Air University

Community College of the Air Force

The Airman's College
We educate Airmen for life.

2017 – 2019 General Catalog
Number 21

The Community College of the Air Force, Maxwell AFB, Gunter Annex, Alabama, is an institution of higher learning dedicated to the enlisted members of the United States Air Force. The Community College of the Air Force is accredited through Air University by the Southern Association of Colleges and Schools Commission on Colleges to award the associate degree.

Current as of 25 Jul 19: change made to page 88
(30 Jan 19 page change to: *iii*, *iv, vi,* 23, 88 & Appendix added)

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.

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This catalog is available on-line at

www.airuniversity.af.mil/au/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 United States Air Force's enlisted total force. We partner with more than 113 affiliated Air Force schools, 525 education services offices located worldwide, and more than 1,500 civilian academic institutions to serve approximately 268,643 active, guard, and reserve enlisted personnel, making CCAF the world's largest community college system.

We strive to meet the demands of the Air Force's increasingly expeditionary environment and at the same time help Airmen 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 regional 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 Nathan P. Sherman

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 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 are always prepared for any challenge, no matter where in the world it arises.

CMSgt Rye T. Bavin

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Academic Programs	DEA	5015
Superintendent	DEA-1	5013
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SrA Matthew Richards ..... Student Services

A1C Charisma Doyle..... Student Services

GENERAL INFORMATION …

The United States Air Force (USAF) has always recognized the positive effects of education on Air Force personnel and continually established various programs to meet the needs 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 in applied science degree (AAS) after a student successfully completes a degree program designed for an Air Force specialty.

CCAF Mission

Offer and award job-related associate in applied science degrees and other academic credentials that enhance mission readiness, contribute to recruiting, assist in retention and support the career transitions and professional growth of the Air Force enlisted corps.

Core Values

The Air Force core values are:

Integrity First
Service Before Self
Excellence in All We Do

CCAF Vision for the future is to continue to be:

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

Accreditation

The Community College of the Air Force is a part of Air University. Air University is accredited by the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) (1866 Southern Lane, Decatur, Georgia 30033-4097: Telephone number 404-679-4500) to award associate, master's, and doctor of philosophy degrees. Air University achieved regional accreditation in 2004. Previously, the Community College of the Air Force was separately accredited by SACSCOC from 1980-2004.

History

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 the Community College of the Air Force. 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 associate in applied science 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 nondegree-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 the Community College of the Air Force realigned under Air University, which became the educational component of the redesignated Air Education and Training Command. However, the commander of Air Education and Training Command (AETC) 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 regional accreditation by the SACSCOC. On 25 June 2004, SACSCOC notified Air University that their application for regional 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.

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 affiliated schools are located in 37 states, and 9 foreign locations. About 6,300 CCAF faculty members provide quality instruction for the personal and professional development of enlisted personnel. 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 490,000 associate in applied science degrees.

The System

Administrators, instructors, classrooms, laboratories, counselors and students are located throughout the world. What is often perceived as nontraditional about the college is its organization and administration that provide 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 the General Education Requirement (GER) of the degree programs and also provide course work to satisfy Technical Education, 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.

Student Learning Outcomes

All CCAF graduates will meet the following learning outcomes. These outcomes are the overarching outcomes encompassed in all 71 CCAF 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.

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*. The Community College of the Air Force 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 system schools' curricula into semester-hour credit, develops course descriptors, designs and manages AAS degree programs, maintains records of student achievement and progress toward degree completion, ensures system schools maintain standards required for accreditation, distributes official catalogs and other publications, and provides guidance to the worldwide network of counselors. 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

Affiliated Schools

Air Force schools that provide occupational-related technical training and enlisted professional military education (EPME) may voluntarily affiliate and become part of the CCAF system. Course work offered by these affiliated schools 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 distance learning and traditional learning environments. Each affiliated school is a component of a worldwide educational system.

Education Services

The Air Force provides academic and financial assistance advice and counseling to Airmen 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 Force installation and is composed of professional educational administrators, guidance counselors, academic advisors, education technicians/specialists and proctored testing examiners.

