100 South Turner Boulevard
Maxwell AFB, Gunter Annex, Alabama 36114-3011
(334) 649-5069 / DSN 749-5069

Advanced Airlift Tactical Training Center
- St. Joseph Missouri
- Ft. Huachuca, Arizona

AF Combat Ammo Center
- Beale AFB, California

AF Transportation Training Center-Europe
- Spangdahlem AB, Germany

Air Force OSI Academy
- Glynco, Georgia
- Ft. Dix, New Jersey

Airman Leadership School
- Altus AFB, Oklahoma
- Andersen AFB, Guam
- Andrews AFB, Maryland
- Aviano AB, Italy
- Barksdale AFB, Louisiana
- Beale AFB, California
- Buckley AFB, Colorado
- Cannon AFB, New Mexico
- Charleston AFB, South Carolina
- Davis-Monthan AFB, Arizona
- Dover AFB, Delaware
- Dyess AFB, Texas
- Edwards AFB, California
- Eglin AFB, Florida
- Eielson AFB, Alaska
- Ellsworth AFB, South Dakota
- Fairchild AFB, Washington
- Fort Meade, Maryland
- Goodfellow AFB, Texas
- Grand Forks AFB, North Dakota
- Hanscom AFB, Massachusetts
- Hill AFB, Utah
- Holloman AFB, New Mexico
- Hurlburt Field, Florida
- Incirlik AFB, Turkey
- Joint Base McGuire-Dix-Lakehurst, NJ
- Joint Base San Antonio, Texas
- Keesler AFB, Mississippi
- Langley AFB, Virginia
- Little Rock AFB, Arkansas
- Luke AFB, Arizona
- MacDill AFB, Florida
- Malmstrom AFB, Montana
- Maxwell AFB, Alabama
- McChord AFB, Washington
- McConnell AFB, Kansas
- McGhee-Tyson, Tennessee
- Minot AFB, North Dakota
- Misawa AB, Japan
- Moody AFB, Georgia
- Mountain Home AFB, Idaho
- Nellis AFB, Nevada
- Offutt AFB, Nebraska
- Osan AFB, Korea
- Patrick AFB, Florida
- Peterson AFB, Colorado
- Pope AFB, North Carolina
- RAF Feltwell, United Kingdom
- Ramstein AB, Germany
- Robins AFB, Georgia
- Scott AFB, Illinois
- Seymour Johnson AFB, North Carolina
- Shaw AFB, South Carolina
- Sheppard AFB, Texas
- Spangdahlem AB, Germany
- Tinker AFB, Oklahoma
- Travis AFB, California
- Tyndall AFB, Florida
- Vandenberg AFB, California

Whiteman AFB, Missouri
Wright-Patterson AFB, Ohio
Yokota AB, Japan

Noncommissioned Officer Academy
Joint Base San Antonio, Texas
Kapaun AB, Germany
Keesler AFB, Mississippi
Maxwell AFB, Alabama
Peterson AFB, Colorado
Sheppard AFB, Texas
Tyndall AFB, Florida

Professional Military Education Center
Elmendorf AFB, Alaska
Hickam AFB, Hawaii
Kadena AB, Okinawa, Japan
McGhee-Tyson, Tennessee

Senior Noncommissioned Officer Academy
Maxwell-Gunter Annex AFB, Alabama

Eaker Center
Maxwell AFB, Alabama

IG Brown Training and Education Center
McGhee-Tyson, Tennessee

Medical Education and Training Center
Ft. Sam Houston, Texas

Transportation Proficiency Center
Dobbin ARB, Georgia

USAF Expeditionary Ops School
Hurlburt Field, Florida
Joint Base McGuire-Dix-Lakehurst, NJ
Scott AFB, Illinois

USAF Judge Advocate General School
Maxwell AFB, Alabama

USAF School of Aerospace Medicine
Wright-Patterson AFB, Ohio

Special Warfare Training Group
Fort Bragg, North Carolina
Joint Base San Antonio, Texas
Kirtland AFB, New Mexico
Panama City Beach, Florida

108th Attack Squadron
Syracuse, New York

160th Attack Squadron
March AFB, California

17th Training Group
Goodfellow AFB, Texas

18th Logistics Readiness Squadron
Kadena AB, Okinawa, Japan

189th Operations Group
Little Rock AFB, Arkansas

193rd Regional Support Group
Ft. Indiantown Gap, Pennsylvania

305th Operations Group
Joint Base McGuire-Dix-Lakehurst, NJ

314th Operations Group
Little Rock AFB, Arkansas

319th Operations Group
Beale AFB, California
Grand Forks AFB, North Dakota

356th Airlift Squadron
Joint Base San Antonio, Texas

37th Training Wing
Joint Base San Antonio, Texas
NBVC Port Hueneme, California
Ft. Lee, Virginia

381st Training Group
Vandenberg AFB, California

39th Information Operations
Hurlburt Field, Florida
Joint Base San Antonio, Texas

429th Attack Squadron
Holloman AFB, New Mexico

49th Operations Group
Holloman AFB, New Mexico

492nd Special Operations Training Group
Cannon AFB, New Mexico
Hurlburt Field, Florida

505th Training Squadron
Hurlburt Field, Florida

533nd Training Squadron
Vandenberg AFB, California

552nd Training Group
Tinker AFB, Oklahoma
Dyess AFB, Texas

58th Special Operations Wing
Fairchild AFB, Washington
Ft. Rucker, Alabama
Kirtland AFB, New Mexico

558th Flying Training Squadron
JBSA-Randolph, Texas

59th Training Group
Ft. Sam Houston, Texas

60th Operations Group
Travis AFB, California

607th Air Control Squadron
Luke AFB, Arizona

737th Training Group
Joint Base San Antonio, Texas

81st Training Group
Keesler AFB, Mississippi
Offutt AFB, Nebraska

82nd Training Wing
Aviano AFB, Italy
Barksdale AFB, Louisiana
Beale AFB, California
Cannon AFB, New Mexico
Davis-Monthan AFB, Arizona
Dover AFB, Delaware
Dyess AFB, Texas
Eglin AFB, Florida
Eielson AFB, Alaska
Hill AFB, Utah
Hurlburt Field, Florida
Little Rock AFB, Arkansas
Luke AFB, Arizona
Ellsworth AFB, South Dakota
Elmendorf AFB, Alaska
Fairchild AFB, Washington
F.E. Warren AFB, Wyoming
Ft. Eustis, Virginia
Ft. Leonard Wood, Missouri
Gulfport, Mississippi
Grand Forks AFB, North Dakota
Holloman AFB, New Mexico
Joint Base Charleston, South Carolina
Joint Base Langley-Eustis, Virginia
Joint Base Lewis-McChord, Washington
Joint Base McGuire-Dix-Lakehurst, NJ
Kadena AB, Okinawa, Japan
Kirtland AFB, New Mexico
RAF Lakenheath, United Kingdom
RAF Mildenhall, United Kingdom
Ramstein AB, Germany
Robbins AFB, Georgia
Seymour Johnson AFB, North Carolina
Shaw AFB, North Carolina
Sheppard AFB, Texas
Spangdahlem AB, Germany
Syracuse, New York
Travis AFB, California
Tinker AFB, Oklahoma
MacDill AFB, Florida
Malmstrom AFB, Montana
MCAS New River, North Carolina
McConnell AFB, Kansas
Minot AFB, North Dakota
Misawa AB, Japan
Moody AFB, Georgia
Mountain Home, Idaho
Nellis AFB, Nevada
Offutt AFB, Nebraska
Whiteman AFB, Missouri
Vandenberg AFB, California
Yokota AB, Japan

85th Engineering Installation Squadron
Keesler AFB, Mississippi

97th Operations Group
Altus AFB, Oklahoma

Course Descriptions

This section contains the codes and descriptions of the Community College of the Air Force (CCAF) courses that are segments of credit-awarding military courses. Courses are identified by seven-character codes (example: AAS1200). The three alpha characters identify a course technical discipline (example: AAS represents Aircraft Armament Systems). The four digits identify the specific course descriptor number within that course technical discipline.

The courses descriptors and codes are subject to change. Courses are continually evaluated by CCAF staff and revised to meet the immediate needs of the Air and Space Forces. The credit hours recorded on the official CCAF transcript reflect the semester hours earned in the completed course. The CCAF transcript is the only official and reliable indicator of an enlisted Airman and Guardian's academic accomplishments in terms of completed courses and semester-hour credits earned. For questions regarding courses and course descriptions, contact Academic Programs at ccaf.dea@us.af.mil. Or call (334) 649-5014/DSN 749-5014.

Code Index

AAS	Aircraft Armament Systems	**LEG**	Legal Service
ACL	Aircrew Life Support	**LMD**	Logistics Medical
ACT	Aircrew Technology	**LMM**	Leadership, Management & Military Studies
ADM	Administration	**LOG**	Logistics
AFM	Airfield Management	**MAE**	Mechanical and Electrical
AGE	Aerospace Ground Equipment	**MAT**	Mathematics
AMT	Aircraft Maintenance Technology	**MEA**	Measurements
AOC	Air Operations	**MEC**	Mechanical Maintenance
ASM	Aircraft Structural Maintenance	**MED**	Medical Assistant
AST	Astronautics	**MET**	Meteorology
ATC	Air Traffic Control	**MFM**	Missile Facility Maintenance
AVI	Aircraft Avionics	**MGT**	Management & Supervision
BEE	Bioenvironmental Engineering	**MIL**	Military Science
BET	Biomedical Equipment Technology	**MKS**	Marksmanship
BHT	Behavioral Health	**MLT**	Medical Laboratory Technology
CAR	Carpentry	**MPH**	Military Public Health
CEO	Civil Engineering Operations	**MPM**	Maintenance Production Management
CIV	Civil Engineering	**MPT**	Microprecision Technology
CLT	Cardiopulmonary Laboratory Technology	**MPW**	Manpower
CMD	Command and Control	**MRD**	Medical Readiness
CMF	Civil Engineering Maintenance	**MSL**	Missile Maintenance Technology
CMR	Computer Maintenance & Repair	**MTT**	Metals Technology
COM	Communications	**MUN**	Munitions
CON	Contracting	**NDT**	Nondestructive Testing
COR	Corrosion Control	**NMT**	Nuclear Medicine Technology
CRJ	Criminal Justice	**NUC**	Nuclear Weapons Systems
CYB	Cybersecurity	**NUR**	Nursing
DAS	Dental Specialist	**OLT**	Otolaryngology Technology
DLT	Dental Laboratory Technology	**OPD**	Orthotic Prosthesis Devices
DMS	Diagnostic Medical Sonography	**OPT**	Optometric Technology
DPO	Disaster Preparedness	**ORT**	Orthopedic
EDP	Data Systems	**OTS**	Occupational Therapy
EDT	Education & Training	**PAV**	Pavements
EEO	Electronic Equipment Operation	**PHA**	Pharmacology
EGR	Engineering	**PHE**	Physical Education
ELT	Electronics	**PLB**	Plumbing
EMT	Emergency Medical Technology	**PSR**	Personnel Recovery
ENM	Environmental Medicine	**PTH**	Physical Therapy

ENT	Entomology
EOD	Explosive Ordnance Disposal
EPP	Electric Power Production
EST	Electronic Systems Technology
EXO	Explosives Handling & Disposal
FDE	Faculty Development Education
FDS	Food Service
FHM	Force Health Management
FIN	Finance Accounting
FIP	Fire Protection
FUS	Fuels
GIS	Geographical Information Systems
GPS	Geophysical Sciences
HAR	Heating, Air-Conditioning & Refrigeration
HEO	Heavy Equipment Operation
HIT	Histologic Technology
HRM	Human Resource Management
HAS	Health Services Administration
IST	Information Systems Technology
ITL	Intelligence
LAW	Law Enforcement
PTR	Physiological Training
QCI	Quality Assurance
RAD	Radiologic Technology
RAS	Religious Affairs
REC	Recreation
RPA	Remotely Piloted Aircraft
SAF	Safety
SEC	Security
SOC	Social Services
SOM	Special Operations Management
SQT	Special Duty Qualification Training
STR	Structural
SUR	Surveying
SVE	Survival Equipment
SVR	Survival & Rescue
SVS	Services
TRN	Transportation
UGT	Upgrade Training and Qualification
VEM	Vehicle Maintenance
WEL	Welding

(AAS) Aircraft Armament Systems

AAS1200 Aircraft Automatic Weapons - Introduces the electromechanical cycle of operation and function of components in the automatic gun and feed system. Provides practical experience in assembly, disassembly, inspection, electrical checkout, repair, and adjustment of the weapon and feed system.

AAS1201 Aircraft Armament Systems Maintenance - Introduction to aircraft armament systems maintenance. Includes concepts of aircraft armament systems; maintenance practices; and component functions of nuclear weapons, missiles, rockets, bombs and ammunition with emphasis on explosive safety.

AAS1202 Aircraft Air Munitions Loading and Unloading Laboratory - Positioning, loading, safing, and downloading nuclear and nonnuclear air munitions from internal and/or external suspension components. Includes operation and maintenance of internal and external suspension components stressing explosive and ground safety, care and use of hand tools, and use of applicable handling equipment.

AAS1203 Aerospace Ground Equipment Handling, Support and Maintenance - Maintenance and use of powered and non-powered AGE equipment and armament support equipment. Includes theory of operation, component location, removal, adjustment, repair, inspection, installation and trouble-isolation procedures.

AAS1204 Aircraft Armament Launch Ejection Systems - Direct application of maintenance practices to electrical, pneumatic, and mechanical subsystems. Includes theory of operations, malfunction analysis, trouble-isolation procedures, system operation, and repair, adjustment, removal and installation of components.

AAS1205 Aircraft Maintenance Fundamentals - Fundamentals of basic aircraft systems related to aircraft armament maintenance personnel. Includes aircraft systems theory and operation principles; operation and care of ground support equipment; aircraft familiarization; aircraft ground operation hazards and maintenance safety practices; maintenance documentation; and technical manuals used in aircraft armament maintenance preparation. Also includes identification, selection, use and care of common hand tools and special tools; and use of the Portable Maintenance Aid. (May be repeated for credit on various aircraft)

AAS1206 Aircraft Electrical Fundamentals - Fundamentals of electricity, electrical circuitry, and system related to aircraft armament maintenance personnel. Includes principles, theories, and concepts of alternating and direct current; magnetism; electrical terms; symbols; wire maintenance; Ohm's law; electrical measuring equipment; interpreting electrical schematics; and nickel cadmium and lead acid battery fundamentals. Also includes electrostatics, series, parallel, and series-parallel circuits; changing currents; inductance; capacitance; inductive and capacitive circuits; transformers; resonance; filters; and circuit analysis using electronic test equipment. (May be repeated for credit on various aircraft.)

AAS1207 Aircraft Electrical Systems Maintenance - Introduction to aircraft electrical system maintenance related to aircraft armament maintenance personnel. Includes familiarization, inspection, operational checks, fault isolation, and maintenance of electrical components applicable to aircraft armament systems. (May be repeated for credit on various aircraft.)

AAS1208 Munitions Systems Maintenance - Familiarization with nuclear and nonnuclear munitions. Includes differentiation of component functions of nuclear and conventional weapons, missiles, and ammunition. Emphasizes on control procedures, inspection, and explosive safety practices related to aircraft armament maintenance personnel.

AAS1209 Weapons Control Systems Maintenance - Operational theory and detailed circuit analysis of weapons control system related to aircraft armament maintenance personnel. Includes analysis, checkout, and fault isolation of test equipment used in malfunction isolation techniques.

AAS1210 Intermediate Aircraft Armament Systems Maintenance Laboratory - Intermediate level aircraft armament systems maintenance procedures applicable to specific aircraft. Includes armament systems operation; location of components; removal and installation of system components; and inspection and troubleshooting of systems using technical data and manufacturers' maintenance manuals. Also includes component functions and operation of aircraft-specific nuclear weapons, missile, rocket, bomb, and ammunition systems.

AAS1211 Aircraft Armament Computer Systems - Fundamentals of computer systems related to Aircraft Armament Systems and personnel. Includes operation and maintenance of systems; software and databases used in operating aircraft armament systems; systems used to plan, schedule and complete armament systems maintenance; scheduling and completion of maintenance training; managing supply systems and parts; and maintenance personnel information. Also includes on-aircraft and off-aircraft aircraft computer systems related to aircraft armament functions and personnel.

AAS2200 Advanced Aircraft Automatic Weapons Laboratory - Theory of operation and maintenance of specified automatic gun systems. Includes support and handling equipment, testers, and care and use of hand tools. (May be repeated for credit on various aircraft.)

AAS2201 Advanced Aircraft Armament Systems Maintenance Laboratory - Maintenance procedures and systems theory as applied to specific aircraft. Includes system operation analysis using wiring diagrams, engineering drawings, and manufacturers' maintenance manuals; theory of operation; location of components; and removal, adjustment, repair, inspection, installation and trouble-isolation procedures.

AAS2202 Advanced Aircraft Armament Systems Logistics Planning - Advanced aircraft armament systems logistics planning techniques. Includes operations of aircraft armament systems during peacetime, wartime and contingency planning; logistics command and control systems; personnel and financial management systems; and deployment management of aircraft armament systems.

(ACL) Aircrew Life Support

ACL1101 Basic Life Support - Aircrew life-support programs and systems. Includes quality awareness, career progression and duties, safety, security, supply, automated data systems, oxygen systems, and technical orders.

ACL1102 Basic Life-Support Equipment - Life-support test equipment for anti-G garments, aircraft oxygen systems and protective helmets; safety procedures; and physiological effects of flight.

ACL1103 Inspection and Use of Life-Support Equipment - Inspection and use of life-support equipment. Includes personnel parachutes, harnesses, and life rafts; maintenance and use of survival kits, anti-G garments, protective helmets, oxygen survival systems, life preservers, night vision devices, radio equipment and anti-exposure suits; and aircrew instruction in emergency egress, chemical defense, and flash protection.

ACL1104 Maintenance of Aircrew Night Vision Devices - Maintenance and operation of night vision devices. Includes operational checks, physiological limitations, testing, purging and device adjustment procedures.

ACL2101 Advanced Life Support - Life-support operations. Includes Air Force occupational safety and health, technical orders, supply, aircrew instructions, supervision, training and life-support systems.

ACL2103 Aircraft Equipment Safety Management - Flight safety management and airfield safety operations. Includes history of flight safety; mishap classification and prevention; hazard abatement; and inspection, evaluation and reporting programs. Applicable to Aircraft safety systems.

ACL2104 Aircrew Contamination Control - Advance theory of Chemical, Biological, Radiological and Nuclear (CBRN) cell operations as applied to Aircrew Flight Equipment personnel. Identifies proper CBRN hazards and fallout

predictions by way of automated warning and prediction software systems. Includes determining dangerous levels of CBRN hazards utilizing mapping systems to triangulate and create CBRN plotting.

ACL2105 Sewing and Fabrication Principles - Introduction to sewing machine operation and fabrication of flight clothing and accessories. Includes inspection, repair, modification and fabrication of flight clothing, antigravity suits, protective covers and upholstery, and the characteristics of textiles used in soundproofing panels. Applicable to Aircrew systems.

ACL2106 Automatic Parachutes - Principles of automatic back, seat, and chest personnel parachutes, and special-purpose parachutes used for aircraft deceleration. Includes preparation and assembly of automatic parachutes, automatic rip cord release and inspection, and servicing according to technical publications. Applicable to Aircraft systems.

ACL2107 Inspection and Maintenance of Survival Equipment - Inspections, maintenance, and packing of personal parachutes, life rafts, escape slides, life preservers and full pressure, and anti-exposure flight suits. Applicable to Aircraft systems.

(ACT) Aircrew Technology

ACT1201 Aircraft Systems Familiarization - Knowledge of aircraft systems applicable to duties of flight engineers with emphasis on theory of operation, normal operating procedures, and emergency operating procedures. Includes familiarization with aircraft electrical, engine, hydraulic, environmental control, fuel and flight control systems.

ACT1202 Aircraft Flight Performance - Principles and techniques for predicting takeoff power and performance factors. Includes weight variables at takeoff; time, distance, fuel and power requirements for ascent, maximum range, constant speed, cruise climb, and maximum endurance cruise performance; and descent and landing data.

ACT1203 Air Refueling - Analysis of in-flight refueling equipment and airborne operating procedures. Includes operation and components of refueling boom, nozzle, probe, and drogue; mission planning and accomplishment; crew duties; identification of applicable publications; use of emergency equipment and egress routes; weather; bailout, ditching, and crash-landing procedures; in-flight emergency procedures; and emergency warfare procedures.

ACT1205 Introduction to Aircraft - Function and use of aircraft systems for aircrew members. Includes fuel, flight control, communication, pneudraulic, engine, electrical, air-conditioning and pressurization, and oxygen systems as well as aircraft ground-handling and servicing procedures.

ACT1206 Air-Refueling Flying Training - Supervised practical application of air-refueling operator duties. Includes use of life-sustaining equipment, operation of refueling boom and related equipment, application of navigation principles, and handling in-flight emergencies under actual flying conditions.

ACT1207 Aircrew Qualification - Concepts, principles, and procedures required for performance of aircrew duties. Includes security, aircrew member discipline, personal affairs, oral communication skills, safety, flying orientation, publications, aircrew coordination, life-support equipment, basic aerodynamics, aircrew training, and customs and border clearances.

ACT1208 Aircrew Instructor Flight Training - Prepares aircrew personnel for duties as an in-flight instructor. Increased knowledge of aircraft systems to prepare the student-instructor's ability to instruct the systems in a formal aircraft and classroom environment. Also, enhances the student-instructor's understanding of various instructional techniques under actual flight conditions through observation and performance.

ACT1209 Aircraft Weight and Balance - Aircraft weight and balance as it pertains to Aviation Operations. Includes preparation of transportation documents and reports; methods and techniques of take-off, in-flight, and landing weight and balance computations; mathematical formulas; balance computers; weight charts; and aircraft weight and balance records.

ACT1210 Aerial Gunner Principles and Procedures - Comprehensive study of airborne weapon systems and aircrew duties related to the aerial gunner. Includes aircraft armament systems operation, servicing and inspection, performance of in-flight maintenance and aircrew functions under training, combat or testing conditions, forecasting ammunition requirements, and navigation waypoint identification. Strict compliance to flying, weapon and explosive safety standards in all facets of aircrew operations is emphasized. (May be repeated for credit on various aircraft)

ACT1211 Flight Attendant Principles/Procedures - Performs preflight, through flight and post flight inspections of aircraft emergency, cabin and galley equipment; provides passenger safety and comfort during aircraft operations; validates manifest and supervises loading and off-loading of aircraft passengers and baggage; applies restraint devices

to unsecured baggage and equipment; ensures access to escape exits; maintains proficiency in emergency equipment operations, procedures and egress; provides emergency medical assistance; and prepares and checks records and border clearance documents.

ACT1212 Flight Attendant Culinary/Food Preparation - Introduction to Flight Attendant responsibilities in preparing in-flight food and beverage service. Provides fundamental knowledge of food preparation checklists; food storage procedures; food safety and sanitation procedures; operation of aircraft tools and equipment; and ethics and professionalism in a controlled environment. Also includes a culinary laboratory to demonstrate preparation and serving meals in the aerial environment.

ACT1213 Loadmaster Airdrop - Loadmaster airdrop qualification in fixed-wing aircraft; Includes aerial delivery of airborne personnel; transportation of heavy equipment; low-altitude parachute extraction; and container delivery systems.

ACT1214 Aircraft Load Planning - Aircraft load planning as it pertains to enlisted aircrew personnel. Includes palletized and nonpalletized cargo planning with special consideration to weight, bulk and properties. Also includes preinspection of aircraft loading equipment, loading and restraining cargo for flight.

ACT1215 Cargo Aircraft Operations - Ground operations, preflight, in-flight and post-flight duties as it pertains to enlisted aircrew personnel. Includes positioning aircraft; determining cargo arrangement; aircraft preparation; preflight and in-flight briefings of passengers; aircraft preparation; and post-flight inspection of aircraft.

ACT1216 Aircrew Sensor Operator - Comprehensive study of airborne weapon systems and aircrew duties as applied to AC-130U Sensor Operator personnel. Includes aircraft armament systems operation; aircrew functions under training, combat and testing conditions; navigation waypoint identification; crew communications and coordination; and human factors. Emphasizes strict compliance with flight and weapons safety standards in all facets of aircrew operations using flight and systems manuals.

ACT1217 Sensor Operator Aircrew Qualification - Concepts, principles, and procedures required of aircrew operations as it pertains to Aircrew Sensor Operators. Includes principles of sensor alignments; live- and dry-fire scenarios; interdictions; combat support scenarios; range clearings; egress procedures; concepts of troops-in-contact; and armed escort procedures.

ACT1218 Airborne Warning and Control Systems Familiarization - Introduction to Airborne Warning and Control Systems. Includes power distribution, cooling systems, and use of safety and security procedures and technical publications as applied to AWACS Air and Space Operations Personnel.

ACT1219 Radio Communication Theory - Transmitter principles, receiver tuning and operation, antenna, wave propagation, and communication procedures as applied to AWACS Air and Space Operations Personnel.

ACT1220 Airborne Radio Operations - Operation of various airborne radio communications systems and related electronic equipment as applied to AWACS Air and Space Operations Personnel.

ACT1221 Computer System Familiarization - Computer hardware and software, data processing and electronic forms management. Includes network protocols and standards, network and communication programming concepts, and basic world wide web fundamentals as applied to AWACS Air and Space Operations Personnel.

ACT1222 Radar Identification Equipment - An introduction to functional and circuit analysis of radar identification equipment (Air Traffic Control (ATC) and Identify Friend or Foe (IFF). Includes analysis of transmitters, receivers, control circuits, power supplies, and system maintenance as applied to AWACS Air and Space Operations Personnel.

ACT1223 Electronic Warfare Systems Theory - Comprehensive electronic warfare systems and equipment theory. Includes infrared, panoramic receivers, recoding, radar homing and other electronic warfare subjects as applied to AWACS Air and Space Operations Personnel.

ACT2101 Parachuting Jumpmaster - Parachuting techniques as applied to directed and computed airdrop releases. Includes instruction in parachute characteristics and operations, personnel inspection, plotting and spotting techniques, aircraft characteristics and inspection, personal equipment, door bundle rigging, and air operations.

ACT2201 Helicopter Ground Training - Advanced helicopter flight performance, systems familiarization, and emergency procedures necessary for performance of power plant and flight control limitations and operational checks, systems trouble analysis, loading and refueling parameters, and rescue and recovery procedures.

ACT2202 Helicopter Simulator and Flying Training - Comprehensive helicopter operational procedures in both a flight simulator and aircraft. Includes flight maneuvers, emergency procedures, instrument flying, navigation and voice procedures, weight and balance, fuel management, hoist and sling operation, and care of equipment and forms.

ACT2204 Flight Engineer Ground Training - Evaluation of aircraft systems operation in both normal and emergency circumstances. Includes fault isolation techniques, operational checks, aircraft operating limitations, weight and balance computations, calculation of minimum airspeed requirements for takeoff and landing, preflight and pre-takeoff checklists and inspections, and airframe aerodynamics.

ACT2205 Flight Engineer Flying Training - Flight instruction on normal and emergency airborne procedures. Includes navigation, aerial cargo delivery, air refueling, search intercept and night flying. Emphasizes weight and balance adjustments, fuel management, monitoring of aircraft instruments, and in-flight normal and emergency procedures.

ACT2207 Flight Engineer Aircraft Systems Familiarization - Location, description, normal and emergency operation; inspection of fuel, oxygen, pneumatic, hydraulic, lighting, warning, electrical, environmental control, egress, engine, fire extinguishing, flight control, automatic flight control, and instrument systems; and use of emergency equipment, emergency signals and emergency evacuation routes.

ACT2208 Advanced Flight Performance Planning - Calculation of aircraft ground run, takeoff, climb, cruise, and emergency performance data using current environmental conditions, gross weight and load factors.

ACT2209 Trainer, Simulator and Flying Training - Ground and airborne operational procedures in cockpit procedural trainer, flight simulator and aircraft. Includes inspections, flight performance, aircraft systems, crew communications, and emergency procedures.

ACT2213 Intelligence Trainer, Simulator, and Flight Training - Ground and airborne operational procedures in task trainer, flight simulator, and aircraft; includes inspections, console operation, mission procedures, data reporting, crew communications and emergency procedures.

ACT2214 Tiltrotor Aircraft Ground Training - Advanced tiltrotor flight performance, system familiarization, and emergency procedures. Includes power plant performance, flight control limitations/operational checks, systems trouble analysis, loading and refueling parameters, weight/balance computations, prediction of takeoff and landing performance, theory of flight, aerodynamics, airspeed measurement, pre-flight/pre-takeoff inspections.

ACT2215 Flight Training Devices (FTD) - Using the Flight Training Device (FTD), students learn procedures and tactics for employment of aircraft systems, controls, and functions in a simulated environment. Includes performance of flight missions and briefings/debriefings.

ACT2216 Weapon Systems Trainers (WST) - Using the Weapons System Trainer (WST), students learn procedures and tactics for employment of aircraft systems, controls, and functions in a simulated environment. Includes performance of flight missions and briefings/debriefings.

ACT2217 Boom Operator Trainers (BOT) - Using the Boom Operator Trainer (BOT), students learn procedures and tactics for employment of inflight refueling aircraft boom systems, controls, and functions in a simulated environment. Includes performance of flight missions and briefings/debriefings.

(ADM) Administration

ADM1001 Postal Operations - Principles, policies, procedures, and administration of postal operations as applied to Administration personnel. Includes official mail center operations; preparation of shipping documents; domestic and international shipments; aerial mail functions; registered mail; claims and inquiries; directory functions; administration of postage accounts; money order services; and postal supplies and equipment.

ADM1002 Personnel Administration - Introduction to the processes and policies to ensure compliance of standards and directives in a high performance workforce as applied to Administration personnel. Includes the management of personnel programs associated with manpower documentation, reassignments, promotion system materials, and occupational specialty code management.

ADM1003 Unit Administration - Introduces the fundamental management of unit personnel as applied to Administration personnel. Includes the proper use of computer products containing sensitive information of unit personnel; administration of special duty assignments; procedures to minimize unit absenteeism; personnel development; and training requirements. Also includes reassignments; performance evaluations; decoration processing; promotion, retention, and separation of personnel; and special pay procedures.

ADM1106 Information Management - Introduction to general administrative support and office management. Includes planning, coordinating, managing, sharing, and controlling data, and the proper flow and management of information in both paper and electronic mediums. Emphasizes content development, e-mail and internet management policies, plans and programs, official correspondence, suspense files, document security, official mail handling, and quality assurance.

ADM1108 Introduction to Computer Systems and Network Management - Introduction to computer systems and network management concepts with emphasis on managing local area networks and initial diagnostics of information systems. Client Support Administration responsibilities within the network environment include management of computer hardware and software; installation and configuration of software operating systems and office automation applications, information assurance, development of web pages and management of websites.

ADM1109 Records Management - Management of official records utilizing automated publishing tools to create, maintain, protect, preserve and dispose of records in both paper and electronic mediums. Includes preparation of automated file maintenance and disposition plans; identifying, declaring and protecting vital records, disposition and cutoff procedures.

ADM1110 Introduction to Administration - Introduction to the duties and responsibilities pertaining to administrative programs as applied to Administration personnel. Includes identifying and discussing Customer Service techniques; Office Management etiquette; processes for account and content posting within DoD online programs; maintaining and operating Video Teleconference equipment; and ordering procedures for physical products.

ADM1111 Administration Programs - Introduction to support staff functions and the Government Budgeting and the Government Purchase Card programs. Provides an overview of the Trusted Agent/Unit Demand Reduction Program and the Unit Fitness Program Manager functions. Includes the fundamental roles of the support functions as related to ceremonies and protocol, such as: retirements; reenlistments; and Change of Command. Also includes the process for account and content posting within Video Teleconferencing programs; general processes used for creating accounts; types of equipment; procedures for obtaining electronic publications; and ordering procedures for physical products.

ADM1112 Knowledge Management - Introduction to functions of the Knowledge Management career field and discusses the responsibilities of the Knowledge Management Center and its sustained and mobile roles. Discusses Knowledge Operations goals and capabilities and how it applies to Knowledge Management. Discusses and identifies the types of knowledge attributes (tacit and explicit) and how it applies to Knowledge Management. Also includes Sciences, Lifecycle, Cloud Computing and process improvement initiatives (AFSO21) as it applies to the Knowledge Management career field.

ADM1113 Introduction To Administration Management - Introduction to administration management as applied to Administration personnel. Includes personnel management; business communications; administrative functions in selection and classification of personnel; performance evaluations, decorations and special awards processes; elements required for manpower and training; placement, reassignment, promotion, retention and separation of personnel; pay procedures; scheduling and conducting meetings; and customer service.

ADM1114 Intermediate Information Management - Analysis of office management techniques as applies to the Administration personnel. Topics include the coordination, management, sharing, data control, and the proper flow of information transmission in both paper and electronic mediums. Applies advanced breakdown in content development, e-mail and internet management policies, plans and programs, official correspondence, suspense files, document security, official mail handling, sanitizing data exports, encrypting E-mails, safeguarding PII/FOUO, and setting-up Organizational E-Mail Encryption.

ADM2106 Advanced Information Management - Integrated definition language modeling to analyze processes and improve efficiency. Includes information warfare doctrine and philosophy, contingency operations, resource management, quality improvement, computer network operating and distribution systems, and network operation management. Emphasizes student interaction, team learning, and exchange of viewpoints and experience.

ADM2108 Advanced Administration Programs - The advanced study of support staff functions as applied to Administration personnel. Includes the roles related to administration of special duty assignments; personnel development; and training requirements. Also includes the support functions related to military ceremonies and protocol; reassignments; performance evaluations; decoration processing; promotion, retention, separation of personnel; and special pay procedures.

ADM2109 Advanced Personnel Administration - The advanced study of policies and procedures as applied to Administration personnel. Includes the management of personnel programs: manpower documentation and programs, reassignments, promotion system materials, and occupational specialty code management.

(AFM) Airfield Management

AFM1101 Airfield Management - Introduction to flight planning and management of airfield functions. Includes

reviewing flight plans for accuracy and completion; weather checks; airfield and runway condition assessments; maintenance and distribution of flight publications, diagrams and aeronautical charts; and notification of aircrew and airfield personnel.

AFM1102 Airfield Safety and Operations - Techniques and procedures of airfield management. Provides a basic understanding of how airport operators address federal airport standards for basic airport functions involving air safety, ground and flight operations. Includes flight rules, use of military airfields by civilian aircraft, emergency action procedures, coordination of airfield construction and repair, airfield inspections, and airfield safety.

AFM1201 Aviation Resource Management - Introduction to aviation resource management principles. Includes operational scheduling, flight data management, aviation coding, aeronautical orders, incentive pay, flight/physiological training, flight/jump records, aircrew training with associated products, and the computer hardware/software to manage these functions.

AFM1202 Squadron Aviation Resource Management (SARM) - Introduction to the management of squadron aviation resources, activities, and responsibilities. Includes aviation career management, aircrew training, deployment operations, personnel management, and the computer hardware/software to manage these functions.

AFM2101 Advanced Airfield Management - Advanced knowledge in airport operations and management. Includes interaction with political entities, public relations with local communities and local entities, working with government (local, state and federal) regarding airport operations and management directives governing airport safety responsibilities, fixed-base operators, community residents, aviation authorities and environmental authorities. Provides an understanding of how airport managers address federal airport standards for air safety, ground and flight operations, airport budgets and finances aspects and airport planning.

AFM2201 Advanced Aviation Resource Management - Advanced techniques and procedures of aviation management. Includes information and automated data processing capabilities used to manage and administer aircrew/parachutist training and evaluation, flight scheduling functions, flying safety, qualifications and related functions needed to attain and maintain combat or mission readiness.

(AGE) Aerospace Ground Equipment

AGE1101 Aerospace Ground Equipment Familiarization - Theory of operation and maintenance fundamentals of Aerospace Ground Equipment (AGE). Includes scheduled and nonscheduled servicing and preoperational inspections; maintenance forms review and annotation; powered and non-powered support equipment; proper use and care of hand and powered tools; and wheel and tire maintenance.

AGE1102 Auxiliary Aerospace Ground Support Equipment - Inspection, maintenance, and repair of both powered and non-powered aircraft support equipment. Includes fault isolation; hydraulic, electrical, and pneudraulic schematics; maintenance stands; mobile work platforms; jacks and testers; oil and hydraulic servicing carts; liquid nitrogen and oxygen cart chassis maintenance; air cycle machines; tank dollies; tow bars; cowling trailers; seat removal cranes; and fuel reclamation units.

AGE1103 Aerospace Ground Equipment Generator Sets - Familiarization, fault isolation procedures and maintenance of generator sets. Includes components, electrical systems, scheduled inspections and load bank testing.

AGE1104 Introduction to Hydraulic Test Stands - Theory of operation and maintenance of ground support hydraulic test stands used to operate aircraft hydraulic systems; interpretation and use of hydraulic, and electrical schematics and diagrams; operation, fault-isolation procedures, inspection, bleeding, testing, prime mover repair, adjustment, and repair of both high- and low-pressure hydraulic system components; and use of hydraulic fluid testing equipment.

AGE1105 Air Compressors - Theory of operation and maintenance of rotary and reciprocating air compressors; interpretation and use of airflow and electrical schematics and diagrams; operation, fault-isolation procedures, inspection, testing, prime mover repair, adjustment, and repair of both high- and low-pressure system components; and use of hydrostatic test equipment.

AGE1106 Bomb-Lift Equipment - Systems and components used in bomb lifts and munitions handling trailers. Includes performance of operational checks, inspections, load testing, fault-isolation, and maintenance of hydraulic, electrical and mechanical subsystems.

AGE1107 Diesel Engine Maintenance - Theory of operation and maintenance of diesel engines used in Aerospace Ground Equipment (AGE). Includes operating fundamentals of two-stroke diesel engine and diesel engine systems; system components; operational checks; scheduled and nonscheduled inspections; interpretation and use of electrical system schematics and diagrams; fault-isolation procedures; adjustments, tuning, and calibrations; and repair and testing

of components and sub-systems.

AGE1108 Aerospace Ground Equipment Electrical and Electronic Fundamentals - Fundamentals of basic electricity and electronics used in Aerospace Ground Equipment (AGE). Includes theory of electricity; Ohm's Law; resistive circuits; inductors; transformers; capacitors; semiconductors; junction diodes; and silicon controlled rectifiers. Also includes principles of single and three-phased motors and motor controls; circuitry analysis using electronic test equipment; and electrical wire maintenance.

AGE1109 Gas Turbine Engines - Theory of operation and maintenance of gas turbine engines; interpretation and use of airflow, electrical, lubrication, fuel, and pneumatic schematics; operation; inspection; fault-isolation procedures; repair and testing of components; pneumatic load testing; and remote control use of pneumatic analyzers.

AGE1110 Introduction to Ground Heaters - Theory of operation and maintenance of diesel and electric ground support heaters; interpretation and use of electrical, lubrication and airflow diagrams and schematics; and operation, inspection, carbon monoxide testing and fault-isolation procedures.

AGE1111 Introduction to Ground Support Air Conditioners - Theory of operation and maintenance of specific diesel and electric ground support air conditioners; interpretation and use of airflow, refrigerant, fuel, lubrication, and electrical schematics and diagrams; operation; inspection; fault-isolation procedures; and repair and testing of components. Includes removal, evacuation and charging of refrigerant.

AGE1112 Aerospace Ground Equipment Fundamentals - Introduction to the Aerospace Ground Equipment (AGE) career field. Includes understanding the duties, responsibilities, and qualifications required. Focused on Operations Security (OPSEC), safety standards, maintenance documentation and data systems, property accountability and responsibility, and use of technical orders and manufacturer maintenance manuals.

AGE2104 Advanced Aerospace Ground Equipment Troubleshooting - Advanced principles, theory, application, and operation of powered aircraft support equipment. Includes interpretation and use of schematics and diagrams, operation, fault-isolation procedures, and repair and testing of advanced technological support equipment, systems, and components. Emphasis is placed on electrical/electronic and advanced troubleshooting.

(AMT) Aircraft Maintenance Technology

AMT1104 Introduction to Aircraft and System Components - Introduction to aircraft specifications, functions, system and component locations; basic knowledge and orientation of aircraft systems; and operational theory, inspection, and maintenance of landing gear, brake, flight control, pneumatic, hydraulic, oxygen, air-conditioning, pressurization, instrument, and fuel systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1105 Aircraft Maintenance Fundamentals - Basic aircraft systems theory and operation principles, operation and care of ground support equipment, aircraft familiarization, maintenance documentation, maintenance safety precautions, and technical manual usage. Includes identification, selection, use and care of common hand tools, torque wrench procedures, and safety wiring. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1106 Aircraft Familiarization and Flight-Line Operations - Introduction to aircraft ground operation hazards, movement, associated flightline safety procedures, weight and balance, aerodynamics, regulations, hardware, aircraft servicing and inspection concepts. Includes principles of corrosion control. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1107 Air Force Technical Manuals - Air Force technical order system, aircraft technical manuals, job guides, and fault isolation manuals for aircraft systems and components. Includes servicing, inspections, removal, repair, replacement, overhaul instructions, and interpretation of schematics and wiring diagrams. (May be repeated for credit on various aircraft)

AMT1112 Direct Current Fundamentals - Introduction to Direct Current (DC) electricity used in aviation maintenance. Topics addressed are the DC principles, theory, generation, and concepts of DC voltage, current, and resistance, along with components including conductors, semiconductors, insulators, resistors, insulators, and capacitors, as well as their characteristics in circuits. Includes the application of these concepts and components in series, parallel, and series-parallel circuits.

AMT1113 Alternating Current Fundamentals - Introduction to Alternating Current (AC) electricity used in aviation maintenance. Topics addressed are the AC principles, theory, generation, and concepts, of AC voltage, current, and resistance, along with components including conductors, semiconductors, insulators, resistors, insulators, and

capacitors, as well as their characteristics in AC circuits. Includes the application of these concepts and components in series, parallel, and series-parallel circuits.

AMT1114 Aircrew Egress Systems Fundamentals - An introduction to aircrew egress systems. Includes operational theory, maintenance, and ground safety procedures; use of ground support equipment, hand tools, aircraft hardware, and safety devices; principles and operation of ballistic and non-ballistic aircraft escape system components; and handling, storage and care of explosive components. (May be repeated for credit on various aircraft)

AMT1115 Aircrew Egress Systems Maintenance - Application of theory in removal, replacement, adjustment, and rigging of ballistic and non-ballistic aircraft canopy and ejection seat components for basic, dual, and multi-crew module escape systems. Includes inspection, repair, corrosion control, operational checks, fault isolation procedures, and basic, intermediate and advanced aircraft escape systems. (May be repeated for credit on various aircraft)

AMT1116 Introduction to Aircraft Landing Gear Systems - Theory and principles of aircraft landing gear systems as applied to aircraft maintenance personnel. Includes operational checks; trouble shooting; inspections; aircraft jacking; and servicing of struts, brakes, and tires. (May be repeated for credit on various aircraft – Air Force Airframe & Power Plant Program applicable course.)

AMT1117 Introduction to Aircraft Flight Control System Maintenance - Theory of operation, purpose, and maintenance of primary and secondary flight control systems as applied to aircraft maintenance personnel. Includes maintenance, adjustments, and operational checks of hydraulic power systems used in primary flight control systems, including ailerons, rudders, stabliators and elevators. Also includes secondary flight control systems, such as flaps, slats, and speed brakes. (May be repeated for credit on various aircraft – Air Force Airframe & Power Plant Program applicable course.)

AMT1121 Aircraft Electrical Fundamentals - Fundamentals of electricity, electrical circuitry, and system components related to aircraft maintenance specialist. Includes magnetism, electrical terms, symbols, circuit construction. Wire maintenance to including basic soldering of components and various terminals. Ohm's law, electrical measuring equipment, interpreting electrical schematics, and nickel cadmium and lead acid battery fundamentals. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1122 Aircraft Environmental Systems Maintenance - Aircraft cabin pressurization and air conditioning systems. Includes an overview of theory of operation, repair of system components, operational checks, servicing procedures, fault isolation, cabin leakage checks, bench testing, and calibration of components; and inspection and maintenance of cabin pressure regulators, heat exchangers, flow control valves, temperature regulators, electronic temperature control units, distribution ducting and water separators. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT1123 Aircraft Electrical Systems Maintenance - Introduction to aircraft electrical systems, and the application of direct and alternating current generation and distribution systems for specific aircraft. Includes familiarization, inspection, operational checks on generators, transformers, rectifiers, inverters, control panels, frequency sensing relays, distribution busses, normal and emergency lighting, and aircraft subsystem electrical components. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1124 Aircraft Control and Warning Systems - Analysis of aircraft and engine control and warning systems principles. Includes fire-detection and overheat systems, antiskid normal/emergency braking system, landing gear warning system, takeoff warning system, master warning and caution panel, interior and exterior lighting systems, touchdown relays and weight on wheels switches, thunderstorm lighting, anti-collision lighting, starting and ignition systems, and other control and warning systems. Inspection procedures, preventive maintenance, and fault isolation are also covered. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1131 Aircraft Hydraulic System Fundamentals - Comprehensive study of hydraulic and pneumatic theory, operation, and maintenance. Includes power, landing gear, brake, anti-skid, steering, flight control, and other hydraulic systems and components; normal and emergency operations, inspection, and servicing procedures; repair, removal, and installation of components; adjustments and operational checkout procedures; and use of schematic diagrams. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1132 Aircraft Hydraulic Systems Maintenance - Intermediate-level maintenance for hydraulic component repair. Includes construction features, purpose, theory of operation, disassembly, inspection, repair, and reassembly of hydraulic pumps, pressure regulators, valves, reservoirs, accumulators, actuators, brake assemblies, shock struts, steering control units and other aircraft pneudraulic system components; ultrasonic cleaning of system filters; use of bench test stands; and hose fabrication. (May be repeated for credit on various aircraft - Air Force Airframe &

Powerplant Program applicable course)

AMT1141 Aircraft Fuel Systems Fundamentals - Operational theory, functions, and maintenance of aircraft fuel systems. Includes engine feed and cross feed, transfer, defueling, dump, scavenge, in-flight refueling, quantity indication, and vent pressurization systems. Emphasizes maintenance procedures with safety precautions and human factors. (May be repeated on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1142 Aircraft Fuel Systems Maintenance - Comprehensive study of integral, bladder, and externally mounted fuel tank systems and maintenance procedures. Includes use of special tools and equipment, selection of appropriate aircraft hardware; use of manufacturer's technical manuals; fault isolation; component removal, repair, and installation; tank entry procedures; leak detection; corrosion control; selection and application of sealants; and fuel cell testing. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1151 Helicopter Maintenance Fundamentals - An introduction to helicopter airframe, systems, engines, and flight-line maintenance procedures. Includes basic practices, tools, ground handling, equipment, inspections, troubleshooting, and removal and replacement of components; landing gear, electrical, fuels, utility, hydraulics, and flight controls systems; and transmission and main and tail rotor. (May be repeated for credit on various aircraft - AF Air Force Airframe & Powerplant Program applicable course)

AMT1152 Helicopter Semiridgid Flight Controls - Identification, purpose, and theory of operation of helicopter flight controls, semirigid rotor systems, and system components; and procedures and techniques with practical experience used in rigging, adjusting, removing, repairing, replacing, servicing and balancing flight control system components. (May be repeated for creidt on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1154 Helicopter Flight-Line Maintenance - Comprehensive study of helicopter flight-line maintenance procedures, operations, and safety practices. Includes ground safety devices, servicing of aircraft systems, aircraft launch and recovery, towing and jacking, performance of scheduled inspections, and system operational checks. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1161 Turbine Engine Theory and Principles - Basic engine theory of operation, system integration, construction breakdown, and aircraft and engine specific features; use of tools and maintenance materials to include common hand tools, torque wrenches and micrometers; identification of aircraft hardware, lock-wiring techniques and safety devices; identifies purpose and locations of engine main bearings, seals, and major internal components of the engine; and removal and replacement of components and servicing. (May be repeated for credit on various engines - Air Force Airframe & Powerplant Program applicable course)

AMT1162 Turbine Engine Inspection and Repair - Turbofan and turbojet construction, inspection, fault isolation, and repair of ignition, lubrication, fuel, starter, compressor bleed, and pneumatic systems; engine removal and installation; conditioning and servicing of installed engines; spectrometric oil sampling; disassembly inspection, repair, and reassembly of powerplant and accessories; and preservation for storage. (May be repeated for credit on various engines - Air Force Airframe & Powerplant Program applicable course)

AMT1163 Aircraft Engine Operation - Detailed aircraft engine operation under normal and emergency operating procedures. Includes safety precautions, pre-run checks, post-run inspections, engine limitations using weapon system trainers and simulators; and operational checkouts of installed aircraft engines. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1164 Turbine Engine Blade Blending - Engine blade blending procedures according to aircraft and engine technical manuals. Emphasizes student knowledge and performance of proper tool usage and blending techniques. (May be repeated for credit on various engines - Air Force Airframe & Powerplant Program applicable course)

AMT1165 Auxiliary Power Unit Systems - Theory of operation of gas turbine compressor power (GTCP) auxiliary power systems. Includes removal and replacement of engines and sub-systems and troubleshooting and fault isolation using multi-meters and other supporting equipment. Emphasizes normal and emergency operation of the GTCP system and subsystems, technical data, and safety precautions; and removal and installation of engines from shipping containers with preservation and non-preservation fluids. (May be repeated for credit on various power units - Air Force Airframe & Powerplant Program applicable course)

AMT1166 Helicopter Engine/Transmission Maintenance - Theory of operation, purpose, and maintenance of turbine engines, semi-rigid helicopter rotors, and fully articulated rotor transmission and drive systems and components. Emphasizes performance assessments for removal and replacement of engines, rotor heads, main gearboxes, and selected components; servicing procedures; rigging of engine controls; final adjustments; performance checks; and fault reporting. (May be repeated for credit on various helicopter engine courses - Air Force Airframe & Powerplant Program applicable course)

AMT1168 Aircraft Engine Flight-Line Maintenance - Advanced theory of operation of the turbine engine and function of engine components. Includes fault isolation, overhaul, and testing procedures with hands-on disassembly, inspection, repair, reassembly and operational checkout of engines and accessories; and rigging and adjustment of fuel, oil, electrical, and propeller systems performed on operational aircraft engines. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1170 Aircraft Propeller Inspection and Repair - Theory, operation and control of aircraft propellers and related systems. Includes inspection, removal, replacement, repair, and maintenance of propeller systems. Provides practical experience in balancing of blades, hubs and testing and operational checks of hydraulic and electrical standard propellers. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1171 Turbine Engine Maintenance Fundamentals - Theory of operation and maintenance of turbine engines, engine removal and replacement procedures, fault isolation, diagnostic testing and adjustments, and the repair of installed/un-installed turbine engines and related aircraft systems. Includes the inspection and repair of high pressure turbines, combustion sections, fuel manifolds, fuel nozzles, fuel pumps, fuel controls, anti-ice valves, oil tanks, oil pumps, oil sensors/transmitters, generators, engine plumbing, bearings, fan modules, augmentor modules, and compressor modules.

AMT1172 Introduction to Turbine Engine Subsystems - Theory of operation and maintenance of turbine engine-starting and secondary power subsystems. Includes removal and replacement procedures, fault isolation, and diagnostic testing of the following subsystems; jet fuel starter, starter, starter control valve, igniter box, igniter, central gearbox, accessory drive gearbox, airframe mounted accessory drive, and accessory drive electrical systems.

AMT1181 - Aircraft Structural Maintenance Fundamentals - Airframe structures, sheet metal composition and identification, rivet composition and identification, hand tools, technical orders, drafting, interpreting technical drawings, flat pattern and metal layouts, and shop mathematics. Emphasizes fabrication techniques to include machine setup and operation, powered and non-powered bending, radius bends, hand and machine forming, hand and pneumatic riveting, hand and pneumatic drilling, dimpling, and countersinking, and personal, work center, and chemical safety standards and applications. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1182 Fundamentals of Low-Observable and Stealth Aircraft - Introduction to the history, principles, and theory of low-observable and Stealth aircraft design. Includes radar imagery, radar cross-section theory, radar signatures, radar signature reduction techniques and other related advanced stealth technology issues. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1183 Aircraft Specialized Structural Repair - Technical information for sheet metal repairs to include flush, non-flush and substructural aircraft damage restoration. Emphasizes special fastener identification, composition, installation, and removal; cable identification, composition and manufacturing; aircraft tubing identification, composition and manufacturing; and control surface balancing techniques and procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1184 F-35 Low Observable (LO) Maintenance Basics Interim Transition Training - Introduction to F-35 aircraft structural systems and maintenance procedures. Focuses on basic concepts, principles, and procedures for maintaining and inspecting Low Observable (LO) materials. Includes F-35 Air System; Low Observable Defect Entry Module (LODEM); F-35 Outer Mold Line (OML) Low Observables materials and maintenance; surface coating repair; specialized tools and support equipment; and ground handling procedures.

AMT1191 Aircraft Phased Inspections - Concepts and application of the phase inspection, techniques used to perform scheduled aircraft inspections, and the maintenance procedures. Includes use of inspection work cards, maintenance manuals, drawings, wiring schematics, special test and diagnostic equipment, lubrication equipment, safety precautions, assembly and rigging various aircraft systems, and maintenance records and forms documentation procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1192 Aircraft Periodic Inspections - Comprehensive study and application of the periodic inspection concept, and techniques to perform scheduled aircraft inspections and the maintenance procedures involved. Includes use of inspection work cards, maintenance manuals, drawings, wiring schematics, special test and diagnostic equipment, lubrication equipment, safety precautions, assembly and rigging various aircraft systems, and maintenance records and forms documentation procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1194 Aircraft Isochronal Inspections - Comprehensive study and application of the isochronal inspection concept

and techniques to perform scheduled aircraft inspections and the maintenance procedures. Includes use of inspection work cards, maintenance manuals, drawings, wiring schematics, special test and diagnostic equipment, lubrication equipment, safety precautions, assembly and rigging various aircraft systems, and maintenance records and forms documentation procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT1195 Preflight and Post-flight Inspections - Aircraft preflight, post-flight and between flight inspections. Includes ground handling, aircraft launch and recovery procedures, safety, aircraft airworthiness inspection, engine inlet and exhaust inspection and servicing, proper use of inspection work cards, technical publications, and documentation of maintenance and inspections on aircraft forms. (May be used for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT1236 Integrated Avionics Systems Maintenance - Maintenance and troubleshooting of integrated avionic systems for Aviation Maintenance personnel. Includes operational checkout, malfunction detection, maintenance of system components, alignment and application of circuit analysis techniques.

AMT2100 Crashed, Damaged, Disabled Aircraft Recovery - Advanced procedures and techniques of recovering crashed, damaged or disabled aircraft as applied to Aircraft Maintenance personnel. Includes lifting aircraft utilizing sling methods; bellyband lifting; airbag lifting; returning aircraft to a hardened surface; composite material response and handling procedures; and powered and non-powered aerospace ground equipment operation.