E&TS personnel supporting active Air Force installations, CCAF advisors working with the Air National Guard (ANG) and training technicians assigned to the Air Force Reserve Command (AFRC) counsel students and serve as the direct link between students and the administrative center. These counselors 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 Community College of the Air Force (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 Community College of the Air Force (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. Current membership:

Chairman:

Dr. Rufus Glasper
President & CEO,
The League for Innovation in the Community College
Chandler, AZ

Members:

Dr. Judith Bonner
Provost & Executive Vice President
Mississippi State University
Starkville, MS

Dr. Julia Crutchfield
Chief Learning Officer
Hurlburt AFB, FL

CMSAF Rodney McKinley, USAF Ret
Former Chief Master Sergeant of the Air Force
CMSAF#15
Edmond, OK

Dr. Edward Hodge
Education Services Specialist
Randolph AFB, TX

The Advisory Bodies

In addition to the Air University Board of Visitors 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 United States 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 regional accreditation requirements.

Education Services Advisory Panel (ESAP)

The ESAP provides a forum for addressing issues of mutual concern to both CCAF and the United States 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 endorsed by the AU Board of Visitors. 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.

Degrees

The Associate of Applied Science (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.

The Policies

Entrance Requirements

Before enlisting in the United States Air Force, an individual completes the Armed Services Vocational Aptitude Battery (ASVAB) and meets standards in accordance to Air Force Recruiting Service Instruction 36-2001, *Recruiting Procedures for the Air Force*. 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. The Air Force uses these scores as an indicator of the student's potential to make satisfactory progress in a career-related degree program.

Admission & Registration

When assigned to an Air Force occupational specialty, enlisted members are admitted to the college and registered 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 civilian college course work or national tests applicable to their degree program from an accredited institution. Once a civilian college course or national test is recorded, the student is identified as a participant.

An Air Force enlisted member in the Regular Active Air Force and Selected Reserve serving in the ANG, AFRC or as an Individual Mobilization Augmentee is 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 PAS (Personnel Accounting Symbol) Code S7 (Inactive Reserve, IRR) cannot participate. Other US and international armed services enlisted members serving as CCAF instructors are also eligible to pursue the CCAF AAS degree.

Degree Program Eligibility

A student may register in an initial and subsequent degree program applicable to his or her primary, secondary, tertiary or fourth Air Force Specialty Code (AFSC), Special Duty Identifier (SDI), and/or Reporting Identifier (RI) as reflected on the current MilPDS Report on Individual Person (RIP). The student must be qualified to maintain the specialty and/or skill level per AFI 36-2101 requirements. Duty and Control specialties are not considered for degree program eligibility.

A student with a SDI and/or RI who is not applicable to a degree program may register in degree program applicable to his or her second or other AFSC reflected on the current MilPDS RIP and qualified to maintain the specialty and/or skill level per AFI 36-2101 requirements.

A student separated, retired or commissioned is not eligible to pursue a CCAF AAS degree and is withdrawn from the CCAF AAS degree program. An Airman who separates and joins the Active Reserve forces is automatically registered in the CCAF AAS degree program corresponding to their primary specialty.

Occupational specialty conversions or mergers may impact degree program eligibility when the converted or merged specialty is applicable to a different degree program. When this occurs, the formal training subject matter of the previous specialty may not be applicable to discipline of the CCAF AAS degree program which the converted or merged specialty is applicable to. Degree program eligibility is dependent on whether the student's converted or merged specialty requires completion of mandatory initial skills formal training for the new specialty. If completed formal training in the previous specialty applies to both degree programs, the student will choose to remain in the previous degree program during the period of enrollment or enroll (requested or 6-year roll) in the degree program which the converted or merged specialty is applicable to. With either degree, the student will have earned the specialty-related CCAF AAS degree.

Other US and international armed services enlisted members assigned and serving as CCAF instructors are eligible to pursue the CCAF AAS degree in the occupational specialty which they serve and instruct and the Instructor of Technology and Military Science Degree program. All degree requirements must be completed prior to completion of CCAF instructor duty.

Subsequent Degree

A student may register in a subsequent degree program applicable to his or her primary, secondary, tertiary or fourth Air Force Specialty Code (AFSC), Special Duty Identifier, or Reporting Identifier as reflected on the current MilPDS RIP. The student must be qualified to maintain the specialty and/or skill level per AFI 36-2101 requirements. A student will not be awarded a degree in a program previously designed for that specialty. A student registered in a subsequent degree program must earn and apply a minimum of 24 semester hours of unique (different) technical credit applicable to the degree discipline and not previously applied toward another degree—at least 12 semester hours must be CCAF credit.

Occupational specialty conversions or mergers may impact subsequent degree program eligibility. Subject matter of the previous specialty may not be applicable to discipline of the degree program which the converted or merged specialty is applicable to. Subsequent degree program eligibility is dependent on whether the student's converted or merged specialty requires completion of mandatory formal initial skills training for the new specialty.