AMT2117 Advanced Aircrew Egress Systems Maintenance - Comprehensive study of advanced aircrew egress systems theory and maintenance procedures. Includes component location, removal, replacement, rigging, adjustment, repair, inspection, and fault isolation procedures. (May be repeated for credit on various aircraft)

AMT2121 Advanced Aircraft Environmental Systems Maintenance - Advanced study of aircraft environmental systems theory for specific aircraft and associated equipment. Emphasis on component location, fault isolation, servicing, repairing, testing, and inspecting aircraft environmental systems. Includes bleed air manifold distribution, cabin pressurization, air-conditioning, under floor heat, gaseous and liquid oxygen systems, neo-electro static applications, anti-ice systems, and fire-extinguishing systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT2122 Advanced Aircraft Electrical Systems Maintenance - Advanced aircraft electrical systems theory and operation of associated test equipment. Includes generation and distribution of alternating and direct current and primary, secondary, and emergency electrical systems. Emphasizes circuit analysis, wire maintenance, fault-isolation procedures, system operation, repair, adjustment, removal, installation of components, functional checkout, bench checking and testing, and inspection procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2131 Advanced Aircraft Hydraulic Systems - Advanced principles and design of specific aircraft hydraulic systems. Includes application of principles to determine functions and interrelationships of components using electrical and hydraulic schematics, fault isolation, and practice in removing, installing, repairing, servicing, adjusting, inspecting and modifying aircraft hydraulic systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2132 In-Flight Refueling Systems Maintenance - Advanced maintenance procedures for removal, installation, rigging, and adjustment of in-flight refueling boom and receptacles and associated equipment. Includes system operational checkout and fault isolation procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2141 Advanced Aircraft Fuel Systems Maintenance - In-depth maintenance procedures and configuration of integral, bladder, auxiliary and externally mounted fuel systems. Includes fault isolation, leak source and path analysis, corrosion prevention, sealant preparation and application, repair and maintenance procedures, operational checkout, inspection, and storage; and engine feed, fuel transfer, scavenge, refuel, defuel, dump, vent, pressurization, fuel indication and in-flight refueling systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2151 Advanced Helicopter Airframe and Systems Maintenance - Advanced theory of operation, component identification, and trouble-isolation procedures. Includes practical experience in removal and replacement of electrical, instrument, fuel, and hydraulic system components; operation, inspection, and maintenance of utility systems; removal, disassembly, reassembly, and adjustment of rotors and hubs; removal and replacement of transmission and drive systems; operation troubleshooting, replacement, and rigging of flight controls; repair of landing gear systems; and scheduled inspections. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program

applicable course)

AMT2161 Advanced Turbine Engine Maintenance - Advanced turbine engine theory and operational maintenance. Includes engine removal and replacement, related aircraft systems operation and fault isolation, testing and adjustment, repair of installed and un-installed engines; hands-on evaluations pertaining to disassembly, reassembly, inspection, preservation and depreservation; corrosion identification and control and flight-line and shop engine support equipment, engine trimming and trending diagnostics. (May be repeated for credit on various engines - Air Force Airframe & Powerplant Program applicable course)

AMT2162 Turbine Engine Fiber-optic Borescope - Fiber-optic borescoping. Includes use, handling, and storage of Olympus, General Electric, or other flexible and rigid digital borescoping devices; inspections on engine sections and modules to include fan section, core section, turbine section, and combustion chamber. Emphasizes performance on rigid and flexible borescope inspections as intended for flight line or shop maintenance. (May be repeated for credit on various engines - Air Force Airframe & Powerplant Program applicable course)

AMT2164 Aircraft Turbine Engine Accident and Incident Analysis - Turbine engine construction and design differences required for accident and incident investigation and analysis of engine accessory failures. Includes fuel and oil system contamination, compressor and turbine section damage and failure, material failure, accident cause factors, identification and analysis of compressor, turbine, and bearing failures, identification of in-flight and post-impact fires, and estimation of engine power at impact. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2165 Turbine Engine Starting and Secondary Power Subsystems - Advanced maintenance and fault isolation of various engine-starting systems. Includes analysis of the jet fuel starter, central gearbox, accessory drive gearbox and the airframe mounted accessory drive; starter and accessory drive electrical systems; servicing of the major components; and use of test equipment to isolate and correct system malfunctions. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT2182 Advanced Aircraft Composite Repair - Advanced composites to include cutting, trimming, drilling, countersinking, liquid shimming and installation of advanced composite structures. Emphasizes advanced training in aramid fiber and graphite structures, skin and core repairs, advanced composite repairs, and in-shop safety procedures; and visual inspection methods and tap testing, damage evaluation and classification, moisture removal, and programmable hot bond curing equipment. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2184 Assessment and Maintenance of Low Observable Material - Concepts, principles, and procedures for maintenance of aircraft low observable materials. Includes inspection procedures and techniques, damage limitations, and removal and installation of materials. (May be repeated for credit on various aircraft).

AMT2191 Intermediate Aircraft Maintenance - Advanced maintenance procedures and systems operational theory. Includes removal, replacement, repair, rigging, and operational checkout of airframe accessories, primary and secondary flight controls, landing gear, throttle, canopy, and other related systems; use of special tools and test and diagnostic equipment; and systematic use of maintenance manuals, drawings, and wiring schematics during fault isolation, inspection, and aircraft modification. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2192 Aircraft Weight and Balance – General - Theory and methods used to control aircraft loading and center of gravity location. Includes weight and balance terminology; principles of force and movement acting on a free body; weight and balance computations and algebraic formulas; methods, procedures, equipment, and safety precautions required for weighing aircraft to determine center of gravity location; and loading calculations using manufacturer's loading charts, load adjuster slide rules, and scientific calculators. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2195 Advanced Aircraft Maintenance - Advanced aircraft systems operation theory and maintenance procedures. Includes system operation analysis, use of wiring diagrams, engineering drawings, manufacturer's maintenance manuals, and special tools and equipment; rigging techniques and operational checkout of flight controls, landing gear, powerplant, hydraulic, electrical, environmental and airframe systems components; ground handling; fault isolation; and inspection concepts to ensure aircraft safety and airworthiness. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2198 Canopy Rigging - Advanced study and practice of removing, installing, and adjusting jettison aircraft canopies. Includes egress system safety precautions, use of maintenance safety devices, and system operational checks. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2199 Aircraft Landing Gear and Door Systems - Advanced procedures for troubleshooting and fault isolation, adjustment, and operational checkout of aircraft landing gear and door sequencing systems. Includes use of specialized tools and equipment. Emphasizes adherence to technical data and instructions provided in maintenance manuals. (May be repeated for credit on various types of aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2219 Aircraft Flight Control Systems Maintenance - Advanced maintenance and operation of primary and secondary flight control systems. Includes operational checks, rigging and adjustment and hydraulic power systems of primary flight control systems for ailerons, rudders, stabilators and elevators and secondary flight control systems for flaps, slats and speed-brakes. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT2220 Aircraft Transition Training and Familiarization - Airframe transition training for skilled aircraft maintenance technicians converting from one aircraft to another. Includes general aircraft egress and/or ejection safety procedures, aircraft safe for maintenance identification, specific airframe engine, electrical, pneudraulic, environmental control, fuel, and related systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2228 Advanced Aircraft Fault Isolation - Advanced procedures and techniques used for fault isolation in aircraft malfunction situations. Includes aircraft technical data, fault isolation charts, and reading and interpretation of aircraft wiring diagrams and system schematics. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AMT2236 Advanced Aircraft Maintenance Laboratory - Maintenance procedures and systems theory as applied to specific aircraft. Includes systems operation analysis using wiring diagrams, engineering drawings, and manufacturer's maintenance manuals; operation of flight controls, engines, and utility systems; and use of emergency procedures as necessary. Experience in ground handling; servicing; functional systems checkout; locating, removing, and replacing components; and inspection of aircraft to ensure systems are operational and airworthy. May be repeated for credit on various aircraft.

AMT2296 Aviation Flight Line Supervisor - Advanced techniques, procedures, and use of the Autonomic Logistics Information System (ALIS). Includes the ALIS infrastructure; mission planning/scheduling, debrief/turn, and sustainment; Computerized maintenance management system; Point of Entry (POE); Training Management System; unit health management; Low Observable (LO) health assessment systems; Anomaly and Failure Resolution System; Structural Prognostics Health Management (SPHM); and customer relationship management.

AMT2297 Aviation Quality Assurance - Advanced quality assurance procedures used to detect and analyze maintenance management deficiencies, determine causes, and recommend corrective action; and develop skills to evaluate maintenance activities and personnel to ensure safety procedures are observed and maintenance practices meet the highest standards. Includes written policies, managerial communications, directives and technical manuals, evaluation processes, inspection categories, deficiency analysis, management of aircraft weight and balance programs, administration of product quality deficiency reports and research and investigation of component failures and manufacturer defects.

AMT2298 Aviation Maintenance Supervisor - Aircraft maintenance management programs, policies and procedures for the first-line maintenance supervisors. Includes supervisory principles, aircraft safety, corrosion control, ground servicing procedures, engine operation, operational checkouts, fault isolation, ground handling procedures, inspection concepts, and flight safety. (May be repeated for credit on various aircraft)

AMT2299 Advanced Aviation Maintenance Management - Aviation maintenance organizational structure. Includes concepts of production management, resources management, quality control and assurance, labor hour and cost accounting, material deficiency and product quality deficiency reporting, training documentation, and Core Automated Maintenance Systems.

AMT2301 Aviation Production Superintendent - Advanced aircraft maintenance management and flight-line operation procedures. Includes establishing maintenance priorities, leading/managing/directing maintenance personnel and actions, and developing monthly and weekly maintenance plans; cannibalization procedures and supply system management; disaster preparedness, exercise scenarios, emergency war order and contingency planning; and determining and reporting aircraft mission capability and airworthiness status.

(AOC) Air Operations

AOC1000 Air Operations Center Personnel Recovery Coordination Cell Initial Qualification Training - Aspects, policies, and procedures for personnel assigned to a geographic Air Operations Center to perform Personnel Recovery

Coordination Cell duties on the Air Operations Command weapon system as applied to an Air Operations Center. Includes Joint Personnel Recovery Center positions that perform related Joint Personnel Recovery Center duties during Combat Operations, Planning Air Tasking Order execution, and monitoring and documenting all isolating incidents and Personnel Recovery mission execution.

AOC1001 Air Operations Center Initial Qualification Training Airspace Course - Aspects, policies, and procedures of Airspace Control as it pertains in an Air Operations Center environment. Includes information on joint doctrine; command relationships; multinational operations; US armed forces organization for combat; and various components and functions of defense and command & control systems. Also includes airspace fundamentals; systems and processes; the Airspace Control Plan; air tasking order; and airspace control order cycle planning and execution.

AOC1002 General Air Operations Center Knowledge - General Air Operations Center knowledge as applied to Air Operations Center Intelligence personnel. Includes Joint Command organizations; non-kinetic effects; and integrating multi domain operations within various types of tasking cycles. Also includes fundamentals of Joint Air Ops Doctrine; sister service organizations for combat; and introduction to cyberspace, space support, joint air planning and air operations framework.

AOC1100 AOC Fundamentals of Intelligence, Surveillance, and Reconnaissance (ISR) Operations - Fundamentals of Intelligence, Surveillance, and Reconnaissance (ISR) operations as applied to Air Operations Center Intelligence personnel. Includes history, facts, and terminology; traditional and non-traditional ISR operations; ISR operations planning; Air Operations Center structure, purpose, products and teams; battle management procedures, processes and tools; Processing, Exploitation, and Dissemination (PED); ISR Planning/Direction, Collection, Processing and Exploitation, Analysis/Production, and Dissemination/Integration (PCPAD); and Distributed Common Ground System (DCGS) enterprise architecture. Also includes fundamentals of mission planning overviewing intelligence support to operational plans and orders. Covers analysis of mission reporting, procedures, operational limitations, Integrated Defense, selection, and creation of intelligence products using fused intelligence data.

AOC1101 Air Operations Center (AOC) Communications Fundamentals - Communications fundamentals as applied to Air Operations Center Intelligence personnel. Includes joint cyberspace and communications support; communications support to personnel recovery operations; integrated air and missile defense operations; and various teams. Also includes systems functions; data links; communications and support to planning elements and organizations.

(ASM) Aircraft Structural Maintenance

ASM1105 Aircraft Maintenance Fundamentals - Fundamentals of aircraft maintenance and theories as it pertains to Aircraft Structural Maintenance. Includes basic aircraft systems theory and operation principles; operation and care of ground support equipment; aircraft familiarization; maintenance documentation; maintenance safety precautions; and technical manual usage. Also includes identification, selection, use and care of common hand tools, torque wrench procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

ASM1181 Fundamentals of Aircraft Structural Maintenance - Fundamentals of aircraft structural repair as it pertains to Aircraft Structural Maintenance. Includes airframe structures; sheet metal composition and identification; rivet composition and identification; hand tools; technical orders; drafting; interpreting technical drawings; flat pattern and metal layouts; and shop mathematics. Emphasizes fabrication techniques to include machine setup and operation; powered and non-powered bending; radius bends; hand and machine forming; hand and pneumatic riveting; hand and pneumatic drilling; dimpling, and countersinking; and personal, work center, and chemical safety standards and applications. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

ASM1182 Fundamentals of Low Observables Materials - Introduction to Low-Observable (LO) materials and advanced stealth aircraft technologies as applied to Aircraft Structural Maintenance. Includes the theory of LO and Stealth aircraft design; radar imagery; radar cross-section theory; radar signatures; radar signature reduction techniques; LO conductive coating repairs; panel restoration and fitting; RAM insertion; and step condition repairs.

ASM1183 Aircraft Specialized Structural Repair - Specialized structural repair as it pertains to Aircraft Structural Maintenance. Includes sheet metal repairs to include flush, non-flush and sub-structural aircraft damage restoration. Emphasizes special fastener identification, composition, installation, and removal; cable identification, composition and manufacturing; aircraft tubing identification, composition and manufacturing; and control surface balancing techniques and procedures. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

ASM1184 Assessment and Maintenance of Radar Absorbing Materials - Maintenance concepts, principles, and procedures of aircraft Radar Absorbing Materials (RAM) as it pertains to Aircraft Structural Maintenance. Includes inspection procedures and techniques; damage assessment and limitations; and removal and installation of materials. (May be repeated for credit on various aircraft--Air Force Airframe & Powerplant Program applicable course.)

ASM1185 Assessment and Maintenance of Low Observable Materials - Maintenance concepts, principles, and procedures of aircraft of aircraft Low-Observable (LO) materials as it pertains to Aircraft Structural Maintenance. Includes inspection procedures and techniques; damage assessment and limitations; and removal and installation of materials. (May be repeated for credit on various aircraft).

ASM1507 Metallic Corrosion Control - Corrosion control as it pertains to Aircraft Structural Maintenance. Includes corrosion inspection; preparation of metal and fiberglass surfaces; mechanical and chemical corrosion removal; and surface treatment.

ASM1508 Metallic Protective Coatings - Protective coatings as it pertains to Aircraft Structural Maintenance. Includes practical care and use of coating equipment; determining composition of coatings; application of coating systems; and identification and application of aerospace equipment markings.

ASM2101 Aircraft Specialized Fasteners, Stress Relief, and Repair Applications - Identification, selection, installation, and removal of aircraft unique fasteners pertaining to Aircraft Structural Maintenance. Includes stress relief procedures; repair practices; use of E-Drill equipment; proper use of specialized reamers; procedures for cold working of holes and hole repairs using acres/flex sleeves.

ASM2182 Advanced Aircraft Composite Repair - Advanced composites as pertains to Aircraft Structural Maintenance. Includes cutting, trimming, drilling, countersinking, liquid shimming and installation of advanced composite structures. Emphasizes advanced training and skills in aramid fiber and graphite structures; skin and core repairs; advanced composite repairs; in-shop safety procedures; visual inspection methods and tap testing; damage evaluation and classification; moisture removal; and programmable hot bond curing equipment. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

(AST) Astronautics

AST1101 Introduction to Space Operations I - Introduction of space environments for application to military space operations. Covers fundamental knowledge of military space history, to include: space leaders; historical events; space systems; US Air Force space activity; and aspects of space war-fighting and space acquisition. Integrates space command and control, cyberspace, and the roles of other US military services and agencies as they apply to space and Department of Defense missions. Includes Space Imperative; Space Laws and Treaties; US Space Policy; US Space Doctrine; and the Space Tactics, Techniques and Procedures (TTP) Process. Also includes space environment aspects, such as the Electromagnetic Spectrum and the potential effects that gravity, atmosphere, space debris, radiation, solar cycles, and other phenomena can have on space systems.

AST1110 Space Operator Qualification I - Concepts, principles, and procedures required for performance of space operator/space crew duties. Introduces students to crew documentation, such as: Technical Orders and Development of Procedures; Crew Information Files and Temporary Procedures; Crew Logs; and Job Aids. Introduces crew operations reporting, including: Crew Position Overview; Routine Operations; Changeover; the Debrief Process; OPSCAP/SYSCAP reporting; and Crew Coordination for Contingency Operations; and checklists. Also includes demand and non-demand response; warnings; cautions; notes; and crew actions of checklist processing and prioritization; tactics, techniques, and procedures in cyberspace. This course has a performance/demonstration laboratory

AST1201 Introduction to Space Operations II - Continuation of AST1101, Introduction to Space Operations I. Continues the introduction of space environments for application to military space operations. Provides students with the fundamental knowledge of the space environment, which includes: terrestrial weather; space weather; temperature, vacuum, and radiation in space; space threats and mitigation; and foreign, commercial, civil, national, and coalition space capabilities. Also discusses space organizations, applications, and acquisitions. Topics are covered in terms of: Organizational Structure and Roles and Responsibilities of both Total Force Integration and JFCC Space; Organizational Structure and Roles and Responsibilities of STRATCOM, MAJCOM, NAFs, and Wings; Air Force and Other Service contributions to US Military Space Applications; Warfighter Impact on US Military Space Applications; Space Effects on National Security through both civil and commercial uses; and Space Systems Acquisitions.

AST1210 Space Operator Qualification II - Continuation of AST1110, Space Operator Qualification I. Culmination of the concepts, principles, and procedures required for performance of space operator/space crew duties. Includes both

knowledge level and practical application of: pre-pass operations; pass operations; commanding operations; post-pass operations; State of Health operations; and ranging and tracking operations. Students will be able to demonstrate each of these procedures with a checklist and simulator after passing knowledge-level exams.

AST1403 Introduction to Remotely Piloted Aircraft (RPA) Weapons Systems - Introduction to the purpose, characteristics, theory, and operation of the weapons systems utilized on Remotely Piloted Aircraft (RPA). Includes basic facts about the MQ-1 Predator and MQ-9 Reaper aircraft; munitions, weapons system/mission impact, ground control stations, RPA control procedures, RPA operation centers, and tactical/video data links.

AST1404 Space Systems Operations I - Introduces students to various space operations which relate to space surveillance and missile warning. Emphasis is on console operator duties and responsibilities, to include: alerting systems; cryptographic publications; systems operability; and emergency procedures.

AST1504 Space Systems Operations II - Continuation of AST1404, Space Systems Operations I. Continues discussion of the various space operations which relate to space surveillance. Emphasis is on satellites, with lessons on rocket design range operations and remote sensing. Includes satellite subsystems, such as: spacecraft structures; power; propulsion; attitude control; and thermal control. Also includes satellite payloads, such as: spacecraft communications and tracking; telemetry and commanding; and space surveillance optical systems design. Additionally, focuses on satellite station keeping and maneuvers, which includes: maintenance and telemetry; maneuver operations and collision avoidance; and payload and mission management operations.

AST1505 Orbit Principles and Perturbations - Facts, principles and physics associated with achieving and maintaining orbit. Fundamentals of orbital motion, Newton's Laws, Laws of Conservation, the restricted two-body problem, constants of orbital motion, orbital elements, missions, and Spacecraft ground tracks and orbits. Includes geostationary (GEO), high (HEO), medium (MEO), and low (LEO) earth orbits, and associated missions, Kepler's equations and parameters, orbit to ground track translation, and the impacts of changing orbital parameters as pertains to Air and Space Operations Technology personnel.

AST1506 Space Systems Event Processing - Discussion of procedures involved in performing attack warning and space track event processing, with emphasis on security objectives and the application of strategic nuclear forces in sustaining these objectives. Includes the development of U.S. doctrine and policy, and the foreign threat doctrine as pertains to Air and Space Operations Technology personnel.

(ATC) Air Traffic Control

ATC1403 Visual Flight Control - Aircraft characteristics and methods of identification. Includes proficiency in control procedures for heavy jets; control tower operations, equipment, and operating positions; knowledge of aviation regulations pertaining to visual flight rules (VFR); control of aircraft engaged in VFR flight; and existent security risks in an unsecured tower communication system.

ATC1405 Air Traffic Control Non-radar Procedures - Principles of conventional approach control operations. Includes separation standards, terminology, inter- and intra-facility coordination, and procedures for control of aircraft without use of radar equipment.

ATC1406 Air Traffic Control Radar Procedures - Principles of approach control radar operations and equipment. Includes simulated operations employing situations requiring use of terminology, identification procedures, separation and basic control instructions for aircraft in a terminal radar environment.

ATC1408 Air Traffic Control Fundamentals - Weather briefing procedures, observations, and reports and application of aeronautical charts. Includes instrument approach procedure charts, standard terminal arrival route charts, visual and instrument flight rule supplements, and terminal instrument procedures and basic theory of flight and aircraft performance characteristics.

ATC1413 Basic Radar Approach Control - Functions and procedures for control of arriving and departing air traffic. Includes techniques for disseminating weather information, sequencing and separating aircraft, applying wake turbulence separation and approach clearance (HI-Approaches), applying merging target procedures, issuing breakout and holding instructions, issuing traffic advisories, conducting/terminating basic radar service to aircraft, operating intercoms, conducting point-out procedures.

ATC1414 Basic Control Tower Operation - Functions and procedures for operation of an air traffic control tower. Includes communication procedures and operating radio/landlines/intercoms, assign beacon codes, disseminating critical information, applying duty and operational priorities, arrival/departure procedures, traffic advisories, wheels check, takeoff/landing clearances, Line Up and Wait (LUAW), coordinating air/ground movements of aircraft,

maintaining surveillance of Controlled Movement Area (CMA), using active runway, transferring control of aircraft, maintaining surveillance of surface area, sequence and separate aircraft, applying inter/intra facility coordination, and marking flight progress strips.

ATC2001 Airspace Control - Aspects, policies, and procedures of Airspace Control as it pertains in an Air Operations Center environment. Includes information on Joint Doctrine, Command Relationships, Multinational Operations, and US Armed Forces organization for combat; and various components and functions of Defense and Command & Control systems. Also includes Airspace Fundamentals; Systems and Processes; the Airspace Control Plan; Air Tasking Order; and Airspace Control Order cycle planning and execution.

ATC2405 Airspace Management - Design, coordination, and management of airspace required for Air Force operational training activities. Includes national airspace system, categories of airspace, military training route program, military operations areas, airspace and air traffic control criteria.

ATC2407 Terminal Instrument Procedures - Development of terminal instrument procedures. Includes applications of trigonometry and analytic geometry, elements of airspace design and utilization, non-precision approach and radar procedures, textual development, administrative techniques and planning criteria for airspace area design and utilization.

ATC2408 Air Traffic Control Facility Management - Guidelines, rules, and regulations governing facility operations; and experience in terminal instrument procedures, national airspace system, mishap investigation and reporting, flight operations, manpower requirements, training programs and facility management techniques.

ATC2409 Tactical Air Command and Control Management - Principles of mission planning and mission management for Close Air Support (CAS) operations. Includes communication operations involving electronic warfare, command and control functions; assessment of resources, air-to-surface weapons systems, operational planning and readiness management.

ATC2411 Enhanced Terminal Voice Switch (ETVS) - Theory of operation and maintenance of the Enhanced Terminal Voice Switch (ETVS). Includes operator positions, system architecture, and troubleshooting procedures. Also includes the theory of operation and maintenance of the Digital Audio Voice Recorder (DVR) and troubleshooting procedures.

ATC2413 Advanced Radar Approach Control - Advanced functions and procedures for control of arriving and departing air traffic. Includes airport/obstruction/field condition information, visual separation and approaches, cautionary advisories, operational requests, successive approaches/climb-out instructions, departure restrictions, release times, missed approach instructions, safety alerts, inter/intra facility coordination (4 mile notification), and application of emergency aircraft operations.

ATC2414 Advanced Control Tower Operation - Advanced functions and procedures for operation of an air traffic control tower. Includes control ILS/straight-in approaches, traffic advisories (6 mile traffic rule), sequence/separate arrivals, control vehicles, equipment and personnel operations, closed/unsafe runway information, low approaches, helicopter operations, position transfer responsibilities, visual separation, simultaneous operations, emergency aircraft operations procedures, and operation of light guns.

(AVI) Aircraft Avionics

AVI1232 Data Display Systems - Introduction to the purpose, characteristics, and theory of operation of data display systems as applied to Aircraft Avionics. Includes fault isolation and bench check procedures.

AVI1236 Radar Warning Receiver Systems - Principles of Radar Warning Receiver Systems as applied to Aircraft Avionics. Includes automatic and manually operated chaff and flare dispenser systems; operational theory and checkout procedures; circuit analysis; use of special test equipment; service inspections; malfunction detection and fault isolation; and maintenance and repair of system components.

AVI1237 Identification Equipment Systems - Fundamentals of operation, adjustment, alignment, block diagram analysis and fault isolation procedures of aircraft identification systems as applied to Aircraft Avionics.

AVI1705 Automatic Flight Control Systems Theory - Circuit analysis/operation of pitch, yaw, and roll axis channels and stability augmentation system.

AVI1706 Automatic Flight Control Systems Maintenance - Trouble analysis, adjustment, and repair of automatic flight control systems and components. Includes principles of navigation systems and use and maintenance of associated test equipment.

AVI1707 Fundamentals of Avionic Systems - Principles of avionic maintenance, hardware care, use of special tools,

and repair of wiring and solderless connectors.

AVI1708 Engine Instrument Maintenance - Operational theory, functional analysis, troubleshooting procedures, adjustment, and calibration of aircraft engine instruments. Emphasizes maintenance and inspection of tachometer, oil pressure, fuel flow, pressure ratio, and fuel quantity systems.

AVI1709 Integrated Flight and Navigational Instrument Maintenance - Operation, analysis, and maintenance of integrated flight and navigational instruments. Includes magnetic compasses, transmitter indexing and calibration, optical transfer, electrical swing, and flight director systems.

AVI1710 Flight Instrument Maintenance - Operation, analysis, and maintenance of pitot-static and vertical scale indicating systems, mechanical airspeed indicators, altimeters, air data computers, computer modules, sensors, and automatic altitude reporting systems.

AVI1711 Aircraft Avionics-Maintenance Fundamentals - Fundamentals of aircraft systems for Avionic System Maintenance personnel. Includes aircraft systems theory and operation principles; operation and care of ground support equipment; aircraft familiarization; maintenance documentation; maintenance safety practices and procedures; and use of technical manuals. Also includes identification, selection, use and care hand and powered tools; torque wrenches; and safety wiring. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1712 Aircraft Avionics-Environmental Systems Maintenance - Fundamentals of aircraft cabin pressurization and air conditioning systems for Avionic System Maintenance personnel. Includes theory of operation; repair of system components; operational checks; servicing procedures; fault isolation; cabin leakage checks; bench testing; and calibration of components. Also includes inspection and maintenance of cabin pressure regulators; heat exchangers; flow control valves; temperature regulators; electronic temperature control units; distribution ducting; and water separators. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1713 Aircraft Avionics-Fuel Systems Fundamentals - Fundamentals of aircraft fuel systems for Avionic System Maintenance personnel. Includes fuel systems theory and functions; engine feed and cross feed; transfer; defueling; dump; scavenge; in-flight refueling; quantity indication; and vent pressurization systems. Emphasizes maintenance procedures with safety precautions and human factors. (May be repeated on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1714 Aircraft Avionics-Introduction to Aircraft and System Components - Introduction to aircraft and system components for Avionic System Maintenance personnel. Includes specifications, functions, and location of systems and components. Also includes operational theory, inspection, and maintenance of landing gear; brake; flight control; hydraulic; oxygen; air-conditioning; pressurization; instrument; and fuel systems. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1715 Aircraft Avionics-Aircraft Familiarization and Flightline Operations - Introduction to aircraft familiarization and flightline operations for Avionic System Maintenance personnel. Includes aircraft ground operation hazards; movement; flightline safety procedures; weight and balance; aerodynamics; regulations; hardware; aircraft servicing; inspection concepts; and principles of corrosion control. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1716 Aircraft Avionics-Aircraft Electrical Systems Maintenance - Introduction to aircraft electrical systems for Avionic System Maintenance personnel. Includes the application of direct and alternating current generation and distribution systems. Also includes familiarization, inspection, and operational checks of generators; transformers; rectifiers; inverters; control panels; frequency sensing relays; distribution busses; normal and emergency lighting; and aircraft subsystem electrical components. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1717 Avionic Maintenance Management - Principles of supply systems and avionic maintenance management, procedures for maintenance inspections, and evaluation of maintenance activities.

AVI1718 Aircraft Avionics-Aircraft Control and Warning Systems - Introduction to aircraft and engine control and warning systems principles for Avionic System Maintenance personnel. Includes fire-detection and overheat systems; antiskid normal/emergency braking system; landing gear warning system; takeoff warning system; master warning and caution panel; interior and exterior lighting systems; touchdown relays and weight on wheels switches; thunderstorm lighting; anti-collision lighting; starting and ignition systems; and other control and warning systems. Inspection procedures, preventive maintenance, and fault isolation are also covered. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course)

AVI1719 Aircraft Systems Instrumentation Maintenance - Introduces aircraft avionic maintenance personnel to the theories and maintenance practices of aircraft instrumentation systems. Includes the functions, operational theory, specification and tolerances, inspection, troubleshooting, and maintenance of various instrumentation and indication systems used to monitor aircraft operation and performance. Emphasis is on engine, hydraulic, electrical, temperature, pressure, and quantity indication system and sub-systems. Also includes Integrated Data Acquisition Recorder System (IDARS), Digital Data Recorder (DDR), and Fuel/Center of Gravity Management System (F/CGMS).

AVI1729 Integrated Avionic Systems Theory - Operational characteristics of integrated avionic systems. Includes technical descriptions, theory of operation and circuit analysis of integrated avionic systems.

AVI1730 Integrated Avionic Systems Laboratory - Maintenance and troubleshooting of integrated avionic systems. Includes operational checkout, malfunction detection, maintenance of system components, alignment and application of circuit analysis techniques.

AVI1731 Avionic Radar Systems Theory - Operation and maintenance of monopulse helical scan radar, power supply, transmitter, receiver, and indicating circuits.

AVI1732 Avionic Radar Systems Maintenance - Avionic radar trouble analysis and maintenance procedures. Includes detailed data flow and logic analysis of transmitter, receiver, antenna, indicating, ranging, tracking, and synchronization circuits.

AVI1733 Weapons Control Systems Maintenance - Operational theory and detailed circuit analysis of weapons control system. Includes analysis, checkout, and fault isolation of test equipment used in malfunction isolation techniques.

AVI1734 Optical Sighting Systems - Theory and circuit analysis of optical systems. Includes analysis, checkout, and fault isolation and use of special test equipment.

AVI1735 Avionic Radar Navigation Systems Theory - Inertial navigation systems theory and detailed circuit analysis of stable platforms and computers. Includes integrators, accelerometers, gyroscopes, and resolvers.

AVI1736 Avionic Radar Navigation Systems Maintenance - Circuit analysis, alignment, and adjustment of avionic inertial and radar navigation equipment and use of special and general test equipment.

AVI1738 Electronic Warfare Systems Theory - Comprehensive electronic warfare systems and equipment theory. Includes infrared, panoramic receivers, recoding, radar homing and other electronic warfare subjects.

AVI1739 Basic Electronic Warfare Systems Maintenance Laboratory - Analysis, alignment, and adjustment of electronic warfare equipment, and use of special and general test equipment.

AVI1740 Electronic Warfare Systems Maintenance Laboratory - Troubleshooting, repair, cable fabrication, soldering techniques, and wiring diagram analysis of electronic warfare systems.

AVI1741 Automatic Test Station Operation - Terminal operation, equipment hookup, testing, troubleshooting procedures and use of equipment in performing diagnostic testing on a wide variety of avionic equipment.

AVI1742 Automatic Test Station Maintenance - Operational checkout, troubleshooting and repair of automatic test stations used to maintain avionic equipment.

AVI1743 Avionic Inertial Navigation Systems Theory - Principles, theory, and concepts applicable to airborne inertial navigation system. Includes system data flow and analysis.

AVI1744 Avionic Inertial Navigation Systems Maintenance - Inspection, adjustment, performance testing, malfunction analysis and corrective maintenance of inertial navigation system.

AVI1747 Infrared Sensors Theory - Principles, characteristics, and functional analysis. Emphasizes circuit analysis using wiring diagrams and logic symbols.

AVI1754 Avionic Radio Communication Systems Theory - Operational characteristics of avionic communication equipment. Includes use of schematic diagrams, data flow, and detailed circuit analysis of receiver and transmitter systems.

AVI1755 Avionic Radio Communication Systems Laboratory - Operational testing, adjustment, inspection, malfunction analysis and maintenance of avionics communication equipment.

AVI1756 Avionic Radio Navigation Systems Theory - Operational characteristics of avionic radio navigation equipment. Includes use of schematic diagrams, data flow, and detailed circuit analysis of navigational receiver and transponder systems.

AVI1757 Avionic Radio Navigation Systems Laboratory - Operational testing, adjustment, inspection, malfunction analysis, and maintenance.

AVI1759 Airborne Warning and Control Systems Familiarization - Introduction to Airborne Warning and Control Systems. Includes power distribution, cooling systems, and use of safety and security procedures and technical publications.

AVI1760 Intercommunication System - Operating characteristics, circuit analysis, and troubleshooting procedures of typical aircraft intercommunication system. Includes block diagram and detailed circuit analysis.

AVI1761 Global Positioning Systems (GPS) Navigation Theory - Operational characteristics of avionic Global Positioning Systems (GPS) navigation equipment. Includes use of schematic diagrams, data flow and detailed circuit analysis.

AVI1780 Airborne Warning and Control System (AWACS) Data Analysis Programming Group - Introduction to the purpose, characteristics, theory of operation, and fault isolation techniques of the Data Analysis Programming Group (DAPG) utilized on Air Force Airborne Warning and Control System (AWACS) aircraft. Includes the application of maintenance computer programs and systems to isolate and diagnose system malfunctions within the data processing system.

AVI1781 Airborne Warning and Control System (AWACS) External Interfacing - Introduction to the purpose, characteristics, theory of operation, and fault isolation techniques of the external interfaces utilized on Air Force Airborne Warning and Control System (AWACS) aircraft. Includes the application of maintenance computer programs and systems to isolate and diagnose subsystem malfunctions and perform interface testing via support equipment.

AVI1782 Airborne Warning and Control System (AWACS) Data Display Group - Introduction to the purpose, characteristics, theory of operation, and fault isolation techniques of the Data Display Group (DDG) utilized on Air Force Airborne Warning and Control System (AWACS) aircraft. Includes the application of airborne operational computer programs and systems to trace display data flow and isolate malfunctions. Also includes calibration procedures via the Electronic Systems Test Set Group (ESTSG).

AVI2204 Advanced Aircraft Instrument Repair - Operation, circuit analysis, troubleshooting, adjustments, and calibration of liquid quantity, compass system, and aircraft engine, gyro and pressure operated instruments. Includes operation of special test equipment for checking and calibrating instrument systems.

AVI2715 Flight Director System - Maintenance and troubleshooting of the flight director system. Includes operational theory, circuit analysis, use of associated test equipment, service inspections, malfunction detection and isolation, and repair of system components.

AVI2716 Avionic Systems Laboratory - Removal and installation of line replaceable units and operational checkout of avionic systems. Includes use of specialized and general test equipment.

AVI2719 Avionic Search Radar - Circuit analysis, operational checks, and adjustments of monopulse helical scan radar. Includes transmitters, receivers, indicators, antennas, power supplies, and flexible waveguides.

AVI2722 Electronic Countermeasures - Identification and recognition of passive and active countermeasures, electronic countermeasure techniques, and data processing.

AVI2729 Maintenance and Operation of Aircraft Test Equipment - Certification, repair, and operation of avionic test equipment used in troubleshooting, repair, and alignment of aircraft electrical components and test benches.

AVI2730 Advanced Avionic Systems - In-depth avionic systems principles, characteristics, and uses; newest electronic innovations and repair techniques. Includes maintenance procedures and capabilities, limitations and techniques in employment of avionic systems.

AVI2732 Airborne Command Post Communication Systems - Advanced theory and operation of satellite communication systems on aircraft. Includes digital voice systems, switching networks, data flow, and associated circuit and systems analyses.

(BEE) Bioenvironmental Engineering

BEE1300 Intro to Bioenvironmental Engineering - Introduction to planning, organizing, implementing and evaluating bioenvironmental engineering activities. Includes bioenvironmental engineering flight structure and interaction with medical service and federal agencies, Occupational Environmental Health (OEH) Program, health risk assessments, chemical, biological and physical workplace hazards, introductory chemistry/calculations, toxicology, basic anatomy &

physiology and terminology pertaining to environmental settings.

BEE1302 Bioenvironmental Protection & Readiness - Assessing thermal stress hazards to include cold and heat assessments, indoor and outdoor assessment scenarios, recommendation of thermal stress controls for protection, principles of the Confined Space Program (CSP) and key player responsibilities, classifications and confined space control hazards, Personal Protective Equipment (PPE), includes Occupational Environmental Health (OEH) Program and assessments, Defense Occupational and Environmental Health Readiness System (DOEHRS),

BEE1303 The Occupational Environment - Principles of occupational health and toxicology, establishment of case files, environmental pollution detection and control, and use of detection devices to determine level of exposure to hazards.

BEE1306 Bioenvironmental Chemical Hazards & Controls - Describes basic principles/facts related to industrial chemicals and hazards. Introduces the Hazard Communication Program (HAZCOM), chemical inventories and reports, occupational and environmental exposure limits, air sampling including instruments and techniques used and sampling rates/volume calculations, personal protective clothing, ventilation principles and equipment, Respiratory Protection Program (RPP) principles and equipment, qualitative/quantitative fit testing.

BEE2313 Hearing Conservation - Measurement of auditory risk, automatic audiometer monitoring, selection and issue of personal ear protection devices, methods of monitoring noise exposure, and management of hearing conservation program.

BEE2320 Ionizing Radiation Management - Radiation protection development and management. Includes radioactivity and principles of radiation, interaction with matter, biological effects of radiation, external and internal dosimetry, radiation instrumentation, and transportation and disposal of hazardous materials.

(BET) Biomedical Equipment Technology

BET1102 Introduction to Medical Equipment - Introduction to the basic principles, operation, and maintenance of infusion pumps, hypo- and hyperthermia units, infant incubators, and audiometers in clinical settings as it applies to Biomedical Equipment Technology personnel.

BET1103 Physiological Monitoring Equipment - Introduction to the basic principles, operation, and maintenance of electrocardiograph units, defibrillators, fetal heart monitors, and noninvasive blood pressure monitors as it applies to Biomedical Equipment Technology personnel.

BET1104 Medical Support Equipment - Introduction to the principles and functions of blood/fluid warmers, chemistry analyzers, centrifuges, blood gas analyzers and dental compressors as it applies to Biomedical Equipment Technology personnel.

BET1105 Surgical Equipment - Introduction to the basic principles, operation, and maintenance of adult volume and pressure ventilators, anesthesia systems, pulmonary function analyzers, and electrosurgical units as it applies to Biomedical Equipment Technology personnel.

BET1106 Information Technology and Field Equipment - Introduction to facility issues, computer principles, field equipment, systems applications, and maintenance of information technology and field equipment as it applies to Biomedical Equipment Technology personnel.

BET1107 Biomedical Equipment Technology Electronic Principles I - Introduction to principles of electronics as it applies to Biomedical Equipment Technology personnel. Includes operation and maintenance of multimeters; oscilloscopes; and generators. Also includes functions of Alternating Current (AC) and Direct Current (DC) circuits; and various AC/DC electronic components.

BET1108 Biomedical Equipment Technology Electronic Principles II - Continuation of Biomedical Equipment Technology Electronic Principles I. Includes the introduction of electronic principles; circuit recognition; solid state technology; integrated circuit devices; microprocessors; and motors as it applies to Biomedical Equipment Technology personnel.

BET1109 Medical Field Equipment Support - Introduction to operational inspections, lighting, field electrical systems, tentage, and Air Force field/deployable medical equipment as applied to Biomedical Equipment personnel.

BET1201 Dental and Sterilizer Systems - Introduction to the basic principles, operation, and maintenance of dental operatory systems, dental prophylaxis and steam sterilization systems as it applies to Biomedical Equipment Technology personnel.

BET1202 Biomedical Equipment Technology Troubleshooting Principles - Introduction to the principles of general

troubleshooting and proper soldering techniques on necessary medical equipment as it applies to Biomedical Equipment Technology personnel.

BET1206 Diagnostic Imaging Equipment I - Introduction to the basic principles, operation, and maintenance of radiation and X-ray generation, anatomy and physiology, and diagnostic imaging equipment as it applies to Biomedical Equipment Technology personnel.

BET1207 Diagnostic Imaging Equipment II - Continuation of Diagnostic Imaging Equipment I. Introduction to radiation and X-ray generation, ultrasound/laser/optical principles, operation, and maintenance of diagnostic imaging equipment as it applies to Biomedical Equipment Technology personnel.

BET1208 Managerial Functions in Biomedical Equipment - Introduction to manager responsibilities, inspections, inventory, and maintenance programs as applied to Biomedical Equipment personnel.

BET1209 Medical Laser Systems - Principles and theories of Medical Laser Systems as applied to Biomedical Equipment Technicians. Prepares students to maintain Medical Laser Systems used in a medical treatment facility. Includes equipment operations and theories, clinical applications, preventive maintenance, calibration and verification, isolating malfunctions, regulatory guidance and operations, contracts, and reports.

BET2322 X-ray System Technology - Pre-installation surveys; procurement, installation, and calibration of X-ray systems; radiographic and fluoroscopic principles; and Bureau of Radiological Health Compliance testing.

BET2404 Computer-Based Medical Systems - Conceptual and practical applications for advanced computer-based medical systems. Includes peripherals, networks, and microprocessors.

BET2405 Telemedicine - Clinical applications, functions and benefits of a picture-archiving and communication system. Includes systems operations, preventive maintenance, inspection, calibration, troubleshooting and repair of hardware and software related to a variety of telemedicine computer operating systems.

BET2406 Advanced Diagnostic Imaging Systems - Advanced clinical and practical applications, related physiology, modalities, equipment operations theory, calibration, circuit analysis, troubleshooting and repair of advanced diagnostic imaging medical systems. Includes radiographic and fluoroscopic imaging systems, mammography and ultrasound systems.

BET2408 Advanced Medical Laboratory Systems - Advanced laboratory anatomy and physiology, clinical and practical applications, modalities, equipment operation, calibration, circuit analysis, troubleshooting and repair of medical laboratory systems. Includes general clinical laboratory equipment, blood gas analyzers, cell washers, hematology analyzers and plasma sterilizers.

BET2409 Tomography System Clinical Applications - Advanced clinical and practical applications for computed tomography systems. Includes clinical applications, equipment theory of operation and circuit analysis, calibration, preventive maintenance, and safe operating procedures for plasma sterilizer systems.

BET2410 Computer Systems Configuration and Troubleshooting - The course is designed to provide advance technical training on Medical Device Information Technology Systems (MDITS). Perform healthcare information systems computer inspection and configurations, Small Office and Home Office (SOHO) network configurations, computer and network troubleshooting.

BET2411 System Security and Network Administration - The course is designed to provide advance technical training on Medical Device Information Technology Systems (MDITS). Analyze Healthcare Information Systems computer administration concepts, security principles, administration and security troubleshooting.

BET2412 Advanced Field Medical Systems - Advanced medical support and procedures in contingency operations as applied to Biomedical Equipment Technicians. Prepares students to set-up and maintain equipment for a contingency medical treatment facility. Includes medical facilities, environment and power production/distribution systems, oxygen concentration systems, therapeutic systems, diagnostic support equipment, and imaging systems used in contingency operations.

(BHT) Behavioral Health

BHT1100 Introduction to Behavioral Health - Introduction to duties and responsibilities of the Behavioral Health Technician in various inpatient and outpatient settings and working with individuals with emotional, behavioral, addictive and/or social problems. Includes discussion of ethics and culture, an understanding of anatomy and physiology specifically of the neuroanatomical structure and function of the brain, the human life-span approach, behavioral health terminology and health care associated with the culture.

BHT1101 Behavioral Health Administration - Introduction to Behavioral Health Administration and management functions, functions of the Drug and Alcohol Abuse Program, Family Advocacy Programs, and the Automated Neuropsychological Assessment Metrics. Includes conducting mental health briefings; patient screenings; and maintaining mental health records.

BHT1102 Introduction to Psychopathology I - Introduction to signs, symptoms, and diagnostic features of psychopathology disorders. Includes familiarization of the Diagnostic and Statistical Manual (DSM) of Mental Disorders; identification of conditions; and pharmaceutical and non-pharmaceutical treatment interventions of neurocognitive, depressive, anxiety, personality, neurodevelopmental disorders and other psychotic disorders.

BHT1103 Introduction to Psychopathology II - A continuation of Introduction to Psychopathology I. Emphasizes the identification and intervention of trauma and stress related disorders. Includes the introduction to Combat Operational Stress Control (COSC); Traumatic Event Management (TEM); and care of other unique groups. Also includes the foundation of responsibilities and activities related to preserving psychological health and resiliency.

BHT1104 Psychiatric Behavioral Interventions - Introduction to responsibilities of the Behavioral Health Technician in inpatient and outpatient settings. Focused on domestic violence; guidelines for therapeutic Milieu; techniques needed to administer and score psychological testing; nursing interventions; managing aggressive and hostile behavior; use of non-violent crisis intervention techniques; and admission and discharge of patients in a Behavioral Health setting.

BHT1105 Behavioral Health Interviewing - Introduction to terminology, techniques, skills and knowledge needed to perform appropriate patient-client interviewing techniques. Includes elements of the initial interview; risk assessments; medical consultations; psychiatric consultations; managing various behaviors identified during interviews; discharge planning; understanding interviewing terminology; and handling and documentation of interviews.

BHT1106 Introduction to Behavioral Health Counseling - Introduction to behavioral health counseling. Focused on the techniques related to counseling theories and psychotherapy; purpose and goals of group counseling; conducting and documenting counseling sessions. Also includes the elements of counseling environments and interventions.

BHT1107 Behavioral Health Clinical - Practical application and performance of all clinical knowledge and skills taught throughout the Behavioral Health program in various clinical settings. A case study is required to demonstrate proficiency of the intake interview, administrative tasks, and all aspects of the Behavioral Health Technician profession.

(CAR) Carpentry

CAR2801 Advanced Roof Installation, Maintenance, Inspection and Repair - Advanced roofing practices focusing on the relationship of basic facts, general principles, and construction procedures for decks, insulation, and build-up of roofs on Low-Slop roofing Construction. Includes installation and repairs for composition shingle roofs, composition roll roofing, and metal roofing panels on Steep-Slope Roofing construction. Emphasis is on performing roof inspections, preventative maintenance, and procedures for executing cold weather roofing in accordance with the Air Force Roof Management Program.

(CEO) Civil Engineering Operations

CEO1001 Civil Engineering Unit Control Center Operations - Principles of Unit Control Center (UCC) operations as applied to Operations Management personnel. Includes knowledge and performance skills essential to UCC fundamentals; emergency planning; resources; plotting; and operations. Also includes facts and terms of organizations and their responsibilities, and use of associated systems and software.

CEO1002 Introduction to Civil Engineering Operations Maintenance Scheduling - Introduction to maintenance planning and scheduling concepts as applied to Operations Management personnel. Includes the time compliance technical order system; responsibilities and duties of various organizations connected with maintenance activities; automated products; labor accounting; manual and automated maintenance logs and records; and planning, scheduling, tracking, and reporting maintenance production actions.

CEO1003 Civil Engineering Maintenance Systems Analysis and Scheduling - Introduction of maintenance concepts, policies and procedures as applied to Operations Management personnel. Includes maintenance management processes; comprehensive engine maintenance management; and configuration movement. Also includes career progression; security; publications; Air Force supply system; safety precautions; and the Air Force Occupational Safety and Hazard program.

(CIV) Civil Engineering

CIV1101 Civil Engineering Organization and Work Force Management - Functional responsibilities associated with various base civil engineering operations and management; principles of work information management system and civil engineering materiel acquisition system including capabilities of each; quality management to include awareness, process improvement, and quality focus; real property maintenance requests, job orders, service calls, and work orders; career field structure, progression, and ladder; safety and security; and contingency responsibilities of civil engineering personnel.

CIV1102 Work Scheduling and Programming Resources - Concepts used in electronic research, material acquisitions and preparation for various types of work associated with civil engineering support. Includes preparation of warehouse operations; avenues of requisition; design presentation and using charts, graphs and spreadsheets.

CIV1103 Metals Layout and Fabrication - Fundamentals of installing and repairing sheet metal and flex ducts, metal sidings, stacks, and ventilators. Includes the use of hand and power tools required for galvanized sheet metal fabrication and fabricating rectangular ducts, rectangular takeoff fittings, 90 degree rectangular elbows, rectangular-to-round transitions, round ducts, and flashing.

CIV1150 Technical Engineering - Introduction to drafting and conventional surveying. Includes drafting sketches; pictorial views; architectural and engineering drawings; basic survey, horizontal, and directional distance measurements; differential and trigonometric elevations; topographic surveying and mapping; road, building, and utility layout; contingency operations; and quality management.

CIV2511 Industrial Engineering Techniques - An introductory course in industrial engineering analysis to include the use of operational analysis checklists, flow process charts and diagrams, operation process charts, layout diagrams, work measurement methods, network planning, systematic approach to method improvements, and budget processes.

CIV2519 Civil Engineer Management - Civil engineering force management, resources, and training. Includes advanced topics in environmental awareness, manpower assessment, scheduling, evaluation of contracts and projects, budgeting, development of job qualification standards, determination of job proficiency and establishment of upgrade qualification training programs.

CIV2520 Contract Construction Inspector - Construction inspector role, blueprints, contract documentation, government furnished property, pre-performance conferences, material submittals, warranties, guarantees, surveillance, acceptance procedures, safety, environmental awareness, and site work. Includes inspection requirements for flexible and rigid pavements, masonry, metals, thermal and moisture protection, woods, finishes, doors, windows, and mechanical and electrical systems.

(CLT) Cardiopulmonary Laboratory Technology

CLT1303 Fundamentals of Respiratory Therapy - An introduction to safe use of medical gases, humidification and aerosol therapy, intermittent positive pressure breathing, and pediatric ventilation. Emphasis is on use of oxygen equipment, respirators, equipment sterilization, endotracheal intubation, and prolonged ventilation.

CLT1304 Fundamentals of Cardiopulmonary Anatomy and Physiology - Cardiovascular and pulmonary anatomy and physiology and dysfunction, intrinsic and extrinsic regulation, and acid-base physiology.

CLT1306 Introduction to Pulmonary Diagnostic Principles - Fundamentals of gas laws and respiratory dynamics; and assessment of pulmonary functions making use of spirometry, diffusion, lung volume, airway resistance, flow and volume loops, compliance, and blood gases.

CLT1307 Introduction to Respiratory Therapy - Principles of medical gasses, specific medications used in respiratory therapeutics, physiological application of ventilatory support, and management of acute cardiopulmonary emergencies.

CLT1308 Introduction to Cardiopulmonary Management - Management of cardiopulmonary emergencies. Includes Joint Commission for Accreditation of Healthcare Organizations standards, medical record documentation, medical computer system, Occupational Safety and Health Administration standards, and basic cardiac life support.

CLT1309 Introduction to Cardiopulmonary Medicine - Familiarization with basic medical terminology, anatomy and physiology, fundamentals of patient care, physiologic measurements, application of microbiology/infection control and gas physics calculations.

CLT2101 Mechanical Ventilation - Operations on mechanical ventilation devices to include adult and high frequency ventilators and non- invasive positive pressure delivery (BiPAP), transportation of mechanically ventilated patients, parameters for patient weaning from mechanical ventilation, and critical care monitoring.

CLT2303 Introduction to Cardiopulmonary Instrumentation - Instruction and practical application of respiratory care

techniques through clinical experiences in accordance with Air Force Occupational Safety and Health program and infection control standards. Includes cardiopulmonary administration, oxygen and mixed gas therapy, respiratory and emergency medication administration, lung expansion therapy, and chest physiotherapy.

CLT2305 Introduction to Cardiopulmonary Instrumentation - Procedures and safety practices used in clinical application of blood gas analyzers and emergency equipment.

CLT2306 Cardiovascular Noninvasive Diagnostic Procedures - Dynamic electrocardiography, stress testing, echocardiography, vectorcardiography, and apex, and phonocardiography; and interpretation of medical findings, emergency procedures, and procedures for referral of cases.

CLT2308 Pulmonary Diagnostic Procedures - Clinical procedures for arterial puncture and blood gas analysis, calculation of results, and recognition of valid and invalid testing.

CLT2313 Critical Care Air Transport - Critical care related to air evacuation and transportation of the sick and injured. Emphasis on flight operational and clinical training and altitude physiology to include stresses of flight and flight safety.

CLT2314 Respiratory Care - Administration of oxygen, mixed gas therapy and medications. Includes patient history and therapy documents, terminology, airway management, chest physiotherapy, mechanical ventilation, emergency procedures, and patient maintenance. Analyze facts and principles, draw conclusions about neonatal and pediatric respiratory care, and identify basic facts about Home Health Care and the respiratory therapist role.

(CLTR) Cultural Studies (Air University)

CLTR201 Introduction to Culture - Foundational course in the development of cross-cultural competence in the Air Force; provides an in-depth look at the concepts and domains of culture. Includes an exploration of cross-cultural communication, belief systems, family and marriage, inter-cultural relations, conflict resolution/negotiations, sport and culture, ethnocentrism and cultural relativism, and the cultural impacts on personality and behavior.

CLTR202 Introduction to Cross-Cultural Communication - Foundational course in the development of cross-cultural communication competence; focuses on the theories, skills, and applications necessary to effectively communicate across cultural boundaries. Explores the challenges presented by cross-cultural interaction and how they affect people, jobs, and relationships. Includes nonverbal communication, paralanguage, cross-cultural communication conflict styles, active listening, and interaction management.

(CMD) Command and Control

CMD1100 Communication System Operations - Operational theory of command communications systems as it pertains to Emergency Management. Includes data and broadcast transmitting and receiving systems; operational procedures; command and control automated systems; and nuclear weapons systems.

CMD1101 Emergency Operations - Emergency operations as it pertains to Emergency Management. Includes notification, response, withdrawal, and recovery phases of emergency operations. Also includes major accidents, both nonnuclear and radiological, and natural disaster operations.

CMD1400 Command and Control Communication Countermeasures - Command and Control communications as it pertains to Emergency Management. Includes concepts and issues; identification of threats, capabilities, criticality, and vulnerability for both tactical and strategic command, control and communications; and interrelated responsibilities of communications intelligence and operations.

CMD1401 Command Post Fundamentals - Operation of voice and data information systems and procedures used for command and control reporting.

CMD2000 Command and Control Operations - Principles of Command and Control Operation elements as applied to Command Post personnel. Includes Command Post publications; force structure; command and control elements; Command Post core competencies; emergency management; Command Post systems and applications; operations, communication, and information security; Command Post supervision: and training program management.

CMD2100 Advanced Command and Control Operations - Advanced knowledge of Nuclear Command, Control, and Communication procedures. Includes various nuclear monitoring, command and control, communication, and alerting systems and processes.

CMD2101 National Military Command System/Chairman of the Joint Chiefs of Staff Nuclear Command and Control -

Advanced skills and knowledge for National Military Command System elements as applies to Emergency Management and Command Post personnel. Encompasses Nuclear Command and Control Authorities, Communication Security/Two Person Concept, Emergency Action Message Procedures, Implementing Presidential/CJCS Instructions, Communications and Conferencing, CJCS/NMCS/Combatant Command NC3 Systems, and Nuclear Execution Reporting Plan.

CMD2102 National Military Command System/Chairman of the Joint Chiefs of Staff Emergency Actions - Advanced skills and knowledge of National Military Command System elements as applies to Emergency Management and Command Post personnel. Encompasses Nuclear Command and Control Authorities, Communication Security/Two Person Concept, and Emergency Action Message Procedures.

CMD2150 Command Post Management - Management principles of command post programs and operations. Introductory and mastery level responsibilities as a Command Post Manager. Includes command post program management, manpower and personnel management, budget management, command and control operations, contingency deployments, and self-assessment programs.

CMD2200 Joint Nuclear Command & Control - Advanced knowledge of Joint Nuclear Command, Control and Communication procedures as applied to Emergency Management personnel. Includes 8010 Command and Control (C2) Systems; 8010 Generation; 8010 Support Equipment; Emergency Action Messages (EAM); codebook usage; alerting procedures; checklist procedures; Force Status Readiness (FSR); and Nuclear Execution Reporting Plan (NEREP).

CMD2302 Command and Control Operations Specialty Training - Advanced knowledge tailored towards Command Post personnel only for the Emergency Management Degree program. The course is designed for performing NCOIC, Command and Control Operations Training positions. Instruction includes: Unit Training Plan (UTP), Instructional Systems Development (ISD), Initial and Recertification Training, Recurring Training, Upgrade Training, and Training Documentation and Records.

CMD2400 Command and Control Operation Leadership - Advanced knowledge that focuses on identifying Command and Control Operations missions and functions, including the development of support plans/agreements, budgets, equipment/systems maintenance plans, policy and procedures, and training program management. This course provides Command and Control leadership positions the opportunity to explore in-depth communication, trust, teamwork, and leadership initiatives. It also includes in-depth theoretical and working knowledge of the Command and Control Operation functions within the Department of Defense, Combatant Commands, Air Staff, and Major Commands that apply to the Emergency Management degree program.

(CMF) Civil Engineering Maintenance

CMF1100 Structural Apprentice - Introduction to construction structural repair. Includes construction drawings and specifications; woodworking; forming and reinforcing; concrete; masonry; framing; stair construction; interior and exterior finishing; composition shingles; heavy timber bridges; pre-engineered building; doors and windows; suspended ceilings; floor and wall tile; interior trim; drywall, demolition; structural layout; sheet metal fabrication; doors and gates. Also includes mathematics; proper selection and use of tools; welding; and contingency operations.

CMF1200 Metals Layout and Fabrication - Fundamentals of metal fabrication in construction. Includes installing and repairing sheet metal and flex ducts; and metal sidings stacks, and ventilators. Also includes use of special hand and power tools required for galvanized sheet metal fabrication; fabricating rectangular ducts; rectangular takeoff fittings; 90 degree rectangular elbows; rectangular-to-round transitions; round ducts; and flashing.

CMF1201 Oxyacetylene Welding - Fundamentals of oxyacetylene welding. Includes operation and maintenance of welding equipment; identification of beads, lap joints and tee joints of carbon steel; position welding; cutting ferrous metals; silver and lead soldering; brazing steel and gray cast iron; fusion welding of ferrous castings; and forging metals.

CMF1202 Shielded Metal ARC Welding - Fundamentals of metallic ARC welding. Includes operation and maintenance of equipment; selection of electrodes; building up flat surfaces, fillet welds and butt joints; and interpreting drawings and symbols.

CMF1203 Metallic Inert Gas (MIG) Welding - Fundamentals of Metallic Inert Gas (MIG) welding. Includes MIG welding of edge, butt and tee joint techniques used in heat and corrosion resistant ferrous metals, aluminum, magnesium and titanium alloys.

(CMR) Computer Maintenance & Repair

CMR1402 Diagnostic Testing - Analyzing and isolating electronic equipment malfunctions using computer programs. Includes use of technical manuals and general- and special-purpose test equipment.

CMR1752 Computer Console Theory - Systems analysis and operation. Includes keyboard inputs, control panel functions, and logic, and circuit diagram analysis.

CMR2770 Computer Systems - Advanced operational theory and configuration. Includes data flow, logic, and circuit diagram analysis, system operation, and diagnosis of system malfunctions.

(COM) Communications

COM1100 Communication System Operation - Operational theory of command communications systems. Includes data and broadcast transmitting and receiving systems.

COM1400 Principles of Electronic Communications - The purpose, functions, characteristics, and theory of operation for electronic communications devices to include amplitude modulation (AM) systems, frequency modulation (FM) systems, transmitters, and receivers. Addresses the basic knowledge of communication mediums such as transmission lines, antennas, data bus, waveguides, and fiber optics.

COM1403 Radio Communication Theory - Transmitter principles, receiver tuning and operation, antenna, wave propagation, and communication procedures.

COM1404 Communication Network Equipment Operation - Network equipment operating techniques and procedures for ensuring continuity, reliability, and speed of service; operation of relay station equipment; and concepts of operation of technical control facilities.

COM1433 Airborne Radio Operations - Operation of various airborne radio communications systems and related electronic equipment.

COM1466 Communication Security Analysis - Basic principles of communication security. Includes intelligence structure, communication procedures, equipment, and applied electronics.

COM1467 Command and Control Communication Countermeasures - Concepts and issues; identification of threats, capabilities, criticality, and vulnerability for both tactical and strategic command, control and communications; and interrelated responsibilities of communications intelligence and operations.

COM1468 Command Post Fundamentals - Operation of voice and data information systems, and procedures used for command and control reporting.

COM1606 Introduction to Tower Rescue - Basic course in proper methods and techniques to rescue stranded personnel from antennas and other high altitude towers. Course includes information and practicum of fall protection techniques, ropes and rescue knots, anchor systems, mechanical advantages, equipment inspections, medical concerns, fall clearance, and types of rescue.

COM1714 Electronic Telephone Switching - Four-wire communications, radio signaling, intra-switch and outward dialing, safety procedures, fault isolation and repair and use of hand tools and general- and special-purpose test equipment.

COM1729 Pole Climbing Fundamentals - Care and use of climbing equipment, climbing techniques, first aid and general safety procedures, use of rope ties and splices, and raising and securing aerial splicing equipment. Includes use of hand tools, cable cars, and technical publications.

COM1733 Underground Cable Splicing - Analysis of cable plant maps and splicing diagrams. Includes splicing techniques, safety procedures, and use of general- and special-purpose test equipment and technical publications.

COM1747 Confined Space Safety - Introduction to confined space safety principles and practices as it pertains to Communications personnel. Includes the identification and characteristics of controlled spaces; entry and exit procedures; hazards associated with confined spaces; emergency procedures; required documentation; personal protective equipment; and respiratory protection.

COM1755 Communication Systems Fundamentals - Introduction to the purpose, functions, characteristics, and theory of operation for telecommunication devices, to include: Radio Frequency (RF) transmission systems; radio sets for voice and data transmission operation; encryption devices; and Virtual Local Area Networks (VLANs). Addresses the basic knowledge of communication mediums, such as: Transmission Control Protocol/Internet Protocol (TCP/IP); IP

routing; network security; fiber optic technologies; and the types of shielded/unshielded interconnect cables.

COM1759 Fiber-Optic Cable Splicing - Procedures and techniques for splicing, sealing and testing fiber-optic cable. Includes principles of fiber-optic systems, fusion and mechanical splices, and use of optical time domain reflectometers.

COM1760 Cable Splicing and Sealing - Procedures and techniques for splicing, sealing and testing lead and plastic sheathed cable. Includes general- and special-purpose hand tools, safety and straight, bridge, and butt-splicing using auxiliary and lead sleeves.

COM1801 Giant Voice Operation - Installation and operation procedures of Giant Voice mass notification systems. Includes Electronic Installation (EI) background, infrastructure requirements, grounding and bonding, notification devices, RF transmission principles and equipment, and safety.

COM1802 Communications & Information Systems Project Management - Designed to provide the knowledge and skills required to perform the special duties of a project manager as applied to Cyber Support personnel. Includes oversight and management of large scale Air Force assets and projects; communications and information systems planning; Plans, Planning & Agreements; Military Construction Program (MILCON); and maintaining cyber and transport records.

COM1803 Network Standard Installation - Introduction to network standard installation as applied to Cyberspace personnel. Includes commercial organizations and common standards; safety; pathway terminology; cable trays; conduits; space terminology; grounding and bonding; cable installation and splicing; and fiber optics installation and splicing.

COM2102 Command Post Management - Management principles of command post programs and operations. Introductory and mastery level responsibilities as a Command Post Manager. Includes command post program management, manpower and personnel management, budget management, command and control operations, contingency deployments, and self-assessment programs.

COM2411 Frequency Management Applications - Principles and techniques of applying frequency spectrum management controls. Includes organization and specific functions of international, national, and DoD agencies with practical application coordinating with and reporting to these agencies.

COM2412 Systems Planning and Engineering - Propagation predictions, interference factors, and path reliability for various communication systems. Includes site planning, selection, surveying and use of system design parameters.

COM2708 Antenna Installation - Antenna construction, elementary surveying, lightning protection, guy fabrication and installation, and erection of antenna support poles.

COM2723 Cable Testing - Maintenance of cable system records, strip maps, route markers; use of frequency generators, multimeters, and Wheatstone bridge. Includes location and tracing of buried cable, fault location, excavation and backfilling procedures, insulation resistance measurement and calculation, and use of safety and communication security procedures.

COM2725 Cable Construction and Installation - Aerial cable specifications in staking pole lines and distributing lines; erecting poles, guying, bracing, and anchoring; suspension strand installation; lashing aerial cable; terminal and stepping pole installation; and installation of buried cable. Includes use of technical publications, maintenance schemes, cable records, diagrams, cable car and safety procedures.

COM2733 Tactical Air Control Network Operations - Management of tactical air missions, communication operations, and weapons systems. Includes weather report analysis.

COM2734 Satellite Communication Operation - Theory associated with technical aspects of satellite communications operation control and hypothetical problem-solving situations.

COM2736 Introduction to Digital Switching Systems - Theory of telephone operation and call progression using applicable technical manuals. Includes digital-to-analog and analog-to-digital conversions, time division multiplexing, peripherals, power equipment, and alarm circuits.

COM2737 Digital Switching Systems - Basic principles of log utility module; translations used in call progression; and use of digital switching systems, database facilities, and data tables.

COM2738 Digital Switching Systems Maintenance - Manual and automatic testing, inspection, troubleshooting, and operation of digital switching equipment.

COM2740 Communication Network Testing - Practical approach to systems analysis. Includes use of general- and special-purpose test equipment and technical manuals.

(CON) Contracting

CON1600 Introduction to Contracting - Introduction to government contracting. Includes Contract Law and ethical standards; acquisition planning and budgeting; Fixed Price, Cost Reimbursement, and Indefinite Delivery contracts and Blanket Purchase Agreements; contract numbering; and contracting methods. Also includes small purchases; general contracting policies and procedures; uniform contract format and preparation; and file documentation.

CON1601 Principles of Contract Administration - Fundamentals of contract principles and contract administrating procedures. Includes identifying and evaluating various types of contracts and work statements; specification and purchase descriptions; small purchase administration; and quality assurance. Also includes warranties; foreign acquisitions; contracts clauses and finance procedures; liquidated damages; contract modifications; negotiation methods; and resolving protests involved with disputes and appeals.

CON1618 Contract Solicitation and Award - Introduction to the solicitation, award and post-award procedures of contracts. Includes formal advertising; bid selection; evaluation; competition requirements; acquisition methods; compliance checks; electronic commerce; post-award termination procedures; and purchase and delivery order evaluations.

CON1619 Government Contracting Applications - Fundamentals of practical government contracting actions and application through execution of simplified acquisition procedures. Includes application of pre-award, award, and post-award of contracts; competition requirements; brand name and sole source justification; and commercial items, commodities, services, construction, and micro-purchase acquisition. An emphasis is placed on research techniques and compliance with the Federal Acquisition Regulation, Defense Federal Acquisition Regulation Supplement, and Air Force Acquisition Regulation Supplement.

CON1620 Contingency Contracting - Theory and practical applications of contracting in support of tactical military operations overseas for the purpose of making purchases in coordination with Host Nation Support Agreements. Includes basic knowledge of proper procedures for producing purchase orders, receiving reports, invoices, and public vouchers to make on the spot or over-the-counter purchases of supplies. Also, includes contract organization, use of spreadsheets, purchase logs, maintenance of contract files, and advantages and benefits of using the Blanket Purchase Agreement.

CON2111 Contract Management - Contract management functions; quality assurance programs; manufacturing operations; industrial materiel management; subcontract management; and contract administration, with emphasis on post-award conferences, contractors made-or-buy program requirements, contractor financing, and contract file establishment, maintenance, and disposition.

CON2616 Base-Level Service Contracting - Advanced service contracting policies, contract requirements, and surveillance planning. Includes case study on how to conduct job analysis, develop contract surveillance checklists, and evaluate contractor performance.

(COR) Corrosion Control

COR1507 Metallic Corrosion Control - Preparation of metal surfaces. Includes corrosion inspection, preparation of fiberglass surfaces, mechanical and chemical corrosion removal, and surface treatment.

COR1508 Metallic Protective Coatings - Practical care and use of coating equipment. Includes determining composition of coatings, and application of coating systems. Identification and application of aerospace equipment markings.

(CRJ) Criminal Justice

CRJ1000 Fundamentals of Law Enforcement - Fundamental concepts and knowledge of the legal and procedural aspects of law enforcement operations. Includes proper searches and seizures; military authority and jurisdictions; rights advisement; resource protection; crisis intervention; conducting interviews; traffic stops; writing citations/tickets; vehicle accident and crime scene response; and directing traffic flow as it pertains to law enforcement personnel.

CRJ1001 Introduction to Criminal Justice - Introduction to the criminal justice system focuses on military authority and types of jurisdiction, Security Forces authority to bear firearms and law and order. Includes philosophy, ethics, and history of law enforcement and general orders as they pertain to Criminal Justice Law Enforcement occupations.

CRJ1002 Criminal Investigations - Intermediate investigative methodologies focuses on analyzing the decision making skills required to process and solve crimes. Specific detail is given to examining topics such as collection, preservation, search and apprehension techniques, interviewing techniques, field notes, sources of information, anti-terrorism, rights

of the accused and the victim assistance program as pertains to law enforcement personnel.

CRJ1003 Principles of Weapons Marksmanship - Introduction to the types and use of weapons includes various handguns, shotguns, rifles, machineguns, and grenade launchers. Focuses on basic nomenclature, capabilities, and characteristics of specific weapons and attachments; operator care, cleaning and maintenance; application of marksmanship fundamentals; target identification, range determination, and weapons employment; weapons safety and clearing procedures; dye marking; various types of ammunition; and weapon qualification as it pertains to law enforcement personnel.

CRJ1004 Introduction to Ground Combat Skills - Introduction to airbase defense and deployment operations focuses on fire control and distribution measures; prisoner of war processing; rules of engagement; Mounted and Dismounted operations; individual and fire team maneuver tactics; medical evacuation; early warning devices; land navigation; camouflage; and threats against resources. Includes application of tactical communication; brevity codes; the phonetic alphabet; associated support equipment; and field training disciplines as they pertain to law enforcement personnel.

CRJ1005 Introduction to Security Operations - Introduction to the concepts and performance of security operations and Air Force resource protection. Includes fundamental skills and techniques required to perform basic security operations in accordance with the integrated defense plan; assuming post; guard mount; building and area searches; nuclear and non-nuclear weapons security; security reporting and alerting system; access control responsibilities; enforcing unauthorized entry; and response procedures involving priority resources as they pertain to law enforcement personnel.

CRJ1006 Introduction to K-9 Training Techniques - Introduction to the training and conditioning techniques used to prepare both military working dog and handler to work effectively as a team. Includes operant conditioning, dog obedience, controlled aggressiveness, health checks and first aid for dogs, and maintenance and care of dog, kennel and associated support equipment as it pertains to law enforcement officers.

CRJ1007 K-9 Operations - Specialized training techniques designed to prepare military working dog team to perform a variety of police functions. Includes vehicle and foot patrols; tracking, detecting and alerting; area searches; gunfire conditions; concepts of utilization (airbase ground defense, security, law enforcement duties); and preparation and maintenance of required records, reports and forms as they pertain to law enforcement officers.

CRJ1008 K-9 Detection Techniques - Specialized training techniques that prepare military working dog handlers to perform drug and explosive detection operations. Includes dog conditioning, drug and explosive identification and detection, and legal aspects of searches and seizures as they pertain to law enforcement officers.

CRJ1009 Firearms Maintenance - Operation and maintenance of handguns, shotguns, rifles, automatic weapons, grenade launchers, and night vision devices. Includes safety procedures, technical order indexes and detailed disassembly and assembly; functioning cycle and causes of malfunctions; visual and nondestructive mechanical inspections; repair, replacement and adjustment of firearm components; and use, care and handling of special tools associated with firearms as it pertains to law enforcement personnel.

CRJ1010 Special Operations Fundamentals of Ground Combat Skills - Introduction to airbase defense and deployment operations as applied to Security Forces. Focuses on fire control and distribution measures; prisoner of war processing; rules of engagement; Mounted and Dismounted operations; individual and fire team maneuver tactics; medical evacuation; early warning devices; land navigation; camouflage; and threats against resources. Includes application of tactical communication; brevity codes; the phonetic alphabet; associated support equipment; and field training disciplines.

CRJ1011 Special Operations Specialized Mobile Security Functions - Concepts of worldwide mobile operations as applied to Security Forces. Emphasizes practical application of defensive tactics and techniques. Includes the use of force continuum; international relations; explosive devices; lethal and nonlethal weapons; defensive tactics; terrorism; information sources; counter surveillance; hostage survival; threat conditions; aircraft familiarization; and individual protective measures.

CRJ2000 Combat Arms Instructor - Fundamentals of teaching in a Combat Arms environment as applied to Law Enforcement personnel. Includes instructional systems development; curriculum writing; and tests and measurements. Also emphasizes instruction on weapons fundamentals; operations; maintenance; techniques of dry and live fire supervision; coaching; range types and characteristics; firearms range operations; administrative forms, records, and reports; munitions types and weapon accountability; and safety.

CRJ2001 Integrated Base Defense Management and Leadership - Intermediate analysis and application of logistical and tactical planning as applied to Security Forces personnel. Tasks include: Control Center Operations, Integrated Defense, Troop Leading Procedures, Patrolling, Topographical Maps/Terrain Association, Flight Commander Responsibilities and Battle Drills.

CRJ2002 Ground Defense Leadership and Management - Intermediate analysis and application of logistical and tactical planning as applied to Security Forces personnel. Focuses on employment of security forces units engaged in ground defense operations; legal and procedural aspects of defense operations; and advanced organizational principles of the tactical area of defense strategy. Emphasizes leadership of combat elements; hostile operations planning and execution; and integration of defense forces. Includes awareness of terrorist operations; anti-terrorism procedures; base threat analysis; application of special weapons; and team concepts in tactical situations.

CRJ2003 Advanced Marksmanship Laboratory - An in-depth knowledge and functions of handguns, shotguns, rifles, automatic weapons, grenade launchers and night vision devices. Includes basic nomenclature, capabilities and characteristics of specific weapons; operator care; application of marksmanship fundamentals, weapons safety and clearing procedures; and ammunition types and uses as they pertain to law enforcement personnel.

CRJ2004 Protective Services Operations - Advanced techniques required to protect personnel and resources through assessment of principal threat. Includes application of advanced procedures (route/site surveys, identification of potential hazards and safe haven), practical exercises on foot and motorized escorts, and employment of antiterrorism techniques as they pertain to law enforcement personnel.

CRJ2005 K-9 Operations Management - Advanced training, supervision, and conditioning techniques used to prepare both the military working dog and the handler to work effectively as a team. Includes management of operant conditioning, dog obedience, controlled aggressiveness, health checks and first aid for dogs, and maintenance and care of dog, kennel and associated support equipment as they pertain to law enforcement officers.

(CYB) Cybersecurity

CYB1101 Cyber Defense & Countermeasures - Fundamentals of cybersecurity principles, procedures, and technologies used to identify, secure, and defend the vulnerabilities and capabilities of cyber networks as applied to Cyber Security personnel. Emphasizes network warfare operations, cyber attacks, and exploiting cyber networks. Includes Air Force and DoD services cyberspace organizational construct; command & control; and coordination between organizations.

CYB1102 Introduction to Cyber Laws and Ethics - General principles regarding specific problems in applying legal constraints and regulations to cyberspace law areas such as federal, privacy, copyright, international, and operations. Includes an introductory study of ethics regulations and obligations that influence cyberspace operations.

CYB1104 Telephony Network Security - Fundamental principles to identify vulnerabilities and capabilities within a telephony network. Emphasis on public switched telephone networks (PSTN), telephone signaling, telephone switching, transmission methods, VOIP/analog networks, and cellular networks.

CYB1105 Communication Network Security - Fundamentals principles to identify vulnerabilities and capabilities within a communication network. Includes procedures to configure, defend, attack and exploit wireless, mobile, satellite, and space systems.

CYB1106 Battlefield Network Security - Fundamentals principles to identify vulnerabilities and capabilities of components within a battlefield network. Emphasis on Integrated Air Defense, Combat Support, and Tactical data link networks.

CYB1107 Network System Configuration - Principles and techniques to configure, install, and operate intra-networking and inter-networking devices within local and virtual area networks. Emphasis on the ability to implement access and traffic control measures on networking devices such as switches and routers.

CYB1108 Network Traffic Analysis - Introduction to the theory and processes of using ports and protocols to capture, read, and analyze network packet information. Emphasis on capturing network traffic and the methods involved to identify the applications used to include their associated ports and protocol.

CYB1109 Cybersecurity Laboratory - Direct application of cybersecurity principles, procedures, and technologies used to identify, secure, and defend the vulnerabilities and capabilities within cyber networks. Includes operation in a cyber network environment/scenario, mission planning, plan execution, and creating after action mission reports.

CYB1110 Operating System Foundation - Introduction to LINUX and Windows operating system principles and components of the various versions of operating systems as applied to Cybersecurity. Includes the use of Basic Input/output Systems; Master Boot Record; boot sequence and process; key directories; shell; network services; shell programming; configurations file types and attributes; and basic file system structures.

CYB1111 Fundamentals of Programming and Scripting - Introductions to basics of programming using the C language

and its concepts ranging from variables and other data structures to basic program structure as applied to Cybersecurity. Includes using Python scripting language functionality and Windows PowerShell to run commands on local and remote systems; combining commands and tools into more complex processes; creating reusable tools and applications; and packaging those tools for others to use.

CYB1112 Cyber Systems - Fundamentals of technology and protocol vulnerabilities of Industrial Control Systems (ICS) networks as applied to Cybersecurity. Includes basic facts regarding the capabilities; vulnerabilities; components; design; security of the Air Force network; websites; databases; voice; and security of industrial control systems.

(DAS) Dental Assisting

DAS1305 Basic Dental Sciences - Introduction to the role of dental technician. Topics addressed are dental care, basic concepts of dental hygiene, career progression, professional patient relations, elementary anatomy & physiology in dental professions and general dental medical emergencies and prevention.

DAS1309 Basic Dental Theory - Provides additional in-depth concepts of providing dental care and hygiene. Topics addressed are plaque formation, morphology, intra-oral anatomy, oral pathology, common dental anomalies and topics addressing effects of general diet/nutrition in dentistry.

DAS1315 Dental Clinical Concepts - Clinical concepts provides an examination into the clinical nature of the dental technician. Topics addressed are Dental Treatment Room (DTR) Equipment, infection control and dental therapeutics/pharmacology.

DAS1316 Dental Clinical Applications I - Discussion and review of dental radiology. Topics addressed are examination room procedures, infection control, initiating/filing dental records while in Dental Treatment Room and preparation material for the Dental Assisting National Board (DANB) Exam.

DAS1317 Dental Clinical Applications II - Continuation of Clinical Applications I. Students practice dental skills in Dental Treatment Room (DTR) using specialty dental instruments, oral hygiene techniques, dental sick call procedures and general dental assisting concepts and procedures.

DAS2312 Oral Hygiene - Advanced oral hygiene care and patient-level instructions as applied to Dental Assisting personnel. Includes dental anatomy and hygiene; implants; hand instrumentation and sharpening; coronal polishing; sealants; dental radiographs; use of ultrasonic devices; preventive dental services under the supervision of a credentialed provider; and documenting treatment rendered.

DAS2319 Advanced Dental Oral Hygiene Clinical Skills - Didactic and clinical skills necessary in treatment and maintenance of periodontal disease through radiographic exams, referrals for oral lesions, scaling and root planning techniques, and patient education and motivation. Includes periodontal probing, plaque and calculus detection, use of disclosing solutions, health care instructions, infection control procedures, instrument sharpening, hand instrumentation, ultrasonic instrumentation, fluoride therapy, dental sealants, and use of other ultrasonic devices.

(DLT) Dental Laboratory Technology

DLT1317 Dental Laboratory Fundamentals - Basic dental materials, equipment, and procedures for cast fabrication; morphology of natural teeth; intraoral anatomy; physiology of human skull; dental forms and records; ethics; and human relations.

DLT1318 Fundamentals of Complete Dentures - Basic principles of complete dentures. Includes construction of occlusion rims, repair and relining techniques and impression trays, fabrication of master casts, intermediate dentures and removable prosthesis occlusion, and oral anatomy and terminology.

DLT1319 Complete Dentures II - Nonanatomic denture occlusion; complete denture reline and repair; and fabrication of immediate dentures, surgical templates, interim acrylic removable partial denture, and soft mouth guard

DLT1320 Construction of Removable Partial Dentures Part I - Principles of dental survey and design, casting of metal removable partial dentures, preparation and fabrication of metal frameworks from wax-up and casting through finishing.

DLT1321 Construction of Removable Partial Dentures Part II - Tooth arrangement on metal frameworks, wax-up and contouring of denture base, processing and finishing of acrylic portions, partial denture repair, orthodontic appliances.

DLT1325 Fundamentals of Full Metal Restorations - Fundamentals of full metal restorations and production of fixed dental prosthesis. Includes design principles, constructing and articulating casts, tooth morphology, occlusion of fixed prosthesis, fabrication and user maintenance performance.

DLT1326 Fixed Partial Dentures - Fundamentals of fixed partial dentures and dental implants. Includes fabrication of nightguards, artificial tooth management, denture base repair, resin bonded fixed partial dentures and register of precious metals and alloys.

DLT2310 Advanced Porcelain Techniques - Advanced theory and construction of dental porcelains, porcelain crowns, metal-ceramic substructure design, ceramic alloys, intrinsic and extrinsic color modification, construction and contouring of opposing porcelain occlusions. Includes veneers, pressable ceramics and metal-free infiltration ceramics.

DLT2314 Advanced Removable Prosthodontics - Advanced fabrication of complete dentures and orthodontic appliances. Includes demonstration of occlusion rim fabrication and articulate master cast mounting, complete/partial denture characterization, application of denture base processing/waxing and denture grinding, and dental laboratory equipment maintenance.

DLT2315 Functional and Esthetic Fixed Prosthodontics - Pouring and articulating of dies and master casts, creating functional anatomic and metal-ceramic wax-up, investing and burning out wax-up, casting metal, and applying porcelain.

(DMS) Diagnostic Medical Sonography

DMS2201 Diagnostic Sonography - Introduction to diagnostic sonography principles and theories. Includes the use of advanced technical equipment and systems.

DMS2202 Ultrasonic Scanning I - Ultrasonic scanning theory and procedures applying to the pancreas, urinary systems, breast, thyroid, scrotum, and carotid artery.

DMS2203 Ultrasonic Scanning II - Ultrasonic scanning theory and procedures applying to the abdominal, liver, gallbladder, spleen, and female reproductive systems.

DMS2204 Ultrasonic Scanning III - Ultrasonic scanning theory and procedures applying to the obstetrics, pelvic and extremities.

DMS2301 Diagnostic Ultrasound Sonography Practicum I - Diagnostic sonography principles used for scans of the vascular system and extremities. Includes abdominal/pelvic sonography, pancreas, spleen, liver, gall bladder/biliary system and urinary system sonography scans and applications.

DMS2302 Diagnostic Ultrasound Sonography Practicum II - Diagnostic sonography principles used for scans of additional parts of the vascular system, small body parts and obstetrical anomalies to include the thyroid, breast and all reproductive organs.

DMS2303 Diagnostic Ultrasound Sonography Procedures Clinicals I - Uses diagnostic sonography equipment, application of principles and patient history to perform basic operating diagnostic ultrasound procedures. Includes obstetrical, reproductive organs, pelvic, carotid artery and abdominal aortic scans in clinical settings.

DMS2304 Diagnostic Ultrasound Sonography Procedures Clinicals II - Uses diagnostic sonography equipment, application of principles and patient history to perform basic operating diagnostic ultrasound procedures. Includes abdominal scans to include the liver, gall bladder, spleen and pancreas, thyroid, peripheral vascular systems and portable sonography scans in clinical settings.

(DPO) Disaster Preparedness

DPO1102 Disaster Preparedness and Emergency Management - Principles of disaster preparedness and emergency management. Knowledge and performance skills essential to emergency planning, incident management, and response; preparation of emergency personnel and equipment; chemical, biological, radiological, and nuclear (CBRN) control center operations; hazard analysis; and plume modeling. Includes facts and terms of emergency management organizations and responsibilities as well as use of associated systems and software.

DPO1103 Chemical, Biological, Radiological, and Nuclear (CBRN) Protective and Detection Equipment - Introduction to the proper use of specialized equipment designed for protection and detection of chemical, biological, radiological, and nuclear (CBRN) hazards. Includes use of protective masks and clothing; monitoring equipment; and technologies, such as: radiological, spectroscopy, colorimetric, photo-ionization detection, ion mobility spectroscopy, sampling and collection kits, biological reagent assays, biological air samplers, and other general purpose equipment.

DPO1104 Warfare Defense - Introduction to nuclear, conventional, chemical, and biological warfare defense. Includes knowledge and concepts of war and attacks; application of wartime threat assessment; employment of contamination

control, decontamination, and various defensive measures against conventional and unconventional warfare.

DPO1106 Emergency Operations - Principles of hazardous materials (HAZMAT) and operations. Includes HAZMAT emergency response training; hazardous condition reconnaissance and surveillance; proper HAZMAT marking techniques and procedures; conducting at-risk facility and site surveys; and HAZMAT sample management, collection, and processing.

DPO1350 Disaster Medicine - Medical responsibilities, medical capabilities, and physical and medical effects of peacetime nuclear weapon accidents, physical and medical effects, medical capabilities, and chemical and biological warfare medical defenses.

DPO2104 Advanced Emergency Management - Advanced theories and principles of emergency management and capabilities-based planning. Includes management of resources and emergency management systems; emergency response to man-made physical threats; incident management and response; creating incident management plans; chemical, biological, radiological, and nuclear (CBRN) emergency center operations management; plume modeling/reconnaissance and surveillance in hazardous control zones; proper HAZMAT marking techniques and procedures; conducting at-risk facility and site surveys; HAZMAT sample management, collection, and processing; and management of war time tasking in a chemical defense training facility.

DPO2107 Chemical, Biological, Radiological, Nuclear Cell Operations - Advance theory of chemical, biological, radiological and nuclear (CBRN) cell operations. Identifies proper CBRN hazard and fallout predictions by way of automated warning and prediction software systems. Includes determining dangerous levels of CBRN hazards utilizing mapping systems to triangulate and create CBRN plotting.

(EDP) Data Systems

EDP1106 Principles of Computer Operation - Introduction to basic components and features of computers, flowcharting, programming languages, numbering and coding systems, assembly, applications, and computer security.

EDP1107 General Maintenance Training - Introduction to general maintenance concepts and practices as applied to Cyberspace Support personnel. Includes career ladder progression and hierarchy; use of Air Force standards and publications; commercial standards and publications; Air Force Office of Safety and Health (AFOSH) standards; U.S. Government Occupational Safety and Health Administration (OSHA) standards; personal safety; and equipment security. Also includes radio frequency (RF) basics; cable installation basics and practices; cable management; communication grounding and bonding procedures; voltages and hazards; Electrostatic Discharge (ESD); and corrosion control and prevention concepts.

EDP1118 Principles of Computer Systems - Introduction to digital computers and peripheral devices. Includes internal data representation and computer mathematics; basic characteristics of machine, assembler, and high-order level languages; operating system characteristics; computer facility operation; and computer security.

EDP1130 Introduction to System Software - Computer system software. Includes catalog and file management software, library editor software, utility software, Internet applications and time-sharing procedures.

EDP1131 Principles of Maintenance Management Information Systems - Information processing and analysis. Includes preparing and inputting data and analyzing output data, file maintenance procedures, system familiarization, subsystems, structures, Air Force online data system, system troubleshooting procedures, and processing techniques.

EDP1136 Microcomputer Software Applications - Database, spreadsheet, graphical and word-processing software applications. Includes operating systems, graphical presentations, and database management applications.

EDP1139 Computer System Familiarization - Computer hardware and software, data processing, electronic forms management, network protocols and standards, network and communication programming concepts, and basic world wide web fundamentals.

EDP1141 Introduction to Computer Networks - Introduction to computer networks as applied to Cyberspace Support personnel. Includes fundamental theory and operational principles of computer networks; the Open Systems Interconnection (OSI) model; Local Area Network (LAN); Wide Area Network (WAN); other Area Networks (xANs); packet transmission; interworking; Internet Protocol (IP); World Wide Web (WWW); Java technologies; wireless network technologies; and wireless routing. Also includes multiplexing basics; long haul communication concepts; fundamentals of Voice over Internet Protocol (VoIP) technologies; telephony concepts; basic network and operating system administration; and basic troubleshooting techniques.

EDP1142 Intermediate Communication Networking - A continuation of EDP1141, Introduction to Computer Networks.

Fundamentals of multiplexing, long haul communications, internetworking, transport protocols, congestion control, and performance evaluation as applied to Cyberspace Support personnel. Includes wireless network technologies; Mobile Internet Protocol (Mobile IP); wireless routing; location management; and ad-hoc wireless networks. Also includes the fundamentals of Voice over Internet Protocol (VoIP) technologies; the deployment of mobile satellite communication systems; and the operation of associated equipment.

EDP1143 Cabling - Procedures and techniques for splicing, bonding and grounding, sealing, testing copper cable, Space Preparation and cabling support systems, troubleshooting copper cabling systems, codes, standards, and regulations as applied to Cyberspace Support personnel. Includes general- and special-purpose hand tools, safety and straight, bridge, and butt-splicing using auxiliary and lead sleeves.

EDP1202 Software Engineering - Principles for developing software package to maximize software life cycle. Emphasizes problem solving, algorithm design, and user interface.

EDP1203 Principles of Database Applications - Principles and techniques of database design, utilization, and maintenance using commercial software on personal and mainframe computers; and use of SQL, tables, and indexes to create queries and reports.

EDP1207 Software Engineering II - Principles of software development. Includes fundamentals of Visual Basic, error trapping and debugging, use of dialogue boxes, use of arrays in Visual Basic, functions found in Windows libraries, looping techniques, and file processing.

EDP1601 Cyber Surety - Fundamentals of network and telecommunication systems security. Includes firewalls, network protocols, operating systems, intrusion detection tools, web proxies and emission security. Analyzes security scans; defines and eliminates risks.

EDP1602 Cyber Surety Management - Introduction to basic information assurance practices and procedures that enforce national, DOD, and Air Force security policies and directives ensuring the protection of digital information. Emphasizes foundational theory, operational concepts, vulnerability assessment and risk management principles in Communications Security (COMSEC), Emissions Security (EMSEC), Electronic Key Management System (EKMS) system, and Computer Security (COMPUSEC) programs.

EDP1802 Principles of Telephony - Principles of telephony and sound systems as applied to Information Systems personnel. Includes Copper Distribution Systems (CDS); telephony switching concepts; Critical Communications Facilities Power Systems; security; safety; maintenance management procedures; and use of general- and special-purpose test equipment and technical publications.

EDP1803 Satellite Communication Principles - Principles of satellite communications operation as applied to Information Systems personnel. Includes capabilities and limitations of Radio Frequency (RF) devices with Internet Protocol (IP) networks; multiband satellites systems; Ultra High Frequency (UHF); Super High Frequency (SHF); Extremely High Frequency (EHF) Satellite Communication (SATCOM)/Tactical Satellite Transceiver (TACSAT) satellites; and earth terminals and single channel satellite communications equipment. Also includes the theories associated with technical aspects of satellite communications operation control and hypothetical problem-solving situations.

EDP2178 Data Retrieval Systems - Advanced techniques for writing and inputting computer inquiry statements. Includes coding, data retrieving and data analysis to solve given management problems.

EDP2183 Advanced Computer Networking - Theory of computer-to-computer communications. Includes terminology and network configuration principles.

EDP2201 Computer System Administrator - Overview of hardware, software, and operating systems; and use of system software, database, networking, editor, and security software to customize operating environment to meet needs of using organization.

EDP2206 UNIX Operating System - Introduction to UNIX operating system. Includes file system, shell, standard editor, network services, and shell programming.

EDP2207 Network System Administrator - Local area network installation and operations. Includes local area network, wide area network, terminology, protocols, Windows environment, mail system, network administration functions, and hardware database management for users and passwords.

EDP2209 CISCO Networking - Introduction to concepts required to configure, install, and operate CISCO routers and switches within LAN and WAN environments, including VoIP and wireless networks.

EDP2210 Advanced Communication Networking - A continuation of EDP1142 Intermediate Communication

Networking. Includes the installation, configuration, and management of traditional: distributed and networked system software; performance monitoring; and network security. Addresses access control; authentication; network integration over different systems; and quality assurance. Also includes the operation of Voice over Internet Protocol (VoIP) technologies; the operation of mobile satellite communication systems and advanced troubleshooting techniques.

EDP2211 Cisco Unified Communication Manager - This course concentrates on understanding and building a Cisco Unified Communications Manager (CUCM) as applied to Cyberspace Support personnel. Includes the comprehensive understanding of Cisco Unified Communications Manager Architecture, Initial Configuration and Services, Cisco Switches and Endpoints, Partitions and Calling Search Spaces, IP Devices and Trunks, Call-Routing, Digit Manipulation, Call Coverage, Media Resources, and Operations, Maintenance and Troubleshooting.

EDP2619 Computer Systems Security - Procedures for administering and monitoring automatic data processing security. Includes security development, policies, duties and responsibilities, system abuse, and establishment of security training programs.

EDP2805 Cyberspace Support Quality Assurance - Advanced quality assurance procedures used to detect and analyze maintenance management deficiencies, determine causes, and recommend corrective actions as applied to Computer Science, Cybersecurity, Electronic Systems Technology and Information Systems Technology. Includes the role of quality assurance; trend and deficiency analysis; comprehensive interpretation of standard publication and technical manual systems; personnel evaluations; inspection categories; management evaluations; communications; and activity inspections.

EDP2806 Digital Switching Systems Administration - Advanced study of the duties and responsibilities of systems administrator as applied to Information Systems Technology. Includes fundamentals of transmission lines; system management; system architecture; system features; switch security; voice mail system; system maintenance; line testing; interpretation of reports; and record documentation.

(EDT) Education & Training

EDT1201 Military Training Instructor Leadership Development - Fundamentals of deliberate leadership development as it applied to Military Training Instructors. Includes the study of motivation and influence; providing and receiving feedback; professional and personal balance; stress management; power of sleep; power of thinking; emotional regulation; self-care for the body and mind; principles of mindfulness; and power and behavioral drift.

EDT1803 Instructor Fundamentals - Principles of lesson planning, various methods of instruction, use of instructional aids, and construction and administration of evaluations. Includes learning theories. (Instruction suited to flight simulator, airborne, field, and conventional classroom environments.)

EDT1804 Fundamentals of Speech - Principles of effective speaking. Includes organization and delivery using acceptable platform mannerisms and constructive and effective use of visual aids.

EDT1808 Development and Management of Training Programs - Application of methods for determining training requirements. Includes analyzing training data and directives, administering career development programs, determining job classification, and conducting staff visits to assist in setting up effective training programs.

EDT1809 Use of Computers in Training - Application of computers in training and instructional programs. Includes training files management, instructional system development, and use of computer-assisted instruction principles in classroom environment.

EDT1810 Principles of Instructional System Development - Principles of Instructional System Development (ISD) processes as applied to education and Training personnel. Includes learning theories; various teaching methods; training objectives; teaching steps and measurement devices; and planning, developing, validating and conducting classroom instruction.

EDT1811 Computer-Based Instruction Development - Principles of Computer-Based Instruction (CBI) Design with hands-on training to manipulate authoring system software and construct CBI lessons. Includes copyright guidelines, storyboard planning and understanding CBI development processes using Instructional Systems Development fundamentals.

EDT2001 Military Training Leader Guidance and Counseling - Comprehension of human behavior as it applies to the Military Training Leader course (Education and Training Management degree program). Includes discussion on mentoring, use of referral agencies, progressive discipline, counselor traits and qualities, and Resilience Training Assistant (RTA). Also incorporates risk management intervention skills in the training environment as well as safety management and stress inoculation.

EDT2109 Military Training Instructor Fundamentals - Provides the knowledge and skills for award of the Military Training Instructor Special Duty Identifier (8B000). Includes standards of professionalism; policy; full-range leadership model; instructional techniques; drill; trainee health and resilience; dormitory life; trainee administration and counseling; and group facilitation.

EDT2110 Military Training Instructor - Prepares military training instructors to plan and deliver Air Force concepts, principles, and philosophies to Air Force basic trainees. Includes core values, leadership, human relations, psychological behavior, staff referral agencies, flight management and administration, dormitory instruction, and drill and ceremony procedures.

EDT2111 Military Training Leader - Prepares military training leaders to advise and counsel technical school students on training and personal problems. Includes core values, military training and discipline, operational risk management, physical conditioning, counseling and guidance, human behavior, group dynamics, first aid and cardio-pulmonary resuscitation.

EDT2114 Advanced Military Training Leader - Advanced theories of the roles and responsibilities of the Military Training Leader. Focused on flight management designed for selected Superintendents, Flight Chiefs, Assistant Flight Chiefs, and newly promoted into these positions. Includes mission structure; mentoring program; effective team building; resource management; training management; health, morale, and welfare inspection; and functions of the Force Support Squadron pertaining to assignments, deployments, and disciplinary actions.

EDT2115 Flight Commander and Military Training Instructor Supervisor - Advanced instruction of the roles and responsibilities required of Basic Military Training (BMT) Flight Commanders and Instructor Supervisors. Includes qualities of the Flight Commander and MTI Supervisor; supporting MTI's in developing trainees; promoting physical training excellence; section administration; enforcing and endorsing policy; production principles and metrics; and evaluations.

EDT2201 Supervised Teaching - Observing, participating, and teaching in area of specialization under the supervision of an experienced faculty member. Includes classroom preparation and management and the integration of technology in various phases of the curriculum.

EDT2202 Curriculum Development - Curriculum development and employment of a variety of technologies to research and plan instruction. Includes matching of instructional tools and resources to satisfy instructional needs.

EDT2203 Teaching Qualification - Test administration, measurement tools, preparation and use of audio visual aids, student counseling, behavior intervention, faculty evaluation programs and establishment of subject matter competency.

EDT2204 CCAF ISD Internship - Planning and Analysis - Comprehend and conduct the Planning and Analysis phase of the curriculum ISD process. Encompasses needs assessments, target audience profiles, task analysis, learning analysis and resource analysis. Includes analyzing occupational data and develop cost benefits analysis, instructional budgets and schedules and instructional system management plans.

EDT2205 CCAF ISD Internship - Design and Development - Comprehend and conduct the Design and Development phase of the curriculum ISD process. Selection of appropriate instructional media and methodology, as well as develop objectives and tests, instructional materials and validation plans. Includes conducting instructional system tryouts by utilizing training management systems and/or software.

EDT2206 CCAF ISD Internship - Implementation and Evaluation - Comprehend and conduct the Implementation and Evaluation phase of the curriculum ISD process. Implementing instructional system functions, to include instructor and training preparation, and also perform instructional delivery. Includes interpretation of internal and external evaluation data, and utilizing evaluation data to make necessary changes to the instructional system.

EDT2207 Advanced Computer Based Instruction Development - Advanced techniques of Computer-Based Instruction (CBI) design with hands-on training to determine online delivery methods, employ a learner-centric curriculum, and manipulate authoring system software to construct CBI lessons. Includes copyright guidelines, storyboard planning, understanding CBI development processes using Instructional Systems Development fundamentals, and analysis of data to determine CBI effectiveness.

EDT2800 Analysis, Design, Development, Implementation, and Evaluation - An advanced course in systems analysis training requirements, criterion objectives, teaching steps and measurement devices, and planning, developing, validating, conducting, and evaluating instruction as it applies to Education and Training Management degree program.

EDT2801 Instructional System Development - Systems analysis training requirements, criterion objectives, teaching steps and measurement devices, and planning, developing, validating, conducting, and evaluating instruction.

EDT2802 Development and Management of Instructional Systems - Concepts and philosophies of training and educational process, and development and management techniques for effective instructional systems and educational programs.

EDT2804 Principles and Methods of Teaching - Selection of teaching methods, organization of materials, and preparation of written plans with behavioral objectives. Includes fundamentals of instructional systems development, principles of evaluation, and practice in employing teaching interview, experiential, case study, guided discussion, demonstration-performance, and lecture teaching methods. Emphasizes improvement in communicative skills.

EDT2805 Instructor Methodology - Introduction to the principles of teaching and teaching strategies. Includes instructional systems development, learning theory, principles of evaluation, effective visual support, concept and principle teaching, and methods of instruction to include guided discussion, teaching interview, demonstration-performance, case study, and lecture.

EDT2808 Evaluation of Instruction - Principles and methods of evaluating instruction in the classroom. Includes presentation and evaluation of case study, teaching interview, demonstration-performance, and experiential teaching methods. Students evaluate communicative skills, instructional techniques and adaptation to various student styles in the classroom.

EDT2809 Supervision of Instruction - Course control documents and instructional system development, management of student academic programs, and measurement and evaluation of student and instructor performance.

EDT2813 Instructional Methodology - Introduction to the principles of teaching and teaching strategies emphasizing proficiency in the development, organization, and delivering of collegiate-level curriculum in a technical training environment. Includes practice teaching by employing instructional teaching methods, roles of the instructor, instructional systems development, academic counseling, multimedia audiovisual aids, learning theories, questioning techniques, training supervision, lesson plan development, technical course writing, and conducting student tests and measurements.

EDT2820 Instructor of Online Learning - Introduction to the principles, theories, and teaching strategies of delivering collegiate-level curriculum in an online or blended eLearning environment. Includes instructional design and learning theories; educational technology in the online environment; online classroom management and facilitation; online test integrity principles and issues; and instructional methodology and techniques used in this environment. Skills and knowledge obtained will contribute to an understanding of the various types of assessments and rubrics used for evaluation.

EDT2823 Technical Writing - Techniques that enhance skills and knowledge in writing technical training materials. Includes review of basic grammar and English composition with practical exercises in researching, organizing, and writing technical materials.

EDT2839 Correspondence Course Development - Preparation of correspondence course materials. Includes writing behavioral objectives; developing review exercises; preparing and using illustrations, using copyrighted material, and researching, planning, and writing correspondence courses.

EDT2842 Training Management Supervision - Dual channel on the job training concept, training needs, management of related automated products, accomplishment of a master training plan, individual training needs, and training assistance visits.

EDT2843 Development and Application of Occupational Survey Data - Practice in constructing and administering occupational surveys for instructors and other training personnel. Includes use of occupational measurement centers services and products, development of job inventories, and analysis, validation, processing, and application of data resulting from surveys.

EDT2848 Teaching Internship – SERE - Survival, evasion, resistance, and escape teaching internship. Observing, participating, and teaching under the supervision of an experienced instructor supervisor. Includes lesson planning, teaching lecture and demonstration-performance instruction, evaluation methods and techniques, student performance critique, academic counseling, and preparation and use of instructional aids. Students demonstrate the ability to present and perform primary survival principles, methods and skills.

EDT2850 Aircrew Instructor Flight Training - Prepares personnel for duties as an in-flight instructor, improves student instructor knowledge of aircraft systems and ability to instruct the systems in a formal aircraft and classroom environment, and enhances student instructor understanding of various instructional techniques under actual flight conditions through observation and performance.

EDT2908 Advanced Training Management - Advanced training management applications for Training Managers with

responsibilities on facilitating various training requirement events. Includes development of instructional systems, capacity, and course modeling; management of automated training systems; course scheduling and programming actions; and production analysis.

(EEO) Electronic Equipment Operation

EEO1201 Aircraft Control and Warning Operations I - Manual operating principles at plan position indicator, surveillance (plotter, teller, and recorder), and status clerk. Includes duties and functions of each position and proficiency in radarscope and plotting operations.

EEO1206 Airborne Radio Operations - Operation of various airborne radio communications systems and related electronic equipment for Air & Space Operations personnel.

EEO1212 Combat Reporting Center and Control and Reporting Center Systems - Practical application of search scope alignments and radio operations. Includes power-on procedures, plan position indicator alignment, test mode display procedures, determining azimuth and range using azimuth and range readout, various aspects of surveillance management, console switch actions that control automatic data link, site registration, point and strobe insertion, processing of data track, and interpreting fragmentary orders and geographical reference systems.

EEO1213 Airborne Warning and Control Systems - Basic air surveillance console switch action operations necessary to effectively use computerized, multisensor systems. Includes detecting, identifying, and tracking surface and airborne objects; manual and automatic transfer of air defense information; basic sensor system employment; and combating electronic warfare.

EEO1214 Airborne Warning and Control Systems Training Devices - Operation of computerized training devices designed to simulate airborne surveillance console operations, sensors, and scenarios with realistic demonstrations, practice, and evaluation.

EEO1215 Airborne Warning and Control Systems In-Flight Activities - Application of flight activities designed to develop knowledge and skills used in strategic and tactical intercept operations. Includes coordination procedures required to accomplish early warning intercept missions within worldwide multiservice and allied air defense operations.

EEO1217 Air Weapons Controller Procedures - Basic weapons applications for strategic and tactical intercept operations. Includes automated systems familiarization, intercept geometry, positional simulation, and control procedures.

EEO2101 Aerospace Control and Warning Systems Operation - Advanced techniques in employment of early warning radar system; and integration of digital computer systems with airborne and ground radar units for detecting, identifying, and monitoring surface or airborne objects. Includes communication capabilities, system interface, and procedures required to accomplish early warning missions.

(EGR) Engineering

EGR1101 Introduction to Drafting - Introduction to computer automated and conventional drafting as applied to Civil Engineering. Includes hand sketching and computer automated drafting techniques. Also includes development of architectural, shop, foundation and floor plans.

EGR1102 Fundamentals of Surveying - Introduction to surveying principles as applied to Civil Engineering. Includes survey theories and practices using manual, automated, and Global Positioning System surveying equipment. Also includes survey math, survey computer software, field notes, and construction surveying.

EGR1201 Introduction to Soil & Pavement Planning and Design Requirements - Introduction to analysis and testing of construction material and field identification techniques as applied to Engineering personnel. Includes soil strength evaluation with the use of Dynamic Cone Penetrometer to determine California Bearing Ratio.

EGR1202 Introduction to Geographic Information Systems - Basic functions and applications of the Geographic Information System (GIS) as applied to Engineering personnel. Includes map design, data editing and creation, data queries, input, and analysis.

EGR1203 Fundamentals of Contingency Operations - Introduction to specific contingency responsibilities as applied to Engineering personnel. Includes Bare Base conceptual planning guidance for base assets, infrastructure, and aircraft with the use of planning software.

EGR1301 Civil Engineering Organizations and Workforce Structure - Functional responsibilities associated with various base civil engineering operations as applied to Engineering personnel. Includes career field structure, construction safety requirements, gratuities, and standards of conduct.

EGR2100 Advanced Planning/Design Requirements of Soil and Pavements - Advanced analysis of comprehensive planning to include master planning, program documents and computer automated design sketches for architectural and structural workings as applied to Engineering personnel. Includes analysis and testing of construction material and field identification techniques, such as concrete for slump and air content and use of mixed concrete to prepare cylinder and beam test specimens.

(ELT) Electronics

ELT1103 Satellite Communication Systems - A field of study in the Electronic Systems Technology scope covering topics to satellite communication systems and components. Includes introduction to ground control stations; fixed and tactical satellite terminals; multi/single channel satellite types and networks; acquisition methods; Replacement Frequency Modulation Orderwire operations; satellite network structures; satellite access request; gateway request; and troubleshooting techniques.

ELT1104 Satellite Communication Maintenance - Preventive and corrective maintenance and troubleshooting. Includes use of hand tools, safety procedures, general- and special-purpose test equipment, and technical manuals.

ELT1106 Principles of Digital Logic Circuits - The terminology, functions, characteristics, and theory of operation for digital logic circuits to include logic gates, flip-flops, and Digital to Analog (D/A) and Analog to Digital (A/D) converters. Addresses the basic knowledge for numbering systems conversions such as binary, hexadecimal, binary coded decimal (BCD), and hexadecimal math operations.

ELT1107 Basic Soldering Connections - Basic performance laboratory. Includes soldering techniques, safety, and soldering and desoldering of components to terminal connections and printed circuit boards.

ELT1108 UHF/VHF AM Transmitters and Receivers - Theory of operation and maintenance of UHF/VHF ground-to-air single channel AM radios. Includes introduction to signal flow, schematic diagrams, alignments, preventive maintenance, and troubleshooting/repair.

ELT1109 Unmanned Aerial Vehicle Systems - Fundamental principles of unmanned aerial vehicle systems. Includes operations and maintenance of flight control, fuel, electrical, environmental, and landing gear systems.

ELT1114 Principles of Electromagnetic Devices - Principles of electromagnetic devices to include transformers, relay/solenoids, synchro/servos, and transducers. Includes the purpose, construction, theory of operation, and fault isolation techniques. Addresses the basic knowledge of electrostatic discharge (ESD) characteristics, control measures, and electromagnetic effects; electromagnetic pulse (EMP) and electromagnetic interference (EMI).