If a student's converted or merged specialty is applicable to a different degree program, the student is eligible for both degrees provided the student completed mandatory initial skills formal training requirements for both specialties. If a student's converted or merged specialty is applicable to a different degree program, the student is not eligible for both degrees if the student does not complete initial skills formal training requirements for the new specialty.

Members holding a Chief Enlisted Manager (CEM) or superintendent-level position are not eligible to enroll in CCAF subsequent degree programs unless they also had completed formal specialty-related technical training in the specific specialty for 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 members serve primarily as workforce managers. It is not appropriate to graduate students who have not worked in (career progression) the specialty, completed formal training for award of the specialty, nor completed formal technical training within the specialty designated for the degree program.

Degree Time Limit

Registration and enrollment in a degree program is limited to 6 years from date of registration. A student who is pursuing a first degree and does not graduate in the allotted time will automatically be moved to the degree program applicable to the primary occupational specialty and in the most current catalog. A student who does not graduate within 6 years from the date of registration, and their primary specialty is not assigned to a specific degree program, will not be registered. A student who is pursuing a subsequent CCAF AAS degree will be disenrolled at the 6th year date of registration. A student desiring registration in another subsequent degree program may do so by submitting a Student Action Request through the E&TS or ANG/AFRC CCAF advisor.

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 2 years from the registration date to graduate. A student who does not graduate in the allotted time will be disenrolled. The student may re-register in the ITMS degree program provided he or she is assigned as a CCAF instructor, meets all other requirements for registration, and by following the Student Action Request procedures outlined above

Statute of Limitation

A student has 6 years from retirement, separation, or being commissioned to file for graduation if all requirements were completed prior to the date of separation, retirement, or commissioning. The student is only eligible for the degree that he or she was registered in at the time of separation. The student is ineligible for a subsequent degree.

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 affiliated schools 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.

Award of Credit

A credit hour represents the amount of work (classroom lecture or laboratory) expected of students in order to achieve intended learning goals and outcomes verified by evidence of student's measured achievement. Faculty members evaluate and verify evidence of student achievement for all program outcomes. CCAF operates under the semester hour system and follows sound practices for determining the amount and level of credit awarded for credit-awarding military course. CCAF academic credit is a reasonable approximate of minimum amount of student work in accordance with commonly accepted practice in higher education. A contact hour is equivalent to 50 minutes of classroom or laboratory instruction. CCAF academic credit is awarded based on the following ratios: 15 contact hours of faculty instruction and written test/examinations equates to 1 semester hour; 30 contact hours of review theory, faculty-supervised laboratory, and performance-based evaluations equates to 1 semester hour; and 45 contact hours of supervised clinical laboratory equates to 1 semester hour.

Transcripts

All transcripts submitted from civilian institutions for credit 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 The American Association of Collegiate Registrars and Admissions Officers (AACRAO) or 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.

Transfer Credit

Acceptance of credit in transfer practices shall be consistent with accepted practices of regionally accredited, degree-granting institutions of higher education. Credit accepted in transfer from non-regionally accredited institutions must also comply with transfer credit procedures for non-regionally accredited institutions as approved by the Air University Board of Visitors. The college accepts "in transfer" courses that meet the criteria in the **DEGREE PROGRAMS** section. Credit earned at accredited colleges and universities may be accepted in transfer. CCAF determines the credit to be accepted in transfer from accredited, degree-granting institutions that do not record course completion in credit hours.

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 regionally accredited colleges and universities. 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 schools with regional accreditation and national accreditation through the Distance Education and Training Council.

Quarter-Hour Conversion

CCAF operates on the semester-hour system. The student must be aware that course credit in transfer from an institution that operate under the quarter-hour system is not the same as a semester-hour and course credit value will be affected. All college transcripts using the quarter-hour system will be converted to semester-hour value before 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	.66		6	4.00
2	1.33		7	4.66
3	2.00		8	5.33
4	2.66		9	6.00
5	3.33		10	6.66

Civilian College Courses

Courses completed with a "C" or higher at accredited civilian 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.

Department of Defense & Other Service Schools

If the Department of Defense (DoD) and other service schools are accredited and issue a transcript, the college will consider accepting the credit in transfer. See the *Guide to the Evaluation of Educational Experiences in the Armed Services* (American Council on Education Guide) for credit information on other DoD courses that may apply to a CCAF AAS degree.

Many Air Force enlisted members attend Army, Navy and/or Department of Defense initial or advanced technical training courses instead of Air Force technical training courses. The college does not award resident credit for these courses since these schools are not part of the CCAF system. However, the college may

award proficiency ("P") credit to Air Force enlisted members completing these courses. Proficiency credit is applied to a student's program after attaining the Journeyman (5 five skill-level).