ELT1115 Principles of Power Supplies - The functions, characteristics, and theory of operation of power supplies and associated components such as diodes, rectifiers, filters, transistors, Zener diodes, and voltage regulators. Includes the basic knowledge for types of malfunctions, fault isolation techniques, and safety-risk management.

ELT1116 Principles of Amplifiers and Wave Generating Circuits - The purpose, characteristics, theory of operation, and fault isolation techniques of amplifiers and wave generating circuits to include transistor amplifiers, operational amplifiers, oscillators, multivibrators, wave shaping circuits. Addresses the basic knowledge of associated components such as light-emitting diodes (LED), field effect transistors (FET, MOSFET, JFET), and integrated circuits (IC).

ELT1117 MILSTAR Communications - A field of study related to the military strategic and tactical relay network. Introduces Electronic Systems Technology students to system theory of operations; terminal types; maintenance and repair of MILSTAR subsystems; acquisition of satellites; and cryptographic operations.

ELT1118 RF Transmitters and Receivers - A field of study covering topics related to transmitters and receivers utilized in the Electronic Systems Technology environment. Introduces students to the theory of radio frequency transmissions such as; High Frequency; Very High Frequency; Ultra High Frequency; Super High Frequency; and Extremely High Frequency transmissions; capabilities and limitation of transmitters and receivers; deployable masts and antennas used in the environment; and an emphasis on modulation techniques.

ELT1120 Satellite Communication Principles - A field of study in the Electronic Systems Technology scope covering topics related to satellite communications. Includes the principles of satellite, wideband, telemetry, and line-of-sight communications; installation and maintenance of both satellite and wideband terminals; introduction to the frequency spectrum; polarization; satellite orbits; Regional Satellite Support Center request; Defense Information Systems Agency

request; and Joint Chiefs of Staff systems requests.

ELT1210 Basic Electronic Principles and Circuits - Basic electronics, electrostatics, and series, parallel, and series-parallel circuits; and changing currents, inductance, capacitance, inductive and capacitive circuits, transformers, resonance, and filters. Includes circuit analysis using electronic test equipment.

ELT1211 Basic Electronic Circuits - Introduction to P-N junctions, transistor operation, amplifiers, coupling and waveshaping circuits, integrated circuits, digital circuits, power supplies, sinusoidal and relaxation oscillators, hand tools, and soldering techniques. Includes circuit fabrication using electronic fundamentals trainer and malfunction analysis using electronic test equipment.

ELT1223 Cryptographic Systems and Devices - Principles of secure communication systems. Includes use of electronic cryptographic devices; encrypted teletypewriter, data, and narrow- and wide-band secure voice terminals; system configurations; and emanation suppression techniques.

ELT1259 Introduction to Electronics - Electronic circuits and their use in various electronic systems. Includes power supplies, solid-state devices, digital techniques, digital mathematics, and basic troubleshooting.

ELT1262 Metrology Measurement Principles - Tracing and verifying precision measurement equipment standards, publications, forms, and supply management.

ELT1301 Introduction to the Ground Control Station (GCS) Operation/Maintenance - An introduction to the ground control station (GCS) terminal used to control remotely piloted aircraft (RPA). Course includes operation and maintenance of pilot/sensor operator (PSO) workstations; electrical power systems; communication systems; auxiliary system equipment; and maintenance/troubleshooting methods.

ELT1305 Radar Identification Equipment - An introduction to functional and circuit analysis of radar identification equipment (Air Traffic Control (ATC) and Identify Friend or Foe (IFF)); course also includes analysis of transmitters, receivers, control circuits, power supplies, and system maintenance.

ELT1451 Fiber-optic Cable Installation and Maintenance - Installation, splicing, and maintenance procedures for fiber-optic cables and associated equipment, and use of specialized test equipment.

ELT1455 Communication Systems Theory - Principles of multiplexing, tunable microwave and tropospheric scatter systems. Includes performance laboratory to emphasize analysis, troubleshooting, maintenance, and repair using standard test equipment.

ELT1456 Digital Data Communication Theory - Digital data communication systems theory. Includes functional and circuit analysis of transmitters, receivers, power supplies, data reception and detection circuits, and receiver timing and detection circuits.

ELT1457 Missile Launch Control Facility Maintenance - Launch control center, facilities and support systems. Operational theory, logic, and circuit diagram analysis, and preventive and corrective maintenance. Includes general- and special-purpose test equipment and technical manuals.

ELT1501 Electrical Power Generation and Distribution - Operation, troubleshooting, inspection, and maintenance principles of AC and DC power generating systems, associated equipment, and electrical power distribution systems.

ELT1529 Power Production Equipment - Fundamental principles of power production equipment. Includes operation, troubleshooting, and repair of internal combustion engines, generators, exciters, voltage regulators, launch facility power generation system, and launch facility and launch control facility power distribution system.

ELT1701 Principles of Alternating Current (AC) Circuits - Principles of Alternating Current (AC) theory. Includes waveshapes, voltage characteristics, frequency characteristics, phase relationship, frequency classification and the principles of calculating AC circuit voltage and time/frequency conversions. Addresses the basic knowledge of associated components such as frequency sensitive filters, capacitive, inductive, and RCL (resistance/inductance/capacitance) circuits.

ELT1702 Principles of Direct Current (DC) Circuits - Principles of Direct Current (DC) theory. Includes atomic structure, terminology, schematic symbols, Ohm's Law, Kirchhoff's Law, and circuit configurations. Addresses the basic knowledge of resistance, color codes, color bands, and the principles for calculating resistive values of series, parallel, series-parallel, and voltage divider circuits.

ELT1712 Basic Solid-State Theory - Solid-state power supplies and amplifiers. Includes P-N junctions; transistors; rectifiers; filters; limiters and clampers, and power, special, and wide-band amplifiers.

ELT1719 Sensing Systems Maintenance I - Functional descriptions, technical characteristics, installation and operation

procedures, block diagram and circuit analysis, preventive maintenance, and troubleshooting procedures of wind and temperature dew point measuring equipment.

ELT1721 Electrical Fundamentals - Electrical fundamentals as applied to Mechanical and Electrical personnel. Includes Ohm's law, series, parallel, and series-parallel circuit theory. Also includes meters and test equipment; electrical code; terminology; wiring diagrams; and electrical safety.

ELT1738 Radar Data Display Circuits - Operational theory, application, and maintenance of precision-timing circuits, wave-shaping devices, sweep generation circuits, video-processing circuits, and cathode ray tubes. Includes troubleshooting and fault analysis by using multimeters, voltmeters, and dual trace oscilloscopes.

ELT1744 Radar System Circuits - Theory of operation and circuit analysis using logic symbols, schematics, and block diagrams; includes bench test, repair, and alignment of module boards and components.

ELT2106 Mobile Communications Systems Maintenance - Communications centrals. Includes nomenclature classification, equipment features, operational modes, malfunction analysis, field repairs, supply procedures and safety.

ELT2114 Radio Maintenance Laboratory - Trouble analysis and fault isolation of subunits of transmitter, receiver, and control sites.

ELT2127 Amplitude Modulation (AM) Transceiver - Operation and maintenance of Amplitude Modulation (AM) Transceiver systems and associated equipment. Includes the use, capabilities, and limitations of Amplitude Modulation (AM) Transceivers.

ELT2129 Instrument Landing System Principles - Advanced knowledge and skills necessary to perform functional operation and alignments of aircraft Instrument Landing System. Includes operation and maintenance of the remote control display unit, site intercom assembly, interlock control unit, and specialized test equipment.

ELT2138 Ground Tactical Air Navigation Theory - Introduction to flight facilities equipment systems theory. Includes circuit functional analysis of ground tactical air navigation systems using test equipment and technical data.

ELT2139 Ground Tactical Air Navigation (TACAN) Maintenance - Alignment and maintenance of ground Tactical Air Navigation (TACAN) systems and associated equipment. Includes the use, capabilities, and limitations of the transponder systems. Also includes the receiver system, pulse train processing, transmitter, and directional coupler. Addresses alignment and fault isolation of monitor circuits.

ELT2140 Very High Frequency Omni Range (VOR) Transmitter - Theory of operation and maintenance of VOR ground station major assemblies. Includes antenna system theory, radiated signals/errors, computer commands, control indicator theory, transmitter operation/alignments, monitor operation, and system troubleshooting.

ELT2143 Instrument Landing System Monitors - Advanced knowledge and skills necessary to perform functional operation, alignments and maintenance of aircraft Instrument Landing System Monitors. Includes ground check and flight inspection procedures, preventative maintenance, and system troubleshooting.

ELT2202 Electronics Quality Assurance - Provides formal academic instruction to personnel involved in day-to--day Project Engineering activities for preparation of Command, Control, Communications and Computer (C4) systems projects in support of worldwide Air Force, Major Command, and other communications agencies. The scope of this instruction includes: Project Engineering process, Air Force publications, management of Engineering Installation Workload, communications requirements processing, drawings, Total Force Group, Project Information Tracking System, project surveys, costing, Project Support Agreements, project package development, project package reviews, engineering change requests and authorizations, and special engineering actions.

ELT2401 Radar Principles - Functional and circuit analyses of radar transmitters, receivers, and moving-target indicators. Includes modulator, high-voltage power supply; local oscillator; driver circuits; automatic tuning; master timing; RF, IF, and video circuits; and troubleshooting and repair techniques.

(EMT) Emergency Medical Technology

EMT2301 Introduction to Emergency Medical Technology - Medical terminology, basic pharmacy, therapeutics, medical laboratory and postmortem care; and techniques in lecturing on allied health subjects.

EMT2302 Management of Common Medical Disorders - Care of acute dental, respiratory, eye, ear, nose, throat, genitourinary, integumentary, cardiovascular, gastrointestinal, neurological and psychiatric disorders.

EMT2305 Clinical Practicum - Hospital care of traumatic injuries, temporary dental care, taking patient history, physical examinations, diagnoses of specific diseases, use of laboratory tests to support diagnoses, supervision of

medical care and medications, and skills required in remote duty areas.

EMT2306 Emergency Service Management - Introduction to emergency service management, and provision of health care in emergency services by recognizing life-threatening conditions and providing advanced life-support techniques, diagnosis and treatment of broad spectrum of conditions commonly encountered in an emergency service. Includes use of available resources to ensure optimal care for nonemergency conditions, management and operations of an emergency service.

EMT2318 Field Medicine Management & First Response Treatment - Managing the identification, first response treatment & patient triage in field conditions. Includes patient evacuation procedures, intravenous (IV) infusion therapy, Nuclear Biological & Chemical injury treatment, airway management and airway management equipment, minor surgical procedures and wound care and creating/maintaining patient records in the Deployable Medical Record System.

(ENM) Environmental Medicine

ENM1311 Operational Entomology - Epidemics, vector bionomics and vector-borne diseases as they affect military; surveillance, prevention and control of vector-borne diseases; and information, intelligence and field operations.

ENM2306 Public Health Emergency and Disaster Operations - Didactic and field training in public health preventive medicine for emergency and disaster operations. Emphasizes role of public health personnel in responding to disasters and complex humanitarian relief efforts; role of federal, state and local governments in contingency planning and operations; field supplies, equipment, sanitation and hygiene; chemical and biological monitoring and decontamination procedures; methods of ensuring safe food and water in field conditions; disease vector investigation and surveillance techniques; and site selection and setup.

(ENT) Entomology

ENT1100 Environmental Compliance and Safety - Introduction to environmental laws and regulations. Includes the Initial Federal Hazard Communication Training Program; Hazardous Material (HAZMAT) Handling; Federal Insecticide; Fungicide and Rodenticide Act; Threatened and Endangered Species Act; Resource Conservation and Recovery Act; and facts and terms about AFOSH, EPA, OSHA, NIOSH and the USDA emphasizing their impact on Air Force environmental operations. Also includes host country, state and local agencies/requirements; state and host nation quarantine regulations and co-operative procedures; AF Public Health and Bioenvironmental Engineering vector surveillance coordination; and identification of regulatory guidance compliance for pest management facilities.

ENT1105 Pesticide and Dispersal Equipment - Introduction to the operation and maintenance of pesticides and dispersal equipment. Includes the calculation of pesticide; preparation of finished pesticide products for application; pre-operational inspections, operation, calibration and operator maintenance on various tools and equipment. Also includes inputting automated pesticide application data into the Integrated Pest Management Information System (IPMIS); Termite Inspection Forms and procedures; and procedures for completing the DD Form 1532, Pest Management Report and the DD Form 1532-1, Pest Management Maintenance Record.

ENT1200 Vegetation Management - Introduction to the identification of terrestrial weeds and characteristics of ornamental and turf pests. Includes plant biology and physiology; classification of herbicides and aquatic pests; application of pesticides; and herbicide use problems.

ENT1250 Pest Management - Introduction to the application of the Integrated Pest Management Program and performance of chemical control procedures. Includes medical and economic impacts; introduction to entomology; and identification of household, structural, vertebrate, venomous, disease vectoring and stored product pests.

ENT1300 Environmental Support Equipment - Introduction to basic facts and terminologies related to Civil Engineering (CE) Core concepts and operation of environmental support equipment. Includes procedures for obtaining Disease Vector Ecology Profiles (DVEP) from the Air Force Pest Management Board (AFPMB); selecting pesticides; and packaging assets to be shipped to contingency locations. Also includes maintenance procedures, components and features of the Reverse Osmosis Water Purification Unit (ROWPU), water and fuel bladders; field latrine; and basic water treatment unique to contingency operations.

(EOD) Explosive Ordnance Disposal

EOD1000 Introduction to Explosive Ordnance Disposal - Introduction to Explosive Ordnance Disposal history, duties and responsibilities. Includes explosive effects and applications, associated tools, nuclear/non-nuclear and

chemical/biological weapon identification, and explosive safety as applied to Explosive Ordnance Disposal personnel.

EOD1001 Fundamentals of Explosive Ordnance Disposal - Fundamentals of Explosive Ordnance Disposal operations. Includes explosive reconnaissance, demolition procedures, explosive hazards, publications, post-attack base recovery and chemical operation measures as applied to Explosive Ordnance Disposal personnel.

EOD1002 Explosive Ordnance Disposal Apprentice - Phase I - Introduction to explosive blast affects, associated mathematical equations, demolition materials, storage/handling and transportation of hazardous items, and explosive initiating systems. Includes disposal operations involving nonnuclear, chemical and biological ordnance as applied to Explosive Ordnance Disposal personnel.

EOD1003 Explosive Ordnance Disposal Apprentice - Phase II - Methods and procedures for safe identification, range safety, recovery, evaluation, and disposal of all conventional and nuclear explosive ordnance. Includes placed, projected and dropped munitions, and associated fuses; aircraft explosive hazards; guided missiles; and detailed instruction on recovery, evaluation and disposal of nuclear weapons as applied to Explosive Ordnance Disposal personnel.

EOD2000 Advanced Explosive Ordnance Disposal Operations - Advanced application, management skills and operations training for explosive ordnance disposal. Includes team lead procedures, base recovery attack plans, emergency off-base response, explosive ordnance reconnaissance and environmental protection considerations as applied to Explosive Ordnance Disposal personnel.

(EPP) Electric Power Production

EPP1100 Airfield Lighting System - Basic airfield lighting system configurations. Includes control system, beacon lights, lighting fixtures, regulators, and transformers, and condenser discharge cable repair, troubleshooting, and maintenance.

EPP1502 Engine Systems and Associated Equipment - Operation and maintenance of conventional, gas turbine, and diesel engine systems. Including cooling, starting, lubrication, intake, exhaust, governor, and fuel.

EPP1503 Powerline Equipment and Pole Climbing - Principles and techniques of pole climbing procedures, equipment, and materials required for installation of service laterals. Includes high voltage splicing procedures used in the manufacturer's splicing specification sheets and critical information necessary to fabricate a splice; inspection of electrical terminations and underground splices in confined spaces and terminations on riser poles; required tools necessary for safe fabrication of elbows; and de-energizing and isolating transformers and applying lockout/tagout procedures prior to testing with a megohmmeter. Also includes pole inspection before climbing; inspection and proper wear of climbing gear; traversing (ascend and descend) over obstacles, such as transformers, conductors, single and double crossarms; installing and removing crossarms; and pole top rescue procedures.

EPP1504 Construction of Overhead Electrical Distribution Systems - Principles of testing with high-voltage phase testers, grounding sets, isolation of high voltage lines, clearance forms, and maintaining records and forms. Includes attaching grounding sets to the pole; ground rods; overhead conductors; selecting anchors; soil conditions; anchor holding requirements; equipment and tools; and installation requirements. Also includes installing guy-wires and anchors; conductor support devices; overhead line conductors; splicing; protective devices; transformers; and service drops. Also includes troubleshooting pole mounted transformers and single-phase and three-phase transformers; transferring de-energized conductors from old to new pole; replacing conductor support on de-energized conductors; inspection and maintenance requirements for poles, conductor support devices, distribution transformer, protective devices, and High-voltage switches.

EPP1505 Underground Distribution Systems Maintenance - Maintenance and inspection of underground electrical distribution system and manhole equipment. Includes fabricating and testing in-line splices, installing direct burial cable, replacing underground cable, tape termination techniques, and termination point inspection and testing.

EPP1506 Mobile Generator Set Theory and Operation - Familiarization and operation of various mobile generators, generator sets, and generator engines to provide external, mobile electrical power in a variety of situations. Includes generator installation and set-up, functions of major system components in the generator, generator set modules, generator engines, generator and engine protective devices, and use of associated equipment.

EPP1507 Generator Set Operation and Aircraft Arresting Barriers - Operating characteristics and configuration of aircraft arresting system, generator set associated equipment, and power plant generator operation, problem analysis and diesel engine tests and maintenance.

EPP1509 Electrical Special Purpose Systems - Maintenance; troubleshooting; and repair of transformers, voltage

regulators, battery banks and chargers, and emergency lighting systems. Includes dining hall and domestic appliances.

EPP1516 Mobile Generator Set Maintenance and Diagnostics - Maintenance and troubleshooting of various power generation systems, generator sets, and generator engines. Isolation and component repair of mechanical and electrical malfunctions to include proper use of electrical wiring diagrams and associated test, measurement and diagnostic equipment to trace and extract faulty AC and DC electrical circuits.

EPP2200 Advanced Troubleshooting of Generator Equipment - Advanced troubleshooting of power production (generator) equipment. Includes principles and techniques of tracing electrical wiring diagrams in AC and DC circuits on commercial generators and automatic transfer switches (ATS) control circuits. Includes procedures and techniques for removing, reeving and replacing tape, stretching tape and attaching tape connectors on Aircraft Arresting Systems; removing and replacing hydraulic system control valves; removing, inspecting and installing sheaves; and theory of operation and components of hydraulic and rewind systems.

EPP2503 Transportable Distribution Systems - Set up, maintenance, troubleshooting, and repair procedures for electrical distribution systems and secondary distribution centers under field conditions. Includes use of electrical plant schematics, test equipment, and safety practices.

EPP2504 Electrical Distribution Systems - Maintenance of hot line tools and advanced troubleshooting procedures for electrical distribution systems. Includes voltage regulator maintenance with application of electrical theories; replacement of single-phase lines, three-phase running corners, vertical construction, insulators on horizontal construction, crossarms using auxiliary sidearms, and crossarms and poles on dead ends; and changing straight line crossarm to double dead end and double crossarms on angles.

EPP2505 Advanced Motors and Controls - Operational characteristics and troubleshooting of electric motors, frequency converters, transformers and grounding systems. Includes electronic components, line and wiring diagrams, and motor accessories.

EPP2506 Emergency Airfield Lighting System - Installation, operation and maintenance of the Emergency Airfield Lighting System during contingency operations. Includes the installation and maintenance of precision approach, threshold and taxiway lighting systems; mobile generator power supply, voltage regulator unit and control panel operations; and system packaging with trailers, cable reels and containers for rapid deployment.

EPP2507 Advanced Airfield Lighting Systems - Advanced knowledge and troubleshooting of airfield lighting systems. Includes the types, purpose and configurations of airfield lighting systems; threshold lights; runway end; centerline and guard lights; touchdown zone lights; and various airfield signs. Emphasizes the purpose, operating principles, and procedures for testing and troubleshooting of solid-state condenser discharge lighting systems. Also emphasizes the purpose, types, components and configuration, inspection, testing, and troubleshooting of runway and taxiway fixtures; control circuits and constant current regulators. Also includes procedures for troubleshooting components of the Precision Approach Path Indicator (PAPI) and operating touch screen control systems.

(EST) Electronic Systems Technology

EST1001 Introduction to Direct Current (DC) Circuits - Introduction to the principles of Direct Current (DC) as applied to Electronic Systems Technology. Includes theory; atomic structure; terminology; schematic symbols; Ohm's Law; Kirchhoff's Law; and circuit configurations. Also includes the basic knowledge of resistance; color codes; color bands; and principles for calculating resistive values of series, parallel, series-parallel, and voltage-divider circuitry.

EST1002 Introduction to Alternating Current(AC) Circuits - Introduction to the principles of Alternating Current (AC) as applied to Electronic Systems Technology. Includes theory; waveshapes; voltage characteristics; frequency characteristics; phase relationships; frequency classification; and the principles of calculating AC circuit voltage and time/frequency conversions. Also includes the basic knowledge of associated components such as frequency sensitive filters; capacitive; inductive; and resistance circuits.

EST1003 Introduction to Power Supplies - Introduction to the functions, characteristics, and theory of operations of power supplies as applied to Electronic Systems Technology. Includes knowledge and principles of power supply components such as diodes, rectifiers, filters, transistors, Zener diodes, and voltage regulators. Also includes the basic knowledge for the types of malfunctions, fault isolation techniques, safety, and risk management.

EST1004 Introduction to Electromagnetic Devices - An introduction to the principles of electromagnetic devices as it pertains to Electronic Systems Technology. Includes overviews of transformers, relays, solenoids, synchro/servos, and transducers; theory of operation; construction methods; and fault isolation techniques. Also addresses the basic knowledge of electrostatic discharge (ESD) characteristics, control measures and electromagnetic effects;

electromagnetic pulse (EMP) and electromagnetic interference (EMI).

EST1005 Project Engineering - Principles and techniques of day-to-day Project Engineering activities for preparation of Command, Control, Communications and Computer (C4) systems projects in support of worldwide Air Force, Major Command, and other communications agencies. Includes Project Engineering process, communications requirements processing, drawings, project surveys, costing, support agreements, project package development and review, change requests and authorizations, and special engineering actions as pertains to Electronic Systems Technology.

EST1100 Communication Systems Fundamentals - Introduction to the purpose, functions, characteristics, and theory of operation for telecommunication devices pertaining to Electronic Systems Technology. Includes Radio Frequency (RF) transmission systems; radio sets for voice and data transmission operation; encryption devices; and Virtual Local Area Networks (VLANs). Addresses the basic knowledge of communication mediums, such as Transmission Control Protocol/Internet Protocol (TCP/IP); IP routing; network security; fiber optic technologies; and the types of shielded and unshielded interconnect cables.

EST1111 General Maintenance Training - Introduction to maintenance concepts and practices pertaining to Electronic Systems Technology. Includes security; use of Air Force publications; Air Force Office of Safety and Health and safety precautions; Air Force supply system; and maintenance management.

EST1113 Fundamentals of Satellite Communications - Fundamentals and characteristics of multi-band, multi-channel satellite communications (SATCOM) equipment pertaining to Electronic Systems Technology. Includes transmit and receive system capabilities and limitations; modems; multiplexers; timing; modulation techniques; tracing of signal flow using diagrams, schematics, and technical manuals. Also includes the theories associated with technical aspects of satellite communications operation control and hypothetical problem-solving situations.

EST1114 Principles of Radio Communications I - Introduction to radio communications pertaining to Electronic Systems Technology. Includes principles of transmitters; receiver tuning and operations; antennas; wave propagation; and communication procedures.

EST1115 Principles of Radio Communications II - Identify basic facts and principles of the Data Link Systems. Includes the execution of the C-Band Ground Data Terminal (GDT) Azimuth Offset Alignment Procedures and Aircraft Power-Up Initial Link Activation and Termination. Incorporates the installation and testing C-Band Transmitter and Receiver Assembly to include the Acquisition Aid Antenna, as it pertains to Electronic Systems Technology personnel.

EST1117 Radar Principles - Introduction to the functional and circuit analysis of radar transmitters, receivers, and moving target indicators as it pertains to Electronic Systems Technology. Includes modulators; high-voltage power supplies; local oscillators; driver circuits; automatic tuning; master timing; Radio Frequency (RF); Intermediate Frequency (IF); video circuits; and troubleshooting and repair techniques.

EST1119 Pole Climbing Fundamentals - Fundamentals of pole climbing. Introduction to the care and use of climbing equipment; climbing techniques; and first aid and safety procedures. Also includes rope ties and splices; raising and securing aerial splicing equipment; hand tools; cable cars; and technical publications. Pertains to the Electronic Systems.

EST1120 Fundamentals of Antenna Systems - Fundamentals of antenna systems as it pertains to Electronic Systems. Includes antenna construction; elementary site surveying; safety techniques; and maintenance practices. Also includes lightning protection systems; guy wire, ropes, and line fabrication and installation; and the erection of antenna support poles.

EST1121 Introduction to Ground Control Stations - Introduction to the Ground Control Station (GCS) terminals used to control Remotely Piloted Aircraft (RPA) as it pertains to Electronic Systems Technology. Includes operation and maintenance of pilot/sensor operator (PSO) workstations; electrical power systems; communication systems; auxiliary system equipment; and maintenance and troubleshooting methods.

EST1122 Tower Climb and Rescue - Introduction to methods and techniques of tower rescue as applied to Electronic Systems Technology. Includes the proper methods and techniques to rescue stranded personnel from antennas and other high altitude towers; fall protection techniques; ropes and rescue knots; anchor systems; mechanical advantages; equipment inspections; medical concerns; fall clearance; and various types of rescue.

EST1123 High-Reliability Soldering and Connections - Repair of miniature and micro miniature electronic circuits and printed circuit boards. Includes soldering of components and modules to printed circuit boards and various terminals used in electronics equipment, conformal coating removal and replacement of solid-state components as applied to Electronic Systems personnel.

EST1200 Communications Network Equipment Laboratory - Operating techniques and procedures for maintaining

network equipment pertaining to Electronic Systems Technology. Includes continuity, reliability, and speed of service; operation of relay station equipment; concepts of operation of technical control facilities; and operations of networks and routers.

EST1201 Communications Network Testing - Fundamentals of systems testing and analysis procedures pertaining to communication networks used in Electronic Systems. Includes the use of general- and special-purpose test equipment and technical publications.

EST1204 Ground Control Station (GCS) Systems Maintenance - Identify basic facts and terms about the Ruggedized Aircraft Maintenance Test Stand (RAMTS). Execute RAMTS power up and configuration set up and perform various inspections ranging from 7 days to 168 days and annual inspections. Includes Keyboard, Video, and Mouse (KVM) switch programming set up procedures, and determining corrective actions for five Ground Control Station (GCS) System faults as it pertains to Electronic Systems Technology Personnel.

EST1301 Giant Voice Operation - Installation and operating procedures of Giant Voice mass notification systems pertaining to Electronic Systems Technology. Includes Electronic Installation (EI) background; infrastructure requirements; grounding and bonding; notification devices; RF transmission principles and equipment; and safety.

EST1302 Very High/Ultra High Frequency Transceiver - Operation and maintenance of VHF/UHF Transceiver systems and associated equipment pertaining to Electronic Systems Technology. Includes the use, capabilities, and limitations of VHF/UHF Transceivers. Also includes the capabilities and limitations of VHF/UHF Transceiver Deployable Antenna Masts and Antennas.

EST1303 High Frequency (HF) Transceiver - Operation and maintenance of High Frequency (HF) Transceiver systems and associated equipment pertaining to Electronic Systems Technology. Includes the use, capabilities, and limitations of HF Transceivers. Also includes the capabilities and limitations of HF Transceiver Deployable Antenna Masts and Antennas.

EST1304 Introduction to Amplitude Modulation Transceivers - Introduction to Amplitude Modulation (AM) transmitter and receiver systems as applied to Electronic Systems Technology. Includes the fundamentals of operation and maintenance processes associated with AM transceiver systems and associated equipment and the capabilities and limitations of related systems.

EST1400 Satellite Communications Laboratory - Deployment and operation of Satellite Communication systems and associated equipment pertaining to Electronic Systems Technology. Includes establishing command and control nets; line of sight communications; Tactical Satellite (TACSAT) links; mass alert systems; communication services via SATCOM terminals and microwave radios; and voice and data services via network bandwidth management and multiplexing equipment.

EST1500 Radar Systems Laboratory - Introduction to the troubleshooting of radar terminals as it pertains to Electronic Systems Technology. Includes troubleshooting and analysis of circuitry associated with transmitter equipment; receiver equipment; and transponders. Also includes the use of test equipment and procedures; and preventative maintenance.

EST1501 Airport Surveillance Radar I - Introduction to the theory of operation of airport surveillance radar systems as it pertains to Electronic Systems Technology. Includes the use, capabilities and limitations, and alignment of primary and secondary surveillance radar systems. Includes associated equipment, such as low-voltage power supplies; waveguide systems; digital timing circuits; and transmitter and receiver systems.

EST1502 Precision Approach Radar - Introduction to the theory of operation and maintenance of precision approach radar systems as it pertains to Electronic Systems Technology. Includes the use, capabilities and limitations, calibration, and alignment of power distribution systems; transmitter and receiver systems; target data computers; and beam steering. Also includes the theory of operation and maintenance of advanced modular transmitters; antenna beam control units; and remoting and control circuits.

EST1503 Aircraft Control and Warning Radar System - Introduction to the theory of operation, alignment, and maintenance of aircraft control and warning radar systems as it pertains to Electronic Systems Technology. Includes the use, capabilities and limitations of antenna and receiver subsystems; power distribution systems; transmitters; interlock networks; auxiliary equipment; processor subsystems; indicators; and secondary subsystems. Also includes alignment and fault isolation of transmitter and receiver circuits.

EST1504 Radar Identification Equipment - Introduction to functional and circuit analysis of radar identification equipment as it pertains to Electronic Systems Technology. Includes Air Traffic Control (ATC); Identify Friend or Foe (IFF); analysis of transmitters and receivers; control circuits and power supplies; and systems troubleshooting and maintenance.

EST1505 Surveillance Indicator Systems - Introduction to the circuit analysis of plan position indicator systems as it pertains to Electronic Systems Technology. Includes knowledge and troubleshooting of synchronization systems; sweep circuitry; video processing circuits; amplifiers; and cursors.

EST1507 Radar Data Display Circuits - Operational theory, application, and maintenance of radar display circuitry as it pertains to Electronic Systems Technology. Includes precision-timing circuits; wave-shaping devices; sweep generation circuits; video-processing circuits; and cathode ray tubes. Also includes troubleshooting and fault analysis of equipment utilizing multi-meters; voltmeters; dual trace oscilloscopes; and other troubleshooting test equipment.

EST1508 Video Processing - Introduction to the circuit analysis of video processing circuits as it pertains to Electronic Systems Technology. Includes knowledge and troubleshooting of normal and moving target video-processing circuits; antenna azimuth processing circuits; and radar control circuits.

EST1509 Airport Surveillance Radar II - A continuation of Airport Surveillance Radar I. Includes advanced theory of operations, alignment, and maintenance of primary and secondary surveillance radar systems; digital airport surveillance systems; system control and monitoring systems; monopulse surveillance radar and associated equipment as it pertains to Electronic Systems Technology. Also includes calibration and alignment of associated equipment and encoders; and system certification.

EST1510 Meteorological Radar Systems - Introduction to the operational theory of meteorological radar systems as it pertains to Electronic Systems Technology. Includes circuit analysis; inspections; installation; calibration; alignment; performance checks; troubleshooting techniques; repair procedures; and the use of applicable test equipment.

EST1511 Introduction to Enhanced Terminal Voice Switch (ETVS) Systems - Introduction to Enhanced Terminal Voice Switch (ETVS) systems as applied Electronic Systems Technology. Includes the theory of operation and maintenance of terminal voice switch systems; operator positions; system architecture; and troubleshooting procedures. Also includes the operation and maintenance of the digital audio voice recorder and associated troubleshooting procedures.

EST1600 Cable Construction and Installation - Fundamentals of cable construction and installation as it pertains to Electronic Systems. Includes aerial cable specifications in staking pole lines and distributing lines; erecting poles; guying; bracing and anchoring; suspension strand installation; lashing aerial cable; terminal and stepping pole installation; and installation of buried cable. Also includes use of technical publications; maintenance schemes; cable records; diagrams; cable car; and safety procedures.

EST1601 Cable Testing - Fundamentals of cable testing as it pertains to Electronic Systems. Includes maintenance of cable system records, strip maps; route markers; and use of frequency generators, multi-meters, and Wheatstone bridge. Also includes location and tracing of buried cables; fault location; excavation and backfilling procedures; insulation resistance measurement and calculation; and safety and communication security procedures.

EST1602 Cable Splicing and Sealing - Fundamentals of cable splicing and sealing as it pertains to Electronic Systems. Includes techniques and procedures for splicing, sealing, and testing lead and plastic sheathed cables. Also includes general- and special-purpose hand tools; safety equipment; and straight, bridge, and butt-splicing methods using auxiliary and lead sleeves.

EST1603 Fiber-Optic Cable Splicing - Fundamentals of fiber-optic cable splicing as it pertains to Electronic Systems. Includes techniques and procedures for splicing, sealing, and testing fiber-optic cables. Also includes the principles of fiber-optic systems; fusion and mechanical splices; and the use of optical time domain reflectometers.

EST1605 Underground Cable Splicing - Fundamentals of underground cable splicing as it pertains to Electronic Systems. Includes analysis of cable plant maps and splicing diagrams. Also includes splicing techniques; safety procedures; and the use of general- and special-purpose test equipment and technical publications.

EST1700 Principles of Instrument Landing Systems - Introduction to the principles of Instrument Landing Systems (ILS) as applied to Electronic Systems Technology. Includes the knowledge and skills to perform functional operations and alignments of airfield instrument landing systems. Also includes the operation and maintenance of remote control display units; site intercom assemblies; interlock control units; and specialized test equipment.

EST1701 Introduction to Tactical Air Navigation Systems Maintenance - Introduction to maintenance and alignment of Tactical Air Navigation (TACAN) Systems as applied to Electronic Systems Technology. Includes the use, capabilities, and limitations of the transponder system; receiver systems; pulse train processing systems; transmitters; and directional couplers. Also includes alignment procedures and fault isolation of monitor circuits.

(EXO) Explosives Handling & Disposal

EXO1000 Specialized Mobile Security Functions - Concepts of worldwide mobile/deployment operations. Emphasizes practical application of defensive tactics and techniques. Includes the use of force continuum, international relations, explosive devices, lethal and nonlethal weapons, defensive tactics, terrorism, information sources, counter surveillance, hostage survival, threat conditions, aircraft familiarization and individual protective measures as applied to Expeditionary Operations Courses.

EXO1001 Expeditionary Combat Convoy - Introduction to ground operations during wartime contingencies as applied to Expeditionary Operations. Includes convoy operations; ground operations; field communications; weapon fire control measures; weapon range estimation; surveillance; night observation devices; land navigation; combat lifesaving techniques; and urban reaction operations.

EXO1002 Expeditionary Ground Defense - Intermediate analysis and application of logistical and tactical planning as applied to Expeditionary Operations. Focuses on ground defense operations; legal and procedural aspects of defense operations; and advanced organizational principles of the tactical area of defense strategy. Emphasizes leadership of combat elements; hostile operations planning and execution; and integration of defense forces. Includes awareness of terrorist operations; anti-terrorism procedures; base threat analysis; application of special weapons; and team concepts in tactical situations.

EXO1003 Expeditionary Support Weapons (Qual) - Application and knowledge of mortars, recoilles rifles, heavy machineguns, and/or grenade launchers as applied to Expeditionary Operations. Includes nomenclature, characteristic capabilities, and operator care and cleaning maintenance of specific weapons systems; weapons safety; tactical employment; forward observation; and fire-direction center of operations (mortar courses only). Emphasizes ammunition types and uses; practical exercises involving crew drills for gunners; assistant gunner ammunition bearers; and live firing qualification.

EXO1004 Expeditionary Weapons and Tactics - Application of special weapons as applied to Expeditionary Operations. Includes nomenclature, capabilities, and characteristics of slap flares, hand grenades, claymore mines and antitank weapons; employment of individual and team concepts in tactical situations; patrol techniques used in a combative environment; and principles of urban survivability.

EXO1005 Expeditionary Mission Training - Practical application of logistics processes as applied to Expeditionary Operations. Includes terminologies; command structure; pre-deployment briefing procedures; rapid response and operations; air-base/air-field operations; and skills needed to support a joint/combined military environment. Also includes advanced-level understanding of the mission, roles, core capabilities, limitations, organization, and operating environments.

EXO1006 Expeditionary Aircraft Load Planning - Principles, techniques, and methods of aircraft load planning for select military and commercial cargo aircraft. Includes a comprehensive look at overall aircraft loading functions, aircraft specific safety procedures, loading procedures, calculating cargo center of balance, shoring and restraints, aircraft roller limitations, aircraft floor limitations, computing aircraft center of balance, and aircraft winching as it applies to the Expeditionary Operations Center.

(FDE) Faculty Development Education

FDE2405 Air Combat Command Instructional Systems Development Principles - Principles of Instructional Systems Development (ISD) and strategies as applied to Curriculum Developers, Education and Training Technicians, and ISD Management. Includes systems analysis training requirements; criterion objectives; teaching steps and measurement devices; and planning, developing, validating, conducting, implementing, and evaluating instruction using the current ISD model.

FDE2506 Instructor Qualification Course (IQC) Instructional Systems Development - Principles of Instructional Systems Development (ISD) and strategies as applied to Technical Training faculty. Includes systems analysis training requirements; criterion objectives; teaching steps and measurement devices; and planning, developing, validating, conducting, implementing, and evaluating instruction using the current ISD model. Also includes managing a high-risk lesson; human performance training; water skills orientation; and training tank policies/procedures.

FDE2507 Instructor Qualification Course (IQC) Instructional Methodology - Introduction to the principles of teaching and teaching strategies emphasizing proficiency in the development, organization, and delivering of collegiate-level curriculum as applied to Special Warfare Technical Training faculty. Includes practice teaching by employing instructional teaching methods; roles of the faculty instructor; instructional systems development (ISD); academic counseling; and multimedia and audiovisual aids. Also includes learning theories; questioning techniques; training supervision; lesson plan development; technical course writing; and conducting student tests and measurements for

student to practice skills under field conditions.

FDE2508 Academic Instructor Course/Instructional Methodology - Introduction to the principles of teaching and teaching strategies emphasizing proficiency in the development, organization, and delivering of collegiate-level curriculum as applied to Flying Training faculty. Includes practice teaching by employing instructional teaching methods; roles of the faculty instructor; instructional systems development (ISD); academic counseling; and multimedia and audiovisual aids. Also includes learning theories; questioning techniques; training supervision; lesson plan development; technical course writing; and conducting student tests and measurements for student to practice skills under field conditions.

FDE2509 Application of Instructional Systems Development (AISD) - Principles of Instructional Systems Development (ISD) and strategies as applied to Training Development and Training Program Development personnel. Includes systems analysis training requirements; criterion objectives; teaching steps and measurement devices; and planning, developing, validating, conducting, implementing, and evaluating instruction using the current ISD model.

FDE2601 Enlisted Professional Military Education Instructor Course Principles and Methods of Teaching - Selection of teaching methods, organization of materials, and preparation of written plans with behavioral objectives. Includes fundamentals of instructional systems development, principles of evaluation, and practice in employing teaching interview, experiential, case study, guided discussion, demonstration-performance, and lecture teaching methods. Emphasizes improvement in communicative skills as it applies to Enlisted Professional Military Education Instructors in the Instructor of Technology & Military Science degree program.

FDE2602 Enlisted Professional Military Education Instructor Course Evaluation of Instruction - Principles and methods of evaluating instruction in the classroom. Includes presentation and evaluation of case study, teaching interview, demonstration-performance, and experiential teaching methods. Students evaluate communicative skills, instructional techniques and adaptation to various student styles in the classroom as it applies to Enlisted Professional Military Education Instructors in the Instructor of Technology & Military Science degree program.

FDE2900 Command Sponsored Course Instructional Methodology - Introduction to the principles of teaching and teaching strategies emphasizing proficiency in the development, organization, and delivering of collegiate-level curriculum as applied to Command Sponsored Technical Training faculty. Includes practice teaching by employing instructional teaching methods, roles of the instructor, instructional systems development, academic counseling, multimedia audiovisual aids, learning theories, questioning techniques, training supervision, lesson plan development, technical course writing, and conducting student tests and measurements.

FDE2901 Basic Instructor Course Instructional Methodology - Introduction to the principles of teaching and teaching strategies emphasizing proficiency in the development, organization, and delivering of collegiate-level curriculum as applied to Technical Training faculty. Includes practice teaching by employing instructional teaching methods, roles of the instructor, instructional systems development, academic counseling, multimedia audiovisual aids, learning theories, questioning techniques, training supervision, lesson plan development, technical course writing, and conducting student tests and measurements.

FDE2902 Basic Instructor Course Instructional Systems Development - Principles of Instructional Systems Development (ISD) and strategies as applied to Technical Training faculty. Includes systems analysis training requirements; criterion objectives; teaching steps and measurement devices; and planning, developing, validating, conducting, implementing, and evaluating instruction using the current ISD model.

FDE2903 Basic Instructor Course Basic Counseling - Comprehension of human behavior as applied to Technical Training faculty. Includes adjustment mechanisms and different considerations in academic and nonacademic counseling, application of various counseling approaches, use of referral agencies, documentation and follow up.

FDE2904 Technical Writing - In-depth knowledge and skills of technical training course development and maintenance of documentation as applied to technical training instructors, instructor supervisors, curriculum developers, Training Development Element (TDE) chiefs, and Interactive Media Insertion (IMI) developers. Provides the basis for the development of detailed training materials, training objectives, and training evaluation instruments for the course. Includes writing preparation, essential technical writing, and technical writing styles.

FDE2905 Enhanced Learning & Instructional Techniques Enrichment (ELITE) - Advanced study of interactive courseware, lecture, guided discussion, and performance lessons as applied to Technical Training faculty. Includes characteristics of a facilitator; emotional intelligence; instructional styles; learning styles and how people learn; collaborative facilitation; active learning strategies; integrating multimedia; classroom configuration; Instructional System Development (ISD); converting lesson plans for the active learning environment; and integrating collaborative learning.

(FDS) Food Service

FDS2620 Food Services Operation Management - Principles of managing food services operations. Includes managing shift operations with emphasis on the knowledge and skills required to perform the roles and responsibilities of a Food Services Shift Leader. Also includes the management of personnel and shift assignments; menu planning; resource management; customer relations; administrative forms, production logs, and reports. Students will perform a Practicum in shift leader duties at an operational dining facility under the direct supervision and observation of a qualified and experienced instructor.

(FHM) Force Health Management

FHM1101 Physical Examination and Medical Standards - Principles, policies, procedures, and administration of military physical examinations. Introduction to medical qualification standards for military service and worldwide duty. Includes proper documentation, review of medical records, and physical serial profile reports.

(FIN) Finance Accounting

FIN1108 Accounting Principles and Payment Processes - Introduction to identifying budget processes; planning, budgeting, execution, applying disbursement, apply reimbursement, data elements and funds certifications. Determining propriety of funding, establishing basic ethics. Identify basic payment process, receiving reports, invoices, prompt payment and Fiscal Law.

FIN1110 Financial Management in Contingency Operations - Introduction to safeguarding of funds in contingency operations. Includes negotiable instruments and vouchers; operating safes; the Financial Management Comptroller Site and financial management roles; balancing and processing manual fund cite authorizations and commitment documents; and exchange and accountability.

FIN1125 Military Allowances and Entitlements Disbursement - Policies and procedures for military pay system as applies to Financial & Comptroller personnel. Includes determination of pay entitlements, Hostile Fire and Imminent Danger Pay, Hardship Duty Pay, Combat Zone Tax Exclusion (CZTE), Basic allowance for subsistence (BAS), Basic Allowance for Housing (BAH), Family Separation Allowance (FSA), Clothing Allowance, Cost of Living Allowance (COLA), Overseas housing Allowance (OHA). Emphasizes basic facts of entitlement verification and re-certification while determining proper procedures to correct errors on military pay.

FIN1201 Accounting Principles - Financial and managerial accounting principles. Includes basic financial statement preparation, the accounting cycle, and current and long term liabilities.

FIN1202 Federal Funds - Introduction to the federal budget systems used by the Department of Defense. Includes the standards of accounting; accounting structures and computer codes; general governmental accounting systems; general ledger accounting systems; the Financial Improvement & Audit Readiness (FIAR); the Resource Management System (RMS); reporting procedures; funds distribution; and practical experience determining funds availability.

FIN1203 Fiscal Law and Financial Management - Basic concepts of business law, fiscal law, financial management, ethics, and legal problems. Includes governmental budgetary and proprietary accounting.

FIN1205 Travel and Relocation Accounting - Computation of travel allowances. Includes permanent change of station, dependent travel entitlements, dislocation allowance, temporary duty pay, and leave accounting for travel-generated leave.

FIN1206 Finance Customer Support- Total Force - Introduction to financial management and comptroller organization, military pay systems and accounts. Includes leave earning statement for Active Duty, Reserve, and the National Guard. An outline to customer support including personal, telephone and electronic communication etiquette. Roles of financial management and comptroller personnel in the Air Expeditionary Force construct. An overview on financial management functions and missions for Department of Defense, Air Force Major Commands, and Defense Finance Accounting Service Agency.

FIN1210 Financial Management Publications and Rational Analysis - Theory of rational analysis as applies to financial management and comptroller personnel. Topics include inductive and deductive reasoning, interpreting and analyzing functional publications.

FIN1212 Introduction to Microsoft Office Suites - Introduction to preforming tasks in Outlook, Excel, and PowerPoint. Outlook topics include customizing command sets, setting global options, performing advanced searches, creating rules to automate management tasks, working with calendars and contacts. Excel proficiencies include creating worksheets,

charts, and graphs, utilizing functions to determine formulas and statistics. PowerPoint abilities include creating presentations, formatting slides, using drawing objects, working with graphics, and using tables and charts.

FIN1213 Financial Management Budgeting and Payment Processes - Analysis of financial management budgeting processes, emphasis on budgeting, execution, applying disbursement, apply reimbursement, data elements and funds certifications as applied to Financial Management and Comptroller personnel. Determining propriety of funding, establishing basic ethics. Identify basic payment process, receiving reports, invoices, prompt payment, and fiscal law. Particular attention will encompass Air Force Audit Program, Federal Manager's Financial Integrity Act, Financial Improvement & Audit Readiness (FIAR), and Terminal Area Security Officer (TASO).

FIN1214 Military Pay Deductions and Allotments - Policies and procedures for deductions, allotments, and indebtedness as applies to Financial Management & Comptroller personnel. Topics include computation of: Federal Income Withholding (FITW); Federal Insurance Contributions Act (FICA); State Income Tax Withholding (SITW). Includes relationship between miscellaneous deductions such as: Thrift Savings Plan; Garnishments, Fines and Forfeitures; Allotments; Indebtedness; Non-pay statues - Absent Without Leave (AWOL) and Confinement. A comprehensive analysis on computation of advanced, partial, and casual pay; military pay voucher balancing; Permanent Change of Station (PCS) and Accessions status changes.

FIN1215 Military and Civilian Financial Operations - Identify basic facts about Military, Dependent, and Civilian Temporary Duty Travel as applies to Financial Management & Comptroller personnel. Includes Reimbursable Expenses, Travel Allowances, Contingency Exercise Deployment (CED) Travel Vouchers, Civilian Pay; Civilian and Dependent Permanent Change of Station (PCS) Travel Expenses and Allowances. Miscellaneous topics include basic facts for determining emergency/non-combatant evacuation entitlements; Doubtful Claims; and Dependency Determination.

FIN2109 Budgeting - Focus on accounting, budget, and cost competencies as applies to Financial Management & Comptroller personnel, includes: Disbursement & Reimbursement accounting, governmental budgetary and proprietary accounts. Emphasis on processing; request for purchase; fund cite authorization; Government Purchase Card (GPC); Military Interdepartmental Purchase Request (MIPR); Contracts and purchase orders; and travel orders. Validate general principles through receiving reports, invoices, and Prompt Payment Act (PPA). Identify accounts payable management products, open document lists, automated execution reports, selective transaction history list, outstanding orders, travel advances and developing execution plans.

FIN2110 Federal Budget Execution & Distribution - Advanced concepts on planning, programming, budgeting, and execution (PPBE) as applies to Financial Management Comptroller personnel. Includes: applying disbursement, direct reimbursement, Initial distribution, annual funding, loading fund targets using Defense Enterprise Accounting Management System(DEAMS), fund certifications, and Acquisition Cross Service Agreement (ACSA). Determine propriety of funding, Status of funds, and tracking reimbursement processes. Identify basic payment processes including; Civilian pay, and prior year funds, Financial Working Group (FWG), and Financial Management Board (FMB).

FIN2124 Advanced Travel & Relocation Accounting - Advanced skills in computations of travel allowances as applies to Financial Management & Comptroller personnel. Topics include: Permanent Change of Station (PCS); dependent travel entitlements; temporary duty pay; leave accounting for travel-generated leave; Temporary Lodging Expenses (TLE). Determination of expenses related to the shipment and storage of Privately Owned Vehicles (POV); dislocation allowance; overseas travel including In-place Consecutive Overseas Tour (IPCOT), and transportation of civilian dependent students.

FIN2129 Advanced Budgeting - Advanced focus on accounting, budget, and cost competencies, to include: developing execution plans; funding/ unfunded requirements; interpreting funding guidance; preparing distribution of funds; validating propriety of funding using regulatory guidance; validating cost estimates for support agreements; the reimbursement program; prior year adjustments; performing budget program analysis; preparing economic analysis; and managing year-end close out. Emphasizes the effective application of accounting, budget, and cost competencies through decision support by identifying the requisite narrative writing skills, persuasive communication skills, critical thinking, problem-solving and conflict resolution, meeting and group dynamics, risk management analysis, and descriptive statistics.

FIN2133 Advanced Financial Analysis - Cost and economic analysis, use of statistical techniques and communicative skills to support analytical efforts, support agreements, financial planning and management systems, status of funds, contingency operations, and management and supervisory responsibilities.

(FIP) Fire Protection

FIP1101 Basic Hazardous Materials - General principles of hazardous materials. Includes recognizing and identifying hazardous materials, analyzing the incident, planning and implementing response, evaluating progress, and other competencies necessary to perform at awareness and operations levels of hazardous materials response.

FIP1201 Emergency Medical Response - Introduction to Emergency Medical Services (EMS) System that is related to Fire Science degree personnel. Understanding the human body, airway management and circulation, patient assessment, one and two rescuer cardiopulmonary resuscitation, establishing priorities of care, treating injuries, identifying medical and trauma emergencies, special patient populations, and crisis intervention.

FIP1804 Structural Firefighting Principles - Principles and techniques of structural firefighting. Includes identification and use of personal protective equipment, forcible entry, rescue practices, vehicle extrication, ladder operations, and ventilation practices.

FIP1805 Aerospace Vehicle Firefighting - Introduction to aircraft fire response and firefighting principles. Includes aircraft familiarization; airport and aircraft characteristics; aircraft strategic and tactical operations; rescue procedures and shut-down; aircraft extinguishment hand-line techniques; turret and pump operations; resupply of aircraft rescue firefighting vehicles; and training on live fires on various aircraft.

FIP1807 Fire Protection Fundamentals - Introduction to fire protection. Includes the mission and history of fire-protection; organizations and publications; National Fire and Protection Standards (NFPS) and guidelines; occupational health and safety; fire behavior and portable fire extinguishers; technical rescue and life safety initiatives; alarm communications center; and prevention and readiness. Also includes fire-protection contingency responsibilities.

FIP1904 Structural Fire Ground Operations - Techniques and application of structural fire ground operations. Includes fire hose appliances, water supplies, master fire streams, salvage and overhaul procedures, various fire sprinkler systems, and the practice of fire control and extinguishment.

FIP2101 Advanced Hazardous Materials - Advanced principles of hazardous materials. Includes incident management system, hazardous materials mitigation, use of monitoring devices and other competencies necessary to perform as a hazardous materials technician or incident commander.

FIP2102 National Incident Management Systems - Fundamentals of intermediate/advanced Incident Command System as it applies to multiple jurisdictional agencies to include: identifying performance requirements, resource management, applying incident principles and objectives, development of written action/demobilization plans and options related to major/complex incident management, and development of area command organization and activation of a multi-agency coordination system.

FIP2808 Fire Service Rescue - Principles of rescue. Includes use of protective clothing and equipment, emergency first aid and rescue tools; aircraft fundamentals; building construction; egress system; pressure suits; and rescue vehicles and equipment.

FIP2815 Fire Prevention Inspection - Advanced analysis of various functions of technical services branch of fire-protection organizations. Includes building and facilities engineering and design criteria for installed and portable fire-protection systems, funding and programming, administrative and inspection procedures, and applicability and inspection of evacuation plans.

FIP2818 Supervisory Firefighter - Supervisory fire-protection duties and responsibilities. Includes firefighting tactics and strategies; command and control using incident management system, aircraft emergency entry, budgeting, manning and quality fire-protection programs; and extensive use of ground and simulator exercises for performance of various crew duties.

(FUS) Fuels

FUS1101 Fuels Fundamentals - Introduction to fuels concepts and practices. Includes career ladder progression, security and fuels management; and use of Air Force publications, technical orders, Air Force Office of Safety and Health safety precautions, Air Force supply system and hazardous materials.

FUS1501 Fuel System Maintenance Laboratory - Application of fuel system equipment. Includes manual valves, pumps, gauges, pipeline, hand and specialized tools, bonding and grounding, and fluids and hydraulics.

FUS1503 Hydrant System Maintenance - Hydrant system maintenance as applied to Mechanical and Electrical personnel. Includes fundamentals of operation, inspection, and servicing of original and modified Panero and Pritchard hydrant systems. Also includes loading and offloading facilities; filters; separators; gauges; valves; and strainers.

FUS1507 Fuel Subsystems - Fuels subsystems as applies to Mechanical and Electrical personnel. Fundamentals of

operation, inspection, and maintenance of fuel mechanical subsystems. Includes tank filtration equipment; meters; and loading and offloading equipment.

FUS1508 Specialized Fuel Systems and Tank Entry - Specialized Fuel Systems and Tank Entry as applied to Mechanical and Electrical personnel. Fundamentals of Type III/IV Phillips system components; motor vehicle fueling system; principles of troubleshooting; and inspection and operating procedures. Includes procedures for tank entry and deactivating fuel systems; identification of cryogenic product hazards; procedures for cryogenic product issue and receipt; and Fuels Mobility Support Equipment set up and tear down.

FUS1509 Fuel Hydrant and Air Transportable Systems - Techniques, principles, functions and methods for operation and maintenance of permanently installed hydrant and air-transportable systems as applicable to the Fuels career field. Includes identification of hydrant and air transportable system components; proper inspection procedures; manual and automated tank gauging; and use of air transportable and hydrant systems used in aircraft refueling and defueling operations.

FUS1511 Aerial Bulk Fuel Delivery - Principles of loading and unloading bulk fuel delivery systems used in cargo aircraft as applies to logistics personnel.

FUS1512 Fuels Force - Application of Fuels Operational Readiness Capability Equipment (FORCE) system. Includes in set-up, operation, servicing of common and special manual valves, flow indicators, sensing units, filtration systems, and inspection procedures.

FUS1602 Operation of Fuel-Servicing Vehicles - Operation of various fuel-servicing vehicles, associated components and hose carts. Includes practice in driving and application of procedures used to service various aircraft with fuel and related expendables.

FUS2101 Cryogenic Fundamentals - Principles of cryogenics and production of industrial gases. Includes pressure characteristics, temperature effects, refrigeration methods, safety and environmental concerns, technical orders, inspection forms, gas cylinders and quality control.

FUS2503 Fuels Analysis - Analysis of fuels. Includes color and particle assessment, matched weight monitor, undissolved water content of aviation fuels, heavy hydrocarbon contamination test, fiber determination, conductivity testing, bottle method, aircraft sump samples, flashpoint and fuels system icing-inhibitor testing, and cloud point analysis.

FUS2601 Quality Control of Aircraft Fuels - Application of quality assurance principles. Includes identification of contamination sources; sampling methods and use of equipment; laboratory hygiene and safety standards test intervals; and practice in testing for solids, water, conductivity, fuels system icing inhibitor, potential hydrogen odor and flashpoint

FUS2607 Fuels Management - Application of advanced techniques for planning, organizing, and coordinating fuels activities involving personnel, facilities and equipment.

FUS2608 Fuel Storage Tank Entry Supervisor - Advanced knowledge and procedures in supervising fuel storage tanks. Includes agency coordination; confined space permit; petroleum product hazards; tank isolation; tank entry precautions and procedures; ventilation and safety equipment inspections; emergency actions; disposal of contaminates; quality assurance; tank cleaning operations and return to service. Also includes the supervisor performing an analysis of tank preventive maintenance records and 'as build' drawings.

(GIS) Geographic Information Systems

GIS2501 Advanced Geographic Information Systems (GIS) - Advanced functions and applications of the Geographic Information System (GIS). Incorporates the use of GeoBase concepts, ArcMap, and CAD (Computer-aided Drafting). Includes designing maps, editing with data creation, editing and analysis. Also includes enhanced knowledge of data queries, input and conversion techniques.

(GPS) Geophysical Sciences

GPS1400 General Maintenance Training - Introduction to maintenance concepts and practices as it pertains to Scientific Analysis personnel. Includes career ladder progression; security; use of Air Force publications; Air Force Office of Safety and Health and safety precautions; Air Force supply system; and maintenance management.

GPS1401 Systems Troubleshooting - Overall subsurface systems troubleshooting. Includes alignment; adjustment; self-tests; and performance checks as it pertains to Scientific Analysis personnel.

GPS1402 Seismic Analysis - Procedures and methods required to analyze seismic observations such as identification and application of seismic travel time charts and tables, event types, and distance ranges. Includes teleseismic, special, deep-event, regional, and near-regional and local analyses.

GPS1403 Seismic Techniques - Introduction to theories of earth's interior construction and physical properties. Includes seismic-wave propagation; theory and principles of longitudinal, transverse and Rayleigh wave generation; and transmission through and around the earth.

GPS1404 Seismic Equipment Operation - Introduction to seismic equipment and station operation. Includes station block diagrams, logs and routine forms, timing and signal subsystem theory and operation, oscilloscope operation and timing synchronization, seismic signal generation and transmission, and methods of signal amplification and control.

GPS1405 Sensing Systems Maintenance I - Introduction to maintenance of sensing systems as it pertains to Scientific Analysis personnel. Includes functional descriptions; technical characteristics; installation and operation procedures; block diagram and circuit analysis; preventive maintenance; and troubleshooting procedures of wind and temperature dew point measuring equipment.

GPS1406 Seismic Station Operation - Practical application of seismic theory, observation, analysis and equipment. Includes equipment operation under simulated field conditions, data analysis and reporting, and station documentation.

GPS1408 Principles of Computer Operations - Introduction to basic components and features of computers; flowcharting; programming languages; numbering and coding systems; assembly; applications; and computer security as it pertains to Scientific Analysis personnel.

GPS1409 Introduction to Electronics - Electronic circuits and their use in various electronic systems. Includes power supplies; solid-state devices; digital techniques; digital mathematics; and basic troubleshooting as it pertains to Scientific Analysis personnel.

GPS1410 Communication Systems Theory - Principles of multiplexing, tunable microwave, and tropospheric scatter systems. Includes performance laboratory to emphasize analysis, troubleshooting, maintenance, and repair using standard test equipment as it pertains to Scientific Analysis personnel.

GPS1411 Scientific Technician Orientation - Professional responsibilities of the scientific technician, selection and use of various publications, equipment and personal safety, and areas directly associated with scientific analysis.

GPS1412 Detection Systems - Introduction to seismic, hydroacoustic and satellite detection systems. Includes operational characteristics and concepts.

GPS1413 Satellite Detection Systems - Introduction to orbital mechanics and satellite equipment operations. Includes physics of orbit, conic sections and sensor theory.

GPS1414 Principles of Alternating Current (AC) Circuits - Principles of Alternating Current (AC) theory as it pertains to Scientific Analysis personnel. Includes waveshapes; voltage characteristics; frequency characteristics; phase relationship; frequency classification; and the principles of calculating AC circuit voltage and time/frequency conversions. Also includes the basic knowledge of associated components such as frequency sensitive filters; capacitive; inductive; and RCL (Resistance/Inductance/Capacitance) circuits.

GPS1415 Principles of Direct Current (DC) Circuits - Principles of Direct Current (DC) theory as it pertains to Scientific Analysis personnel. Includes atomic structure; terminology; schematic symbols; Ohm's Law; Kirchhoff's Law; and circuit configurations. Also includes the basic knowledge of resistance; color codes; color bands; and the principles for calculating resistive values of series, parallel, series-parallel, and voltage divider circuits.

GPS1416 Electronic Mathematics - Mathematic principles and its application to electronics as it pertains to Scientific Analysis personnel. Includes algebraic expressions; solution of equations; word problems; and trigonometric functions.

GPS1417 Applied Technical Physics - Survey of Physics as it pertains to Scientific Analysis personnel. Includes basic physics principles; atomic structure; quantitative processes; interactions; transformations; principles of radiation; detectors; and measurement techniques.

GPS1418 Basic Electronic Circuits - Introduction to the theory of electronic circuits as it pertains to Scientific Analysis personnel. Includes P-N junctions; transistor operation; amplifiers; coupling and waveshaping circuits; integrated circuits; digital circuits; power supplies; sinusoidal and relaxation oscillators; hand tools; and soldering techniques. Also includes circuit fabrication using electronic fundamentals trainer and malfunction analysis using electronic test equipment.

GPS2000 Computer System Administrator - Overview of hardware, software, and operating systems as it pertains to

Scientific Analysis personnel. Includes the use of system software; databases; networking; editor; and security software to customize operating environment to meet needs of using organizations.

GPS2002 Network System Administration - Local area network installation and operations as it pertains to Scientific Analysis personnel. Includes local area network; wide area network; terminology; protocols; Windows environment; electronic mail system; network administration functions; and hardware database management for users and passwords.

GPS2003 Advanced Maintenance Management - Detailed analysis of maintenance structures responsibilities. Includes supervisory roles; self-inspection systems; maintenance programs; material and maintenance control functions; environmental awareness; and requirements for manpower, budgeting, mobility, contingencies and training as it pertains to Scientific Analysis personnel.

(HAR) Heating, Air-Conditioning & Refrigeration

HAR1105 Refrigeration and Air-Conditioning Systems - Fundamental principles for operating, maintaining and troubleshooting facility air conditioning systems. Includes split system air conditioning systems; various applications for heat pumps and geothermal systems; pressure tests; leak checks; pre-operational tests; charge with refrigerant; manual pump-down; and refrigerant recovery. Also includes troubleshooting and correcting malfunctions on Heating, Air-Conditioning and Refrigeration (HVAC/R) systems, how to inspect and use clamp on meters and preventative maintenance.

HAR1110 Environmental Systems - Principles of environmental systems. Includes operation and maintenance of chillers; heat recovery, hydraulic cooling water and steam boiler systems; air handlers; exhaust fans; and purge air system.

HAR1111 Air-Conditioning and Refrigeration Fundamentals - Basic operation, maintenance, troubleshooting, and repair of facility air-conditioning and refrigeration equipment and accessories. Includes use and care of tools; piping identification; fabrication of refrigeration lines; and application of soldering and brazing techniques. Also includes basic facts about the properties of air; indoor air quality; constant and variable air volume, electrical and electronic control systems; and air-compressing equipment.

HAR1113 Heating Systems Maintenance - Introduction to maintenance of facility heating systems. Includes low- and high-temperature water and steam, oil and gas-fired heaters and burners; warm-air and water heating systems; water heaters; geo-thermal heat pumps; and hydronic distribution systems.

HAR1115 Heating, Air-Conditioning and Refrigeration (HVAC/R) Contingency Training - Operation theory of field-deployable Heating, Air-Conditioning and Refrigeration (HVAC/R) equipment. Includes pre-operational inspection and operational test of the TRICON refrigerated containerized system; field deployable environmental control unit; advanced design refrigerator (ADR-300); and 130K BTU heater. Also includes set up, pre-operational inspection and operational test of the water heater (WH-400) and the field water heater (M-80 boiler).

HAR1116 Heating Systems Operations - Operation theory of facility heating systems. Includes low- and high-temperature water and steam; oil and gas-fired heaters and burners; warm-air and water heating systems; water heaters; geo-thermal heat pumps; and hydronic distribution systems.

HAR1200 Heating, Air-Conditioning and Refrigeration (HVAC/R) and Civil Engineering Organization - Introduction to the functional responsibilities associated with various base civil engineering operations and management as it pertains to Heating, Air-Conditioning and Refrigeration (HVAC/R). Includes basic facts about career progression; upgrade training; the role of the Base Civil Engineer; HVAC/R wartime and peace time responsibilities; Air Force Reserve Command and Air National Guard total force integration; operations flight structure; and Prime BEEF and RED HORSE and their missions. Also includes steps to remove an individual from an energized circuit; dangers of arc flash; and technical orders and manufacturer manuals for set-up, operation and maintenance of HVAC equipment.

HAR2105 Liquid Oxygen Storage Tank Maintenance - Operation and maintenance of liquid oxygen storage tanks; and use of special test equipment to analyze malfunctions, bench test and repair storage tanks.

HAR2106 Oxygen and Nitrogen Plant Components - Advanced operation and maintenance of oxygen and nitrogen plant components and support equipment. Includes prime movers; air compressors; air-purification, refrigeration and air separator systems; cryotainers; gas storage cylinders; purity testing; and quality control.

(HEO) Heavy Equipment Operation

HEO1601 Construction Equipment Operator I - Introduction to operating various heavy equipment used in construction

sites and contingency operations. Includes the fundamentals of crane rigging; snow and ice control; and drainage systems. Also includes the purpose, use, and hands-on training on dump trucks and loaders; compact track loaders; sweepers; material handling; water truck; fencing; and backhoe operations. Also includes contingency operations involving repair of damaged airfields and expedient construction and maintenance of earth barriers and roads.

HEO1602 Construction Equipment Operator II - A continuation of Construction Equipment Operator I. Includes safety and the operation of auxiliary equipment; cranes; snow and ice control; dump trucks; front-end loaders; backhoes; sweepers; material handling; water truck; fencing; and compact track loaders. Also includes operational checks, operator maintenance and towing procedures involved with earth moving equipment.

(HIT) Histologic Technology

HIT1101 Histology - Study of human organs and tissues for developing histotechnological skills. Emphasizes recognition, composition and functions of organs and tissues; and autopsy, surgical and cytological procedures.

HIT1102 Introduction to Histotechnology - Introduction to Histologic Technology. Includes facilities; laboratory and environmental safety; mission and organizational structure; medical materials; and administration. Also includes familiarity with the microtomy and special stains areas procedures.

HIT1103 Histologic Specimen and Stain Principles - Introduction to the principles of tissue specimen processing. Includes different techniques and theories of fixation, tissue decalcification, tissue dehydration, tissue clearing, and tissue infiltration used to assist the pathologist in their diagnosis. Also includes principles and techniques in using the microtome and cryostat, with special attention to the categories of staining, staining theories, chemistries on staining tissue specimens received in the laboratory. Also includes the different types of mounting media used and the proper techniques for coverslipping tissue specimens.

HIT1104 Autopsy Procedures - Introduction to knowledge, skills, terminology, and techniques needed to conduct postmortem examinations. Includes anatomy of the human body; safety precautions used during the procedure; special autopsies; staining techniques of immunohistochemistry used to assist in definitive diagnoses for the Pathologist. Students must be proficient in the operation of a microscope used to identify tissue based on organ location.

HIT1105 Histologic Clinical Practicum I - Under the supervision of qualified and experienced Histopathology Laboratory personnel and designated preceptors, students will be acclimated to an actual operational Histology Laboratory where they will experience the daily routine and work flow of patient specimens. Includes practical application of tissue processing and embedding.

HIT1106 Histologic Clinical Practicum II - Continuation of Histologic Clinical Practicum I. Under the supervision of qualified and experienced Histopathology Laboratory personnel and designated preceptors, students will be acclimated to an actual operational Histology Laboratory where they will experience the daily routine and work flow of patient specimens. Includes practical application of special stains, coverslips, and microtomy procedures.

HIT1107 Histologic Technology Laboratory I - Students gain hands-on experience on different histology equipment used in an operational Histology Laboratory. Students will conduct practical training in a controlled environment similar to a fully functioning Histology Laboratory. Includes preparation of chemical solutions; laboratory administration; gross surgical procedures; and tissue processing.

HIT1108 Histologic Technology Laboratory II - Continuation of Histologic Technology Laboratory I. Students gain hands-on experience on different histology equipment used in an operational Histology Laboratory. Students will conduct practical training in a controlled environment similar to a fully functioning Histology Laboratory. Includes tissue embedding; microtomy; special and routine staining; preventative maintenance on histology equipment; and specimen maintenance and disposition.

HIT1109 Cytopreparatory Techniques - Introduction to basic preparatory techniques of cytological specimens. Emphasizes the knowledge and skills to receive, fix, and make cytologic preparations from GYN, NON-GYN, and FNA specimens to include smears, cytospins, thinpreps, and cell blocks. Also includes liquid based cytology; cytology staining, Papanicolaou and Diff-Quick stain methods; and the shipment of specimens.

(HRM) Human Resource Management

HRM1001 Introduction to Human Resource Management - Introduction to the field of personnel management and its functions within an organization as applied to Human Resource Management personnel. Includes analysis of administrative functions; selection, classification, and evaluation process of military personnel; training requirements; development, placement, reassignment, promotion, retention and separation of personnel; pay systems and procedures;

performance evaluations; and techniques for scheduling and conducting meetings.

HRM1002 Introduction to Human Resource Information Systems - Principles, functions, and techniques of entering and retrieving data from military personnel data systems as applied to Human Resource Management personnel. Includes data maintenance procedures and methods; issuance of military identification cards; computer output products; and data utilization. Also explores the impact of using technologies in Human Resource Management for the purpose of records and employee tracking, benefits administration, performance evaluation, staffing, and compensation.

HRM1003 Personnel Administration - Introduction to the processes and policies to ensure compliance of standards and directives in a high performance workforce as applied to Human Resource Management personnel. Includes the proper use of computer products and systems of records containing status of personnel; sensitive personnel information; proper handling of Privacy Act (PA) information; and policies to protect, safeguard, and transport Personnel Identifiable Information (PII), sensitive, and classified materials. Also includes personnel development; performance evaluations; compensation; benefit; and incentives and rewards.

HRM1004 Strategies in Human Resource Management - Course emphasizes on the integration of human resource management strategies with the overall organization. Topics include staffing and allocation of personnel; promotions; practices to increase organizational effectiveness and efficiency; succession planning and dissemination of information in the organization to benefit its growth. In depth focus on Customer Relationship Management, Communications Etiquette, Casualty-Reporting, unit leave program, and management of automated systems. Also identifies the proper roles and responsibilities during contingency operations; deployment processing line, and administering specific polices at the Aerospace Expeditionary Force (AEF) website as applies to Human Resource Management personnel.

HRM2000 Customer Service - Advanced study of customer support and service strategies as applied to Human Resource Management personnel. Includes determining benefits eligibility for DoD personnel and their families; policy development; personnel organizational structure; personnel administration responsibilities; safeguarding PII/FOUO; set-up of organizational e-mail encryption; sanitizing data exports. Also includes correction of military records; Line of Duty Determinations; processing record discrepancies; Defense Joint Military Pay System (DJMS) actions; and Management Assessment Products (MAPS).

HRM2001 Human Resource Deployment - Advanced study of staffing, organization, training, and management of rapid response operations as applied to Human Resource Management personnel. Students will be able to demonstrate a deeper understanding of tasking, sourcing, and discrepancy reporting as it relates to the deployment of human resources. Additional focus areas include Deliberate and Crisis Action Planning and Execution Segments (DCAPES) and Contingency Exercise and Deployment (CED) Orders; waiver processing; Personnel Support for Contingency Operations (PERSCO) operational procedures.

HRM2002 Career Development and Management - Advanced study of career development to prepare and analyze information used for employee's relocation actions as applied to Human Resource Management personnel. Focuses on limitations codes; order processing; retainability requirements; Active Duty Service Commitment (ADSC) Program; official passports; retirement, reenlistments and separation processing; Selective reenlistment Bonus (SRB) eligibility; promotion and demotion actions; Management Assessment Products (MAPS); and performance reports.

HRM2003 Deployment Readiness - Management of deployment actions and systems as applied to Human Resource Management personnel. Includes functions in the deployment processing line; application of human resource management knowledge and skills at deployed locations and home station; Deliberate Crisis Action Execution and Segments (DCAPES) tasks; processing Contingency Exercise and Deployment (CED) orders; readiness training; Personnel Support for Contingency Operations (PERSCO) actions.

HRM2004 Customer Relations - Advanced study of principles and applications of customer relations as applied to Human Resource Management personnel. Includes techniques for improving customer service; determining DoD Identification card eligibility; Service Members' Group Life Insurance; Defense Joint Military Pay System actions; Family Care Program; Safeguard PII/FOUO. Emphasis on leave audit reconciliation; Management Assessment Products; self-inspections.

HRM2005 Human Resource Development - In depth study of staff development practices as applied to Human Resource Management personnel. A review of work center orientation; In-house training; Training Plan Development; administrative discharges and appellate leave; relocation considerations; enlisted and officer promotion eligibility; Forced Distribution procedures; retention actions; Personnel Reliability Program (PRP); Unfavorable Information Files (UIFs); data validation.

HRM2101 Manpower and Personnel Base-Level Systems - Advanced course in procedures and use of computer systems used to maintain base-level manpower and personnel functions and operations. Includes personnel accountability of

Active Duty, Air Reserve, Air National Guard, and civilians during deployment or exercise situations; accessing the system and the main module functions; overview of contingency reports and program configuration; file creation and message preparation; and the role of personnel support for contingency operations.

HRM2103 Individual and Family Support - Development of skills to perform responsibilities as strategic advisors to Air Force leadership, understanding of individuals, and the roles of family support personnel as applied to First Sergeant personnel. Includes the role as consultants to individuals and family members to enhance readiness through the application of resiliency. Also includes Family Advocacy; family care planning; domestic violence; mental health; emotional, interpersonal, and self-care skills through resiliency; and personal preparedness.

HRM2107 Unit Administration - Introduces the roles and responsibilities of managing unit personnel. Implementation of processes and procedures to ensure compliance with standards, protocol, written correspondence, and directives as they apply to Human Resource Management. Includes the proper use of computer products and systems of record containing sensitive information concerning status of personnel. Also includes effective utilization of personnel accountability practices in relation to member's ability to report to duty; minimizing unit absenteeism. Emphasis is given to proper handling of Privacy Act (PA) policies to protect, safeguard and transport sensitive and classified materials; Operations Security (OPSEC) and Communications Security (COMSEC); protection of Personnel Identifiable Information (PII). Resolution of grievances, responses to Law Enforcement reports, and handling of damage to private, unit, or government property.

HRM2108 Quality Force Management - Principles and procedures for achieving and maintaining a quality workforce as applied to First Sergeant personnel. Emphasizes the Military Justice System, Air Force Instructions, and organizational policies and processes. Includes retention programs; recognition programs; individual financial responsibility; professional military education; disciplinary actions; non-judicial punishment; and administrative separation of military personnel.

HRM2109 Human Resource Counseling & Intervention - Principles and application of counseling techniques, intervention programs, and employee relations as applied to First Sergeant personnel. Includes policies and procedures regarding orientation and guidance of newcomers to the workforce; counseling referrals to various support agencies; mediation of disputes; Sexual Assault Prevention and Response program; morale, welfare, and recreation programs; and maintenance of discipline using prevention-correction punishment methods.

HRM2110 Deployment Issues and Readiness - Analysis of the First Sergeant's roles and responsibilities during deployment. Includes functions in the deployment processing line; application of human resource management knowledge and skills at deployed locations and home station; military law; quality force issues; and administrating unit-specific policies at the Aerospace Expeditionary Force employment site. Also includes the First Sergeant's role in the Casualty Services Program; Line of Duty Determination; Medical Board Examinations; mental and physical supporting agencies; and personnel and family needs and support.

HRM2201 Salesmanship - Intermediate theory of sales force operations as applied to Recruiter personnel. Focuses on qualifications for sales management, sales strategy, and advertising techniques to persuade potential candidates. Includes marketing and telemarketing; advertising; effective recruiting aids; networking and public relations; planning and delivery of sales presentations; face-to-face meetings; the sales interview; and closing the sale.

HRM2202 Human Resource Selection Methods & Techniques - Principles and procedures for personnel recruitment, selection and placement as applies to Human Resource Management personnel. Particular areas of focus include job analysis, recruitment, training, evaluation practices, and tools and techniques essential to the effective selection of candidates. These tools and techniques may include, but are not limited to, advertising, recruiting aids, persuasive presentations, interviews, test evaluations, eligibility processing, placement and legal considerations.

HRM2203 Human Resource Information Systems - Theory and practice of systems and applications used by Human Resource Managers as applies to Human Resource Management personnel. Special emphasis given to the techniques and programs utilized for the selection, placement and developing of people. Includes personnel systems hardware, application software, basic personnel file maintenance, databases, and time and activity management.

HRM2204 Compensation and Benefits - Policies, procedures and techniques required for advising individuals on compensation and benefits as applies to Air Force Recruiters. Topics include salary compensation, education, training, advancement and retirement benefits. Special attention to in-service opportunities, advancement through promotion and commissioning programs, travel, recreation and family services.

HRM2207 Recruitment Production and Management - Advanced strategic planning and principles of mission critical tasks as applied to Air Force Recruiter personnel. The course focuses on Management, Production, and Leadership. Includes sales model; enhancing human capital; flow and trend analysis; marketing strategies; establishing goaling

factors; application of the sales model; production evaluations and training plans; various schedules and activities within the recruiting computer systems; and utilizing TriMetrix.

(HSA) Health Services Administration

HSA1305 Health Care Management - Examines the fundamental concepts of health data protection, Uniformed Services Health Benefit Program (USHBP) TRICARE program, Health Insurance Portability and Accountability Act (HIPAA), and specific techniques for managing medical records. Includes competency in patient registration, creation, storing, filing, and disposition procedures for paper and electronic health records (EHR). Also prepares students who wish to pursue the Certified Electronic Health Record Specialist certification through demonstrations in insurance and billing, medical coding, charting, software applications/equipment, and statistical reports.

HSA1306 Fundamentals of Health Care Administration - Introduction to anatomy and physiology, application of coding patient encounters, customer service etiquette, and utilization of MS Office components. Provides overview of medical and health terminology used in the areas of pathological conditions and treatment of selected body systems. Also includes admission and disposition functions and processes, patient eligibility, patient transfers, authorization forms, casualty status, and reports.

HSA1307 Health Services Occupational Management - Introduction to the Air Force Occupational Safety and Health (AFOSH) program; functional and organizational structure of Air Force Medical Treatment Facilities (MTF); and clinical functions. Includes training and career progression requirements and opportunities as outlined in the Career Field Education and Training Plan (CFETP). Students are introduced to sensitive duties, clinical office management, information technology management, and resource management in an MTF. Also includes the Personnel Reliability Program (PRP) and Presidential Support procedures; TRICARE classifications; appointment scheduling; Provider Template creation; and database systems used for resource management.

HSA2005 Patient-Centered Medical Home Operations - Provides training in the Military Health System (MHS) Patient-Centered Medical Home (PCMH) Operations at Military Training Facilities for support staff healthcare professionals. Includes administrative operations to support PCMH, aspects of Tricare, Third-Party Collections, Medical Expense Performance Reporting System (MEPRS), identifying/utilizing appropriate types of medical coding, managing medical home patients and determining effective practices of Patient Safety Programs.

HSA2006 Health Professions Education and Training - Management and implementation of training programs applicable to the health care organization and personnel. Topics include training program compliance, adult learning methods and health educator roles and responsibilities. Course objectives correlate with the Joint Commission on Accreditation of Health Care Organizations (JCAHO) and the American Nurse Association (ANA) standards.

HSA2315 Medical Readiness Planning - Introduction to planning, exercises, readiness training, National Disaster Medical system, status of resources, and unit medical training system.

(IST) Information Systems Technology

IST1024 Network Fundamentals II - Continuation of Network Fundamentals theory of Inter-networking fundamentals, Open Systems Interconnection (OSI) Reference Model, Topologies and Internet protocol 4 and 6 (IPv4/IPv6). Includes protocol fundamentals, network protocols, redundancy fundamentals, telephony information, Plain Old Telephone System (POTS), Integrated Services Digital Network (ISDN), Video Teleconferencing (VTC), and Telephony Switching Concepts as it pertains to Information Systems Technology personnel.

IST1025 Advanced Networking - Advanced Networking concepts and application of advanced switching concepts, advanced routing concepts, wireless networking concepts and network monitoring and management. Includes advanced enterprise network services, analyzing networks, advanced IP configuration, and the configuration and management of layer 2 and layer 3 network device switching and routing as it pertains to Information Systems Technology personnel.

IST1026 Advanced Networking II - Continuation of Advanced Networking concepts and application of advanced switching concepts, advanced routing concepts and wireless networking. Includes configuration and administration of Virtual Local Area Networks (VLANs), Spanning Tree Protocol (STP), enterprise logical security, and Internet protocol (IP) data, voice, video, multiplexing, and signaling fundamentals as it pertains to Information Systems Technology Personnel.

IST1027 Network Systems Administration - An introduction to the fundamentals of multiplexing, long haul communications, internetworking, transport protocols, congestion control; and performance evaluations of networks. Includes wireless network technologies; mobile internet protocols; wireless routing and location management; ad-hoc

networks; and the fundamentals of voice over internet protocols, deployment of mobile satellite communication systems, and operation of associated equipment.

IST1028 Operating Systems - A field of study as applied to Information Systems personnel that covers topics related to operating systems in desktop, laptop, and mobile systems. Introduces students to LINUX, UNIX, Windows, and Macintosh operating systems; components of operating systems; basic input/output systems; master boot records; boot sequences; processes; key directories; shell; network services; programming; configuration file types and attributes; and basic system structures.

IST1029 Project Management - A field of study covering topics related to project management in the information technology domain. Introduces students to infrastructure planning; communications and information systems requirements; funding; implementation; planning meetings; project folders; agreements; and team management.

IST1035 Satellite Communication Principles - A field of study covering topics related to satellite communications. Includes the principles of satellite, wideband, telemetry, and, line-of-sight communications; installation and maintenance of both satellite and wideband terminals; introduction to the frequency spectrum; polarization; satellite orbits; Regional Satellite Support Center requests; Defense Information Systems Agency requests; and Joint Chiefs of Staff system requests.

IST1101 Principles of Electronic Communications - The purpose, functions, characteristics, and theory of operation for electronic communications devices to include amplitude modulation (AM) systems, frequency modulation (FM) systems, transmitters, and receivers. Addresses the basic knowledge of communication mediums such as transmission lines, antennas, data bus, waveguides, and fiber optics as it pertains to Information Systems Technology personnel.

IST1102 Computer System Familiarization - Focus on computing devices, operating systems, computer components and hardware, software, security, device networking, and operating system installation as it pertains to Information Systems Technology personnel.

IST1103 Network Fundamentals - Network Fundamentals as applied to Cyberspace Support personnel. Includes fundamental theory and operational publications and directives of computer networks, the Open Systems Interconnection (OSI) model, Transmission Control Protocol/Internet Protocol (TCP/IP), Ports, Protocols and Services, network topologies, network monitoring, wireless networking concepts, and cable management. Covers concepts and application of Local Area Networks (LAN), Virtual Local Area Networks (VLAN), routing fundamentals, Domain Name System (DNS), Dynamic Host Configuration Protocol (DHCP), and basic troubleshooting techniques as it pertains to Information Systems Technology personnel.

IST1104 Cyber Security - Defines the risks, threats, and vulnerabilities of information systems. Covers the fundamentals of network security concepts, firewalls, security zones, incident response, cyber hygiene concepts, and the programs that govern security standards for information systems.

IST1105 General Maintenance Training - Introduction to information systems maintenance concepts and practices. Includes career ladder progression, security, use of Air Force publications, Air Force Office of Safety and Health and safety precautions, Air Force supply system, and maintenance management as it pertains to Information Systems Technology personnel.

IST1106 Principles of Digital Logic Circuits - The terminology, functions, characteristics, and theory of operation for digital logic circuits to include logic gates, flip-flops, and Digital to Analog (D/A) and Analog to Digital (A/D) converters. Addresses the basic knowledge for numbering systems conversions such as binary, hexadecimal, binary coded decimal (BCD), and hexadecimal math operations as it pertains to Information Systems Technology personnel.

IST1107 Principles of Electromagnetic Devices - Principles of electromagnetic devices to include transformers, relay/solenoids, synchro/servos, and transducers. Includes the purpose, construction, theory of operation, and fault isolation techniques. Addresses the basic knowledge of electrostatic discharge (ESD) characteristics, control measures, and electromagnetic effects; electromagnetic pulse (EMP) and electromagnetic interference (EMI) as it pertains to Information Systems Technology personnel.

IST1108 Principles of Power Supplies - The functions, characteristics, and theory of operation of power supplies and associated components such as diodes, rectifiers, filters, transistors, Zener diodes, and voltage regulators. Includes the basic knowledge for types of malfunctions, fault isolation techniques, and safety-risk management as it pertains to Information Systems Technology personnel.

IST1109 Principles of Alternating Current (AC) Circuits - Principles of Alternating Current (AC) theory. Includes waveshapes, voltage characteristics, frequency characteristics, phase relationship, frequency classification and the principles of calculating AC circuit voltage and time/frequency conversions. Addresses the basic knowledge of

associated components such as frequency sensitive filters, capacitive, inductive, and RCL (resistance/inductance/capacitance) circuits as it pertains to Information Systems Technology personnel.

IST1110 Principles of Direct Current (DC) Circuits - Principles of Direct Current (DC) theory. Includes atomic structure, terminology, schematic symbols, Ohm's Law, Kirchhoff's Law, and circuit configurations. Addresses the basic knowledge of resistance, color codes, color bands, and the principles for calculating resistive values of series, parallel, series-parallel, and voltage divider circuits as it pertains to Information Systems Technology personnel.

IST2000 Cyber Defense and Countermeasures - Advanced principles, procedures, and technologies of cybersecurity used to identify, secure, and defend the vulnerabilities and capabilities of cyber networks as applied to Information Systems personnel. Emphasizes on network warfare operations, cyber attacks, and exploiting cyber networks. Includes Air Force and DoD services cyberspace organizational construct; command & control; and coordination between organizations.

IST2001 Cybersecurity Laboratory - Application of advanced cybersecurity principles, procedures, and technologies used to identify, secure, and defend the vulnerabilities and capabilities within cyber networks as applied to Information Systems personnel. Includes operations in a cyber network environment/scenarios; mission planning; plan execution; and creating after action mission reports.

(ITL) Intelligence

ITL1013 Fundamental Intelligence Briefing Skills - Introduction to research, development and presentation of compiled multi-source intelligence information for mission briefs, adversary updates, or mission shift changeovers related to weapon systems as applied to Human Intelligence personnel. Includes conducting strategic debriefings using effective communication techniques; requesting analyst support to conduct a pre-brief; and conducting a personal meeting to develop and implement approach strategies.

ITL1101 Intelligence Fundamentals - Introduction to missions and organizations, intelligence cycle, libraries, administration and data handling systems. Emphasizes document security; unauthorized disclosure and prevention; online data research; intelligence oversight; and operations and communications security.

ITL1102 Analysis and Reporting of Intelligence Data - Identification of collection, processing, analysis, and reporting requirements as outlined in the U.S. Signals Intelligence Directive system. Identification of universal reporting formats, selection of reporting vehicle and databases, and production of concise, timely and technical summaries.

ITL1103 Intelligence Operations Laboratory - Comprehensive laboratory designed to improve tactical and operational skills of Intelligence personnel. Includes critical thinking; integrating multi-intelligence skills; and reinforcing proficiency of intelligence functions in an simulated operational environment.

ITL1104 Basic Morse Code - Recording international Morse code, typing and computer keyboard familiarization, theory of radio wave propagation, radio communications, and operational security. Includes recognition and reporting of various types of distress signals.

ITL1105 Morse Interceptor - Interception, copying and processing transmissions keyed in international Morse code. Includes computer-based recording, storing and forwarding; transcribing signals through varying degrees of interference; frequency search missions; frequency measurement; and maintenance of operation logs.

ITL1106 Communication Signals Collections and Processing - Collection and processing of automated and remote international communication signals. Includes an overview of principles of security, classification requirements, intelligence community operations, collection and processing hardware and software.

ITL1107 Digital Network Intelligence - Fundamentals of digital network exploitation. Introduction to internet and transmission technologies, communication networks, and collection and targeting concepts. Includes information on authorities and restrictions governing intelligence components.

ITL1108 Intelligence, Surveillance, and Reconnaissance (ISR) Fundamentals - Fundamentals of Intelligence, Surveillance, and Reconnaissance (ISR) operations. Includes history, facts, and terminology; traditional and non-traditional ISR operations; ISR operations planning; Air Operations Center structure, purpose, products and teams; battle management procedures, processes and tools; Processing, Exploitation, and Dissemination (PED); ISR Planning/Direction, Collection, Processing/Exploitation, Analysis/Production, and Dissemination/Integration (PCPAD); and Distributed Common Ground System (DCGS) enterprise architecture.

ITL1109 Cyberspace Fundamentals - Introduction of hardware, software, information, intelligence, and network infrastructure used in cyberspace intelligence operations, as applies to intelligence personnel. Includes knowledge of

Department of Defense (DoD) and Air Force cyberspace assets and associated communication methods; tools and resources used in information security and intelligence operations; network data collection reporting/analysis; and network threat tactics, techniques, and procedures (TTPs).

ITL1110 Targeting Fundamentals - Introduction to targeting fundamentals as applied to Intelligence personnel. Includes principles of targeting; target development processes; targeting cycles; Federated Targeting processes; supporting organizations; and targeting roles in an operational environment.

ITL1111 Signals Intelligence (SIGINT) Applied Mathematics - Basic math functions used for SIGINT collection. Includes basic algebraic and trigonometric functions as it permits to the analysis and application of intelligence.

ITL1112 Geographic Intelligence Fundamentals - The study of the geographic, climatic, economic, political, and military characteristics of various nations and areas of the world as it applies to Intelligence personnel. Includes analysis of terrain; climate; boundaries; and economic activities. Emphasizes political and historical development; demographics; and the impact of geography on deployment of weapons systems.

ITL1201 Airborne Intelligence Fundamentals - Introduction to airborne intelligence fundamentals as it applies to intelligence personnel. Introduces procedures relating to airborne command, control and communications. Includes pre-mission preparation; aircraft system operation; mission objective orientation; crew coordination; airspace deconfliction; weapons systems and tactical assets; sensor management; targeting; and post-mission operations.

ITL1202 Geospatial Intelligence Fundamentals - Principles of Geospatial Intelligence and related technologies as applied to Intelligence personnel. Includes facts, terms, theory, capabilities and limitations of the Electromagnetic Spectrum; applicable intelligence platforms and sensors; geospatial information systems and services; and imagery exploitation and analysis theories.

ITL1205 International Morse Code - Demonstration of basic Morse code and Morse interceptor skills. Includes interpreting the distinct transmission styles within the International Morse Community for a given target, as well as the construction of computer-based reports derived from transcribed signal data.

ITL1207 Intelligence Aircrew Qualification - Concepts, principles, and procedures required to perform aircrew duties as applied to Intelligence personnel. Includes aircrew training; aircrew coordination; aircrew member discipline; flight orientation; basic aerodynamics; life support equipment; security procedures; personal affairs; oral communication skills; safety procedures; publications; and customs and border clearances.

ITL1208 Intelligence Trainer, Simulator, and Flight Training - Ground and airborne operational procedures as applied to Intelligence personnel. Includes inspections, console operation, mission procedures, data reporting, crew communications and emergency procedures using task trainers, flight simulators, and aircraft.

ITL1301 Intermediate Technical Chinese I - Application of Chinese technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1302 Intermediate Technical Chinese II - Continuation of Intermediate Technical Chinese I. Application of Chinese technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1303 Intermediate Technical Chinese III - Continuation of Intermediate Technical Chinese II. Application of Chinese technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1304 Intermediate Technical Russian I - Application of Russian technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1305 Intermediate Technical Russian II - Continuation of Intermediate Technical Russian I. Application of Russian technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1306 Intermediate Technical Russian III - Continuation of Intermediate Technical Russian II. Application of

Russian technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1307 Intermediate Technical Korean I - Application of Korean technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1308 Intermediate Technical Korean II - Continuation of Intermediate Technical Korean I. Application of Korean technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1309 Intermediate Technical Korean III - Continuation of Intermediate Technical Korean II. Application of Korean technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1310 Intermediate Technical Arabic I - Application of Arabic technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1311 Intermediate Technical Arabic II - Continuation of Intermediate Technical Arabic I. Application of Arabic technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1312 Intermediate Technical Persian-Farsi I - Application of Persian-Farsi technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1313 Intermediate Technical Persian-Farsi II - Continuation of Intermediate Technical Persian-Farsi I. Application of Persian-Farsi technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1314 Intermediate Technical Pashtu I - Application of Pashtu technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1315 Intermediate Technical Pashtu II - Continuation of Intermediate Technical Pashtu I. Application of Pashtu technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1316 Intermediate Technical Spanish I - Application of Spanish technical language used to describe military equipment, operations, and control procedures as applied to Intelligence personnel. Emphasizes critical thinking skills, such as logical thought, evaluation, and clear and precise expression necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

ITL1317 Intermediate Technical Spanish II - Continuation of Intermediate Technical Spanish I. Application of Spanish technical language using simulations and authentic materials in order to learn how to act and react in real-life scenarios as applied to Intelligence personnel. Emphasizes on the translation of written and spoken target language materials into the English language.

ITL1401 Introduction to Electronic Signals Intelligence - An introduction to electronics signals use in the electronic signals intelligence (ELINT) disciplines, as pertains to intelligence personnel. This course overviews intelligence utilization of ELINT data, basic doctrine, forces and intelligence, surveillance, reconnaissance (ISR) operations, and processes and procedures of exploitation and use in kinetic and non-kinetic operations.

ITL1402 Voice Communications Theory - Introduction to Voice Communications Theory as it applies to Intelligence

Linguist. Includes the study of communication system and network functions and characteristics. Also includes network reconstruction; signals fundamentals; radio wave theory; telephony; and traffic terminology.

ITL1404 Signal Theory and Analysis - A study of the basic skills to intercept, analyze, and report non-communication signals. Includes signal theory, network principles and protocol, and software tools.

ITL1405 Electronic Intelligence (ELINT) Fundamental Theory - Introduction to Electronic Intelligence (ELINT) fundamental theories. A Study of the characteristics of radar signal and radar system. Includes radar principles, waveforms, modulation theory, radar types and functions.

ITL1406 Technical Electronic Signals Intelligence Collection and Processing - An introduction to the characteristics, collections, processes, and components associated with technical electronic signals intelligence (ELINT), as pertains to intelligence personnel. This course overviews electronic notations (ELNOT), technical ELINT analysis, procedures, associated databases, and signal processors used in technical ELINT collection and processing.

ITL1407 Operational Electronic Signals Intelligence Collection and Processing - An introduction to the characteristics, collections, processes, and components associated with operational electronic signals intelligence (ELINT), as pertains to intelligence personnel. This course overviews electronic notations (ELNOT), operational ELINT analysis, procedures, associated databases, and signal processors used in operational ELINT collection and processing.

ITL1503 Imagery Analysis I - Exploitation and analysis of multi-sensor imagery to determine traditional orders of battle to include military ports/bases, facilities, aircraft and weapon systems; and non-traditional orders of battle to include infrastructure, facilities, and lines of communication.

ITL1507 Imagery Analysis II - Addresses exploitation and analysis of multi-sensor imagery to include using imagery titling and mensuration techniques and exploiting support data for tactical applications.

ITL1508 Intelligence Surveillance and Reconnaissance (ISR) Platforms and Sensors - Introduction to Intelligence Surveillance and Reconnaissance (ISR) collection platforms and sensor systems used for the collection and exploitation of intelligence data. Basic facts and terms about ISR support to government, civil, international, and military operations. Includes an overview of capabilities; limitations; roles; tactics; utilization; and tasking for ISR platforms and sensors.

ITL1510 Full Motion Video (FMV) Analysis - Introduction to Full Motion Video (FMV). Analysis processes through hands-on experience. Includes working with relevant software tools and creating intelligence reports.

ITL1600 Introduction to Weaponeering - Introduction to weaponeering theory, weapon characteristics and capabilities, weapon delivery components and effects, and use of guided and unguided weapons utilizing intelligence data and systems.

ITL1601 Mission Planning and Support - Fundamentals of mission planning overviewing intelligence support to operational plans and orders. Covers analysis of mission reporting, procedures, operational limitations, Integrated Defense, selection, and creation of intelligence products using fused intelligence data.

ITL1602 Conventional Weapons Application - Analysis and exploitation of data utilized in weaponeering information systems and software to provide targeting solutions to conventional or non-standard weapons applications as applied to Intelligence personnel. Includes overview and use of Joint Munitions Effectiveness Manual in munitions platforms configurations, capabilities, and effectiveness.

ITL1603 Predictive Battlespace Awareness - Fundamentals of Predictive Battlespace Awareness (PBA) and Intelligence Preparation of the Operational Environment (IPOE). Includes force protection measures; concepts of command and control; joint force operations; and intelligence support to all levels of operational centers.

ITL1604 Introduction to Worldwide Forces - Components, functions and capabilities of forces worldwide. Emphasizes weapon systems and method used for effective employment.

ITL1605 Cyberspace Operations - Introduction of cyberspace organizations, Department of Defense (DoD) support to Air Force cyberspace organizations, and levels of cyberspace intelligence operations, as applies to intelligence personnel. Includes Public Laws and doctrine, including guidance that governs cyberspace operations at each level of cyberspace warfare; Air Force cyber-related principles, capabilities, and limitations; and frameworks for planning and executing cyberspace operations.

ITL1900 Communications Theory - Introduction to Communications Theory as it applies to Intelligence. Includes the study of the functions and characteristics of wireless mobile/cellular communications and personal communications system (PCS). Also includes frequency allocations; cellular structures; analog cellular signaling; modulation techniques; digital cellular design; PCS technology; and current world systems and standards.

ITL1901 Signals Intelligence (SIGINT) Threat Warning Collection and Processing - Fundamentals of collecting and processing of Signals Intelligence (SIGINT) Threat Warning Information. Includes identification of threat warning criteria; dissemination vehicles; and processing of time-sensitive reports for Sensitive Reconnaissance Operations (SRO) and Intelligence, Surveillance, and Reconnaissance (ISR) operations.

ITL1903 Intermediate Target Development - Intermediate knowledge and application of target development as it applied to Intelligence personnel. Includes application of intelligence targeting in the joint environment; collateral damage estimation methodology; unit targeting functions; and target folder creation, use, and administration. Also includes using Target System analysis Process and products; Precise Point Mensuration Process; complex targets; and targeting software systems.

ITL1904 Principles of Cartography - Principles of cartographic generalization, legend symbols, geographic coordinates, world geographic reference system coordinates, and Universal Transverse Mercator (UTM) coordinates. Includes application of converting coordinates.

ITL2102 Critical Analysis of Intelligence Data - Advanced intelligence analysis. Includes application of critical and creative thinking, analytic methodology, structured analytic techniques, and advanced intelligence estimating and reporting skills to extrapolate intelligence problems and create decision point products and other intelligence reports.

ITL2301 Intelligence Flight Instruction - Perform flight instructor duties onboard weapon platforms or in mission operations duties as it pertains to intelligence personnel. Includes instructor responsibilities, familiarity with overarching publications, preparation of classroom/position instruction, training records documentation, brief/debrief of student performance, and evaluation.

ITL2401 Voice Intelligence Collection - Application of oral recognition and comprehension of foreign language voice communications as it applies to Intelligence personnel. Emphasizes development of skills necessary to understand military equipment; operations; control procedures; and weapons systems terminology.

ITL2505 Theory and Fundamentals of Electromagnetic Spectrum - Electromagnetic (EM) spectrum theory and fundamentals; operation and parameters of electro-optical, infrared, radar and multispectral systems. Includes EM Energy, wavelength, waveforms, radio wave propagation and antenna characteristics.

ITL2601 Advanced Intelligence Operations Planning - Advanced effects-based intelligence operations planning as it applies to Intelligence personnel. Includes influence operations; design and application of Joint Operations Planning Process (JOPP); Air Tasking Cycle (ATC) verbal or graphic products to express mission intent (concept of operations); and plans for conducting military operations, various course of actions to accomplish mission intent, and planning products supporting combatant commanders and Air Operations Center missions.

(LAW) Law Enforcement

LAW1801 Marksmanship Laboratory - Qualification training in the use of shotguns, automatic handguns and rifles. Includes nomenclature, capabilities and characteristics of specific weapons; operator care, cleaning and maintenance procedures; application of marksmanship fundamentals; weapons safety practices; analysis of force policies; clearing procedures and function checks; and ammunition types and uses.

LAW1803 Fundamentals of Law Enforcement - Fundamental concepts and knowledge of the legal and procedural aspects of law enforcement operations. Includes proper searches and seizures; military authority and jurisdictions; rights advisement; resource protection; crisis intervention; conducting interviews; traffic stops; writing citations/tickets; vehicle accident and crime scene response; and directing traffic flow.

LAW1812 Introduction to Criminal Justice - Introduction to the criminal justice system as applied to Security Forces personnel. Focuses on military authority and types of jurisdiction; Security Forces authority to bear firearms; law and order; philosophy, ethics, and history of law enforcement; and general orders as they pertain to Criminal Justice Law Enforcement occupations.

LAW1850 Patrol Dog Training Techniques - Training and conditioning techniques used to prepare both military working dog and handler to work effectively as a team. Includes operant conditioning, dog obedience, controlled aggressiveness, health checks and first aid for dogs, and maintenance and care of dog, kennel and associated support equipment.

LAW1851 Patrol Dog Operations - Specialized training techniques designed to prepare military working dog team to perform a variety of police functions. Includes vehicle and foot patrols; tracking, detecting and alerting; area searches; gunfire conditions; concepts of utilization (airbase ground defense, security, law enforcement duties); and preparation and maintenance of required records, reports and forms.

LAW1853 Police Safety and Survival Tactics - The essentials of individual defensive techniques with application experiences in weapons familiarization, control and retention, disarming suspects, use of chemical restraints, handcuffing techniques, building entries, use of cover and concealment, and baton defense. Includes review of the vulnerabilities of armed personnel and their relationship to mental states of awareness. Exercises include realistic and simulated environments.

LAW2102 Security Forces Evaluations and Measurement - Principles and techniques of assessing unit's effectiveness by evaluating training, personnel and procedures; and inspecting functional areas. Includes methods, procedures and evaluative instruments to determine achievement of operational goals.

LAW2201 Criminal Law - The nature of criminal law and its application to law enforcement and the judicial system; and definitions and concepts, elements of crime, defenses, and criminal responsibility in the context of the criminal justice system and rules of evidence.

LAW2801 Patrol Dog Detection Techniques - Specialized training techniques that prepare military working dog handlers to perform drug and explosive detection operations. Includes dog conditioning, drug and explosive identification and detection, and legal aspects of searches and seizures.

LAW2824 Principles of Traffic Collision Investigation - Analysis and application of advanced techniques used to gather facts and determine causes of traffic collisions. Includes review of traffic safety procedures; preparation of field sketches, diagrams, and traffic violation and collision investigation reports and forms; and techniques used to teach traffic collision investigation to other policemen.

LAW2829 Protective Service Operations - Advanced techniques required to protect personnel and resources through assessment of principal threat. Includes application of advanced procedures (route/site surveys, identification of potential hazards and safe haven), practical exercises on foot and motorized escorts, and employment of antiterrorism techniques.

LAW2842 Advanced Special Investigations - Advanced special investigative course overviewing federal crimes, responsibilities, and relationships with federal agencies as applies to Criminal Justice personnel. Includes collection/dissemination of counterintelligence data, legal processes of evidence and rights of the accused, apprehension, search and seizure, interviewing methods. Provides proper report preparation, processing of case files, contract file reviews, and communication skills.

LAW2843 Criminal Investigations - Intermediate investigative methodologies as applied to Security Forces personnel. Focuses on analyzing the decision making skills required to process and solve crimes. Specific detail is given to examining topics such as collection, preservation, search and apprehension techniques; interviewing techniques; field notes; sources of information; anti-terrorism; rights of the accused; and the victim assistance program.

LAW2847 Law Enforcement Administration - Introduction to organization and management of law enforcement as applied to Security Forces personnel. Includes fundamentals and application of personnel and resource management; personnel reliability; physical and nuclear security concepts; law enforcement functions; application of military authority; and unit training programs. Also includes structure, process, policy, and procedures; communication; division of work; and organizational controls.

LAW2848 Sex Crimes Investigation - In-depth investigative and administrative procedures pertaining to sexual-related offenses. Emphasizes the legal and forensic aspects of rape, psychological and behavioral characteristics of sex offenders, and the impact sex crimes have on the victims. Also focuses on proper interviewing & interrogation strategies, evidence collection and preservation, and analysis of sexual crimes.

LAW2942 Expeditionary Counterintelligence - An intermediate-level course focuses on the responsibilities of counterintelligence (CI) skills and techniques. Focused on basic CI and Counter Threat Operations (CTO) with an emphasis on support to force protection, expeditionary operations, expeditionary coordination, and liaison duties with linguists. Includes cultural awareness, operational planning, and maintaining diplomatic relationships. Also includes mounted and dismounted operations, close quarters tactics, and firearms familiarization.

LAW2943 Counterintelligence and Law - An intermediate-level course focused on the responsibilities, counterintelligence (CI) skills and techniques of Air Force Office of Special Investigation (AFOSI). Includes topics such as: the AFOSI CI mission; jurisdiction; policy; civil; law; and theory and application of investigative techniques. Also includes CI missions; case studies; report writing; and strategic CI application in order to identify, neutralize, and exploit foreign intelligence/international terrorist threats.

(LEG) Legal Service

LEG1001 Introduction to Legal Practice and Professional Communications - An introduction to the career progression as a paralegal; overview of the Judge Advocate General's Corps; purpose of the Utilization and Training Workshop; Article 6 Inspections and self-assessments. Introduces the Judge Advocate General's Corps' legal information systems and website, as well as Air Force records and publications. Students will draft various communications including official memorandum; personal letter; electronic mail, and perform telephonic and in-person communications as it pertains to the Air Force paralegal career field.

LEG1002 General Law and Estate Planning - Instruction includes preventive law; legal assistance; powers of attorney and wills; conflicts of interest; Freedom of Information Act, and Health Insurance Portability and Accountability Act. Discusses concepts of international law and legal support of domestic and deployed military operations. Includes basic facts, principles and concepts of air and sea law; foreign criminal jurisdiction cases; contingency contracting; various international agreements and conventions governing armed conflict and other military operations. Addresses purpose of Estate Planning and health care instruments. Includes common terminology; basic laws for wills, living wills, and health care powers of attorney. Emphasizes special estate planning considerations for military clients and procedural requirements for will execution. Students are required to draft various estate planning documents to include simple wills and health care documents.

LEG1003 Legal Research and Writing - Introduction to legal research and writing techniques. Provides students foundational knowledge with regards to legal publications; finding tools; categories of legal literature; case citation; methods of research; and instruments used in legal research and writing. Students perform hands-on manual legal research in-house and at the Alabama State Supreme Court library. Students receive substantive hands-on instruction utilizing Lexis-Advance and Air Force specific computer-assisted research capabilities. Introduces formats and techniques required for drafting legal memoranda and legal reviews.

LEG1004 Claims Administration - Introduction to claim and tort investigations, legal procedures, and jurisdiction determinations within the Air Force Judge Advocate General Corps. Includes legal research; incident and accident investigation techniques; and witness statements. Addresses the principles and procedures of Claims for and against the U.S. Government; tort law; The Federal Tort Claims Act; claims documentation and settlement; and drafting summary adjudications.

LEG1005 Quality Force Management - Introduction to Quality Force Management topics within the Air Force. Instruction includes Letters of Counseling, Admonishment, and Reprimand; the Unfavorable Information File; and Control Roster; as well as the procedures for enlisted demotions, and enlisted administrative separations. Provides baseline knowledge of nonjudicial punishment and the Uniform Code of Military Justice; including jurisdiction; command authority; search and seizure; Article 31 rights; sufficiency of evidence; elements of proof; supplementary actions; the Automated Military Justice Analysis and Management System; and Criminal Indexing requirements. Using case studies, students determine appropriate punitive article(s) and prepare a nonjudicial punishment action from offer through legal sufficiency.

LEG1006 Pre-Trial Administration - Pre-trial procedures and administration. Includes types of courts-martial, pre-trial restraint; interviewing and handling of victims and witnesses; and special victims capabilities. Students will maintain a working case folder, and draft documents including Proof Analysis; charges and specifications; Special Interest Reports; pre-trial advice; and discovery requests and responses. Course also addresses preferral and referral of charges; witness funding and expert witnesses; docketing procedures, courtroom preparation, court martial proceedings; Status of Discipline; and use of the Automated Military Justice Analysis and Management System.

LEG1007 Post-Sentencing Procedures - Instruction on post-sentencing procedures including documentation; victim and witness notification; deferments and waivers; appellate review; and final orders. Students will prepare various post-sentencing documents to include confinement orders; Action of the Convening Authority; and Entry of Judgement, in addition to preparing and assembling a Record of Trial. Instruction also includes use of the Automated Military Justice Analysis and Management System for post-sentencing processing.