A CCAF student completing training with another service may apply that credit toward a CCAF AAS degree if the training has an ACE credit recommendation. ACE credit-recommended courses must be degree program-applicable and not duplicate credit previously applied from other sources.

Some other service-specific courses do not have ACE credit recommendations due to the security classification of the course material. Unfortunately, these students will not have any ACE credit recommendations to record on the CCAF student record.

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. Credit may be applied for examinations offered by once CCAF receives the original test score report from the administrating agency.

Official transcripts or score reports must be sent directly from the issuing agency to the CCAF Registrar. Examination results documented on other college or university transcripts which credit was used is not acceptable.

American Council on Education Credit Recommendation

Credit may be awarded for some civilian training and courses completed at non-CCAF affiliated Department of Defense (DoD) schools. In cases where these 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 education, LMMS or program elective areas of degree programs. Courses must be program-applicable and not duplicate credit previously applied from other sources. CCAF will only add ACE-recommended credit when a student is enrolled in a degree program and the credit can be applied toward degree requirements. CCAF will transcribe ACE-recommended credit from an official ACE Registry Transcript or Joint Service Transcript (JST).

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 when eligible. The Associate Dean of Academic Programs 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 current on the date of the change.

Advanced Standing

A student attains advanced standing (registration status code 2 or 5) after completing 45 semester hours of degree-applicable course work and applying civilian course or test credit. At this point a counselor should provide special guidance to complete degree requirements.

Candidacy Status & Graduation

The CCAF counselor/advisor or training technician 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 the CCAF Administrative Center receives all required documentation,

which includes the completed CCAF Student Action Request nominating the student for graduation, official civilian transcripts, military course completion certificates, and/or other source documents. CCAF Online services degree requirements must be ***COMPLETED*** and all transcripts must be ***RECEIVED*** at CCAF ***PRIOR*** to nomination. Students should consider the time necessary for course and/or examination score reporting and transit time for the college or university transcripts needed for credit in transfer decisions. After a student meets all requirements, the college notifies the student's nominating E&TS, or unit training office of degree completion. All degree requirements must be satisfied before separation, retirement or commissioning and a student must have been enrolled in a degree program before that date. The college has two graduating classes each year—April and October. Diplomas are mailed to the E&TS about one week before graduation.

Degree Award Date

The student's degree award date is the date the CCAF Administrative Center receives the completed, *CCAF Student Action Request*, nominating the student for graduation in a specific CCAF AAS degree program. The *CCAF Student Action Request* is submitted by E&TS counselors or advisors to the CCAF Administrative Center. All degree requirements must be completed and recorded to the CCAF student record prior to nomination. Students should consider the time necessary for course and/or examination score reporting and transit time for college or university transcripts needed for credit in transfer decisions. The degree award date is the date final documents are received by the CCAF administrative staff.

Students should not assume CCAF AAS degree requirements are automatically completed upon successful completion of required courses via a civilian college or university or that this is the date they will be a CCAF graduate. The student must satisfy all requirements, up to and including nomination, for graduation before the close out of the member's Enlisted Performance Report (EPR). CCAF's policy is not to back date any student's graduation date to satisfy requirements for Senior Rater Endorsement, EPR, award packages, etc. Once a degree has been awarded, the degree title shall not be changed.

Combat Wounded, Ill or Injured Airmen (Wounded Warriors)

Combat wounded, ill, or injured Airmen who commenced but did not complete a CCAF AAS degree program and/or CCAF-awarded credentialing program may continue participation in their degree program and/or certification program after separation or retirement. To qualify, the member must have been awarded a 9W-series Reporting Identifier (RI) for combat-related injuries or illnesses as reflected in the Military Personnel Data System. Degree program participation is limited to the program of enrollment at the time of separation or retirement. These members will 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 degree requirements.

Statute of Limitation

A student has 6 years from retirement, separation, or being commissioned to file for graduation if all requirements were completed prior to the date of separation, retirement, or commissioning. The student is only eligible for the degree enrolled in at the time of separation. The student is ineligible for a subsequent degree.

Washback Policy

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 called a ***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 affiliated school commander or designated representative.

Degree Program Withdrawal

An admitted and 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 or ANG/AFRC CCAF advisor.

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 AU Policy, Regarding Student Rights and Grievance and those supplemented by CCAF affiliated schools.