LEG1008 Ethics and Professional Responsibility - Introduction to professional and ethical responsibilities for the Air Force Paralegal. Provides foundational knowledge in the areas of Attorney-Client Privilege; the Unauthorized Practice of Law; Confidentiality; Competence and Diligence; and Conflicts of Interest. Emphasizes reporting requirements for Professional Responsibilities violations and misconduct within The Judge Advocate General's Corps, as well as annual Professional Responsibilities certification requirements. Introduces principles of personal, professional and institutional ethics.

LEG2107 Law Office Management - Advanced techniques and procedures involving program and personnel management, supervision, and workforce training within the Air Force base legal office environment. Includes building and maintaining working relationships with the defense counsel and investigative agencies; managing case load;

overseeing congressionally mandated office inspections; determining manpower requirements; and managing office facilities, budget, and information technology systems. Also addresses mentoring; paralegal and attorney professional development; civilian employee management; determination of training needs; development of training standards; and legal office problem evaluation, analysis and solution.

LEG2211 Advanced Civil Law and Claims - Advanced instruction in a wide variety of civil law topics. Addresses administrative separation of officer and enlisted personnel; duty status determinations; the Department of Defense (DoD) property accountability process; DoD ethics regulations; and general principles of fiscal and contract law. Includes advanced instruction in the principals and procedures of Claims for and against the U.S. Government; tort law; The Federal Tort Claims Act; claims documentation and settlement; and drafting summary adjudications.

LEG2213 Operations and International Law - Concepts of international law and legal support of domestic and deployed military operations. Includes basic facts, principles and concepts of air and sea law, foreign criminal jurisdiction cases, fiscal law, contingency contracting, and various international agreements and conventions that govern armed conflict and other military operations.

LEG2214 Legal Research and Writing II - Advanced legal research and writing techniques. Emphasizes the use of online databases and the law library for the research and analysis of published opinions and the preparation of legal reviews; case briefs and analyses; discovery responses; proof analyses; motions; and summary adjudications.

LEG2215 Advanced Military Justice - Advanced instruction in the courts-martial process from pre-trial through trial and appellate court reviews. Emphasizes the preparation of litigation-related documents and building and maintaining a trial notebook. Includes instruction and demonstration of fundamental interviewing skills preparing students to conduct interviews of victims and witnesses. Students will conduct discovery; prepare pleadings and motions; support fact investigations; and engage in pre-trial alternative case resolution procedures. Also includes emphasis on the Special Victims capabilities program and electronic case management systems.

LEG2217 Estate Planning - Fundamentals of estate planning to include, terminology, document drafting such as wills and health-care related documents, ethics in estate planning and use of estate planning software and applications.

LEG2218 Paralegal Ethics II - Advanced ethics and ethical responsibilities of the Air Force Paralegal. Emphasizes the Paralegal professional responsibilities and institutional, legal, and personal ethics. Includes application of Attorney-Client Privilege; safeguarding privileged and confidential information; authorized and unauthorized legal practices; and Standards of Conduct for Government Employees.

(LMD) Logistics Medical

LMD2600 Medical Materiel Management - Mission objectives, organization, and responsibilities of medical materiel functions. Emphasizes advanced management and analytical data skills needed to manage a Medical Materiel Flight. Includes customer support and inventory management; equipment and technology management; Specialized Logistics Management Operations; principles of automated data processing and self-inspection; reconciliation of financial reports; and supply chain management.

LMD2601 Medical Readiness Contingency Operations - Fundamentals of equipment and technology management, contingency operations, and asset management applicable to the medical materiel field. Includes medical equipment management; clinical engineering; medical facilities management; contract services; war reserve materiel mission programs; readiness partnerships; medical deployment operations and resources; joint medical logistics operations systems; low unit of measure; and reach back operations and capabilities.

(LMM) Leadership, Management & Military Studies

LMM1000 Basic Military Studies - Basic knowledge and understanding of United States Air and Space Force history, operations, and culture. Includes customs and courtesies; dress and appearance; military drill and ceremonies; use of small arms; fundamentals of combat training and tactics; casualty care; personal care and resiliency; joint operations; anti-terrorism functions; and cyber awareness. Also includes military law; military code of conduct and ethics; Uniform Code of Military Justice (UCMJ); Law of Armed Conflict; human relations; and violence and sexual assault prevention programs.

LMM1101 Leadership and Management I - Leadership role and responsibilities of journeymen; theories, techniques, and practical application of leadership and followership; supervision; management; problem solving; conflict resolution; concepts of human behavior; ul u l ue ; standards of discipline; counseling and interpersonal relationships; mentoring; group dynamics; team development; ethics and core values; evaluation of enlisted personnel;

e management; stress management; substance abuse; and current social issues.

LMM1102 Managerial Communications I - Principles of oral and written communications for airmen; theories and concepts of communications; factors influencing the communication process; speaking techniques such as oral presentations; and principles of effective writing.

LMM1103 Military Studies I - Combat leadership and professionalism; air and space expeditionary force fundamentals; national security and strategy; foreign terrorism; joint and multinational forces; code of conduct; law of armed conflict; dress and appearance; drill and ceremonies; customs and courtesies; and personal readiness.

LMM2121 Leadership and Management II - Role and responsibilities of the supervisor. Includes human resource development; team dynamics; performance, change, and conflict management; discipline; time and stress management techniques; substance abuse; operational risk management; and organizational leadership skills to include situational leadership, problem solving and the functions of management.

LMM2122 Managerial Communications II - Principles of oral communications and effective writing for the supervisor. Includes planning, organizing, formatting, and supporting oral and written communication; overcoming barriers to effective communication; and effective speaking skills.

LMM2123 Military Studies II - Air Force history and culture, wellness, standards of conduct, national security, and the role of the noncommissioned officer within the military profession. Includes national strategy, global instability, and military operations.

LMM2131 Leadership and Management III - Senior noncommissioned officer responsibilities for managing military resources using selected leadership and management theories, concepts, techniques, and skills necessary to maintain order and discipline. Includes roles and views of human resources in management hierarchy and methods for improving worker performance through analytical decision making.

LMM2133 Military Studies III - Elements of international relations, national policy and employment of military force in achieving objectives over a broad range of circumstances. Includes international relationships and role of national security organizations, particularly the US Air Force, in achieving national objectives and application of USAF and joint forces in various military environments past and present.

LMM2134 Organizational Theory and Behavior - Organizations and their structure and intensive examination of important behavioral processes, and theories discussed in terms of behavioral, technological and communications factors. Includes organizational norms, conflict, motivation, self-concept, values, stress and interpersonal relations.

(LOG) Logistics

LOG1101 Introduction to Supply Management - Fundamental overview of Air Force supply system and material management. Includes an introduction to organizational structure and functions, definitions, terminology, and publications as applies to Logistics personnel.

LOG1102 Introduction to Logistics Planning - Logistics planning facts, terms, principles, practices, techniques and career progression as applied to Logistics Plans personnel. Includes the purpose, composition, and roles/responsibilities of the Installation Deployment Readiness Cell (IDRC). Also includes the purpose of the War Reserve Material (WRM), wartime contingency planning, logistics command and control, support agreements, and the Base Support Planning Purpose.

LOG1103 Contingency Response Training Basic - Introduction to logistics processes and terminology, basic command structure, pre-deployment briefing procedures, Contingency Response Group rapid response and operations, Air base/air-field operations and skills needed to support a joint/combined military environment. Includes a basic-level understanding of the mission, roles, core capabilities, limitations, organization, and operating environments of the Contingency Response Group.

LOG1201 Material Storage and Distribution - Introductory basics of material management processes and systems. Includes inspecting, storing, inventorying, and receiving material properly as applies to logistics. Identifies principles of material handling and storing, warehouse types, inspection procedures, inventory processes, and supply points.

LOG1202 Logistics Automated Systems - Basic fundamentals covering customer support and equipment accountability. Includes types of process inquiries, records maintenance with IT systems, order processes, and basic management of equipment as it applies to logistics.

LOG1302 War Reserve Material & Document Control - Introduction to the responsibilities in managing War Reserve Material and understanding the different types of Readiness Spares Packages. Identifies basic principles of managing

Individual Protective Equipment and the management of mobility bags. Includes document control, quality control, and degraded operations as it applies to logistics.

LOG1401 Medical Logistics Management Storage and Distribution - Introduction to supply chain management, warehouse storage and distribution. Includes customer service functions, manual medical treatment facility catalog records, catalog search record creation, source of supply, review of assets, process and storage requirements, warehouse security, materiel storage and serviceability, issue procedures, controlled medical items, personal protective equipment, and hazardous material storage.

LOG1501 Expeditionary Medical Readiness and War Reserve Materiel - Introduction to Medical Readiness Training (MRT). Provides emergency medical readiness and deployment skills training for the field hospital environment. Includes War Reserve Material (WRM) and Assemblage Management (AM) roles and responsibilities, definitions, allowance standards and Expeditionary Medical Support (EMEDS).

LOG1601 Logistics Maintenance Support - Introduction to mission capable responsibilities as they applies to logistics. Includes fundamentals of the repair cycle incorporating unserviceable items storage, monitoring awaiting parts, and processing turn around action. Basic understanding of how to prepare return documents for consumable/expendable assets.

LOG1602 Stock Control - Fundamentals of stock control and shipments. Includes specific job related responsibilities as it applies to logistics; including stock control process, processing due-in/due-out procedures, and different types of shipments.

LOG1701 Introduction to Medical Logistics - Principles of supply discipline, information protection polices and measures, and the Defense Medical Logistics Standard Support (DMLSS) system.

LOG1801 Specialized Operations in Medical Logistics - Introduction to specialized operations in the supply chain cycle. Includes Medical Material Quality Control (MMQC) processes, transactional history, equipment maintenance, and personal computer operations.

LOG1901 Introduction to Automated Logistics Plans - Introduction to techniques, functions, and methods of data entry to and retrieval from the Logistics Module (LOGMOD) system to plan wing deployment, reception, and redeployment operations worldwide as applicable to logistics personnel. Students will gain understanding of the basic functions available within LOGMOD. Includes maintenance of historical deployment data; introduction to the tasks associated with input and modification of deployment planning information; creation and export of reports; and management of LOGMOD users.

LOG1902 Introduction to Deployment Planning and Procedures - An overview of deployment planning concepts as applicable to logistics planners. Includes planning and management of deployment packages; understanding expeditionary cycle/battle rhythm; utilization of deployment planning tools; and types of deployment plans.

LOG2101 Logistics Planning Advanced - Principles and techniques of advanced logistics planning. Includes wartime and contingency planning, logistics command and control systems, and deployment management.

LOG2201 Logistics Feasibility Analysis Capability (LOGFAC) - Prepares users to develop and analyze sustainment requirements in support of theater air campaigns. Students determine prepositioning of resources and conduct analysis based on war mobilization plans and war consumables distribution objectives as they apply to the 2G0X1 Logistics Plans Air Force Specialty.

LOG2300 Maintenance Supply Systems Operations - Introduction to logistics processes and supply operations for aircraft maintenance emphasizing the use of the automated logistics information systems to include infrastructure, system sustainment, mission planning/scheduling, customer relationship management, and action requests. Addresses basic knowledge of supply chain management functions such as local purchases, transportation arrangements, warehouse procedures, inventory management procedures, shipping and handling assets, turn in processes, and equipment life cycle management.

LOG2301 ALIS Maintenance Planner and Scheduler - Advanced techniques, procedures, and use of the Autonomic Logistics Information System (ALIS) for maintenance planners and schedulers. Includes the ALIS infrastructure; training management systems and functions; mission planning and scheduling; computerized maintenance management system; air vehicle status; maintenance management; unit health management; Low Observable (LO) health assessment systems; Structural Prognostics Health Management (SPHM); flight scheduling decision support; and mission debrief. Also includes Time Compliance Technical Order (TCTO) management; follow-on maintenance management; joint-service technical data; and customer relationship management.

LOG2602 Automated Logistics Plans Management - Advanced techniques, functions, and methods of data entry to and

retrieval from the Logistics Module (LOGMOD) system to plan, manage, and execute wing deployment, reception, and redeployment operations worldwide. Students will gain understanding of the purpose and functionality of deployment planning and execution functions and processes. Includes manipulation and maintenance of data using computer products; management of the tasks associated with the scheduling of events and task creation; modifying, verifying, and sharing plan access; and practical exercises emphasizing key LOGMOD applications.

LOG2606 Mission of Medical Materiel Management - Mission objectives, organization and responsibilities of medical materiel function. Includes property responsibility and supply discipline, concepts and principles of automatic data processing, quality assurance, turn-ins, reserve assets inventory, inventory adjustments, property disposition, quality control, and corrective actions.

(MAE) Mechanical and Electrical

MAE1101 Power Production Equipment - Fundamental principles of power production equipment as applied to Mechanical and Electrical personnel. Includes operation, troubleshooting, and repair of internal combustion engines, generators, exciters, voltage regulators, launch facility power generation system, and launch facility and launch control facility power distribution system.

MAE1102 Electrical Fundamentals - Electrical fundamentals as applied to Mechanical and Electrical personnel. Includes Ohm's law, series, parallel, and series-parallel circuit theory. Also includes meters and test equipment; electrical code; terminology; wiring diagrams; and electrical safety.

MAE1103 Engine Systems and Associated Equipment - Operation and maintenance of conventional, gas turbine, and diesel engine systems. Including cooling, starting, lubrication, intake, exhaust, governor, and fuel as applied to Mechanical and Electrical personnel.

MAE1104 Mobile Generator Set Theory and Operation - Familiarization and operation of various mobile generators, generator sets, and generator engines to provide external, mobile electrical power in a variety of situations. Includes generator installation and set-up, functions of major system components in the generator, generator set modules, generator engines, generator and engine protective devices, and use of associated equipment as applied to Mechanical and Electrical personnel.

MAE1105 Generator Set Operation and Aircraft Arresting Barriers - Operating characteristics and configuration of aircraft arresting system, generator set associated equipment, and power plant generator operation. Includes problem analysis and diesel engine tests and maintenance as applied to Mechanical and Electrical personnel.

MAE1106 Electrical Special Purpose Systems - Maintenance; troubleshooting; and repair of transformers, voltage regulators, battery banks and chargers, and emergency lighting systems. Includes dining hall and domestic appliances as applied to Mechanical and Electrical personnel.

MAE1107 Maintenance Orientation - Mechanic responsibilities and maintenance concepts as applied to Mechanical and Electrical personnel . Includes professional responsibilities of technician; maintenance management and inspection systems; selection and use of manufacturer's technical data, maintenance records and forms; and safety.

MAE1108 Maintenance of Aircraft Arresting Systems - Theory and practical training in operating principles and maintenance of friction and hydraulic arresting mechanisms used in modern aircraft arresting systems. Includes training on engaging and arresting mechanisms as applied to Mechanical and Electrical personnel.

MAE1109 Powerline Equipment and Pole Climbing - Principles and techniques of pole climbing procedures, equipment, and materials required for installation of service laterals as applied to the Mechanical & Electrical Technology degree for Electrical personnel. Includes high voltage splicing procedures used in the manufacturer's splicing specification sheets and critical information necessary to fabricate a splice; inspection of electrical terminations and underground splices in confined spaces and terminations on riser poles; required tools necessary for safe fabrication of elbows; and de-energizing and isolating transformers and applying lockout/tagout procedures prior to testing with a megohmmeter. Also includes pole inspection before climbing; inspection and proper wear of climbing gear; traversing (ascend and descend) over obstacles, such as transformers, conductors, single and double crossarms; installing and removing crossarms; and pole top rescue procedures.

MAE1110 Construction of Overhead Electrical Distribution Systems - Principles of testing with high-voltage phase testers, grounding sets, isolation of high voltage lines, clearance forms, and maintaining records and forms as applied to the Mechanical & Electrical Technology degree for Electrical personnel. Includes attaching grounding sets to the pole; ground rods; overhead conductors; selecting anchors; soil conditions; anchor holding requirements; equipment and tools; and installation requirements. Also includes installing guy-wires and anchors; conductor support devices;

overhead line conductors; splicing; protective devices; transformers; and service drops. Also includes troubleshooting pole mounted transformers and single-phase and three-phase transformers; transferring de-energized conductors from old to new pole; replacing conductor support on de-energized conductors; inspection and maintenance requirements for poles, conductor support devices, distribution transformer, protective devices, and High-voltage switches.

MAE1111 Fuel Subsystems - Fuels subsystems as applied to the Mechanical & Electrical Technology degree for Electrical personnel. Fundamentals of operation, inspection, and maintenance of fuel mechanical subsystems. Includes tank filtration equipment; meters; and loading and offloading equipment.

MAE1112 Specialized Fuel Systems and Tank Entry - Specialized Fuel Systems and Tank Entry as applied to the Mechanical & Electrical Technology degree for Electrical personnel. Fundamentals of Type III/IV Phillips system components; motor vehicle fueling system; principles of troubleshooting; and inspection and operating procedures. Includes procedures for tank entry and deactivating fuel systems; identification of cryogenic product hazards; procedures for cryogenic product issue and receipt; and Fuels Mobility Support Equipment set up and tear down.

MAE2101 Advanced Troubleshooting of Power Production Equipment - Advanced troubleshooting of power production (generator) equipment. Includes principles and techniques of tracing electrical wiring diagrams in AC and DC circuits on commercial generators and automatic transfer switches (ATS) control circuits. Includes procedures and techniques for removing, reeving and replacing tape, stretching tape and attaching tape connectors on Aircraft Arresting Systems; removing and replacing hydraulic system control valves; removing, inspecting and installing sheaves; and theory of operation and components of hydraulic and rewind systems as it pertains to the Mechanical and Electrical Technology degree program.

MAE2110 Advanced Heating, Ventilation and Air-Conditioning (HVAC) System Control - Advanced operation, maintenance, and troubleshooting techniques for pneumatic controls. Includes transmission systems and components; electric and electronic controls as it pertains to the Mechanical and Electrical Technology degree program.

MAE2111 Heating, Ventilation and Air-Conditioning (HVAC) Load Calculations - Analysis of thermodynamics and psychrometrics on equipment design, schematics, and use of calibration equipment on various Heating, Ventilation and Air-Conditioning (HVAC) system configurations as it pertains to the Mechanical and Electrical Technology degree program.

(MAT) Mathematics

MAT1103 Introduction to Statistics - Principles of frequency distribution and computing and interpreting probability, discrete and continuous probability distributions, binomial formulas, and probability tables; and statistical methods to emphasize variance analysis, correlation procedures, standard deviation and correlation programs.

(MEA) Measurements

MEA1101 Introduction to Metrology - An introduction to metrology, the science of weights and measures. Introduces general metrology terminology; the Air Force Occupational Safety and Health Program and general safety practices; traceability of standards; accuracy and tolerance; uncertainty principles; calculations; types of errors; metric notation and numbering system conversions; and basic use of common test equipment such as multimeters, frequency counters, and oscilloscopes. Also includes familiarity with a variety of cables and connectors, basic soldering techniques for connectors and printed circuit boards; solderless assemblies such as crimped, coaxial, and multi pin connections; and basic troubleshooting techniques for component level fault isolation.

MEA1102 Introduction to Precision Measurement Equipment Laboratory Operations - Introduction to the general operating practices of Air Force Precision Measurement Equipment Laboratory. Includes familiarization with Air Force Metrology and Calibration; organization; facts and terminology; common references and technical orders; maintenance databases; scheduling equipment for maintenance; proper care and use of hand tools and accessories; supply database and benchstock components; forms and tags; preventative maintenance inspections and documentation; and calibration certification labels, forms, and stamps.

MEA1103 Principles of Electronic Communications - The purpose, functions, characteristics, and theory of operation for electronic communications devices as applied to Precision Measurement Equipment Laboratory. Includes amplitude modulation (AM) systems; frequency modulation (FM) systems; transmitters; and receivers. Addresses the basic knowledge of communication mediums such as transmission lines; antennas; data bus; waveguides; and fiber optics.

MEA1104 Principles of Digital Logic Circuits - The terminologies, functions, characteristics, and theories of operation for digital logic circuits as applied to Precision Measurement Equipment Laboratory. Includes logic gates; flip-flops;

and Digital-to-Analog (D/A) and Analog-to-Digital (A/D) converters. Addresses the basic knowledge for numbering systems conversions such as binary; hexadecimal; binary coded decimal (BCD); and hexadecimal math operations.

MEA1105 Principles of Electromagnetic Devices - Principles of electromagnetic devices as applied to Precision Measurement Equipment Laboratory. Includes transformers; relay/solenoids; synchro/servos; and transducers. Addresses the basic knowledge of electrostatic discharge (ESD) characteristics, control measures, and electromagnetic effects; electromagnetic pulse (EMP); and electromagnetic interference (EMI). Also includes the purpose, construction, theory of operation, and fault isolation techniques.

MEA1106 Principles of Power Supplies - The functions, characteristics, and theory of operation of power supplies and associated components as applied to Precision Measurement Equipment Laboratory. Includes diodes; rectifiers; filters; transistors; Zener diodes; and voltage regulators. Also includes the basic knowledge for types of malfunctions; fault isolation techniques; and safety-risk management.

MEA1107 Principles of Amplifiers and Wave Generating Circuits - The purpose, characteristics, theory of operation, and fault isolation techniques of amplifiers and wave generating circuits as applied to Precision Measurement Equipment Laboratory. Includes transistor amplifiers; operational amplifiers; oscillators; multi-vibrators; and wave shaping circuits. Addresses basic knowledge of associated components such as light-emitting diodes (LED); field effect transistors (FET, MOSFET, JFET); and integrated circuits (IC).

MEA1108 Principles of Alternating Current (AC) Circuits - Principles of Alternating Current (AC) theory as applied to Precision Measurement Equipment Laboratory. Includes waveshapes; voltage characteristics; frequency characteristics; phase relationship; frequency classification; and the principles of calculating AC circuit voltage and time/frequency conversions. Addresses the basic knowledge of associated components such as frequency sensitive filters; capacitive; inductive; and RCL (resistance/ inductance/capacitance) circuits.

MEA1109 Principles of Direct Current (DC) Circuits - Principles of Direct Current (DC) theory as applied to Precision Measurement Equipment Laboratory. Includes atomic structure; terminology; schematic symbols; Ohm's Law; Kirchhoff's Law; and circuit configurations. Addresses the basic knowledge of resistance; color codes; color bands; and the principles for calculating resistive values of series, parallel, series-parallel, and voltage divider circuits.

MEA1201 Calibration and Repair of Meters - Calibration, Alignment, and Repair of various types of meters such as analog/digital multi-meters, voltmeters, and power meters. A thorough knowledge of meter uses and functions, safety checks and procedures, equipment standardization, proper measurements techniques, performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations, and implementation of trouble-shooting techniques to isolate faults, when necessary. Includes the use of voltage dividers, high-voltage probes, meter calibrators, power sensors, and other standard measurement instruments necessary for the use and calibration of meters.

MEA1202 Calibration and Repair of Oscilloscopes - Calibration, Alignment, and Repair of oscilloscopes. A thorough knowledge of the uses of oscilloscopes and oscilloscope functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults, when necessary. Includes an understanding of grid bias; astigmatism; trace rotation; signal geometry; readout jitter; as well as the use of frequency counters and generators; the oscilloscope calibrator, and other standard measurement instruments necessary for the use and calibration of oscilloscopes.

MEA1203 Calibration and Repair of Frequency Standard Equipment - Calibration, Alignment, and Repair of frequency standard equipment such as electronic frequency counters and audio analyzers. A thorough knowledge of the precise time, period, and frequency measuring equipment functions, safety checks and procedures, equipment standardization, proper measurements techniques, performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations, and implementation of trouble-shooting techniques to isolate faults, when necessary. Includes an understanding of frequency synthesis and offset; harmonics; amplitude, pulse, and frequency modulation, as well as the use of frequency standard oscillators and generators, spectrum analyzers, decade resistors, and other standard measurement instruments necessary for the use and calibration of frequency standard equipment.

MEA1204 Calibration and Repair of Frequency Generation Equipment - Calibration, Alignment, and Repair of frequency generation equipment such as low frequency function generators and microwave signal generators. A thorough knowledge of the waveform propagation; frequency and burst rate; gain and linearity; frequency and amplitude modulation; and frequency generation equipment functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults, when necessary. Includes the use of thermal voltage converters; RF detectors; attenuators; as well as the

use of frequency standard oscillators and generators; decade resistors; and other standard measurement instruments necessary for the use and calibration of frequency standard equipment.

MEA1205 Calibration and Repair of Physical and Dimensional Equipment - Calibration, alignment, and repair of physical, dimensional, and temperature measuring equipment such as torque wrenches, thermometers, scales, pressure gauges, micrometers, A thorough knowledge of physical, dimensional, and temperature measuring equipment and their functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults, when necessary. Includes an understanding of temperature; humidity; mass and weight; linear dimensions; pressure; vacuum; and torque, as well as the use of other standard measurement instruments necessary for the use and calibration of physical, dimensional, and temperature measuring equipment.

MEA2707 Optical Measurements - Theory of geometry of reflection and refraction. Includes lens system, optical tooling instruments, and optometric and special devices.

MEA2720 Applied Physical Measurements I - Introductory physical, linear, and angular measurements and their technical applications.

MEA2721 Applied Physical Measurements II - Principles of physical measurements. Includes temperature, mass weight, force density, viscosity and flow, and pressure measurements.

MEA2722 Applied Physical Measurements III - Principles of physical measurements. Includes rotary motion, torque, humidity, sound and vibration measurements.

MEA2724 Engine Measurement Systems - Theory, operation, alignment, and calibration of jet engine equipment and test stands. Includes theory and calibration techniques using block diagrams.

(MEC) Mechanical Maintenance

MEC1211 Maintenance Orientation - Mechanic responsibilities and maintenance concepts. Includes professional responsibilities of technician; maintenance management and inspection systems; selection and use of manufacturer's technical data, maintenance records and forms; and safety.

MEC2504 Maintenance of Aircraft Arresting Systems - Theory and practical training in operating principles and maintenance of friction and hydraulic arresting mechanisms used in modern aircraft arresting systems. Includes training on engaging and arresting mechanisms.

(MED) Medical Assistant

MED1305 Human Anatomy and Physiology - Characteristics and functions of human body systems including: musculoskeletal, circulatory, respiratory, digestive, nervous, reproductive, immune, and urinary systems.

MED1306 Medical Service Fundamentals - Basic medical service knowledge and skills in patient care are discussed as applies to Practical Nursing personnel. Includes facts and terms of patient centered medical home care; patient care in special environments; records maintenance; and safety principles. Also includes overview of the Air Force Medical Doctrine; Aerospace Medical Service Apprentice scope of practice; and hazard and environmental resources and protection programs.

(MET) Meteorology

MET1000 Battlefield Airman Basic Physical Training - Fundamental knowledge of personal equipment and progressive physical training activities within special tactics units as applied to Combat Weather personnel. Prepares Battlefield Airmen to conduct ground operations that assist, control, enable and execute air and space power missions. Includes techniques of swimming, running, calisthenics, ruck training, weight training, and obstacle course training needed to perform surveillance, weather forecasting, airfield surveying, air traffic control, directing air strikes, airdrop marking, trauma care and personnel recovery within hostile environments.

MET1001 Situational Tactics - Introduction of procedures to employ individual and team concepts in tactical situations as applied to Combat Weather personnel. Includes patrol techniques used in a combative environment and principles of urban survivability.

MET1002 Special Weapons - Introduction and application of special weapons as applied to Combat Weather personnel.

Includes weapon identification, capabilities, characteristics, and selection and application for various tactical situations.

MET1003 Map and Compass - Map and compass use and reading as applied to Combat Weather personnel. Includes application of tools used to navigate in various environments; position determination; travel preparation and techniques; natural aids to navigate; route selection; and use of the map and compass. Also includes classroom and field practical exercises.

MET1004 Communication System Operations - Operational theory of command communications systems as applied to Combat Weather personnel. Includes data and broadcast transmitting and receiving systems.

MET1005 Psychology of Environmental Stress - Knowledge and control of combat stresses as applied to Combat Weather personnel. Includes resistance to exploitation; international agreements relative to captivity and camp organization; application of escape-and-evasion techniques; Communist history and theory; interrogation and indoctrination procedures; and group resistance in captivity.

MET1006 Landing and Drop Zone Operations - Performance of Navigational Aid operations as applied to Combat Weather personnel. Includes establishing and performing the landing and drop zone support and operations; identification and application of tools used; hand and arm signals; and maintaining positive control of the aircraft in the zone.

MET1007 Assault Zone Operations - Field Training Exercises as applied to Combat Weather personnel. Includes demonstration of knowledge and competence, discipline, and mental toughness in a real world tactical application involving Assault Zone Establishment.

MET1008 Tactical Weather Operations - Battlefield operations weather analysis and forecasting concepts as applied to Combat Weather personnel. Includes analysis of concepts and facts surrounding Special Operations Weather Technicians; special tactics history and theories; roles, responsibilities, and capabilities; and mission areas.

MET1403 Weather Fundamentals - Introduction to career field duties, organizational structure, standard and tactical weather communications, effects of atmospheric conditions on military operations, weather sensors, and sensor principles.

MET1701 Meteorology I - Elementary Meteorology providing a foundation for understanding and observing weather elements. Identify facts related to space environment and elements of a weather observation. Includes basic principles about Earth and its atmosphere along with atmospheric physics and dynamics.

MET1702 Meteorology II - Expanding principles related to hemispheric, regional, and tropical weather features. Concentration on macroscale weather features including the three cell model, Earth's climate zones, and semi-permanent pressure systems. Includes principles about continental weather features; horizontal and vertical structure of high and low pressure systems to include surface fronts.

MET1808 Meteorological Reports and Charts - Decode METAR (Aviation Routine Weather Report) observations, decode and encode pilot reports, decode land and ship synoptic observations, and decode Rawinsonde observation. Apply knowledge of satellite imagery to depict wind flow. Analysis of appropriate chart sets (300mb-850mb chart requirements), upper-air, and surface charts.

MET2201 Macroscale Analysis Techniques - Relate principles about macroscale weather analysis techniques to include long-wave patterns, characteristics of long waves, atmospheric motion and dynamics, jet streams, analysis tools, and interpreting models. Identify facts about the components of an effective regime forecast process; includes regimes, macroscale regimes, and the three phases of the regime forecast process. Understanding quality assurance, verification programs, and quality control procedures for an effective quality assurance program.

MET2202 Synoptic Analysis Techniques - Relate principles about synoptic scale weather analysis techniques including physics, dynamics, upper and lower atmospheric weather features, surface layer weather features, vertical interactions, analysis process and tools, model interpretation, and tropical weather. Identify facts about synoptic weather regimes including weather regime characteristics, dependent on macroscale environment, barotropic regime and baroclinic regimes.

MET2203 Synoptic Analysis Laboratory - Application of knowledge to analyze synoptic scale weather features given satellite imagery, upper air charts, and surface charts for the United States. This will include chart descriptions and the analysis process. Further application of knowledge to encode METAR (Aviation Routine Weather Report) observations given applicable regulations and observation scenario.

MET2204 Mesoscale Analysis Techniques - Analysis of mesoscale weather techniques to include atmospheric stability, mass continuity theory, convective and non-convective severe weather.

MET2205 Mesoscale Analysis Laboratory - Analyze mesoscale weather features using Skew-T diagram, upper air and surface charts, and satellite imagery. Streamline low-level features as well as analyze 300mb-850mb charts.

MET2801 Weather Radar Operation - Principles of radar theory and system components. Includes national weather radar network, system user classifications, volume coverage pattern, electromagnetic energy, beam and pulse characteristics, and atmospheric interactions. Principles of weather radar products using single and dual polarization base products.

MET2809 Central Weather Facility - Theories and techniques of weather analysis and forecasting in a simulated weather station environment. Includes operational mission duties of weather map analysis, forecasting, development of specialized products, and development and presentation of weather briefings.

MET2817 Tropical Meteorology - Identification and analysis of tropical weather data from wind field to establish a sound basis for tropical forecasting. Includes applicable streamline isotach techniques of direct kinematic analysis, tropical meteorology, and application of theoretical, climatological and empirical analytic methods.

MET2819 Satellite Picture Interpretation - Principles of different types of meteorological satellite systems; includes detection process, advantages and limitations, imagery types and resolution, and interpretation considerations. Knowledge of microwave satellite products and multispectral imagery. Relating satellite imagery to meteorological and non-meteorological features and/or events.

MET2830 Macroscale/Synoptic Forecast Techniques - Relate principles of macroscale weather forecast techniques including the forecast regime process, macroscale weather features and regimes, long wave patterns, prognosis rules and forecast techniques, and numerical weather model types. Identify facts about numerical model processes. Principles of flight hazard forecast techniques. Relate principles of synoptic weather forecast techniques including synoptic weather features, vertical consistency, prognosis rules, and using models to produce forecasts.

MET2831 Macroscale/Synoptic Forecast Laboratory - Evaluate and/or analyze weather elements, tropical weather given weather data, references, equipment, and charts. Forecast macroscale and synoptic scale weather features using PowerPoint and Leading Environmental Analysis and Display System (LEADS).

MET2832 - Mesoscale/Microscale Forecast Techniques Principles of mesoscale and microscale weather forecast techniques including precipitation, obstruction to vision, low-level turbulence, pressure, temperature, cloud, icing and wind forecasting.

MET2833 Mesoscale/Microscale Forecast Laboratory - Application of knowledge using weather data, references, and equipment. This includes Joint Environmental Toolkit (JET) set up, observation dissemination, using numerical weather predictions, and preparing a terminal aerodrome forecast with a Terminal Aerodrome Forecast (TAF) worksheet.

MET2834 Advanced Weather Management I - Advanced weather management and operations. Includes analyzing facts principles, and drawing conclusions about local flight/detachment operations; local weather training requirements for non-weather personnel; Cooperative Weather Watch; special and local observation criteria management; alternate operating location procedures management; the forecast reference program; and the forecast review process. Also includes general principles of Air Force Weather Organizations; operating instructions and procedures; manpower documents; budget management; training program management; readiness; force employment; importance of collaboration; and support documents.

MET2835 Advanced Weather Management II - Subsequent course in Advanced Weather Management. Includes analyzing facts, principles, and drawing conclusions in regards to weather flight documentation; operating instructions; and standard operating procedures. Includes increased knowledge of budget management; training program management; and force employment. Emphasizes weather integration into operations in the planning, execution, and post-execution phases that include collaboration; Military Decision Making Process; readiness; Mission Execution Forecast Process; integrate requirements into regional analysis and forecast program, development, and requirements of Severe Weather Action Plan.

MET2836 Advanced Weather Management III - Capstone course in Advanced Weather Management courses. Focuses on function and application of weather flight chief duties to include: managing training and budget programs; organizing manpower documents and employing forces; collaborating and integrating of weather operations; and managing the planning, execution, and post execution phases of operations.

(MFM) Missile Facility Maintenance

MFM1000 General Maintenance Training - Introduction to general maintenance concepts and practices as applied to

Missile and Space Launch Facility personnel. Includes career ladder progression and hierarchy; use of Air Force standards and publications; commercial standards and publications; Air Force Office of Safety and Health (AFOSH) standards; U.S. Government Occupational Safety and Health Administration (OSHA) standards; personal safety; and equipment security. Also includes radio frequency (RF) basics; cable installation basics and practices; cable management; communication grounding and bonding procedures; voltages and hazards; Electrostatic Discharge (ESD); and corrosion control and prevention concepts.

MFM1001 Basic Electronic Principles - An introduction to basic electronic principles as it pertains to Missile and Space Launch Facility personnel. Includes basic electronics knowledge; electrostatics; series, parallel, and series-parallel circuits; changing currents; alternating and direct currents; theory of induction and capacitance; inductive and capacitive circuits; transformers; resonance; filters; and circuit analysis utilizing appropriate test equipment.

MFM1002 Launch Facility Access and Security Systems - An introduction to Launch Facility Access and Security Systems as it pertains to Missile and Space Launch Facility personnel. Includes a study of function, operation, and maintenance of security and personnel access systems. Also includes surveillance and alarm systems; voice and radio systems; vault door-locking mechanism; combination locks; vibration detection systems; personnel access control and associated electrical circuitry; electric, mechanical and hydraulic operated vault doors up to 100 tons in size; cage-type elevators; hydraulic and electric actuator systems and support equipment; and associated test equipment.

MFM1100 Missile Launch Control Facility Maintenance - Introduction to launch control center, facilities and support systems maintenance. Includes operational theory, logic, and circuit diagram analysis, and preventive and corrective maintenance. Also includes general and special-purpose test equipment and use of technical manuals.

MFM1101 Facility Maintenance Fundamentals - Introduction to Missile Facility Maintenance procedures. Includes operation of milliohm meters and test set semiconductor devices, portable heaters, maintenance van hoists, and fiber optic power meters. Also includes performing basic soldering and de-soldering, Electrostatic Discharge (ESD) procedures for circuit card handling and storage, and use of electronic Freon leak detectors and fiber optic power meters.

MFM1102 Periodic Maintenance Team (PMT) Van - Introduction to the Periodic Maintenance Team (PMT) Van. Includes operation of the PMT Van auxiliary power unit, electrical systems, and environmental control systems.

MFM1103 Missile Alert Facility Air Ventilation System - Introduction to Missile Alert Facility air & ventilation systems. Includes inspection and repair of air handler subsystems, ventilation subsystems, emergency air subsystems, and makeup air systems. Also includes performing air flow balancing procedures.

MFM1150 Special Tools and Equipment - Familiarization with facilities maintenance, tools and equipment. Includes demonstration of proficiency with electrical bonding meters; milliohm meters; Launch Facility grounding systems; multi gas monitors; and gas detectors. Also includes sump pumps; portable heaters; periodic maintenance team operations; and radio frequency interference gaskets.

MFM1200 Special Purpose Electrical Systems - Maintenance, troubleshooting, and repair of special purpose electrical systems. Includes transformers; voltage regulators; battery banks and chargers; electrical power filters; and emergency lighting systems.

MFM1201 Power Production Equipment - Fundamental principles of power production equipment. Includes operation, troubleshooting, and repair of internal combustion engines; generators; exciters; voltage regulators; and power generation and distribution systems used in launch facilities and launch control facilities.

MFM1202 Engine Systems and Associated Equipment - Operation and maintenance of conventional, gas turbine, and diesel engine systems used in launch facilities and launch control facilities. Includes cooling; starting; lubrication; intake; exhaust; governor; and fuel systems.

MFM1203 Electrical Power Generation and Distribution - Operation, troubleshooting, inspection, and maintenance principles of electrical systems used in launch facilities and launch control facilities. Includes alternating current (AC) and direct current (DC) power generation and distribution systems and associated equipment.

MFM1300 Environmental Control Systems - Principles of environmental and control systems used in launch facilities and launch control facilities. Includes operation and maintenance of chillers; heat recovery, hydraulic cooling water and steam boiler systems; air handlers; exhaust fans; and purge air system.

MFM1301 Air-Conditioning and Refrigeration Fundamentals - Basic operation, maintenance, troubleshooting, and repair of air conditioning and refrigeration equipment used in launch facilities and launch control facilities. Includes use and care of tools; fabrication of refrigeration lines; application of soldering and brazing techniques; physics; refrigeration components; accessories; and compressor checks.

MFM1302 Refrigeration and Air Conditioning Systems - Fundamentals of operating, maintaining and troubleshooting refrigeration and air conditioning systems used in launch facilities and launch control facilities. Includes refrigeration; air conditioning; pneumatic dampers; air handlers; fan units; dehumidifiers and humidifiers; evaporators; condensers; air compressors; water pumps; refrigeration lines; filters; water chillers; cooling towers; ventilation systems; control center; launch duct; oxygen regeneration units; computer room air conditioning systems; and air balancing.

MFM1303 Refrigeration and Air-Conditioning Subsystems - Fundamentals of operating, maintaining and troubleshooting refrigeration and air conditioning subsystems used in launch facilities and launch control facilities. Includes refrigeration; air handling units; ventilation; and makeup air.

MFM1304 Heating Systems - Operation and maintenance of heating systems used in launch facilities and launch control facilities. Includes low- and high-temperature water and steam; oil and gas-fired space heaters and burners; warm-air and water heating systems; water heaters; coal burning equipment; and water treatment.

MFM1401 Electrical and Electronic Controls - Fundamentals of electrical and electronic control operations used in launch facilities and launch control facilities. Includes installation, adjustment, troubleshooting, and maintenance on electrical control circuits; sensors; controllers; and control devices. Also includes cybernetics and energy monitoring control systems.

(MGT) Management & Supervision

MGT2120 Engine Manager - Advanced preparation for a base engine manager position. Includes data processing fundamentals; specific data for loading, updating and maintaining comprehensive engine management system; recovery procedures; engine documentation duties; and use of remote terminal devices.

MGT2212 Advanced Maintenance Management - Detailed analysis of vehicle maintenance structure. Includes supervisory responsibilities, self-inspection system, maintenance programs, material and maintenance control functions, environmental awareness, and requirements for manpower, budgeting, mobility, contingencies and training.

MGT2963 Electronic Communications Programs Management - Introduction to principles of planning, programming and implementing electronic communications systems. Includes techniques and procedures for determining manpower and budgetary requirements, construction planning at all levels of command, monitoring program implementation, management of systems and records, and administration of minor changes to ongoing programs.

(MIL) Military Science

MIL1114 Air Force Operational Security - Concepts and processes of Air Force Operations Security (OPSEC), Military Deception (MILDEC), Signature Management, and Security. Includes profiling; threat analysis; identification of critical information; vulnerability analysis; risk assessment; countermeasures implementation; the tasking process; inspection processes; exercise programs; and the specific requirements to conduct activities in support of OPSEC and/or MILDEC operations.

MIL1201 Military Operations - Concepts and principles of ground, air, and naval operations. Includes strategic, tactical and support operations.

MIL1204 Contingency Operations - Pre-Deployment - Wartime contingency operations and procedures. Includes introduction to joint military forces/operations, counterinsurgency doctrine, theater rules of engagement, fundamentals of survival in deployed environment, weapons familiarization and live fire, basic tactical movements, and aspects of regional culture and language.

MIL1403 Tactical Air Operations - Tactical air operations stressing command and control. Includes ground attack, aerial interact and general aerial operations.

MIL1406 Aviation Transportation - Concepts and principles of air transport operations. Includes organization, facilities, command, control, communications and operational procedures.

MIL2503 Analysis of Foreign Ground Forces - Evaluation of capabilities, command, control, communications, and employment. Includes organizational structure, installations and equipment of foreign ground forces.

MIL2702 Special Military Studies - Analysis of foreign and domestic forces denial and deception techniques, specialized warfighting concepts, and counternarcotic operations. Includes study of special operations forces, US Government and DoD functions relating to special operations, and domestic and international legal theory relative to military operations.

MIL2800 Foreign Internal Defense - An advanced course which stimulates increased awareness of the geopolitical, psychological, sociological, and military implications of insurgency and related forms of localized conflict. Includes Special Operations Force capabilities and doctrinal knowledge, key operational and tactical positioning, counter drug operations, combating terrorism, and humanitarian and disaster relief operations.

(MKS) Marksmanship

MKS1105 Initial Marksmanship Laboratory - Introduction to the types and use of weapons as applied to Security Forces personnel. Includes various handguns, shotguns, rifles, machineguns, and grenade launchers. Focuses on basic nomenclature, capabilities, and characteristics of specific weapons and attachments; operator care, cleaning and maintenance; application of marksmanship fundamentals; target identification, range determination, and weapons employment; weapons safety and clearing procedures; dye marking; various types of ammunition; and weapon qualification.

MKS2101 Marksmanship Laboratory - Indepth knowledge and functions of handguns, shotguns, rifles, automatic weapons, grenade launchers and night vision devices. Includes basic nomenclature, capabilities and characteristics of specific weapons; operator care; application of marksmanship fundamentals, weapons safety and clearing procedures; and ammunition types and uses.

MKS2102 Firearms Maintenance - Operation and maintenance of handguns, shotguns, rifles, automatic weapons, grenade launchers, and night vision devices. Includes safety procedures, technical order indexes and detailed disassembly and assembly; functioning cycle and causes of malfunctions; visual and nondestructive mechanical inspections; repair, replacement and adjustment of firearm components; and use, care and handling of special tools associated with firearms.

(MLT) Medical Laboratory Technology

MLT1304 Hematology, Serology and Blood Banking - Elements of basic hematology, coagulation, blood banking, serology and quality control; study of hemoglobin, hematocrit, blood differentials and manual cell counts; erythrocyte sedimentation rate; erythrocyte and leukocyte maturation; sickle cell testing; blood coagulation, grouping, typing and compatibility testing; detection and identification of atypical antibodies; hemolytic disease of newborn; donor services; antigen-antibody reactions; serological testing procedures for autoimmune diseases and infections; and laboratory management and administration.

MLT1305 Clinical Chemistry - Elements of basic chemistry; quality control; use of glassware and balances; pipetting techniques; laboratory math; metric conversions; solution calculations; venipuncture techniques; specimen analysis for electrolytes, renal and liver functions; and protein, glucose, and enzyme testing using automated and manual spectrophotometric principles, and urinalysis chemical analysis.

MLT1306 Clinical Microbiology - Elements of basic microbiology, quality control, bacteriological techniques, bacteria cultivation from clinical material, antimicrobial susceptibility, parasite identification, fungal examinations, overview of viruses and rickettsia, laboratory asepsis and sterilization techniques, microscopic urinalysis, and patient sensitivity.

MLT1307 Medical Laboratory Fundamentals - Introductory medical laboratory procedures, regulatory guidelines and accreditation standards. Includes phlebotomy, specimen processing and shipment, clinical chemistry theory, safety precautions, accident reporting, professional conduct and ethical standards.

MLT2302 Clinical Laboratory Procedures - Medical materiel procedures and receipt and preparation of blood, fluids, cultures, and stool specimens in a hospital environment. Includes laboratory administration, professional and patient relations, supervision, and publications.

MLT2303 Immunology and Blood Banking - Theoretical and supervised practical application of immunology, blood banking, and immunohematology. Includes antigen-antibody reactions, serological testing, quality assurance, atypical antibodies studies, and transfusion, donor service and blood storage procedures.

MLT2304 Hematology - Theoretical and supervised practical application in hematology. Includes cellular morphology, automated analysis, quality assurance and coagulation studies.

MLT2306 Medical Microbiology - Theoretical and supervised practical application of medical microbiology, parasitology, mycology and virology. Includes collection of clinical specimens, sterilization, storage, quality assurance, microscopic examination and culture procedures.

MLT2308 Chemistry Laboratory - Theoretical and supervised practical application of chemistry. Includes quality

assurance, safety, toxicology, blood gases, urinalysis and special chemistry procedures.

(MPH) Military Public Health

MPH1100 Public Health Operations - Introduction to Public Health operations. Includes medical intelligence; computer applications; medical ethics; and public health metrics. Also includes briefing techniques and written communication as applied to Public Health responsibilities.

MPH1101 Medical Fundamentals - Introduction to the basic principles of the human organ systems, microbiology, and chemistry as applied to Public Health. Includes medical terminology and abbreviations, ethics, and record keeping.

MPH1102 Communicable Diseases - Introduction to the basic principles and terminology, detection, and control of communicable diseases as applied to Public Health. Includes tuberculosis; viral hepatitis; HIV/AIDS; and sexually transmitted infections. Also includes conducting communicable disease interviews and epidemiological investigations.

MPH1103 Food Safety and Facility Sanitation -Introduction to food safety functions, food chemistry, microbiology, preservation, storage, and foodborne pathogens as applied to Public Health. Includes roles and responsibilities in food facility evaluations, inspection methods, food recalls, and foodborne illness outbreaks in accordance with the Tri-Service food code.

MPH1104 Occupational Health - Introduction to occupational safety and health programs as applied to Public Health. Includes principles of toxicology; industrial operations; hazard communication; medical surveillance; reproductive and personal protective equipment. Also includes chemical and physical occupational hazards and Air Force and OSHA regulations.

MPH1105 Medical Entomology - Introduction to the functions of Medical Entomology as applied to Public Health. Includes principles of vector biology and control of pests or vectors of medical significance. Also includes surveillance and trapping methods; packaging and shipment of specimens; personal protection; and military quarantine activities.

MPH1106 Public Health Airman Readiness - Introduction to Public Health's role in expeditionary medical readiness. Includes basic field sanitation and hygiene factors; Public Health's role in monitoring food facilities in a contingency setting; Pre/post deployment procedures; and Public Health Assessment administration responsibilities.

MPH1107 Hearing Conservation - Introduction to the hearing conservation program as applied to Public Health. Includes audiometric testing; and selection and fitting of hearing protection.

(MPM) Maintenance Production Management

MPM1104 Introduction to Statistics - Principles of frequency distribution and computing and interpreting probability, discrete and continuous probability distributions, binomial formulas and probability tables, and statistical methods to emphasize variance analysis, correlation procedures, standard deviation and correlation programs as used and applicable in Maintenance Production Management.

MPM1105 Principles of Maintenance Management Computer Operations - Introduction in basic computer components and features, flowcharting, programming languages, numbering and coding systems, assembly, applications and computer security applicable to Maintenance Production Management.

MPM1106 Maintenance Management Software Applications - Introduction to databases, spreadsheets, and graphical and word-processing software applications. Includes operating systems, graphical presentations, and database management applications applicable to Maintenance Production Management.

MPM1107 Introduction to Maintenance Management Analysis - Information processing and maintenance management analysis. Includes preparation, data entry and analyzing output data; file maintenance procedures; system familiarization; subsystems; structures; Air Force online data systems; system troubleshooting procedures; and processing techniques applicable to Maintenance Production Management.

MPM1108 Automated Maintenance Management Data Systems - Introduction to data systems used in Maintenance Production Management. Includes Integrated Maintenance Data Systems (IMDS) and other associated maintenance data systems for job scheduling; status determination; and documentation management. Also includes initialization; microcomputer processing; file structure; time-sharing; query language processor retrievals; report generation; rejection management; and database management applicable to Maintenance Production Management.

MPM1109 Maintenance Systems Analysis and Scheduling - Introduction of maintenance concepts, policies and procedures. Includes maintenance management processes, comprehensive engine maintenance management, and

configuration movement applicable to Maintenance Production Management. Also includes career progression; security; publications; Air Force supply system; safety precautions; and the Air Force Occupational Safety and Hazard program.

MPM1110 Introduction to Maintenance Scheduling - Introduction to maintenance planning and scheduling concepts applicable to Maintenance Production Maintenance. Includes the time compliance technical order system; responsibilities and duties of various organizations connected with maintenance activities; automated products; labor accounting; manual and automated maintenance logs and records; planning, scheduling, tracking, and reporting maintenance production actions.

MPM2116 Production Control Management - Production control management techniques. Includes interpreting work requirements, planning duties, controlling work requests and applying material management techniques as applicable to Maintenance Management Production.

MPM2117 Vehicle Management - Provides intermediate knowledge and skills needed to perform as vehicle management team lead and/or the NCOIC position. Includes work center responsibilities, extra duties, Air Force Training Program, deploying, admin programs, deficiency reports, Defense Property Accountability System (DPAS), budgeting, Operational Risk Management (ORM) and safety precautions.

MPM2601 Maintenance Systems Management - Advanced maintenance management functions as it pertains Maintenance Production Management. Includes concepts; data systems; creating reports; forecasting manpower requirements; scheduling aerospace vehicle and equipment needs; and producing generation flow plans, maintenance plans and engine tracking procedures. Also includes Time Compliance Technical Order (TCTO) management; maintenance operations flight management; planning and scheduling; and aerospace vehicle distribution officer functions.

(MPT) Microprecision Technology

MPT1106 Systems Troubleshooting - Fundamentals of electronic systems troubleshooting methods as it pertains to Microprecision Technology. Includes use of test equipment; alignment methods; adjustments; self-tests; performance checks; and repair and replacement of faulty equipment.

MPT1200 Calibration and Repair of Meters - Calibration, alignment, and repair of various types of meters as it pertains to Microprecision Technology. Includes analog and digital multi-meters; voltmeters; and power meters. Develops extensive knowledge of meter uses and functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults. Also includes the use of voltage dividers; high-voltage probes; meter calibrators; power sensors; and other standard measurement instruments necessary for the use and calibration of meters.

MPT1202 Calibration and Repair of Frequency Standard Equipment - Calibration, alignment, and repair of frequency standard equipment as it pertains to Microprecision Technology. Includes electronic frequency counters and audio analyzers. Develops extensive knowledge of the precise time, period, and frequency measuring equipment functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults. Also includes an understanding of frequency synthesis and offset; harmonics; amplitude, pulse, and frequency modulation; and use of frequency standard oscillators and generators, spectrum analyzers, decade resistors, and other standard measurement instruments necessary for the use and calibration of frequency standard equipment.

MPT1203 Calibration and Repair of Frequency Generation Equipment - Calibration, alignment, and repair of frequency generation equipment as it pertains to Microprecision Technology. Includes low frequency function generators and microwave signal generators. Develops extensive knowledge of waveform propagation; frequency and burst rate; gain and linearity; frequency and amplitude modulation; and frequency generation equipment functions; safety checks and procedures; equipment standardization; proper measurements techniques; performance of internal and/or external adjustments to ensure instrument functions are within specified tolerance limitations; and implementation of trouble-shooting techniques to isolate faults. Also includes the use of thermal voltage converters; RF detectors; attenuators; frequency standard oscillators and generators; decade resistors; and other standard measurement instruments necessary for the use and calibration of frequency standard equipment.

MPT2002 Application of Physical Measurements III - Continuation of Application of Physical Measurements II. Includes advanced principles and application of measurements for rotary motions; torque; sound; and vibration

measurements as it pertains to Microprecision Technology.

(MPW) Manpower

MPW1000 Manpower Requirements Determination - Introduction to the theories, applications, and systems used to determine Manpower Requirements as applied to Management Engineering Technology personnel. Basic facts about on-site observations; project plan development; data gathering tools, time study and work sampling; Process Flow Charts; developing to-be processes; quantification methods. Additional topics include civilian position management; Authorization Change Requests (ACR); Authorization Change Notice (ACN); Unit Manpower Document.

MPW1001 Workcenter Management & Process Improvement - Analysis of the roles and responsibilities of manpower personnel and their impact on organizational effectiveness. Includes measurement methods; development of manning tables; management advisory studies; authorization routines; manpower reports; Planning Programming Budgeting and Execution (PPBE); problem solving methodology; manpower resource management; and support agreements as applied to Management Engineering Technology personnel. Focus on the Air Force Inspection Program; Air Force Strategic Planning; Air Force Continuous Process Improvement.

MPW1002 Management Engineering - Methodologies for planning, programming, budgeting and execution of manpower allocations as applied to Management Engineering Technology personnel. Includes program allocation and control; review and analysis of organizational structure; Organization Change Process; Continuous Process Improvement (CPI); feasibility studies and planning; standards development; data analysis and comparison; training requirements and productivity; operational audits; and simulation modeling.

MPW1003 Expeditionary Manpower Management - Fundamentals of War Planning Systems and operations in contingency or exercise situations as applied to Management Engineering Technology personnel. Emphasis is on roles and responsibilities of manpower personnel to support area commanders in-garrison and at deployed locations. Includes basic facts about joint readiness systems such as Global Command Control System (GCCS); Joint Operation Planning and Execution System (JOPES); Manpower Equipment Force Packaging System (MEFPAK); Deliberate and Crisis Action Planning and Execution Segment (DCAPES). Particular attention will be given to Time-Phased Force Deployment Data (TPFDD); Unit Manpower Document (UMD); Mission Capability Statement (MISCAP); pre-deployment planning; field condition procedures; redeployment; and force management.