Exception to Policy Process

Policies and program requirements are established for sound academic reasons. Occasionally *extenuating circumstances* arise that may warrant a waiver. Exception to policy requests are only considered if the student will be a degree candidate upon approval. 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 1 or 2 hours to become a candidate.
- 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 policies, and is consistent with standard procedures practiced at most accredited institutions of higher learning.

A student desiring an exception to academic policy and/or degree program requirements must initiate and coordinate the waiver request through the E&TS or the ANG/AFRC CCAF advisor. The E&TS or ANG/AFRC CCAF advisor provides guidance and submits a waiver request to the CCAF Dean of Academic Affairs. Exception to policies are considered only if approval of the exception will make the student a degree candidate. The Dean of Academic Affairs is the final authority for exceptions and waivers of academic policy.

CCAF does not have an exception to policy for CCAF-awarded credentialing programs. All published program requirements must be successfully completed. Requests to exception to policies will not be accepted and/or approved.

"No Fault" Exception

Degree program eligibility for enrollment and graduation requires the student to hold the required degree program-applicable occupational specialty (AFSC, Special Duty Identifier or Reporting Identifier) and specialty skill level. A no fault exception to policy may be considered for a student whose occupational 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 E&TS or the ANG/AFRC CCAF advisor for guidance on submitting a no fault exception request to the CCAF associate

dean of academic programs. The associate dean of academic programs is the final authority for no fault exceptions of academic policy.

To qualify for no fault exception:

- Conditions or circumstances must be beyond the student's control.
- Student must be pursuing the degree applicable to the occupational specialty (AFSC, Special Duty Identifier or Reporting Identifier) at the time of loss of occupational specialty.
- The no fault exception request must be submitted to the CCAF Administrative Center within one year of removal of occupational specialty.
- The Journeyman (5 skill-level) or higher must have been attained prior to removal of the AFSC.
- 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 of the occupational specialty code. Acceptable documents include:

- Official Air Force Form 2096, Classification/On-The-Job Training Action, showing AFSC (with awarded skill level), Special Duty Identifier or Reporting Identifier was held and date subsequently removed.
- Medical documents—physician's memo or diagnosis, stating the exact disqualifying medical reasons—or a memo from the student's commander explaining why disqualified or removed from the specialty code.
- Memo from the student, explaining the situation and requesting consideration of no fault exception.

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 101.

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 technical credit. Airmen 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 technical 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 http://www.airuniversity.af.mil/Barnes/CCAF/.

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

The Educational Documents

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

To initiate a record update, students must contact the E&TS or ANG/AFRC CCAF advisor. To progress in a CCAF AAS degree program, students must submit educational documentation reflecting course completion. The issuing institution or agency must mail these documents directly to: 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 postsecondary institutions. Transcripts must be official and provided directly from each civilian college or university attended. A college or university transcript reflecting in transfer courses and credits are not acceptable.
- Official transcript from the Educational Testing Service reflecting CLEP or DANTES tests taken at a certified DANTES testing site.
- Air Force Career Development Academy official transcript, showing semester-hour credits.
- 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 affiliated school course that was not added to the academic record.
- Official verification of professional 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 an Air Force commission, before separation or retirement, or when it may result in degree completion.

Fraudulent Document

The Enrollment Management and Academic Programs Divisions ensure the authenticity of each document. All fraudulent documents are given to the CCAF registrar for appropriate action that can include disenrollment and/or legal action. A student disenrolled for fraud will have his or her transcript annotated with "student was disenrolled for submitting fraudulent documents."

Document Process

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

Privacy Act

As a federal military education institution, AU must adhere to established federal and services policies and guidelines on records. Air University adheres to the guidelines of the Privacy Act of 1974 to protect the confidentially and integrity of student records. Though not mandated by law, AU also complies with the basic tenets of the Federal Family Educational Rights and Privacy Act (FERPA). However, the Department of Education, Family Policy compliance Office, views AU as a DOD Section 6 school that is solely funded by

the DOD under 10 *United States Code (USC)* Section 2164, and is therefore exempt. The security and confidentiality of student records are central to the academic integrity of AU. AU is committed to protecting, to the maximum extent possible, the privacy rights of all students about whom it holds information, records, and files.

Information Release

A student may release information pertaining to his or her educational record to a third party by completing and submitting a release letter (with an original signature) to the college's registrar. These directives mentioned under "Privacy Act" specify that an educational record may not be released without the student's written consent specifying records to be released and to whom.