(MRD) Medical Readiness

MRD1300 Basic Medical Readiness - Relationship of human body systems to triage, treatment and transportation of casualties.

MRD1303 Expeditionary Medical Readiness Course - Introduction to expeditionary medical support and establishment of field medical facilities. Includes concept of operations; casualty movement; security; medical aspects of nuclear, biological, and chemical warfare; communication systems; and a comprehensive casualty flow training exercise.

MRD2100 Aeromedical Evacuation and Patient Staging - Familiarization of specific field situations experienced by assigned medical personnel through comprehensive exercises and updates in Air Force Medical Service (AFMS) doctrine. Includes: patient transport; communication equipment; deployment duties; operating an Aeromedical Evacuation/Patient Staging Facility; and nighttime/low light operations.

MRD2101 Medical Decontamination - Advanced instruction on removal and neutralization of nuclear, biological, and chemical (NBC) agents on wartime casualties before admittance to a medical treatment facility. Includes roles in triage; lifesaving NBC casualty care techniques; facility operations; peacetime and wartime site selection and set up, and field training performance to include inventory, assembly, operating, and cleanup of the medical decontamination facility.

MRD2110 Expeditionary Medical Support - Familiarization of field operations experiences for medical personnel assigned to the Expeditionary Medical Support (EMEDS). Introduces the concepts related to EMEDS and the establishment of field medical facilities. Includes: patient care in field conditions; communication systems; patient/casualty movement; weapons handling/security; and combat/non-combat triage.

MRD2120 Expeditionary Medical Support - Austere Surgical Team - This course is a continuation of The Expeditionary Medical Support (EMEDS) course. All medical personnel assigned will complete all of the EMEDS curriculum plus Austere Surgical Team (AST) specific scenarios. Additional training concepts include: surgical supply inventory, casualty resuscitation/management, surgical damage control, and working in the Blood Bank.

(MSL) Missile Maintenance Technology

MSL1000 General Maintenance Training - Introduction to general maintenance concepts and practices as applied to Missile and Space Launch Facility personnel. Includes career ladder progression and hierarchy; use of Air Force standards and publications; commercial standards and publications; Air Force Office of Safety and Health (AFOSH) standards; U.S. Government Occupational Safety and Health Administration (OSHA) standards; personal safety; and equipment security. Also includes radio frequency (RF) basics; cable installation basics and practices; cable management; communication grounding and bonding procedures; voltages and hazards; Electrostatic Discharge (ESD); and corrosion control and prevention concepts.

MSL1001 Launch Facility Access and Security - An introduction to Launch Facility Access and Security Systems as it pertains to Missile and Space Launch Facility personnel. Includes a study of function, operation, and maintenance of security and personnel access systems. Also includes surveillance and alarm systems; voice and radio systems; vault door-locking mechanism; combination locks; vibration detection systems; personnel access control and associated electrical circuitry; electric, mechanical and hydraulic operated vault doors up to 100 tons in size; cage-type elevators; hydraulic and electric actuator systems and support equipment; and associated test equipment.

MSL1002 Special Tools and Equipment - Familiarization with facilities maintenance, tools and equipment. Includes demonstration of proficiency with electrical bonding meters; milliohm meters; Launch Facility grounding systems; multi gas monitors; and gas detectors. Also includes sump pumps; portable heaters; periodic maintenance team operations; and radio frequency interference gaskets

MSL1003 Electrical Power Generation and Distribution - Operation, troubleshooting, inspection, and maintenance principles of electrical systems used in launch facilities and launch control facilities. Includes alternating current (AC) and direct current (DC) power generation and distribution systems and associated equipment.

MSL1004 Environmental Control Systems - Principles of environmental and control systems used in launch facilities and launch control facilities. Includes operation and maintenance of chillers; heat recovery, hydraulic cooling water and steam boiler systems; air handlers; exhaust fans; and purge air system.

MSL1005 Air Conditioning and Refrigeration Fundamentals - Basic operation, maintenance, troubleshooting, and repair of air conditioning and refrigeration equipment used in launch facilities and launch control facilities. Includes use and care of tools; fabrication of refrigeration lines; application of soldering and brazing techniques; physics; refrigeration components; accessories; and compressor checks.

MSL1203 Missile Electrical Principles - Introduction to principles of electricity related to missile weapons systems maintenance. Includes theory of electron flow; relationships of current, voltage, and resistance and impedance; component identification and operation; interpretation of schematic diagrams, function and operation of meters; and circuit measuring instruments.

MSL1205 Handling Vehicles and Auxiliary Equipment - Knowledge of principles of operation and maintenance of missile-handling vehicles and auxiliary equipment. Includes operation of handlift trucks; hoist, crane and winch units; trucks to include semitrailers and tractors and similar vehicles; portable heating and air-conditioning units; ventilation safety filtering units; hydraulic pressure charging units; cable testing equipment; dispatching of equipment and inspection and maintenance of related facilities.

MSL1206 Security and Access Systems - Basic study of function, operation, and maintenance of security and personnel access systems. Includes surveillance and alarm systems; voice and radio systems; vault door-locking mechanism; combination locks; vibration detection systems; personnel access control and associated electrical circuitry; electric, mechanical and hydraulic operated vault doors up to 100 tons in size; cagetype elevators; hydraulic and electric actuator systems and support equipment; and associated test equipment.

MSL1207 Suspension and Test Equipment - Function, operation, and maintenance of leak test equipment, purging equipment and systems, suspension systems and mechanisms, power and monitoring circuitry, installation and removal of safing pins and locking devices, and familiarization with ordnance handling procedures.

MSL1208 Equipment Operation Laboratory - Practical experience in transportation, removal, replacement, installation, and alignment of missile equipment, components, and sections. Includes operation, operational checkout and operator maintenance procedures to include semitrailers and tractors, crane, winches, and hoists; and use of test equipment to ensure correct installation of electric and hydraulic systems.

MSL1211 Missile Familiarization I - Knowledge of missile assembly, weapons systems and launch complex, and basic principles of security, safety, deployment, dispatching and professional responsibilities. Includes basic concepts of corrosion control, preventive maintenance and treatment.

MSL1212 Missile Familiarization II - Continuation of MSL1211 Missile Familiarization I. Subjects provide enhanced

knowledge of missile systems and components and launch facilities, to include: concepts of missile guidance components; specialized computer software and circuitry; and preventative and scheduled maintenance.

MSL1213 Launch Facility Control Systems - Comprehensive study of operations and maintenance practices of missile launch facility control systems and associated equipment. Includes the study of circuitry, cabling, signal flow, logic, and mechanical sequences of all control assemblies and consoles associated with launch control facilities.

MSL1214 Missile Maintenance Laboratory - Familiarization with missile and weapons systems. Includes troubleshooting; manufacturer's maintenance manuals and technical data; removal and replacement of access panels for adjustment of mechanical subsystems; replacement of components; electrical checkout of ordnance circuits; and inspection and maintenance of environmental and radio frequency interference shielding.

MSL1300 Special Purpose Vehicle Operations - Introduction to the operation and maintenance of special purpose vehicles unique to missile facility operations. Includes basic facts and principles pertaining to military driving familiarization of specialized vehicles; pre-use inspections; minor maintenance; severe weather preparation; road and off-road operations; and controlling skid conditions. Also includes the operation of specialized 4x4 vehicles; manual and automatic cranes; periodic maintenance vehicles; and payload transporter vehicles.

MSL1502 Missile Crew Procedures - Introduction to performance of missile crew duties. Includes operation of power supply, launch control checkout and monitoring, practical experience communications, and evaluation of hazard-sensing and warning systems as well alert support, alert emergencies and launch procedures.

MSL1503 Principles of Direct Current Circuits - Principles of Direct Current (DC) theory as applied to Missile and Space Systems Electronic Maintenance. Includes electrical prefixes; electromagnetic effects and electrostatic discharge (ESD) controls; resistors and digital multi-meter; atomic structure; terminology; schematic symbols; Ohm's Law; Kirchhoff's Law; and circuit configurations. Also includes resistance; color codes; color bands; and calculating resistive values of series, parallel, series-parallel, and voltage divider circuits.

MSL1504 Principles of Alternating Current Circuits - Principles of Alternating Current (AC) theory as applied to Missile and Space Systems Electronic Maintenance. Includes inductors; capacitors; resistive, capacitive, and inductive (RCL) circuit theory; atomic structure; terminology; schematic symbols; Ohm's Law; Kirchhoff's Law; and circuit configurations. Also includes resistance; color codes; color bands; and calculating resistive values of series, parallel, series-parallel, and voltage divider circuits.

MSL1505 Principles of Electromagnetic Devices - Principles of electromagnetic devices as applied to Missile and Space Systems Electronic Maintenance. Includes transformers; relay/solenoids; motors and generators; transducers; purpose, construction, and theory of operation; and fault isolation techniques. Also includes knowledge of electrostatic discharge (ESD) characteristics; control measures and electromagnetic effects; electromagnetic pulse (EMP); and electromagnetic interference (EMI).

MSL1506 Introduction to Electronics - Electronic circuits and their use in various electronic systems as applied to Missile and Space Systems Electronic Maintenance. Includes semiconductor devices and analog meter; power supplies; solid-state devices; digital techniques; digital mathematics; and basic troubleshooting.

MSL1507 Power Production Equipment - Principles of power production equipment as applied to Missile and Space Systems Electronic Maintenance. Includes operation, troubleshooting, and repair of internal combustion engines, generators, exciters, and voltage regulators; launch facility power generation systems; and launch facility and launch control facility power distribution systems.

MSL2101 Launch Base Fundamentals - Duties and responsibilities of space launch base units, space system test philosophy, launch management and launch documentation. Includes safe handling of cryogenics, high-pressure gases, fuels and oxidizers; and storage, handling and disposal of hazardous waste.

MSL2102 Launch and Space Vehicles -Launch and space vehicle operations. Includes airframes, payload fairings, propulsion, major systems and components.

MSL2208 Missile Systems Facility Management - Missile and space system facility personnel and resource management. Includes manpower training, supply, budgeting, depot level reparable program, and Air Force quality management.

MSL2214 Advanced Missile Maintenance Laboratory - Advanced application of missile maintenance, associated components, equipment, and facilities. Includes operational checks and component inspections; emergency and safety procedures; and transportation and handling. Also includes removal and replacement of main components, such as missile guidance systems and propulsion systems.

(MTT) Metals Technology

MTT1100 Maintenance Orientation - Mechanic responsibilities and maintenance concepts as applied to Aircraft Metals Technology. Includes professional responsibilities of the technician; maintenance management and inspection systems; selection and use of manufacturer's technical data, maintenance records and forms; and safety.

MTT1101 Machine Shop Fundamentals - Fundamentals of machine shop operations as applied to Aircraft Metals Technology. Includes technical mathematics and problem solving; care and use of precision measuring devices; AFOSH Program; lock-out and tag-out; MRM; construction and interpretation of technical drawings and sketches; use of technical data; manufacturing parts; layout operations; fitting, assembly and disassembly of machine parts; operation and maintenance of general shop equipment; hazardous and toxic waste management; and safety. Also includes operational security and vulnerabilities in metals technology.

MTT1104 Milling Operations - Milling operations within technical drawing specifications as applied to Aircraft Metals Technology. Includes plain and face, angular, form, gear cutting, internal milling operations and adjustment, maintenance, storage, and cleaning of milling equipment and attachments.

MTT1105 Lathe Operations - Lathe operations within technical drawing specifications as applied to Aircraft Metals Technology. Includes turning (straight, shoulder, taper), filing, parting, knurling, boring, external and internal threading, tool grinding, center alignment, facing and center drilling, drilling, and reaming.

MTT1106 Oxyacetylene Welding - Oxyacetylene welding procedures and practices as applied to Aircraft Metals Technology. Includes operation and maintenance of welding equipment; identification of beads, lap joints and tee joints of carbon steel; position welding; cutting ferrous metals; silver and lead soldering; brazing steel and gray cast iron; fusion welding of ferrous castings; and forging metals.

MTT1107 Metallic Arc Welding - Metallic arc welding procedures and practices as applied to Aircraft Metals Technology. Includes operation and maintenance of equipment; selection of electrodes; building up flat surfaces, fillet welds and butt joints; and interpreting drawings and symbols.

MTT1108 Inert Gas Shielded Welding - Inert gas shielded welding procedures and practices as applied to Aircraft Metals Technology. Includes welding of edge, butt and tee joints of heat and corrosion resistant ferrous, aluminum, magnesium and titanium alloys.

MTT1109 Heat Treatment - Principles of heat treatment processes as applied to Aircraft Metals Technology. Includes identification and classification of metals; analyzing hardness and testing; and evaluating heat treatment of all aluminum and ferrous metals.

MTT2101 Intermediate Computer Numerical Control - Intermediate-level computer numerical control machine operations used in computer-aided manufacturing as applied to Aircraft Metals Technology. Includes technical mathematics, programming, and multidimensional milling techniques.

(MUN) Munitions

MUN1201 Munitions Systems Maintenance - Munitions career field functions and familiarization with nuclear and nonnuclear munitions. Includes differentiation of component functions of nuclear and conventional weapons, missiles, and ammunition. Emphasizes control procedures, inspection and explosive safety.

MUN1202 Nuclear Weapons Systems - Nuclear weapons career field maintenance functions and familiarization with nuclear weapons systems. Includes principles of nuclear weapons, nuclear weapons publications, practicing nuclear standards and application of nuclear security.

MUN1205 Weapons Movement - Familiarization and operator maintenance on cargo vehicles, tow vehicles, ground power units and general munitions trailers. Includes initial and periodic inspections and lift vehicle operations.

MUN1206 Munitions Accountability Procedures - Nuclear and conventional munitions accountability systems. Includes allocations, munitions accountability (automated and manual), files maintenance, custodial support and concepts and procedures for document control, stock control, inventory procedures and supply discipline.

MUN1208 Munitions Inspection Procedures - Conventional munitions inspection procedures. Includes munitions serviceability determinations; civilian, DoD and Federal Aviation Administration shipments; manufacture's modifications; issue and turn-in inspections; and ammunition disposition requests.

MUN1209 Munitions and Hazardous Material Storage - Fundamentals of handling and storage of munitions and hazardous materials. Includes warehousing and general storage procedures; and facility construction and inspections.

Emphasizes storage accountability and inventory, security, and explosive safety.

MUN1210 Munitions Systems Laboratory - Intermediate level maintenance and operational function of specific munitions. Includes munitions assembly; disassembly; handling; inspection; test and support equipment; and safety procedures using technical data and manufacturers' maintenance manuals.

MUN2203 Advanced Munitions Systems - Advanced operational theory and maintenance of specific air munitions. Includes assembly, disassembly, guidance systems testing, handling, electronic systems troubleshooting, and safety. (May be repeated for credit for various munitions systems.)

MUN2204 Advanced Munitions Production Planning - Advanced munitions combat planning. Includes munitions logistic systems, construction and validation of conventional munitions plans, combat production concepts, practical assembly and delivery of munitions, and contingency stock control procedures.

MUN2205 Advanced Munitions Logistics Planning - Advanced munitions logistics planning techniques. Includes wartime and contingency planning; logistics command and control systems; and deployment management of munitions and related systems.

(NDT) Nondestructive Testing

NDT1101 Fundamentals of Nondestructive Testing - Introduction to nondestructive testing of aerospace metals and structures; and eddy current, liquid penetrant, magnetic particle, radiography, and ultrasonic testing methods. Includes basic metallurgy, technical publications, aircraft construction features, and occupational safety and health standards. (AF A&P program applicable course.)

NDT1102 Fundamentals of Radiographic Inspection - Basic theory of radiographic inspection and how electronically generated and isotope sources of radiation are used for radiographic inspection. Includes methods and materials used for radiographic inspection and film processing, correct interpretation of radiographs, development of inspection techniques, and performance of radiographic inspections. (AF A&P program applicable course.)

NDT1103 Fundamentals of Liquid Penetrant Inspection - Basic theory of liquid penetrant inspection used to determine the severity of surface discontinuities in materials and objects; and explains capillary action and how it is used in penetrant inspection, inspection methods, operation of equipment and performance of inspections. Includes chemical safety and hazard training incorporating Occupational Safety and Health Act and Air Force Safety and Health standards. (AF A&P program applicable course.)

NDT1104 Fundamentals of Magnetic Particle Inspection - Basic theory of magnetic particle inspection and how magnetizing currents are used in magnetic particle testing. Includes the use of wet and dry materials, equipment operation, interpretation of indicators, inspection techniques, and performance of inspections. (AF A&P program applicable course.)

NDT1105 Fundamentals of Ultrasonic Inspection - Basic theory of ultrasonic inspection and how principle of sound generation is used in ultrasonic inspection. Includes straight and angle beam testing, sound wave propagation, calibration and use of equipment, Snell's Law, inspection techniques, equipment maintenance, ultrasonic standards and performance of ultrasonic inspections. (AF A&P program applicable course.)

NDT1106 Fundamentals of Eddy Current and Bond Testing Inspection - Basic theory of eddy current and bond testing inspections, electromagnetic principles, formulas and inspection techniques used in eddy current inspections. Includes phase amplitude and impedance testing, identification and inspection techniques of conventional and advanced composites, and eddy current equipment calibration and inspections on composite materials. (AF A&P program applicable course.)

NDT1107 Principles of Oil Analysis and Spectrometric Results - Principles of spectrometric oil analysis as applied to Nondestructive Inspection personnel. Includes analysis of wear patterns; types of failures; sources of wear and nonwear metals in oil-wetted systems; interpretation and evaluation of analytical data in oil analysis case histories; and maintenance of atomic emission spectrometer and atomic absorption spectrophotometer equipment.

NDT2104 Advanced Oil Analysis and Spectrometric Results - Principles of spectrometric oil analysis. Includes analysis of wear patterns, types of failures, sources of wear and nonwear metals in oil wetted systems, interpretation and evaluation of analytical data in oil analysis case histories, and maintenance of atomic emission spectrometer and atomic absorption spectrophotometer equipment. (AF A&P program applicable course.)

(NMT) Nuclear Medicine Technology

NMT1101 Nuclear Medicine - Principles of mathematics, chemistry and physics as applied to field of nuclear medicine; preparation and uses of radiopharmaceuticals; radiation detection, effects, dose calculation and safety; hematologic and radionuclide dilution procedures and protocol; techniques and procedures of gastrointestinal and organ concentration-excretion measurements; imaging techniques and procedures; and radioassay and radiation therapy procedures. Includes operating radionuclide imaging and detection devices and assisting medical professionals in preparing and administering radiopharmaceuticals and organizing and administering radionuclide-imaging services.

NMT1106 Nuclear Medicine Procedures I - Course focuses on a review of basic anatomy and physiological functions with organs and organ systems encountered in the field of Nuclear Medicine. Encompasses related anatomy, physiology, and pathology of imaging procedures, miscellaneous imaging, and various dynamic studies to include brain and cardiac flow assessments.

NMT1107 Nuclear Medicine Procedures II - Continuation of Nuclear Medicine procedures with an addition of the knowledge and understanding of specified Nuclear Medicine non-imaging procedures; hematology, in vitro, and radionuclide therapy. Studies include: Total Blood Volume, Red Cell Survival and Sequestration, Schilling tests, and the associated procedure requirements for radionuclide therapy.

NMT1108 Patient Care in Nuclear Medicine - Course provides students with the knowledge and understanding of patient care, communication, ethical principles, infection control, venipuncture, medication administration, and emergency procedures as it applies to a Nuclear Medicine department.

NMT1300 Applied Nuclear Medicine Mathematics - This course will review basic mathematics, algebraic equations, common and natural logarithms and their manipulation, and linear and logorithimic graphing. Students will learn the principles of mathematics as applied to the Nuclear Medicine field including statistics terminology, frequency distributions, Gaussian distribution, Poisson distribution of confidence limits, standard error, efficient distribution of counting time, and the statistics relating to imaging procedures.

NMT1301 Applied Nuclear Physics I - The study of basic units and mass energy relationships, quantum theory, nuclear structure, physical characteristics and modes of radioactive decay and electromagnetic radiation.

NMT1302 Applied Nuclear Medicine Chemistry - This course provides instruction in basic chemistry as well as how it applies to Nuclear Medicine. Chemistry principles include matter, atomic structure, electron configurations, periodic table organization, chemical bonding, formulas and equations, acid-base theory, solutions, suspensions, colloids. Inorganic chemistry and associated nomenclature are also introduced.

NMT1303 Radiation Safety - Introduction to radiation safety includes radiation exposure, licensing directives and the Nuclear Regulatory Commission guidelines, radioactive material fundamentals, and radiation safety regulations and procedures. Radioactive spill procedures and appropriate decontamination techniques are also discussed.

NMT1304 Radiation Instrumentation for Nuclear Medicine - Introduction to, and application of, scintillation spectrometer calibration, operating principles of scintillation gamma camera, radionuclide counting systems of liquid scintillation, speck and alternate imaging modalities, semiconductor detectors, and quality control.

NMT1305 Radiopharmacy - This course provides an introduction to the uses of radionuclides in medicine, basic principles of generator systems, radiopharmaceuticals, preparation of pharmaceuticals, quality control procedures, radioactive equilibrium, and calculations of doses utilized in the Nuclear Medicine field. Genetic and somatic effects of radiation as well as radiation biology principles are also covered.

NMT1311 Radiation Instrumentation II - Continuation, with advanced emphasis, of scintillation spectrometer calibration, operating principles of scintillation gamma camera, radionuclide counting systems of liquid scintillation, speck and alternate imaging modalities, semiconductor detectors, and quality control.

NMT1312 Applied nuclear Physics II - Continuation, with advanced emphasis, of the study of basic units and mass energy relationships, quantum theory, nuclear structure, physical characteristics and modes of radioactive decay and electromagnetic radiation.

NMT1313 Applied Nuclear Physics III - The further advanced study of basic units and mass energy relationships, quantum theory, nuclear structure, physical characteristics and modes of radioactive decay and electromagnetic radiation.

NMT2319 Computer Applications in Nuclear Medicine - Imaging, data reduction, functions, and programming language in nuclear medicine.

NMT2320 Clinical Diagnostic Imaging I - Clinical performance of various diagnostic imaging procedures and techniques to include miscellaneous studies, shunt studies, and Positron emission tomography (PET) imaging. Also

includes quality control, preventive maintenance, computer application procedures, and general patient care procedures.

NMT2321 Nuclear Laboratory Procedures - Clinical analysis of human blood cells and plasma. Includes volume and mass measurements, Schillings test, radioassays, radioimunoassays, quality control of assay procedures, and laboratory equipment.

NMT2322 Clinical Radiopharmacy - Measurements, calculations, quality control, and interpretations for nuclides, technetium, iodine, chromium, cobalt, xenon, gallium, indium, and thallium. Includes diagnostic and therapeutic applications, administration of radiopharmaceuticals and primary thyroid therapy applications with radioactive iodine.

NMT2323 Clinical Radiation Safety - Application of radiation safety techniques, quality control, and Nuclear Regulatory Commission requirements for a licensed laboratory. Includes labeling procedures, warning signs for radionuclide storage, waste disposal and decontamination of personnel, equipment, and space.

NMT2324 Administrative Procedures - Procedures for ordering radionuclides, equipment, and supplies; scheduling patients for films; and recording/filing reports.

NMT2325 Didactic Review - Lectures and examinations in clinical nuclear medicine areas requiring demonstrated knowledge. Includes clinical procedure updates and didactic review of basic science.

NMT2420 Clinical Diagnostic Imaging II - Clinical performance of various diagnostic imaging procedures and techniques to include skeletal, central nervous system, cardiovascular, and endocrine/exocrine imaging.

NMT2520 Clinical Diagnostic Imaging III - Clinical performance of various diagnostic imaging procedures and techniques to include gastrointestinal, genitourinary, respiratory, and tumor/inflammatory/infection imaging.

(NUC) Nuclear Weapons Systems

NUC1200 Nuclear Weapons Systems - Familiarization and maintenance fundamentals of nuclear weapons systems. Includes principles of nuclear weapons; nuclear weapons maintenance manuals and publications; practicing nuclear standards; and application of nuclear security procedures.

NUC1201 Operation and Function of Nuclear Weapons - Fundamentals of nuclear weapons operations and function of specific system components. Includes preparation for strike; disassembly; limited life-component exchanges; weapons buildup; inspections; and application of emergency and safety procedures.

NUC1202 Nuclear Weapons Maintenance - Fundamental maintenance practices for nuclear weapons. Includes standard specifications for nuclear weapons; operation and maintenance of special tools; inspection and measurement of defects; packaging; and general repair procedures. Also includes cleaning; painting; marking; corrosion prevention; and surface repair.

NUC1203 Nuclear Weapons Movement - Familiarization, maintenance, and operations of special transport equipment used for nuclear weapons. Includes cargo vehicles; tow vehicles; ground power units; and weapons trailers. Also includes initial and periodic inspections; lift vehicle operations; and nuclear weapons loading and unloading procedures.

NUC1204 Reentry Systems Maintenance - Operation and maintenance of specific space reentry systems. Includes functions; shroud operations; deployment modules; reentry systems final buildup; preparation and packaging for transport; and application of safety and security procedures.

NUC1205 Nuclear Weapons Inventory Procedures - Fundamentals of nuclear accountability systems. Includes allocations; manual and automated accountability; files maintenance; custodial support and concepts; and procedures for document control, stock control, inventory procedures, and supply discipline.

(NUR) Nursing

NUR1106 Electroneurodiagnostic Procedures I - Concepts of basic electricity; implementing, analysis and administration of electroneurodiagnostic procedures. Includes instumentation, wave pattern interpretation, electroencephalographics, evoked potentials and clinical application.

NUR1107 Neurology Clinical Internship I - Clinical application of electroneurodiagnostic procedures. Includes practice of instumentation, wave pattern interpretation, electroencephalographics, and evoked potentials.

NUR1108 Emergency Medical Technician Basic (EMT-B) - Fundamentals of EMT-B as a first responder as applied to Practical Nursing Technology personnel. Includes pre-hospital care, transporting patients, anatomy and physiology with a focus on patient assessment and appropriate interventions in various rescue scenarios, including trauma, extrication, medical emergencies, behavioral and environmental emergencies including special populations such as children and elderly. Course prepares students with knowledge/skill required to successfully complete the National Registry of Emergency Medical Technicians (NREMT) written exam/practical skills lab.

NUR1109 Emergency Medical Technician II (EMT-B) - Fundamentals of EMT-B as a first responder and preparation for the National Registry of Emergency Medical Technician (NREMT) as applied to Practical Nursing Technology personnel. Includes airway management; respiration; artificial ventilation; and patient assessment with a focus on critical thinking, decision making, and documentation. Assessment of the student's ability to apply increased levels of EMT principles and standards. Students must successfully complete the NREMT practical skills lab and cognitive exam.

NUR1318 Basic Nursing - Foundational knowledge and skills necessary to perform patient care within the parameters of Practical Nursing personnel. Includes skills pertaining to patient care documentation; infection control; customer service; legal aspects; patient movement and safety; and patient care optimization. Focus is on inpatient and outpatient care, as well as specimen collection.

NUR1319 Intermediate Nursing - Intermediate knowledge and skills required to perform patient care within the parameters of Practical Nursing personnel. Includes advanced patient care skills pertaining to pre- and post-operative care; fluid therapy; medication administration; cardiovascular procedures; and wound care and management.

NUR1320 Anatomy and Physiology - Introduction to human anatomy and physiology as it applies to Practical Nursing personnel. Includes intensive study of medical terminology; cellular and tissue physiology; endocrine; and nervous, cardiovascular, digestive, respiratory, and urinary systems. Also includes Basic Life Support/Cardiopulmonary Resuscitation in accordance with American Heart Association (AHA) Healthcare Provider (HCP) guidelines.

NUR1328 Introduction to Clinical Practicum - Introduction to hospital nursing care. Includes patient sensitivity, safety, security, medical readiness, plans, documents and patient care.

NUR1332 Emergency Medical Services Practicum - Fundamentals of hospital emergency department services. Practical experience and procedures include: emergency care; patient transfers; simple triage; communications; and operation of emergency vehicles. Student should be able to explain medical, legal, and ethical issues regarding patient care and special populations.

NUR1338 Operating Room Nursing Practicum - Clinical experience in scrub and circulating technician duties in orthopedic, general, and obstetric and gynecologic surgery.

NUR1339 Fundamentals of Central Sterile Supply - Practicum in operation of equipment used in central sterile supply.

NUR1350 Inpatient Unit Practicum - The use of theory and clinical experience to emphasize the practice of daily inpatient care. Includes admission and discharge procedures, patient assessment, wound management, intravenous therapy, lifting and transport techniques, interpretation and transcription of preoperative and postoperative instructions, and medication administration.

NUR1351 Outpatient Unit Practicum - The use of theory and clinical experience to emphasize the practice of outpatient procedures. Includes scheduling, recording of vital signs, soft tissue and musculoskeletal injury management, specimen collection, annual physical health assessment, medication administration, and medical materiel logistics.

NUR1352 Introduction to Surgical Technology - Introduction to the roles and responsibilities of the Surgical Technologist. Includes familiarization of the surgical suite, operating room lay-out, pre-operative preparation of the patient, legal and ethical aspects of surgery, patient rights, computer literacy, safety, and risk management. Fundamentals of human anatomy and physiology with identification of structures, interrelationships of systems, and cellular/organism physiology.

NUR1353 Surgical Supplies and Equipment - Introduction to surgical equipment and supplies to include surgical pharmacology and anesthesia. Includes the function, assembly, use, and care of equipment in the surgical environment.

NUR1354 Non-Sterile Duties of the Surgical Technologist - Theory and practice in positioning the surgical patient, completing skin preparation, care and handling of surgical specimens, preparation of the operating room, monitoring fluid loss/replacement and carrying out the functions of the assistant circulator including use of forms and documentation.

NUR1355 Sterile Duties of the Surgical Technologist - Theory and practice in surgical hand scrubbing, gowning and

gloving, duties of the scrub technologist including sterile field/instrument set-up, preparation and handling of sharps, performing counts, and surgical draping.

NUR1356 Surgical Service in a Clinical Setting - Practical surgical service procedures and related requirements encountered in a clinical setting. Performs the duties and responsibilities of the Sterile (scrub) and Non-sterile (circulator) during a simulated appendectomy.

NUR2316 Aerospace Nursing - Effects of flight-induced physiological/psychological changes; in-flight nursing care to include specific body system management and diseases/injuries on patients; care of patients in aircraft emergencies; organization and operation of aeromedical evacuation systems, and aircraft security; principles and operations of flight and operational medicine; management of mission essential tasks and activities for line support (METALS), and mishap investigations.

NUR2325 Organization and Administration of Aeromedical Evacuation - Introduction to aeromedical evacuation operations, aircraft capabilities and configurations. Includes crew responsibilities, patient safety, loading, classification and documentation.

NUR2326 Aeromedical Evacuation Equipment - Fundamentals of aeromedical evacuation equipment. Includes traction devices, spinal stabilization devices, restraints, manual resuscitators, oxygen analyzers, respirators, ventilators, and other life support equipment

NUR2327 Epidemiology Prevention & Infection Control - Skills needed to develop, manage, and evaluate an infection control program based on Joint Commission on Accreditation of Healthcare Organizations standards, Center for Disease Control guidelines, and Air Force procedures.

NUR2329 Nursing Staff Development - Planning, organizing, implementing and evaluating nursing service staff development programs. Includes needs assessment, instructional program design and methodology, and correlation with Joint Commission on Accreditation of Healthcare Organizations and American Nurse Association.

NUR2336 Epidemiology Surveillance and Prevention - Principles of epidemiology, infection control, and surveillance. Includes surveillance concepts and measures; basic infection control principles for in and out of patient care; and documentation of discrepancies. Ability to properly depict a surveillance system based on epidemiology principles, inspection systems, plans and management, and accreditation.

NUR2342 Aeromedical Evacuation Contingency Operations - Cognitive and performance based instruction on aeromedical evacuation system, mobilization and command structure, casualty management and movement, communication and information system, and coordination center responsibilities as related to contingency operations.

NUR2351 Emergency Medical Technician Basic (EMT-B) - Fundamentals of EMT-B as a first responder. Includes pre-hospital care, transporting patients, anatomy and physiology with a focus on patient assessment and appropriate interventions in various rescue scenarios, including trauma, extrication, medical emergencies, behavioral and environmental emergencies including special populations such as children and elderly. Course prepares students with knowledge/skill required to successfully complete the National Registry of Emergency Medical Technicians (NREMT) written exam/practical skills lab.

NUR2352 Emergency Medical Technician II (EMT-B) - Fundamentals of EMT-B as a first responder and preparation for the National Registry of Emergency Medical Technician (NREMT). Includes airway management; respiration; artificial ventilation; and patient assessment with a focus on critical thinking, decision making, and documentation. Assessment of the student's ability to apply increased levels of EMT principles and standards. Students must successfully complete the NREMT practical skills lab and cognitive exam.

(OLT) Otolaryngology Technology

OLT1203 Otolaryngology Technician I - Functions and responsibilities of clinical and surgical assistant to an otolaryngologist. Includes the anatomy and physiology of the ear; audio evaluations; and maintenance and care of specialized otolaryngolic instruments and equipment. Students will be able to identify the diagnosis and treatment of common ear, nose and throat disorders, including the performance of medical procedures of preoperative and postoperative patient care.

OLT1204 Otolaryngology Technician II - Continuation of Otolaryngology Technician I. Students will be able to identify the diagnosis and treatment of nasal and paranasal sinus disorders, including head and neck diseases and disorders. Includes the performance of medical procedures preoperative and postoperative patient care. Surgical procedures involve the maintenance and care of specialized otolaryngolic instruments and equipment.

OLT2203 Otolaryngology Clinical I - In-depth performance of common procedures in the Otolaryngology and Audiology clinic. Under the direct supervision of Audiologists and Otolaryngology Technicians, students perform pure tone audiology; tympanometry; and otoacoustic emission screens on clients. Also includes basic hearing aid ear molds; surgical procedures in an operating room; and medical documentation.

OLT2204 Otolaryngology Clinical II - Continuation of Otolaryngology Clinical II. In-depth performance of various surgical procedures and required documentation in the Otolaryngology clinic. Students will increase skills and proficiencies involving scrub duties and assisting the surgeon during basic ear, nose, and throat (ENT); middle ear; head and neck; endoscopy; and facial plastic/reconstructive procedures.

(OPD) Orthotic Prosthesis Devices

OPD1301 Introduction to Orthotics and Orthotic Laboratory - Introduction to medical ethics and terminology; history of orthotics; professional and patient relationships; administrative procedures; orthotic nomenclature; and health and safety standards. Includes practical laboratory that introduces students to orthotic laboratory terms; tools and equipment principles; and general information concerning orthotic support systems.

OPD1302 Orthotics Laboratory Materials and Procedures - Fundamentals of metals, plastics, leather, sketches, moldings and mold thermoplastics used in the orthotic laboratory. Includes identification, performance, procedures, safety practices, and use of orthotic tools. Also includes maintenance of orthotic equipment.

OPD1303 Principles of Upper Extremity Orthotics - Introduction and study of the human anatomy; physiology; components; materials; and clinical applications of upper extremity orthoses. Emphasizes pathophysiological conditions and prescription interpretation; prefabrication and fitting; and proper wear of hand, wrist and arm orthotics.

OPD1304 Principles of Lower Extremity Orthotics I - Introduction and study of the human anatomy; physiology; components; materials; and clinical applications of lower extremity orthoses. Emphasizes pathophysiological conditions and prescription interpretation; prefabrication and fitting; and proper wear of ankle, foot and knee orthotics.

OPD1305 Principles of Spinal Orthotics I - Introduction and the study of axial skeleton treatment of pathophysiological conditions and prescription interpretations. Includes in-depth instruction on materials; equipment; fit; proper wear; and care of spinal cervical systems, abdominal support systems, and spinal orthoses.

OPD1306 Principles of Lower Extremity Orthotics II - Continuation of Principles of Lower Extremity Orthotics I. Includes more in-depth study of fabrication; fitting; tools and materials used for fabrication; fittings and proper wear of ankle, foot, knee and hip orthotics; and patient instruction on proper wear and care of orthotics.

OPD1307 Principles of Foot Orthotics I - Introduction to the treatment of pathophysiological foot conditions and prescription interpretations. Includes in-depth instruction on anatomy and physiology pertaining to the human foot; and materials, fabrications, modifications, measure, fit, wear and care of foot orthotics.

OPD1308 Specialized Orthopedic Footwear - Introduction to pathophysiological conditions and prescription interpretation of specialized orthopedic footwear. Includes measurement tools used in specialized footwear; and modification of orthopedic correction shoes using Computer-Aided Design and Computer-Aided Manufacturing devices.

OPD1309 Orthotic Fabrication I - Fundamentals of fabricating and fitting of lower extremity orthosis. Emphasis is placed on the fabrication and fit of ankle-foot-orthosis.

OPD1310 Orthotic Fabrication II - Continuation of Orthotic Fabrication I. Fundamentals of fabricating and fitting of lower extremity orthosis. Emphasis is placed on the fabrication and fit of knee-ankle-foot-orthosis.

OPD1311 Principles of Foot Orthotics II - Continuation of Principles of Foot Orthotics I. Includes the use of Computer Aided Design/Manufacturing and in-depth study of fabricating, fit, wear and care of custom functional, accommodative and diabetic foot orthosis.

OPD1312 Principles of Spinal Orthotics II - Continuation of Principles of Spinal Orthotics I. Includes in-depth study of the fabricating, fit, wear, and care of Thoraco-Lumbar-Sacral orthosis.

(OPT) Optometric Technology

OPT1302 Visual Acuity and Its Correction - Anatomy and physiology of visual system, eye as an optical instrument, visual acuity measurement, and spectacle selection, ordering, repair and verification procedures.

OPT1303 Ocular Pathology and Triage - Fundamentals of common ocular pathology, injuries, and triage of ocular

conditions and emergencies as applied to Ophthalmic Technicians. Includes Ocular pharmacology principles.

OPT1304 Patient Care and Testing Procedures - Fundamentals of patient screening and ancillary testing procedures performed by Ophthalmic Technicians. Includes practical exercises, eye screenings, and treatment.

OPT1305 Optics - Introduction to physical, geometric and physiological properties of light as applied to Ophthalmic Technicians. Includes math and refractive properties; dispensing; and patient education and care of ophthalmic devices.

OPT1306 Ophthalmic Fundamentals - Introduction to the Ophthalmic Technician's role in the health care delivery system. Includes medical terminology; ethics and patient confidentiality; patient information documentation procedures; and beneficiary TRICARE plans and eligibility. Also includes pre- and post-operative management, aseptic techniques, and instruments for ophthalmic surgery.

OPT1307 Ocular Anatomy and Physiology - Introduction to anatomy and physiology of the eye as applied to Ophthalmic Technician. Includes gross ocular structure, anatomical terms, and major external structures.

OPT1308 Ophthalmic Clinical - Air Force-specific ophthalmic training, which includes Basic Life Support (BLS) and practical skills development in a local clinical environment.

OPT1401 Ophthalmology I - Fundamentals of ophthalmology surgical services as applies to ophthalmic technicians. Includes ophthalmology clinical duties, safety, and professional patient relationships in the surgical environment. Also provides training in ventral sterile supply, microbiology, and infection control.

OPT1402 Ophthalmology II - Continuation of Ophthalmology I. Provides a more in depth study and application of infection control, sterilization and disinfection, and surgical housekeeping procedures. Also includes preoperative preparation of the patient and the duties of scrub and circulating personnel. Students will also learn nursing care of the surgical patient and ophthalmology services.

(ORT) Orthopedic

ORT1101 Introduction to Orthopedic Care and Surgery - Overview of orthopedic medical terminology, anatomy of appendicular portions of the body, and articulations within the skeletal/muscular system. Introduces fracture principles, orthopedic emergencies, basic pharmacology, and radiologic views and orthopedic diseases/disorders. Includes orientation to orthopedic surgical techniques, asepsis and the surgical environment, basic instrumentation and equipment, and principles/application of the sterilization process.

ORT1102 Orthopedic Techniques with Lab I - Introduction to musculoskeletal systems with emphasis on gross anatomy laboratory. Includes splinting techniques related to orthopedic injuries. Emphasizes splinting principles, concepts, and practices. Also includes cast room protocols; instrumentations; assessment; treatment of splinting problems; and advanced application of splints for upper and lower extremities.

ORT1103 Orthopedic Techniques with Lab II - Continuation of Orthopedic Techniques with Lab I. Introduction to musculoskeletal systems with emphasis on gross anatomy laboratory. Includes additional splinting techniques related to orthopedic injuries. Emphasizes splinting principles, concepts, and practices; cast room protocols; instrumentations; assessment; treatment of splinting problems; and advanced application of splints for upper and lower extremities.

(OTS) Occupational Therapy

OTS1100 Principles of Occupational Therapy I - Introduction to general principles and practices of the Physical Medicine Technician in Occupational Therapy (OT) focusing of the clinic administration practices, anatomy, kinesiology, and skeletal structure in relation to movement. Includes performance of upper extremities; demonstrated proper use of upper extremity measurement tools; and identifying treatment facts and principles of traumatic injuries and mental health behaviors associated with common traumas seen within the OT clinic.

OTS1101 Principles of Occupational Therapy II - A continuation of Principles of Occupational Therapy I. Focused on the practices of the Physical Medicine Technician in Occupational Therapy (OT), such as wound care, scar management, and identification and process of clinical diagnostics. Includes demonstration of modality treatments using paraffin wax; electrical stimulation and taping techniques; therapeutic exercise equipment use; rehabilitation and joint protection principles; and occupational therapy orthoses fabrication.

OTS1103 Occupational Therapy Clinical Procedures - Practical experience and demonstration of hands-on clinical procedures in an Occupational Therapy patient clinic setting. Includes patient care documentation and performance progress checks.

(PAV) Pavements

PAV1507 Rigid Pavements - Introduction to the theories of rigid (concrete) pavement installation and maintenance and the operation of heavy equipment used. Includes techniques used to prepare surface areas to receive concrete for rigid pavement; soil types and properties; leveling; reinforcement; screeding; cure methods; sealing and joints; and slump tests. Also includes full depth and crack repair of rigid pavements. Students perform construction projects to demonstrate knowledge and understanding of rigid pavement construction and repair.

PAV1508 Flexible Pavements - Introduction to the theories of flexible pavement installation and maintenance and the operation of heavy equipment used. Includes the fundamentals and terms associated with bituminous materials used in asphalt placement. Includes techniques used to prepare surface areas to receive asphalt for flexible pavement; soil types and properties; leveling; compaction; and sealing and joints. Also includes full depth and crack repair of flexible pavements. Students perform construction projects to demonstrate knowledge and understanding of flexible pavement construction and repair.

(PHA) Pharmacology

PHA1306 Introduction to Pharmacy - Introduction to the fundamentals of pharmacy and the technician's role in providing pharmaceutical care. Includes principles, practices, and professional pharmacy responsibilities; pharmacy law and regulations; basic pharmacy terminology; and standards of practice. Also introduces pharmaceutical compounding techniques and pre-lab procedures.

PHA1307 Introduction to Outpatient Pharmacy - Introduction to the knowledge and applications of policies, procedures, technology, references and automated pharmacy data management practices associated with outpatient pharmacy operations. Includes causes and prevention of medication errors and medication dispensing procedures performed in a practical outpatient.

PHA1309 Pharmacy Clinicals - Inpatient and outpatient pharmaceutical procedures in a clinical setting. Includes sterile and nonsterile compounding, medication dispensing in outpatient/inpatient settings, crash cart maintenance, supply and inventory procedures, utilization of pharmacy reference library and dosage calculations.

PHA1310 Pharmacy Calculations I - Basic principles and concepts of mathematics necessary for use in the pharmacy practice. Includes methods used to compute basic calculations using the metric system and solving conversions between units of measurements and calculations specifically used for compounding medications.

PHA1311 Pharmacy Calculations II - Continuation of Pharmacy Calculations I. Provides advanced knowledge and applications of mathematics necessary for use in the pharmacy practice. Includes methods used to compute allegations; drug percentage calculations; drug reconstitution calculations; flow rate; and other calculations used in sterile compounding areas of pharmacy practice.

PHA1312 Pharmacy Therapeutics I - Introduction to pharmacotherapeutics. Provides an overview of the nervous, endocrine, and reproductive systems. Includes anatomy and physiology, disease states, appropriate pharmacology and drug therapies associated with each system.

PHA1313 Pharmacy Therapeutics II - Continuation of Pharmacy Therapeutics I. Provides overview of the Hematologic, Cardiovascular, Urinary, Respiratory, and Musculoskeletal systems. Includes the anatomy and physiology, disease states, and appropriate pharmacology and drug therapies associated with each system. Also includes Complementary and Alternative Medicine, toxicology, and pharmaceutical agents used in toxicology treatments.

PHA1314 Pharmacy Therapeutics III - Continuation of Pharmacy Therapeutics II. Provides an overview of infectious diseases, endocrine system, reproductive system, gastrointestinal system, toxicology, and alternative medicines. Includes identification and causes of infectious diseases, anatomy and physiology, disease states and appropriate pharmacology and drug therapies of the gastrointestinal and dermatologic systems, special senses of the eyes and ears, oncological disorders, and associated treatments.

PHA2101 Pharmacy Administration and Supply - Familiarization of pharmacy administration, supply operations, pharmacy security, accountability, storage and security of controlled substances. Includes federal laws and regulations pertaining to controlled substances; procedures for receiving, storing and maintaining pharmaceutical stock levels; and forms and filing procedures pertaining to control and storage of controlled substances and non-schedule substances.

PHA2305 Inpatient Pharmacy Operations - Introduction to the policies and procedures associated with inpatient pharmacy operations in a traditional setting. Includes preparation, dispensing, and quality assurance of sterile and dose

products. Also includes intravenous admixture preparation; sterile compounding techniques; ward and clinic stock procedures; unit dose procedures; handling and disposal of hazardous materials; order entry functions; and automated inpatient pharmacy dispensing systems. Includes performance in an inpatient laboratory setting.

(PHE) Physical Education

PHE1000 Physical Education and Wellness - Basic concepts and principles of wellness. Includes physical fitness, nutrition, sexually transmitted diseases, suicide awareness and prevention, sexual assault prevention and response, self-aid/buddy care, healthy lifestyles, and an introduction to the Air Force fitness program using drill, calisthenics, and running.

PHE1800 Physical Conditioning - Calisthenics and running to condition muscle and body organs (heart, lungs). Includes coordination, stamina and overall fitness for extensive field exercises.

(PLB) Plumbing

PLB1505 Utility Fundamentals - Introduction to water and fuel systems maintenance. Includes locating and recording water and fuel information from Technical Orders; related health and safety awareness; use of basic tools and equipment; inspection, maintenance, and testing of water, fuel, and fire suppression systems and components.

PLB1509 Water and Waste Distribution Systems - Water and Waste Distribution Systems as applied to Mechanical and Electrical personnel. Introduction to wastewater disposal systems and fundamentals of installing and maintaining waste water disposal systems. Includes setting up water and fuel bladders; deluge; sound suppression; hazardous waste water disposal; installation of water heaters; and safety practices.

PLB2502 Backflow Prevention Devices - Theory, operation, maintenance and testing of plumbing backflow prevention devices. Includes records and logs of actions taken.

PLB2503 Advanced Fire Suppression System - Advanced knowledge and troubleshooting of facility fire suppression systems. Includes principles of operation; maintenance and repair of wet and dry pipe systems; deluge/preaction systems; foam extinguishing systems; fixed gaseous systems; and dry/wet chemical extinguishing systems. Also includes advance troubleshooting techniques; inspection, disassembly and reassembly of horizontal centrifugal and vertical turbine booster pumps; and procedures to perform main drain tests, hydrant flow tests and pump curve tests.

(PSR) Personnel Recovery

PSR1000 Physical Conditioning - Extensive physical training as applied to Pararescue personnel. Includes intense calisthenics and running to condition muscles and body organs (heart, lungs); coordination; stamina; and overall fitness for extensive field exercises.

PSR1020 Underwater Diving Principles and Procedures - Diving theory and practices as applied to Pararescue personnel. Includes extreme water conditions; water survival techniques; survival equipment usage; open- and closed-circuit scuba diving; infiltration methods; underwater search and rescue; and diving safety.

(PTH) Physical Therapy

PTH1101 Foundations of Physical Therapy - Foundational knowledge and skills as it applies to Physical Medicine personnel. Includes basic practices of physical therapy; basic medical and human anatomy terms pertaining to physical therapy; basic types of rehabilitation; assistive devices; and patient documentation.

PTH1102 Anatomy, Physiology, and Kinesiology - Introduction to human anatomy and physiology as it applies to Physical Therapy personnel. Includes intensive study of medical terminology; human body system anatomy and physiology; characteristics of kinesiology; kinetics; and biomechanical levers.

PTH1305 Introduction to Physical Therapy - Introduction to fundamentals, principles and practices of physical therapy. Includes role of physical therapist, basic patient care skills, patient positioning and transfers, body mechanics, mobility aids, wheelchair management, activities of daily living, and development of communication skills. Explores the psychosocial aspects of patient/client and the health care practitioner.

PTH1311 Introduction to Anatomy, Physiology and Kinesiology - Introduction to the science of human motion, theories of biomechanics, and muscle/joint structure and function. Includes foundational knowledge of anatomy and kinesiology of the spine, hip, pelvis, knee, ankle, foot, shoulder, elbow, forearm, wrist, and hand/body regions.

PTH1312 Therapeutic Exercises and Procedures - Basic principles and clinical skills for instruction and supervision of therapeutic exercises . Includes range of motion, flexibility, strengthening exercises, and clinical skills for soft tissue and joint mobilization for patients with musculoskeletal disorders. Procedural interventions include postural alignment/deviations; spinal, lower, and upper extremity orthotics; human locomotion and abnormal gait patterns; running shoe prescription and wound care.

PTH1313 Introduction to Clinical Pathophysiology - Introduction to common neurological disorders, medical disease processes, and musculoskeletal diseases and injuries. Includes the etiology, risk factors, signs and symptoms, physical therapy treatment options and precautions. Disease processes include the Pathophysiology of Arthritic, Diabetic Oncology, Prenatal, Postpartum, Pediatric and Neurological disorders, and Cardiovascular and Respiratory diseases.

PTH1314 Clinical Screening, Rehabilitation and Therapeutic Modalities - Develops clinical and management screening skills to include fundamental principles of therapeutic modalities for patients with musculoskeletal disorders, neurological disorders, upper or lower extremity amputation and medical disease processes. Includes "hands-on" performance training for neurorehabilitation, wound and burn care, edema control and examinations utilizing a therapeutic approach.

PTH2401 Physical Therapy Practicum - Supervised practice under a licensed physical therapist or physical therapist assistant in clinical settings and rotations with emphasis on neurological, geriatric, pediatric and cardiac treatment concepts.

(PTR) Physiological Training

PTR1301 Introduction to Aerospace Physiology - Principles of basic laws of atmosphere and gas as they apply to pressure chamber operations and procedures, and introduction to medical terminology, medical computer systems, decompression sickness, pressure chamber effects and administrative duties. Includes publications and forms management, filing, and scheduling.

PTR1303 Life-Support Equipment Systems - Operation and maintenance of systems used to sustain aircrew members in flight oxygen storage system, breathing apparatus, pressure demand regulators and masks, ejection seats, parachutes, helmets, pressure suits and survival equipment, and participation in low-pressure chamber flights.

(QCI) Quality Assurance

QCI2202 Quality Assurance - Advanced quality assurance procedures used to detect and analyze maintenance management deficiencies, determine causes, and recommend corrective actions; includes comprehensive interpretation of standard publication and technical manual systems, personnel evaluations, inspection categories, management evaluations, deficiency analysis, oral and written communications, and activity inspections.

(RAD) Radiologic Technology

RAD1301 Introduction to Radiologic Technology - Introduction to the organization, policies, and standards of the Radiologic Technology program. Introduces the student to the practitioner's role in the health care delivery system. Includes patient care; routine and emergency procedures; medical terminology; safety; drug administration; and infection control procedures. Also includes the professional, ethical, and legal framework in radiology practices and their role within the system.

RAD1302 Introduction to Radiographic Physics - Introduction to x-ray history and theories. Includes properties and principles necessary to understand the structure and functions of a diagnostic x-ray machine, as well as radiation protection and reducing radiation exposure. Also includes basic Physics terms and laws; standard units of measurement; matter and energy; the atom; the structure of matter; electromagnetism; fundamentals of electricity; and x-ray tube components and failures.

RAD1303 Radiographic Procedures I - In-depth knowledge of the procedures required to perform standard radiographic positioning for upper and lower extremities, the thorax, and abdomen. Includes application of radiographic anatomy, Osteology, and positioning in live and simulated laboratory settings.

RAD1304 Radiographic Procedures II - Continuation of Radiographic Procedures I. In-depth knowledge of the procedures required to perform standard radiographic positioning for the skull and spine. Includes application of radiographic anatomy and positioning in live and simulated laboratory settings.

RAD1305 Radiographic Procedures III - Continuation of Radiographic Procedures II. In-depth knowledge of the

procedures required to perform standard radiographic positioning for the gastrointestinal and genitourinary systems. Includes application of radiographic anatomy and positioning live and simulated laboratory settings. Also includes comprehensive laboratory testing for students to demonstrate and apply the principles of medical ethics, patient care, and radiation safety in preparation for clinical application.

RAD1307 Radiographic Anatomy and Physiology - In-depth knowledge of human anatomy, physiology, traumatic injuries, and pathology necessary to perform radiographic procedures. Includes musculoskeletal; circulatory; lymphatic; reproductive; endocrine; respiratory; and gastrointestinal systems. Also includes an overview of the effects of ionizing radiation on human cells, tissues, and organs; basic cell biology; and physical and biological factors influencing radiation response.

RAD1308 Radiographic Imaging Equipment and Film Processing - Introduction to radiographic imaging equipment, processing radiographic film, and various digital imaging systems. Includes the fundamentals of image-intensified fluoroscopy; beam limiting devices; Automatic Exposure Control (ACE) systems; image acquisition; intensifying screens; and film processing steps. Also includes image analysis; the importance of quality control in relation to health care costs; and improvement of the diagnostic quality of films.

RAD1309 Magnetic Resonance Imaging Safety - Magnetic Resonance Imaging (MRI) safety topics to include dangers in the MRI environment, bio effects of RF Irradiation, MRI safety zones, common contraindications, and emergency procedures.

RAD1310 Basic Magnetic Resonance Imaging Principles - Basic principles of magnetism, resonance, free induction decay, imaging parameters, contrast agents including reactions and contraindications to contrast, and image waiting and contrast.

RAD1311 - Magnetic Resonance Imaging Equipment - Magnetic Resonance Imaging equipment procedures, pulse sequencing, operation of pressure injector and contrast administration and artifacts.