Transcript Request

CCAF transcripts are processed within two business days of request. Allow up to 15 days for receipt of mailed transcripts. CCAF provides several options for ordering official CCAF official. Electronics transcripts are not available at this time. All official CCAF transcripts are printed and mailed.

Option 1: Online Transcript Request

This option is only available if accessing from a secured .mil network. The official CCAF transcript is printed and mailed, free of charge, to the address of choice using the CCAF online transcript order form.

1. Access the Air Force Virtual Education Center (AFVEC) at https://afvec.langley.af.mil/afvec/Home.aspx.
2. Under "Self Service," select "CCAF Student Services." The user is directed to CCAF Online Services.
3. In the "Transcripts" tab, select "Order a Transcript" and complete the online form under Option 1.

Option 2: Written Transcript Request

This option is only available if a secured .mil network is not available. The official CCAF transcript is printed and mailed, free of charge, to the address of choice. Written transcript requests are processed in the order they are received. Written requests are normally processed 10-15 days after receipt.

1. Access the Air Force Virtual Education Center (AFVEC) at https://afvec.langley.af.mil/afvec/Home.aspx.
2. Under "Self Service," select "CCAF Student Services." The user is directed to CCAF Online Services.
3. In the "Transcripts" tab, select "Order a Transcript" and download the Transcript Request form. Follow the instructions provided.
4. Ensure all fields are completed and wet-sign the form. Digital signatures are not accepted. E-mailed, incomplete or illegible written requests are not accepted nor processed. Mail the form to the following address:

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

Option 3: First Class Mail and Overnight order through Credentials Solutions

This option is handled by a third party vendor. CCAF official transcripts can be ordered through this site at any time and with mailing options via first class mail or Federal Express. The member is charged a nominal fee. These fees are not covered by the Air Force. Keep this processing time in mind if a deadline for enrollment, registration, job application, etc. is a concern. To order an official CCAF transcript via this option visit: https://www.credentials-inc.com/cgi-bin/dvcgitp.pgm?ALUMTRO012308.

Option 4: View unofficial transcript

The unofficial CCAF transcript may be viewed and printed. **This option is only available if accessing from a secured .mil network.**

1. Access the Air Force Virtual Education Center (AFVEC) at https://afvec.langley.af.mil/afvec/Home.aspx.
2. Under "Self Service," select "CCAF Student Services." The user is directed to CCAF Online Services.
3. In the "Transcripts" tab, select "Print Unofficial CCAF Transcript."

*Note: "The appearance of hyperlinks does not constitute endorsement by the U.S. Air Force of this Web site or the information, products, or services contained therein. The U.S. Air Force does not exercise any editorial control over the information you may find at these locations. Such links are provided consistent with the stated purpose for this U.S. Air Force Web site."

The Student

As a military member, 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 Force installation. Additionally, a student must follow the standards of behavior established by the affiliated schools.

CCAF students are required, as a condition of good standing and continued enrollment, to conduct themselves in a manner that does not discredit the CCAF system. **Plagiarism, cheating, submitting fraudulent academic documentation and other forms of academic dishonesty are prohibited.** Any action punishable under the Uniform Code of Military Justice 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 Complaints

Each affiliate school 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, affiliated school 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 affiliated school; and the formal waiver review process. There are affiliated school 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 to the administrative center by visiting the CCAF homepage at http://www.airuniversity.af.mil/Barnes/CCAF/ and using the e-mail link or through the Air Force Virtual Education Center at https//afvec.langley.af.mil.

Student Services

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.

Notes

DEGREE PROGRAMS …

This section contains the degree program requirements of the Community College of the Air Force. Degree programs are developed by Air Force technical experts, civilian or military consultants and reviewed by the Dean of Academic Affairs, Associate Dean of Academic Programs, Commandant, Policy Council and Air University Board of Visitors. 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 IN APPLIED SCIENCE DEGREE

The associate in applied science degree is offered in the following broad career areas:

- Aircraft & Missile Maintenance
- Allied Health
- Electronics & Telecommunications
- Logistics & Resources
- Public & Support Services

Degree Completion Requirements

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

The associate in applied science degree consists of a minimum of 64 semester hours. Degree plan requirements are distributed as follows:

	Semester Hours
Technical Education	24
Leadership, Management & Military Studies	6
Physical Education	4
General Education	15*
Communication	6**
**Written Communication	6
or	
**Oral Communication	3
and	
**Written Communication	3
Mathematics	3
Social Science	3
Humanities	3
Program Elective	15*
Total	**64**

*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.

**Note: Students have the option to complete 6 semester hours of non-duplicative written communication or 3 semesters of written communication and 3 semester hours of oral communication.

Leadership, management and military studies; physical education; general education; and program elective requirements are standard for all programs. Exceptions may be required to satisfy certification or other programmatic recognition.

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 level are students in occupational specialties that do not have Journeyman skill levels and Other Service Instructors.

Residency Requirement (16 semester hours)

A student must have a minimum of 16 semester hours of resident CCAF credit applied to his or her degree program to graduate. The 16 semester hours residency requirement is only satisfied by credit earned for coursework completed in a CCAF affiliated school or through CCAF Specialty Internship credit awarded for progression in an Air Force occupational specialty. Note: Proficiency "P" credit and physical education credit awarded for basic military training is not resident credit.

Technical Education Requirement (24 semester hours)

Twenty-four semester hours are required to fulfill the technical education requirement. Twelve semester hours must be applied from the technical core area with the remaining 12 applied from either the technical core or the technical elective areas. Refer to individual academic degree programs for specific technical education requirements. A student can check with the CCAF advisor/training technician for advice regarding specific degree requirements and information regarding transfer credit. Requests to substitute comparable courses or to exceed specified semester-hour values in any subject or course are approved by the Academic Programs Division. Office symbols and DSN

telephone numbers are listed on the Program Codes table starting on page ***22***.

Technical education requirements are generally satisfied by entry-level and advanced degree-applicable courses at affiliated schools and through Specialty Internship credit. However, additional technical education requirements may be satisfied by application of courses accepted in transfer, testing credit, distance learning, or issued professional credentials.

The following are the criteria to apply 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 a recognized candidate for accreditation.
- 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 applied to 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 are the criteria to apply civilian courses to the LMMS requirement:

- Must be from an accredited institution or a recognized candidate for accreditation.
- 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 are Principles of Management, Personnel Management, Human Resource Management, Principles of Supervision and Organizational Behavior. Examples of *unacceptable* courses are Small Business Management, Managerial Accounting, Financial Management, Labor and Management Relations, Management Information Systems, and other specialized management and/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 applied to the degree program.

Physical Education Requirement (4 semester hours)

Completing basic military training satisfies the 4-semester-hours physical education requirement. Civilian courses do not apply to this requirement.

General Education Requirement (15 semester hours)

The general education requirement is satisfied by applying courses accepted in transfer or by testing credit. The following are the criteria to apply courses to the general education requirement:

- Must be from an accredited institution or a recognized candidate for accreditation.
- 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 in Arts or Associate in 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 applied to 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.

Courses required to satisfy the general education requirement are as follows:

Written Communication.....6

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. The student has the option to complete 6 semester hours of non-duplicative written communication (i.e., cannot be two [2] ENGL101 courses);

or

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.

and

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.

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.

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.

Upon completion of this program, students 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 (if students take the oral communication option).
3. Understand and apply mathematical concepts and reasoning in problem solving.
4. Appreciate and value human diversity, individual differences, societies and the many expressions of culture.
5. Apply critical thinking skills as versatile problem solvers with enhanced mental agility and adaptability.

Note: Degree-specific program goals and learning outcomes for each degree program are found in the Web version of the 2017-2019 CCAF General Catalog starting on page 231 at: http://www.airuniversity.af.mil/Barnes/CCAF/.

Program Elective Requirement (15 semester hours)

The following will satisfy the program elective requirement:

- 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.
- Foreign language credit earned at the Defense Language Institute.
- A maximum of 9 semester hours of CCAF degree-applicable technical course credit otherwise not applicable to the program of enrollment.

THE DEGREE PROGRAMS BY AFSC/SDI/RI

The tables on the following pages indicate degree program eligibility for Air Force occupational specialties, including 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 occupational specialty code.