RAD1312 Magnetic Resonance Imaging Practicum - Magnetic Resonance Imaging experience and procedures including but not limited to preparing room and patient, performing brain, spinal, shoulder, knee and long bone exams, as well as compensation techniques.

RAD1400 Special Radiographic Procedures - Fundamental procedures for imaging the nervous and circulatory systems. Includes the pharmaceuticals used in imaging studies, contrast agents, and intravenous drug administration. Also includes the principles of radiologic sciences and operation of equipment used; mammography; nuclear medicine; radiation therapy; magnetic resonance imaging; sonography; and interventional radiology. Also includes introduction of the development of Computed Tomography; CT components; cross-sectional anatomy; and CT data processing steps.

RAD2101 Clinical Radiography I - Advanced studies of radiographic positioning of the anatomical structures of the vertebral column, skull, sinuses, and facial bones. The purpose for performing radiographic position of each is emphasized. Completion of a Cardiopulmonary Resuscitation (CPR) course in accordance with the American Heart Association (AHA) standards is required.

RAD2102 Clinical Radiography II - Continuation of Clinical Radiography I. Advanced studies of the structure, function, and pathology of the chest, abdomen, extremities, pelvis, and the human body systems. The operating principles for radiography of each is emphasized.

RAD2103 Clinical Radiography III - Continuation of Clinical Radiography II. Advanced studies of the principles and safety of contrast media; Computed Tomography (CT); Computed Radiography (CR); Digital Radiography (DR); bone densitometry; and the Picture Archiving and Communication Systems (PACS). Also includes the practitioner's role in the health care delivery system; patient care; patient safety, standards and ethics; patient privacy; and infection control procedures.

RAD2104 Technical Aspects of Radiology - Advanced studies of the principles of common technical aspects of radiology. Includes radiation physics; X-ray production; image quality; beam principles; and radiobiology. Air Force Occupational Safety and Health (AFOSH) standards affecting radiology, as well as radiation protection, are emphasized.

RAD2105 Radiographic Nursing Procedures - Advanced studies of the necessary equipment in order to accurately process, clean, monitor, inspect, and perform diagnostic imaging requests in relation to imaging and archiving. Includes patient care and communication skills pertaining to documentation; infection control; customer service; legal aspects; medical and diagnostic procedures, patient movement; and safety.

RAD2106 Advanced Radiographic Procedures I - Advanced studies of the procedures and equipment required to perform radiographic positioning of the vertebral column.

RAD2107 Advanced Radiographic Procedures II - Continuation of Advanced Radiographic Procedures I. In-depth knowledge of the procedures and equipment required to perform radiographic positioning of the skull, sinuses, and facial bones.

RAD2108 Advanced Radiographic Procedures III - Continuation of Advanced Radiographic Procedures II. In-depth knowledge of the procedures and equipment required to perform radiographic positioning of the chest, abdomen, and ribs.

RAD2109 Advanced Radiographic Procedures IV - Continuation of Advanced Radiographic Procedures III. In-depth knowledge of the procedures and equipment required to perform radiographic positioning of the upper extremities, to include the shoulder girdle.

RAD2110 Advanced Radiographic Procedures V - Continuation of Advanced Radiographic Procedures IV. In-depth knowledge of the procedures and equipment required to perform radiographic positioning of the lower extremities, to include the pelvic girdle.

RAD2111 Mobile Radiography - Advanced studies of operating fixed and mobile radiography equipment. Includes special procedures; control of scatter radiation; and selecting prime exposure factors.

RAD2112 Computed Tomography - Advanced studies of the equipment needed to obtain a Computed Tomography (CT) image of the head, abdomen, and pelvis. Includes adjusting Computed Tomography images' window and level.

RAD2301 Radiography Clinical Education - Clinical environment practicum in a training hospital, radiographic exposure principles and systems, preparation of technique charts, standardization of automatic film-processing systems, control of secondary and scattered radiation, radiation protection, department administration, and review of radiographic anatomy.

RAD2304 Radiography Internship - Standard radiographic procedures accomplished under supervision of qualified radiologic technologists, and assisting radiologist with barium contrast studies, interventional studies and nonstandard radiographic procedures.

RAD2308 Diagnostic Imaging Mammography - Principles and techniques of mammography, examination methods and imaging, special mammographic procedures, and American College of Radiology (ACR) accreditation standards. Includes breast anatomy and physiology, sonography/ultrasound, risk factors and benefits, and Quality Assurance Program procedures in patient care. Students will be able to properly identify the risk factors and benefits of mammography for the detection of breast cancer and the importance of patient sensitivity.

(RAS) Religious Affairs

RAS1000 Chapel Resource Management - Introduction to the organization and management of chapel resources and activities as applied to Religious Affairs personnel. Includes personnel management; principles and application of financial accounting; financial planning; facility management; and government contracting instruments.

RAS1001 Introduction to Chaplain Corps - Introduction to processes and functions of the Chaplain Corps as applied to Religious Affairs personnel. Includes duties and responsibilities of chaplain assistants; religious observances; faith group tenets; religious sensitivity and accommodation; chapel facility types and nomenclature; religious program planning; liturgies and rites; support worship; and spiritual care.

RAS1002 Chaplain Corps Readiness - Fundamentals of religious support in contingency operations as applied to Religious Affairs personnel. Includes development of deployed ministry plans; support for field religious observances; control center operations; unit visitations; religious cultural awareness; and religious leader engagement.

RAS1003 Spiritual and Crisis Support - Introduction to the principles, policies, and techniques required for conducting crisis response as applied to Religious Affairs personnel. Includes analysis of individual communication styles; conflict management strategies; rules of confidential communication; crisis intervention counseling; traumatic stress response; and resiliency principles.

(REC) Recreation

REC1102 Fitness and Health - Methods used in measuring physical fitness, determining nutrition requirements,

evaluating human physiology, analyzing exercise physiology and managing health resources.

(RPA) Remotely Piloted Aircraft

RPA1001 Introduction to Remotely Piloted Aircraft (RPA) - Introduces the Remotely Piloted Aircraft (RPA) pilot to the functions and operation of RPA systems and sub-systems. Includes RPA fuel; aircraft sensors and controls: communications: hydraulic; engine; electrical; and instrumentation systems.

RPA1002 Remotely Piloted Aircraft (RPA) Crewmember Qualification - Concepts, principles, and procedures required for performance of Remotely Piloted Aircraft (RPA) air crew duties. Includes flight orientation; aerodynamics; aircrew member discipline; aircrew coordination; oral communication skills; human factors; security; personal affairs; safety; flight and RPA publications; and aircrew training.

RPA1003 Remotely Piloted Aircraft (RPA) Trainer, Simulator and Flight Training - Ground and airborne operation procedures for Remotely Piloted Aircraft (RPA) pilots. Includes crew cabin procedures and techniques using RPA flight trainers, simulators and operational ground control units. Also includes inspection; flight performance; aircraft systems operation and performance monitoring; crew member communications and coordination; human factors; and ground and flight emergency procedures.

RPA1004 Remotely Piloted Aircraft (RPA) Systems Familiarization - Fundamentals of Remotely Piloted Aircraft (RPA) systems and sub-systems for RPA pilots and sensor operators. Emphasizes theory of operation, normal operating procedures, and emergency operating procedures. Includes increased levels of knowledge and operation of RPA electrical; instrumentation; engine; hydraulic; fuel; flight control; and sub-systems.

RPA1006 Remotely Piloted Aircraft (RPA) Sensor Operator Principles and Procedures - Comprehensive study of airborne weapon systems and aircrew duties related to the Remotely Piloted Aircraft (RPA) Sensor Operator. Includes aircraft armament systems operation; aircrew functions under training, combat and testing conditions; forecasting ammunition requirements; navigation waypoint identification; crew communications and coordination; and human factors. Emphasizes strict compliance with flight, weapons, and explosive safety standards in all facets of RPA aircrew operations using RPA flight and systems manuals. (May be repeated for credit on various aircraft)

(SAF) Safety

SAF1101 Safety Fundamentals - Introduction to the fundamentals and principles of organizational and occupational safety. Includes: security vulnerabilities; publication systems; educational and promotional materials; traffic safety education; safety training; surveys; and safety communication.

SAF1102 Mishap Prevention Program - Introduction to the Air Force Mishap Prevention Program. Includes the emphasis of risk management; Job Safety Analysis (JSA); trend analysis; product purchases; contracts and agreements; facility design and layouts; hazard abatement, including hazard identification and Risk Assessment Codes (RAC); and safety councils.

SAF1103 Aviation and Flight Safety - Philosophy and principles of safety in aviation and flight operations. Includes: flight safety program roles and responsibilities; aero club safety operations and procedures; and airfield layout. Emphasizes operational safety procedures involved with aircraft ground movement; aircraft refueling; ground handling and servicing; vehicle operations; aircraft maintenance and engine operations; munitions handling, loading and unloading; and air cargo and passenger operations.

SAF1104 Occupational and Industrial Safety - Philosophy of occupational and industrial safety principles and procedures, with emphasis on inspections. Includes: inspection checklists; inspection process and post report activities; fire prevention and protection plans; emergency action plans; and administrative and industrial areas. Also includes: industrial hygiene; hand and power tool factors; electrical safety; Hazardous Communications (HAZCOM); machine guarding; excavation and trenching; walking and working surfaces; fall protection; blood borne pathogens; materials handling; color coding; confined spaces; and Hazardous Energy Control (Lock-out/Tag-out).

SAF1802 Missile, Explosives and Nuclear Safety - Safety standards for handling, storing, transporting, and operating conventional and nuclear munitions and missiles.

SAF1803 Accident Investigation and Reporting - Introduction to accident investigation and reporting procedures. Emphasizes mishap notification, response, and reporting procedures; mishap investigation preparation, information gathering, investigative techniques; control and release of mishap data; mishap reports; human factors; and the Human Factor Analysis Classification System (HFACS). Also includes trend analysis and statistical data processes and resource tools.

SAF1812 Safety Management I - Basic philosophy of accident prevention. Includes safety program manning, principles of learning, operational risk management, hazard reporting and abatement, human factors, safety education and training reference materials and safety plans and programs; recognition, avoidance and prevention of job-related hazards; conducting meetings, writing reports, and organizing and presenting material.

SAF2101 Flight Safety Management - Flight safety management and airfield safety operations. Includes history of flight safety, mishap classification and prevention, hazard abatement, and inspection, evaluation and reporting programs.

SAF2103 Safety Management II - Advanced application of safety management and inspection principles as pertains to occupational safety. Techniques/program requirements for safety office management to include an advanced understanding/application of manpower documents, personnel reporting, budget, resources, and multiple safety related programs. Also, inspection requirements to include an advanced understanding/application of multiple plan types, support agreements, and reports.

SAF2104 Advanced Occupational and Industrial Safety - Advanced application of occupational/industrial safety principles as pertains to occupational safety. Techniques for occupational safety/industrial safety to include an advanced understanding\application of hazardous energy control program, confined space program master hazard abatement, hazard control, hazard identification/reporting, mishap reporting/recordkeeping, continuity plans, DoL/OSHA visit reception plan and facility design/drawings/blueprints/specifications.

SAF2604 Accident Prevention Management - Philosophy of accident prevention with emphasis on inspection, classification, mishap investigation and reporting. Recognition of hazards and design of elimination techniques through knowledge of accident prevention controls.

SAF2807 Advanced Safety Management - Safety standards pertaining to hazardous materials management, confined spaces, lockout and tagout procedures. Emphasizes inspection preparation and reporting, and mishap investigation and reporting.

SAF2809 Weapons Safety Program Management - Application of mishap investigation and safety inspection programs and procedures; storage, flight line handling and transportation of weapons; and procedures for site planning, management of explosive ordnance disposal, and related waivers and deviations.

(SEC) Security

SEC1804 Fundamentals of Ground Combat Skills - Introduction to airbase defense and deployment operations as applied to Security Forces personnel. Focuses on fire control and distribution measures; prisoner of war processing; rules of engagement; Mounted and Dismounted operations; individual and fire team maneuver tactics; medical evacuation; early warning devices; land navigation; camouflage; and threats against resources. Includes application of tactical communication; brevity codes; the phonetic alphabet; associated support equipment; and field training disciplines.

SEC1805 Special Weapons and Tactics - Application of special weapons. Includes nomenclature, capabilities, and characteristics of slap flares, hand grenades, claymore mines and antitank weapons; employment of individual and team concepts in tactical situations; patrol techniques used in a combative environment; and principles of urban survivability.

SEC1806 Introduction to Security - Introduction to the concepts and performance of security operations and Air Force resource protection as applied to Security Forces personnel. Includes fundamental skills and techniques required to perform basic security operations in accordance with the integrated defense plan; assuming post; guard mount; building and area searches; nuclear and non-nuclear weapons security; security reporting and alerting system; access control responsibilities; enforcing unauthorized entry; and response procedures involving priority resources.

SEC1855 Specialized Mobile Security Functions - Concepts of worldwide mobile operations. Emphasizes practical application of defensive tactics and techniques. Includes the use of force continuum, international relations, explosive devices, lethal and nonlethal weapons, defensive tactics, terrorism, information sources, counter surveillance, hostage survival, threat conditions, aircraft familiarization and individual protective measures.

SEC1856 Antiterrorism - Introduction to the basic theories of international, domestic and cyber terrorism. Emphasizes increasing awareness of terrorist operations, surveillance detection, hostage survival, individual protection measures, threat conditions and explosive awareness with demonstration. Includes the use of resent case studies to help present an understanding of installation antiterrorism and force protection measures.

SEC2855 Support Weapons Qualification - Application and knowledge of mortars, recoilless rifles, heavy machineguns,

and/or grenade launchers; including nomenclature, characteristic capabilities of specific weapons systems, operator care and cleaning maintenance, weapons safety, tactical employment, forward observation and fire-direction center of operations (mortar courses only). Emphasis on ammunition types and uses, practical exercises involving crew drills for gunners, assistant gunner ammunition bearers and live firing qualification.

SEC2856 Ground Defense Leadership Management - Intermediate analysis and application of logistical and tactical planning as applied to Security Forces personnel. Focuses on employment of security forces units engaged in ground defense operations; legal and procedural aspects of defense operations; and advanced organizational principles of the tactical area of defense strategy. Emphasizes leadership of combat elements; hostile operations planning and execution; and integration of defense forces. Includes awareness of terrorist operations; anti-terrorism procedures; base threat analysis; application of special weapons; and team concepts in tactical situations.

SEC2860 Electronic Security System Operator - Analysis of characteristics, capabilities, limitations and vulnerabilities of electronic security systems. Emphasizes application of troubleshooting, installation and configuration techniques associated with battery modules, solar panels, handheld monitors, communication modules, tripods, sensors, power supply systems, annunciator systems and thermal imagers.

(SOC) Social Services

SOC1104 Intercultural Competence - Foundation course on diverse values and communication styles in a culturally complex environment. Application of communication and negotiation skills used in multi-cultural settings. Topics include religions, military culture, food and health concerns in an intercultural setting, and culture shock.

(SOM) Special Operations Management

SOM1000 Battlefield Airman Basic Physical Training - Fundamental knowledge of personal equipment and progressive physical training activities within special tactics units as applied to Special Operations personnel. Prepares Battlefield Airmen to conduct ground operations that assist, control, enable and execute air and space power missions. Includes techniques of swimming, running, calisthenics, ruck training, weight training, and obstacle course training needed to perform surveillance, weather forecasting, airfield surveying, air traffic control, directing air strikes, airdrop marking, trauma care and personnel recovery within hostile environments.

SOM1001 Situational Tactics - Introduction of procedures to employ individual and team concepts in tactical situations as applied to Special Operations personnel. Includes patrol techniques used in a combative environment and principles of urban survivability.

SOM1002 Special Weapons - Introduction and application of special weapons as applied to Special Operations personnel. Includes weapon identification, capabilities, characteristics, and selection and application for various tactical situations.

SOM1003 Map and Compass - Map and compass use and reading as applied to Special Operations personnel. Includes application of tools used to navigate in various environments; position determination; travel preparation and techniques; natural aids to navigate; route selection; and use of the map and compass. Also includes classroom and field practical exercises.

SOM1004 Communication System Operations - Operational theory of command communications systems as applied to Special Operations personnel. Includes data and broadcast transmitting and receiving systems.

SOM1005 Psychology of Environmental Stress - Knowledge and control of combat stresses as applied to Special Operations personnel. Includes resistance to exploitation; international agreements relative to captivity and camp organization; application of escape-and-evasion techniques; Communist history and theory; interrogation and indoctrination procedures; and group resistance in captivity.

SOM1006 Landing and Drop Zone Operations - Performance of Navigational Aid operations as applied to Special Operations personnel. Includes establishing and performing the landing and drop zone support and operations; identification and application of tools used; hand and arm signals; and maintaining positive control of the aircraft in the zone.

SOM1007 Assault Zone Operations - Field Training Exercises as applied to Special Operations personnel. Includes demonstration of knowledge and competence, discipline, and mental toughness in a real world tactical application involving Assault Zone Establishment.

SOM1008 Physical Conditioning - Extensive physical training as applied to Strategic Operations Management

personnel. Includes intense calisthenics and running to condition muscles and body organs (heart, lungs); coordination; stamina; and overall fitness for extensive field exercises.

SOM1009 Underwater Diving Principles and Procedures - Diving theory and practices as applied to Strategic Operations Management personnel. Includes extreme water conditions; water survival techniques; survival equipment usage; open- and closed-circuit scuba diving; infiltration methods; underwater search and rescue; and diving safety.

SOM1010 Tactical Air Operations - Tactical air operations stressing command and control. Includes ground attack, aerial interact and general aerial operations as pertains to Strategic Operations personnel.

SOM1401 Visual Flight Control - Aircraft characteristics and methods of identification as applied to Combat Control personnel. Includes proficiency in control procedures for heavy aircraft; control tower operations, equipment, and operating positions; knowledge of aviation regulations pertaining to Visual Flight Rules (VFR); control of aircraft engaged in VFR flight; and existent security risks in an unsecured tower communication system.

SOM1402 Air Traffic Control Non-Radar Procedures - Principles of conventional approach control operations as applied to Combat Control personnel. Includes separation standards; terminology; inter- and intra-facility coordination; and procedures for control of aircraft without use of radar equipment.

SOM1403 Air Traffic Control Radar Procedures - Principles of approach control radar operations and equipment as applied to Combat Control personnel. Includes simulated operations employing situations requiring use of terminology, identification procedures, separation, and basic control instructions for aircraft in a terminal radar environment.

SOM1404 Air Traffic Control Fundamentals - Weather briefing procedures, observations, and reports and application of aeronautical charts as applied to Combat Control personnel. Includes instrument approach procedure charts; standard terminal arrival route charts; visual and instrument flight rule supplements; terminal instrument procedures; and basic theory of flight and aircraft performance characteristics.

SOM1405 Basic Control Tower Operations - Functions and procedures for air traffic control tower operations as applied to Combat Control personnel. Includes communication procedures and operating radio, landlines, and intercom systems; assigning beacon codes; disseminating critical information; applying duty and operational priorities; arrival and departure procedures; traffic advisories; wheels check; takeoff and landing clearances; Line Up and Wait (LUAW); coordinating air and ground movements of aircraft; maintaining surveillance of Controlled Movement Area (CMA); using active runways; transferring control of aircraft; maintaining surveillance of surface areas; sequence and separation of aircraft; applying inter- and intra-facility coordination; and marking flight progress strips.

SOM1406 Intermediate Control Tower Operations - Intermediate functions and procedures of air traffic control tower operations as applied to Combat Control personnel. Includes control ILS and straight-in approaches; traffic advisories (6 mile traffic rule); sequence and separation of arrivals; control vehicles; equipment and personnel operations; closed and unsafe runway information; low approaches; helicopter operations; position transfer responsibilities; visual separation; simultaneous operations; emergency aircraft operation procedures; and operation of light guns.

SOM2401 Tactical Air Command and Control Management - Principles of mission planning and mission management for Close Air Support (CAS) operations. Includes communication operations involving electronic warfare, command and control functions; assessment of resources, air-to-surface weapons systems, operational planning and readiness management as pertains to Strategic Operations personnel.

(SQT) Special Duty Qualification Training

SQT5000 Special Duty Qualification Training (SQT) - A rigorous, well-documented, learning experience outside the typical collegiate course. The Special Duty Qualification Training (SQT) and qualification experience occurs after completion of formal specialty-related technical training applicable to the Special Duty Identifier (SDI) or Reporting Identifier (RI) occupational specialty. Training standards are detailed within the official Career Field Education and Training Plan (CFETP) or Air Force Job Qualification Standard (JQS), outlining specific knowledge, skills, abilities, competencies, and other requirements for specialty qualification. This education, training and other learning experiences may be delivered by various methods. In all cases, the student completed requirements documented and certified by a designated subject matter expert (supervisor of record) and affirmed by the commander.

(STR) Structural

STR1101 Construction Mathematics, Drawings, and Specifications - Fundamentals of construction mathematics, drawings and specifications as applied to Civil Engineering Structural personnel. Includes identifying and reading blueprints and specifications; performing basic math, algebraic and computation measurements; and reading and

reviewing construction types and their specifications.

STR1102 Building Materials, Tools and Woodworking - Introduction to construction materials, tools, and wood types as applied to Civil Engineering Structural personnel. Includes defining types and uses of plywood; wood classifications; building hardware; various lumber sizes; and wood working techniques such as framing, and concrete wood forming, and removal.

STR1103 Concrete Construction - Fundamentals of concrete construction as applied to Civil Engineering Structural personnel. Includes concrete placement using proper formwork; concrete testing; slump tests and reinforcement techniques; concrete mixers; and layout methods. Also includes constructing concrete footers, slabs, columns, walls and panels, and steel reinforcement practices.

STR1104 Masonry Construction - Introduction to masonry construction as applied to Civil Engineering Structural personnel. Includes structural principles of Concrete Masonry Units (CMU) techniques; estimating CMU requirements; calculating dry ingredients; mortar mixing techniques; and determining required masonry tools and equipment.

STR1105 Structural Framing and Exterior Finishes - Introduction to structural principles of framing and exterior finishes as applied to Civil Engineering Structural personnel. Includes construction and installation of interior and exterior framing; door framing; roofing construction; pre-engineered building construction and demolition; shingle installation and replacement practices; exterior window structures; measuring, placement, and cutting of siding; and construction practices of staircases.

STR1201 Interior Finishes - Fundamentals of interior building finishes as applied to Civil Engineering Structural personnel. Includes paint applications; drywall; floor and wall tile; wall installations; interior trim; suspended ceiling component installations; and safety practices.

STR1202 Pre-Engineered Building - Introduction to construction of pre-fabricated steel structures as applied to Civil Engineering Structural personnel. Includes a study of practices, equipment and tools of all phases of the building erecting process.

STR2501 Contingency Maintenance - Intermediate study of Contingency Maintenance as applies to Civil Engineering Structural personnel. Includes structural installation, inspection, and maintenance of roll-up doors. Also includes installation, fabrication, adjustment and repair of commercial and residential locks and security devices.

(SUR) Surveying

SUR1101 Construction Survey - Introduction to hands-on application of survey methods used in construction. Addresses topics in surveying principles, theories, practices and management using manual, automated, and Global Positioning System surveying equipment. Also includes mathematical computations used in surveying and advanced road, utility and building layout. Provides initial skills training to Air Force Civil Engineer military personnel in the 3E5X1 Engineering career field.

(SVE) Survival Equipment

SVE1101 Sewing and Fabrication Principles - Introduction to sewing machine operation and fabrication of flight clothing and accessories. Includes inspection, repair, modification and fabrication of flight clothing, antigravity suits, protective covers and upholstery, and the characteristics of textiles used in soundproofing panels.

SVE1103 Automatic Parachutes - Principles of automatic back, seat and chest personnel parachutes, and special-purpose parachutes used for aircraft deceleration. Includes preparation and assembly of automatic parachutes, automatic rip cord release and inspection, and servicing according to technical publications.

SVE1104 Inspection and Maintenance of Survival Equipment - Inspections, maintenance, and packing of personal parachutes, life rafts, escape slides, life preservers and full pressure, and anti-exposure flight suits.

(SVR) Survival & Rescue

SVR1101 Air Operations - Techniques of conducting pararescue aerial operations emphasizing insertion operations. Includes water employment and aerial cargo delivery.

SVR1102 Ground Operations - Techniques of conducting pararescue ground operations. Includes pararescue assisted evasions, insertion and extraction operations, small team tactics, and adverse terrain operations.

SVR1501 General Principles of Survival - Survival techniques for a temperate environment. Includes procurement of plant and animal food, food preparation and preservation, preparation and use of water, signaling and communications, campsite selection, shelter construction, firecraft, burden carrying, and classroom and field location instruction.

SVR1801 Special Survival Techniques - Survival techniques in arctic, coastal, open seas, tropical, mountain and desert environments. Includes identifying and determining survival conditions, personal protection, sustenance, environmental medical techniques, signaling and communications, recovery and egress procedures, shelter craft and firecraft unique to special environments, and classroom and field location instruction.

SVR1803 Map and Compass - Map reading and use of compass for navigation in wilderness areas. Includes position determination, travel preparation, use of natural aids to navigation, route selection, application of travel techniques, and classroom and field location instruction.

SVR1804 Mountain Travel - Travel techniques required in mountainous terrain. Includes mountain climbing and patient evacuation equipment; mountaineering techniques; navigation principles; establishment of trail camps; trip preparation; shelter and campsite selection and construction; emergency bivouac; water and food procurement, preparation and preservation, and classroom, outdoor tower and mountainous field location instruction.

SVR1818 Pararescue Indoctrination - Pararescue techniques. Includes medical terminology, anatomy, treatment of temperature-related injuries, medical kits, mountain indoctrination and diving physics.

SVR1819 Evasion and Recovery - Principles and practices of evasion and recovery. Includes use of clothing and equipment; procurement of food and water; application of methods of signaling; evasive traveling; provision of fire, shelter, medicine and hygiene; and responsibilities during a search-and-rescue operation.

SVR2101 Underwater Diving Principles and Procedures - Basic diving theory and practice under combat conditions. Includes open- and closed-circuit scuba diving, infiltration methods, underwater search and rescue, and diving safety.

SVR2801 Advanced Survival Techniques - Adaptation of survival-and-evasion principles, procedures and techniques necessary for survival in extreme environmental conditions. Includes barren arctic, barren desert, jungle and open ocean environments.

(SVS) Services

SVS1101 Introduction to Services - Introduction to Services operations and programs with emphasis on economic operation and customer satisfaction. Includes principles of financial management, customer service techniques, protection of assets, safety standards, and career progression.

SVS1102 Introduction to Food Services - Fundamentals of food service operations. Includes management of subsistence requirements, storage and inventory procedures, accounting and reporting systems, kitchen safety, sanitation and hygiene practices, menu planning, Air Force Recipe System, weights and measurement conversions, customer relations, progressive cooking, waste prevention, demonstration of proper food preparation and serving line techniques.

SVS1103 Lodging Fundamentals - Principles of lodging operations and management. Includes front desk procedures, sundry sales, guest reservations, contract lodging, protocol, and familiarization with the lodging management software.

SVS1104 Services Readiness - Fundamentals of services support in contingency operations. Includes readiness in base services principles such as contingency feeding, accounting, fitness and recreation, lodging shelters and assignments, force beddown, search and recovery procedures, mortuary affairs operations, and mess kit laundry.

SVS1105 Fitness and Sports Management - Introduction to fitness and sports management. Includes fitness facility operations, staff training requirements, fitness and sports equipment maintenance, fitness improvement and sports programs, physical conditioning and training exercises with emphasis on calisthenics, cardiovascular, selectorized, and free weights equipment familiarization, injury prevention, and overview of the major muscle groups and musculoskeletal system.

(TRN) Transportation

TRN1600 Aerial Port Operations - Principles of aerial port operations. Includes the introduction to Air Transportation, command level functions, and their relationship with aerial port functions and automated systems; basic responsibilities of capability forecasting and airlift scheduling; basic functions of information control, cargo palletization, shoring, restraints, load planning and aircraft services; passenger/baggage handling procedures, documentation and customer service; aerial port safety hazards and general safety practices; terminal security; aerial port publications; and air drop fundamentals.

TRN1605 Air Passenger Processing and Services - Fundamentals of processing and manifesting air passengers and baggage. Includes use of automated systems; operation of passenger and baggage handling equipment and techniques; terminal announcements; and terminal security, including anti-hijacking inspection and customer relations. Also includes use of publications; determining passenger travel eligibility; passenger transportation priorities; and special category passengers.

TRN1609 Air Transportation Weight and Balance - Preparation of transportation documents and reports; methods and techniques of weight-and-balance computations; and mathematical formulas, balance computers, weight charts, and aircraft weight records for hazardous and non-hazardous cargo including passengers.

TRN1610 Aircraft Load Planning - Palletized and nonpalletized cargo planning with special consideration to weight, bulk and properties. Includes preinspection of aircraft loading equipment, loading and restraining cargo for flights.

TRN1612 OLVIMS Dispatcher Fundamentals - Introduction to the knowledge and skills needed to perform as Ground Transportation Dispatcher as applied to Ground Transportation personnel.. Includes making Official-Use determinations for use of particular government motor vehicles for official purposes aligned with applicable laws and regulations; On-Line Vehicle Integrated Management System (OLVIMS) Dispatch Module data input correlating with AFQTP 24-3-100; applicable requirements for cargo movements within the USAFE; and customer service; Also includes Risk Management; safety precautions; and the proper use of publications.

TRN1619 Cargo Preparation - Packing and preservation principles for general, special, and hazardous cargo storage and shipment. Includes handling of hazardous materials, operation and maintenance of shop tools for the fabrication of shipping containers, safety procedures, and operation of material handling equipment.

TRN1620 Airlift of Dangerous Materials - Basic hazardous material familiarization, awareness, and communication requirements as applies to Transportation personnel. Includes hazard classification, marking, labeling, placarding, documentation, compatibility, and safety (including emergency response information). In addition, knowledge in the use of commercial and military hazardous materials documents and shipping papers, and familiarization with appropriate packaging specifications.

TRN1622 Cargo Processing and Documentation - Introduction to the principles, techniques, and automated methods of processing and managing Air Transportation operations. Includes the knowledge of the requirements for registered mail; classified shipments; dangerous cargo; human remains; and special equipment. Also includes the fundamental procedures inspection, inventory, and storage of 463L pallets, nets, and tiedown equipment; building and computing net weights of palletized, and containerized single and multi-pallet train shipments; and facts and terms involved with deployment mission operations and the Air Transportation work center.

TRN1625 Aircraft Cargo Loading - Introduction to the principles, techniques, and methods of Air Transportation cargo loading. Includes basic facts and terms about the types and descriptions of transportation aircraft; operation of various forklifts and specialized equipment used for set-up, loading/offloading of cargo; use of cargo loading systems; cargo tiedown requirements and procedures for general, vehicular, and special cargo; and weight-and-balance computations.

TRN1631 Traffic Management - Understanding the administration function of traffic freight, personal property and passenger management. Includes materiel, and storage of personal property, passenger movement, and automatic data processing management procedures.

TRN1640 Cargo Aircraft Operations - Ground operations, preflight, in-flight and postflight duties of aircraft loadmaster. Includes positioning aircraft, determining load arrangement, aircraft preparation, preflight and in-flight briefings of passengers, aircraft preparation, and postflight inspection of aircraft.

TRN1641 Loadmaster Tactical Delivery/C-130 Aircraft - Tactical delivery of equipment/personnel by aircraft crewmembers; includes assembly/inspection of cargo load and emergency procedures.

TRN1642 Vehicle Operator Course - Fundamental principles of vehicle operating procedures unique to special purpose vehicles. Includes unusual environments, special configurations applicable for use of these vehicles; safety procedures for trailer towing, convoying and off-road situations.

TRN1644 Shipment Planning - Procedures for handling and transporting cargo economically and effectively. Includes standard transportation movement procedures, consolidation and routing of freight shipments.

TRN1650 Operator Maintenance/Vehicle Specifications - Introduction to vehicles, their specifications and configurations. Identify simple facts, specifications and procedures using tow hitch, pintle hook, wrecker/recovery, equipment and basic operator maintenance.

TRN2600 Air Transportation Instructor - Intermediate instruction as applied to Air Transportation personnel. Prepares

Air Transportation unit members for training responsibilities within select unit training programs. Covers teaching principles, techniques, lesson plan personalization, student/classroom preparation and platform instruction skill sets. Focuses on standardizing training procedures, administering tests, and maintaining training documentation.

TRN2602 Aircraft Cargo Loading - Intermediate principles, techniques, and methods of cargo loading. Includes a comprehensive look at overall aircraft loading functions, aircraft specific safety procedures, loading procedures, calculating cargo center of balance, shoring and restraints, aircraft roller limitations, aircraft floor limitations, computing aircraft center of balance, and aircraft winching as it applies to Transportation personnel.

TRN2610 Integrated Aircraft Load Planning - Intermediate load planning techniques and coordination requirements as applied to Transportation personnel. Includes use of Integrated Computerized Deployment System (ICODES) to complete aircraft load plans. Also includes palletized and nonpalletized cargo planning with special consideration to weight, bulk, and ease of loading and unloading cargo aircraft; identification of type and number of aircraft needed to carry specific loads; floor load restrictions; and aircraft weight and balance procedures.

TRN2611 Airlift/Terminal Operations and Management - Principles of logistics mission and role of contingency airlift in support of materiel and personnel movement; includes various types of airlift operations, aerial port organizational structure, and managerial support of daily activities.

TRN2621 Motor Vehicle Fleet Management - Organization, manpower, and public law in motor vehicle fleet management and operation; includes managerial decisions for lease or purchase of vehicles, contingency planning, fleet analysis and safety/accident prevention.

TRN2626 C-17 Loadmaster Airdrop - Loadmaster airdrop qualification in C-17 aircraft. Includes aerial delivery of airborne personnel, transportation of heavy equipment, low-altitude parachute extraction and container delivery system.

TRN2629 Training, Validation & Operations (TVO) Examiner - Advanced principles of Training, Validation, and Operations (TVO) Examiners as applied to Ground Transportation personnel. Includes the knowledge and skills to certify Air Force Government Motor Vehicle (GMV) operators on Commercial Motor Vehicle (CMV) equivalents in accordance with Federal Motor Vehicle Safety Regulations. Provides the basis for the development of Air Force standardized certification of AF GMV operators on CMV equivalents.

TRN2630 Ground Transportation (GT) Manager/Non-Commissioned Officer In Charge (NCOIC) - Advanced knowledge of functions and responsibilities as applied to Ground Transportation personnel. Focuses on responsibilities of the Ground Transportation (GT) Manager/NCOIC; GT Control Center (GTCC) support; GT training programs; policies for official use of motor vehicles; management and analysis; work center manpower and budget; mobility and contingency operations; and customer service.

TRN2642 Ground Transportation Manager - Development of advanced knowledge and skills to perform as Ground Transportation Manager. Scope includes management responsibilities from Headquarters United States Air Force down to the work center supervisor; management analysis; policy development and implementation; fundamentals of customer service; manpower standards, Unit Manpower Documents (UMD), and Unit Personnel Management Rosters (UMPR); and deployment process. Also includes Operational Risk Management; Safety; and publications.

TRN2702 Airlift Operations Planning - Understanding the development of individual and joint operation plans. Includes interservice operations, airlift weight capabilities, war planning, shipment identification priorities, correction of transportation and/or materiel shortfalls in mobility operations.

TRN2704 Air Transportation Standardization Evaluation - Standardization Evaluation Program as applied to Air Transportation personnel. Prepares aerial port personnel selected to perform duties as a Unit Program Manager (UPM) and evaluators with the knowledge and skills necessary to evaluate personnel compliance with logistics and non-logistics processes. Emphasizes roles and responsibilities; reporting; evaluation methods; and the evaluation process.

(UGT) Upgrade Training and Qualification

UGT5000 Journeyman - A rigorous, well-documented, learning experience outside the typical collegiate course. The Journeyman (5-skill level) upgrade experience occurs after the Apprentice (3-skill level) has been awarded, and detailed within the official Career Field Education and Training Plan (CFETP) or Air Force Job Qualification Standard (JQS), outlining specific knowledge, skills, abilities, competencies, and other requirements for successful upgrade. This education, training and other learning experiences may be delivered by various methods. In all cases, the student in upgrade status to Journeyman level have completed upgrade requirements documented and certified by a designated

subject matter expert (supervisor of record) and affirmed by the commander. While there are acknowledged differences across Air Force specialties in upgrade requirements, credit amount awarded is the same for all students successfully completing the Journeyman upgrade process.

UGT7000 Craftsman - A rigorous, well-documented, learning experience outside the typical collegiate course. The Craftsman (7-skill level) upgrade experience occurs after the Journeyman (5-skill level) has been awarded, and detailed within the official Career Field Education and Training Plan (CFETP) or Air Force Job Qualification Standard (JQS), outlining specific knowledge, skills, abilities, competencies, and other requirements for successful upgrade. This education, training and other learning experiences may be delivered by various methods. In all cases, the student in upgrade status to the Craftsman level have completed upgrade requirements documented and certified by a designated subject matter expert (supervisor of record) and affirmed by the commander. While there are acknowledged differences across Air Force specialties in upgrade requirements, credit amount awarded is the same for all students successfully completing the Craftsman upgrade process.

(VEM) Vehicle Maintenance

VEM1102 Computer Control System Fundamentals - Principles of operation, and troubleshooting and repair of malfunctions associated with vehicle computer control systems. Includes tools, portable testers, manufacturer's and specifications, and safety procedures.

VEM1104 Welding Operations - Knowledge, skills, and theories necessary to perform varied types of welding, such as, oxyacetylene, electric, shielded metal arc, gas metal arc, gas tungsten arc, and plasma cutting. Includes Air Force Occupational Safety and Health standards and job safety procedures.

VEM1501 Internal Combustion Engines - Principles and theory of internal combustion engines used in light and heavy vehicles. Includes inspection, troubleshooting, maintenance and operational testing of gasoline engine systems and components. Includes engine disassembly, inspection, measurement, and assembly procedures; engine overhaul; and tune-up procedures. Also includes use of service manuals, wiring schematics, use of common and special tools, and shop and equipment safety.

VEM1502 Brake, Steering, and Suspension Systems - Principles and theory of braking, steering, and suspension systems used in light and heavy vehicles. Includes inspection, troubleshooting, maintenance and operational testing of hydraulic and air/pneumatic brake systems; anti-lock brake systems; master cylinders and brake boosters; wheel and tire assembly and components; power steering systems; automotive and air bag ride suspension systems; and wheel alignment procedures. Also includes supplemental inflatable restraint system inspection and isolation; service manuals; wiring schematics; use of common and special tools; and shop and equipment safety.

VEM1503 Power Train Fundamentals - Principles and theory of power train systems used in light and heavy vehicles. Includes inspection, troubleshooting, maintenance and operational testing of hydraulic and manual clutch systems; standard and automatic transmissions; torque converter components; automotive and heavy truck differentials and drive axles components; linkages and universal joints; transfer cases; and auxiliary gear boxes. Also includes use of service manuals, wiring schematics, use of common and special tools, and shop and equipment safety.

VEM1513 Automotive Electrical Systems - Principles of vehicle electronic ignition, fuel, emission, and onboard computer systems. Emphasizes troubleshooting, inspection, repair, and maintenance of vehicle electrical systems and components. Includes principles of electrical and electronic theory; electronic ignition systems; onboard computer systems; airbag systems; emission control systems; charging systems; electrical schematics; and voltage/resistance measurements.

VEM1517 Automatic Transmissions - Principles of troubleshooting, disassembling, repairing, and reassembling automatic transmissions and related components. Includes hand tools, manufacturer's technical manuals and safety procedures.

VEM1523 Diesel Engine Maintenance - Principles of diesel engine theory and maintenance practices. Emphasizes diesel engine maintenance, troubleshooting, tune up, and operating procedures on distributor/multiple pump-type fuel systems. Includes engine and fuel system components; computer-controlled systems; cooling systems; emission control systems; filter systems; lubrication systems; and safety procedures.

VEM1524 Specialized Support Vehicles - Maintenance fundamentals, practices, and procedures of special purpose vehicles. Includes hydraulic, pneumatic, and electrical systems; troubleshooting, adjustment, and repair of associated systems and components; tools and test equipment; publications; and safety.

VEM1525 Operation and Maintenance of Refueling Vehicles - Vehicle winterization procedures, static reels, and

pressure controls, as well as bottom load, heater, power take-off and throttle interlock, fuel supply, filter fuel metering, defueling, evacuation, and hose reel systems.

VEM1526 Operation and Maintenance of Material Handling Equipment - Fundamentals of operation and maintenance practices and procedures of various types of forklifts and cargo loaders. Topics include hydraulic systems; electrical systems; steering systems; air systems; power train systems; suspension systems; winches; and platform systems.

VEM1529 Automotive Heating and Air Conditioning Systems - Principles and theory of heating and air conditioning systems used in light and heavy vehicles. Includes inspection, troubleshooting, maintenance and operational testing of heating and air conditioning systems. Also includes use of service manuals, wiring schematics, use of common and special tools, and shop and equipment safety.

VEM1530 Overview of Vehicle Maintenance - Familiarization with tools and procedures used in vehicle maintenance. Includes safety and materiel control principles; use of tools, test equipment and publications; inspection of vehicles; and maintenance policies and procedures.

VEM1531 Vehicle Winterization and Corrosion Control - Preparation of vehicles for storage, shipment, and inclement weather. Includes corrosion control, wrapping procedures, checklists, compliance records, and test materials publications.

VEM2501 Electromechanical Circuits and Systems - Automotive test equipment to inspect, service, test, adjust, and troubleshoot engine starting, ignition and charging circuits.

VEM2508 Advanced Special Support Vehicles - Maintenance of firefighting, refueling and other special-purpose vehicles, as applies to Vehicle Maintenance personnel. Includes advanced troubleshooting of systems and subsystems; disassembly, reassembly and replacement of hydraulic, pneumatic, air conditioning, electrical system, central tire inflation system, fuel systems and winterization systems; use of special tools, test equipment, and publications; and maintenance safety procedures.

VEM2509 Advanced Automotive Maintenance - Maintenance principles using tools, portable testers, publications and safety procedures to inspect, troubleshoot and repair automotive systems. Includes gas and diesel engines, power trains and replacement of inoperative vehicle system components.

VEM2511 Hybrid Vehicles Service and Technology - Operation and maintenance of hybrid vehicles. Includes hybrid vehicle principles and concepts, electrical theory, regenerative braking, High Voltage Traction Batteries (HVTB), Electronically Controlled Continuously Variable Transmissions (eCVT), and safety.

VEM2512 Fleet Management - Includes budget, financial terms and requirements for a budget and execution plan as applicable to vehicle maintenance personnel. To include Management Internal Control Toolset (MICT), Minimum Essential Listings (MELs) data, Time Compliance Technical Orders (TCTO)/Service bulletins, Federal Automotive Statistical Tool (F.A.S.T), 701 waivers and Financial Improvement Audit Readiness (FIAR) compliance regulations, Vehicle Validations (VV), Defense Property Accountability System (DPAS) and Transaction Reporting Tool (TRT).

(WEL) Welding

WEL1501 Oxyacetylene Welding - An overview of oxyacetylene welding. Includes operation and maintenance of welding equipment; identification of beads, lap joints and tee joints of carbon steel; position welding; cutting ferrous metals; silver and lead soldering; brazing steel and gray cast iron; fusion welding of ferrous castings; and forging metals.

WEL1503 Inert Gas Shielded Welding - Introduction to welding of edge, butt and tee joints of heat and corrosion resistant ferrous, aluminum, magnesium and titanium alloys.

Terms & Acronyms

AAS, Associate of Applied Science

ACE, American Council on Education

AETC, Air Education and Training Command

AF COOL, Air Force Credentialing On-Line

AFRC, Air Force Reserve Command

Air Force Specialty are alphanumeric identifiers of Air and Space Force enlisted occupational specialties. There are three types of occupational specialty codes: Air Force Specialty Code (AFSC), Special Duty Identifier (SDI) and Reporting Identifier (RI).

Air Force Specialty Code (AFSC) the alphanumeric identifier of occupational specialty of enlisted Airmen and Guardians and skill level: unskilled (1 level), apprentice (3 level), journeyman (5 level), craftsman (7 level) or superintendent (9 level).

Airman and Guardian refers to both male and female enlisted personnel.

ANG, Air National Guard

Armed Services Vocational Aptitude Battery (ASVAB) consists of prerequisite tests for USAF enlistment and is a factor in occupational assignment.

ASAP, Affiliated Schools Advisory Panel

AU, Air University

AU-ABC, Air University Associate-to-Baccalaureate Cooperative

Board of Visitors (BOV) collectively reviews policies and operations that are forwarded to the Secretary of the Defense through the AETC commander, and guides CCAF actions.

Candidates for graduation are students who—before commissioning, retiring or separating—have completed all requirements for their degree program, submitted final documents to the college and are recommended for award of the AAS degree.

Catalog of registration is the edition of the catalog current at the time students register or to which they are subsequently moved when granted a program or catalog change or when they do not complete their degree within 6 years of date of registration.

CCAF courses are credit-bearing military courses taught at off-campus instructional sites by qualified CCAF faculty.

CCAF degree-applicable courses may be applied toward the technical core, technical elective, LMMS or program elective portion of CCAF AAS degree programs.

CCAF, Community College of the Air Force

CLEP, College-Level Examination Program

Commandant is the chief executive officer with command authority.

DANTES, Defense Activity for Non-Traditional Education Support

Degree award date is the date Admissions & Registrar Directorate receives the degree completion documents or the date of review by CCAF administrative staff revealing a student has completed all degree requirements.

Disenrollment applies to a student who was withdrawn from a degree program for cause.

DoD, Department of Defense

E&TS, Education & Training Section

ESAP, Education Services Advisory Panel

GEM, General Education Mobile

GER, General Education Requirement

Institutional credit is credit earned and awarded through instruction offered by the institution awarding the degree. CCAF institutional credit is awarded for credit-bearing courses delivered by off-campus instructional sites and taught by qualified CCAF faculty. The academic discipline (Technical Core) requirements of the CCAF degree must be satisfied by institutional credit earned from formal specialty-related technical training.

In-transfer credit is credit awarded from other accredited institutions that are accepted for use by the institution awarding the degree. The academic discipline (Technical Core) requirements of the CCAF degree may not be satisfied by in-transfer credit. However, in-transfer credit may satisfy Technical Elective, Program Elective, or General Educations requirements.

ISD, Instructional Systems Development

ITMS, Instructor of Technology and Military Science

JSAMTCC, Joint Service Aviation Maintenance Technician Certification Council

JST, Joint Service Transcript

LMMS, Leadership, Management and Military Studies

NCO, Noncommissioned Officer

Non-institutional credit is credit earned and awarded for professional certificates or other noncredit educational experiences outside a collegiate course for which academic credit is awarded. Non-institutional credit may be awarded for industry certifications, upgrade training (UGT), special duty qualification training (SQT), American Council on Education (ACE) credit recommendation for non-accredited military courses, and other learning experiences outside a collegiate course. The academic discipline (Technical Core) requirements of the CCAF degree may not be satisfied by non-institutional credit. However, non-institutional credit may satisfy Technical Elective or Program Elective requirements.

OJT, On-the-Job Training

Policy Council is a governing body that develops academic policies that are endorsed by the Board of Visitors. The council is composed of representatives from all elements of the CCAF system.

Primary Air Force Specialty Code (PAFSC) is what CCAF uses to determine degree program eligibility.

Program Managers are occupational specialists who manage CCAF AAS degree programs, evaluate student records and progress reports, review and evaluate military courses delivered at off-campus instructional sites for award of academic credit, and work with education services personnel in advising students.

Programmatic/specialized accreditation is official recognition by national professional organizations in such fields as business, health, law and engineering and provides quality assurance concerning educational preparation of members of a profession or occupation.

Progress Report (PR) is an unofficial document reflecting a student's record, including credit application toward degree requirements. A PR cannot be used as an official education record.

Registered student is an individual currently registered in a CCAF degree program.

Reporting Identifier (RI) is an alphanumeric occupational specialty code for an enlisted occupational specialty not included in the AFSC structure.

RIP, Report on Individual Personnel

SACSCOC, Southern Association of Colleges and Schools Commission on Colleges

Separated student is an individual who has been withdrawn from a degree program due to commissioning, retirement or separation.

SH, Semester Hour

Special Duty Identifier (SDI) is an alphanumeric occupational specialty code assigned to enlisted Airmen and Guardians who, on a semipermanent or permanent duty basis, perform tasks that do not provide a normal career progression pattern and are unrelated to any Air Force specialty.

Subsequent degree is a CCAF degree earned after award of the first CCAF degree.

Technical Core are those courses directly related to a student's field of study.

Technical Elective is a course that is beneficial but not essential toward a student's field of study.

Transcript is the official educational record of a student.

Withdrawn applies to a student who has been removed from active student status because of administrative reasons or a personal request.

Index

A

Accreditation, 10
Academic Information, 17
Academic Integrity, 11
Acronyms, 233
Administrative Center, 11
Admission, 17
Advanced Standing, 22
Advisory Bodies, 13
Aerospace Ground Equipment Technology, 39
Aerospace Historian, 40
Aerospace Physiology Technology, 41
Affiliated Schools Advisory Panel, 13
AFSC Conversion and Merger, 18
Air & Space Operations Technology, 42
Air Force Airframe and Powerplant (A&P) Certification Program, 114
Air Force Credentialing Opportunities Online (AF COOL), 112
Air Traffic Operations & Management, 43
Air University Board of Visitors, 13
Aircraft Armament Systems Technology, 44
Aircraft Structural Maintenance Technology, 45
Aircrew Safety Systems Technology, 46
American Council on Education, 21
Associate of Applied Science Degree, 30
Automatic Registration, 17
Aviation Maintenance Technology, 47
Aviation Management, 48
Aviation Operations, 49
Avionic Systems Technology, 50

B

Bioenvironmental Engineering Technology, 51
Biomedical Equipment Technology, 52

C

Cardiopulmonary Laboratory Technology, 53
CCAF History, 9
CCAF Instructor Certificate Program, 116
CCAF Online Services, 16
CCAF Policy Council, 14
CCAF System, 11
Civilian Teacher Certification, 116
Commandant, 12
Computer Science Technology, 54
Construction Technology, 55
Contracts Management, 56
Core Values AF, 8
Course Descriptions, 122
Course Description Code Index, 122
Credit, Types, 19
Credit By Examination, 20
Credit Hour, 19
Credit Splitting, 22
Criminal Justice, 57
Cybersecurity, 58

D

Degrees, 14
Degree Programs, 30
Degree Program Eligibility, 18
Degree Program and Catalog Change, 23
Degree Program Withdrawal, 26
Degree Program and Academic Specialty Codes, 38
Degree Programs by Air Force Specialty, 34
Degree Requirements, 30
Degree Time Limit, 18
Dental Assisting, 59
Dental Laboratory Technology, 60
Diagnostic Imaging Technology, 61
Diagnostic Medical Sonography, 62
Dietetics & Nutrition, 63
Department of Defense Schools, 21
Double-Counting Credit, 21

E

Education Documents, 28
Education Document, Update, 28
Education & Training Management, 64
Education Services, 12
Education Services Advisory Panel, 14
Electronic Systems Technology, 65
Emergency Management, 66
Enrollment and Registration, 17
Entomology, 67
Exception to Policy Process, 26
Explosive Ordnance Disposal, 68

F

Financial Management, 69
Fire Science, 70
Fraudulent Document, 28

G

General Education Requirements, 31
General Education Goal and Learning Outcomes, 32
General Information, 8
Grading Policy, 19
Graduation, Degree Award Date, 25
Graduation, Eligibility, 24
Graduation Information, 24
Graduation, Institutional Credit Requirement, 24
Graduation, Intent to Graduate, 24
Graduation, Intent to Graduate Cut-Off Date, 25
Graduation, Separated Students, 25
Graduation, Skill-Level Requirement, 24
Graduation, Specialty Requirement, 24
Graduation, statute of Limitations, 26
Graduation, Technical Education Requirement, 24
Graduation, Verification Information, 25

H

Health Care Management, 71
Histologic Technology, 72
Hospitality & Fitness Management, 73
Human Resource Management, 74
Human Services, 75

I

Information Release, 29
Information Management, 76
Information Systems Technology, 77
Institutional Credit, 19, 30
Instructional Systems Development Certificate Program, 118
Instructor of Technology & Military Science, 78
Intelligence Studies and Technology, 79
In-Transfer Credit, 20

J

Joint Service Aviation Maintenance Technician Certification Council (JSAMTCC), 113

L

Leadership, Management & Military Studies, 31
Logistics, 80

M

Maintenance Production Management, 81
Management Engineering Technology, 82
Mechanical & Electrical Technology, 83
Medical Laboratory Technology, 84
Memberships, 239
Mental Health Services, 85
Metals Technology, 86
Meteorology, 87
Microprecision Technology, 88
Military Technology & Applied Sciences Management, 89
Missile & Space Systems Maintenance, 90
Mission (Air University and CCAF), 8
Munitions Systems Technology, 91

N

No Fault Exception to Policy, 27
Nondestructive Testing Technology, 92
Non-Degree Seeking Student, 23
Non-Institutional Credit, 19
Nuclear Medicine Technology, 93
Nuclear Weapons Systems Technology, 94

O

Occupational Safety, 95
Off-Campus Instructional Site, 12, 119
Ophthalmic Technician, 96

P

Paralegal, 97
Personnel Recovery, 98
Pharmacy Technology, 99
Physical Therapist Assistant, 100
Practical Nursing Technology, 101
Privacy Act, 11
Professional Credential, 29, 109
Professional Credential, CCAF Credit, 110
Professional Credential, Exception to Policy, 111
Program Elective Requirements, 32
Public Health Technology, 102

Q

Quarter-Hour Conversion, 22

R

Requesting a CCAF Transcript, 29

S

Scientific Analysis Technology, 103
Skill Level Requirements, 30
Student, 15
Student Complaints, 15
Student Feedback, 16
Student Learning Outcomes, 14
Student Rights and Grievances, 15
Student Services, 16
Subsequent Degree, 23
Strategic Operations Management, 104
Surgical Services Technology, 105
Survival Instructor, 106

T

Technical Education Requirements, 30
Terms and Acronyms, 233
Transcripts, 22
Transportation, 107
Troops to Teachers Program, 117

V

Vehicle Maintenance, 108
Vision (Air University and CCAF), 8

W

Washback Policy, 26
Web Progress Report (WebPR), 16
Wounded Warrior, 25

Memberships

The Community College of the Air Force holds memberships in the following organizations:

- Alabama Association of Collegiate Registrars through Air University
- American Association of Collegiate Registrars and Admissions Officers through Air University
- American Association of Community Colleges through Air University
- American Council on Education through Air University
- American Technical Education Association
- Aviation Technical Education Council
- Council for Higher Education Accreditation through Air University
- Inter-Service Credentialing Opportunities On-Line Council
- Joint Services Aviation Maintenance Technician Certification Council
- Post-Secondary Electronics Standards Council
- Southern Association of Colleges and Schools Commission on Colleges through Air University
- Southern Association of Collegiate Registrars and Admissions Officers through Air University

This publication has been reviewed and approved by the preparing agency according to current directives on policy, essentiality, propriety and quality. 9 Dec 21