Specialty	Program Title	Program	Flight	DSN/ Ext	Page
1A0X1	Aviation Operations	4VCB	DEAT	5050	39
1A1X1	Aviation Operations	4VCB	DEAT	5050	39
1A2X1	Aviation Operations	4VCB	DEAT	5050	39
1A3X1	Air & Space Operations Technology	4VAS	DEAT	5050	32
1A6X1	Aviation Operations	4VCB	DEAT	5050	39
1A8XX	Intelligence Studies and Technology	9INZ	DEAS	5030	69
1A9X1	Aviation Operations	4VCB	DEAT	5050	39
1B4X1	Cybersecurity	0CYC	DEAT	5050	49
1C0X2	Aviation Management	1AVY	DEAT	5050	38
1C1X1	Air Traffic Operations and Management	2IAA	DEAT	5050	95
1C2X1	Strategic Operations Management	1BAA	DEAT	5050	33
1C3X1	Emergency Management	9IMY	DEAS	5030	57
1C4X1	Strategic Operations Management	1BAA	DEAT	5050	95
1C5X1	Air & Space Operations Technology	4VAS	DEAT	5050	32
1C6X1	Air & Space Operations Technology	4VAS	DEAT	5050	32
1C7X1	Aviation Management	1AVY	DEAT	5050	38
1C8X1	Electronic Systems Technology	4VHP	DEAT	5050	56
1C8X2	Electronic Systems Technology	4VHP	DEAT	5050	56
1NXXX	Intelligence Studies and Technology	9INZ	DEAS	5030	69
1P0X1	Aircrew Safety Systems Technology	4VAT	DEAT	5050	36
1S0X1	Occupational Safety	9IIY	DEAT	5050	86
1T0X1	Survival Instructor	2IBS	DEAT	5050	97
1T2X1	Personnel Recovery	7GDP	DEAT	5050	89
1U0X1	Air & Space Operations Technology	4VAS	DEAT	5050	32
1U1X1	Aviation Operations	4VCB	DEAT	5050	39
1W0X1	Meteorology	8FYY	DEAT	5050	78
1W0X2	Meteorology	8FYY	DEAT	5050	78
2A0X1	Avionic Systems Technology	4VHS	DEAT	5050	40
2A2XX	Avionic Systems Technology	4VHS	DEAT	5050	40
2A3X3	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A3X4	Avionic Systems Technology	4VHS	DEAT	5050	39

Specialty	Program Title	Code	Flight	DSN/ Ext	Page
2A3X5	Avionic Systems Technology	4VHS	DEAT	5050	40
2A3X7	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A3X8	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A5X1	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A5X2	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A5X3	Avionic Systems Technology	4VHS	DEAT	5050	40
2A5X4	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A6X1	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A6X2	Aerospace Ground Equipment Technology	4VAB	DEAT	5050	29
2A6X3	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A6X4	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A6X5	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A6X6	Aviation Maintenance Technology	4VAD	DEAT	5050	37
2A7X1	Metals Technology	4VLB	DEAT	5050	77
2A7X2	Nondestructive Testing Technology	4VXR	DEAT	5050	83
2A7X3	Aircraft Structural Maintenance Technology	4VAN	DEAT	5050	35
2A7X5	Aircraft Structural Maintenance Technology	4VAN	DEAT	5050	35
2A8XX	Avionic Systems Technology	4VHS	DEAT	5050	40
2A9XX	Avionic Systems Technology	4VHS	DEAT	5050	40
2F0X1	Logistics	1AMY	DEAS	5030	70
2G0X1	Logistics	1AMY	DEAS	5030	70
2M0X1	Electronic Systems Technology	4VHP	DEAT	5050	56
2M0X2	Missile & Space Systems Maintenance	4VAK	DEAT	5050	80
2M0X3	Mechanical & Electrical Technology	4VGA	DEAS	5030	74
2P0X1	Microprecision Technology	4VIA	DEAT	5050	79
2RXXX	Maintenance Production Management	4VJG	DEAS	5030	71
2S0X1	Logistics	1AMY	DEAS	5030	70
2T0X1	Transportation	1ATY	DEAS	5030	98
2T1X1	Transportation	1ATY	DEAS	5030	98
2T2X1	Transportation	1ATY	DEAS	5030	98
2T3X1	Vehicle Maintenance	4VKC	DEAS	5030	99
2T3X2	Vehicle Maintenance	4VKC	DEAS	5030	99
2T3X7	Maintenance Production Management	4VJG	DEAS	5030	71
2W0X1	Munitions Systems Technology	4VRA	DEAT	5050	81
2W1X1	Aircraft Armament Systems Technology	4VRY	DEAT	5050	34
2W2X1	Nuclear Weapons Systems Technology	4VHJ	DEAT	5050	85
3A1X1	Business Administration	1AUY	DEAS	5030	43
3D0X1	Business Administration	1AUY	DEAS	5030	43
3D0X2	Information Systems Technology	0IYY	DEAT	5050	67
3D0X3	Information Systems Technology	0IYY	DEAT	5050	67

Specialty	Program Title	Program	Flight	DSN/ Ext	Page
3D0X4	Computer Science Technology	0CYY	DEAT	5050	45
3D1X1	Information Systems Technology	0IYY	DEAT	5050	67
3D1X2	Information Systems Technology	0IYY	DEAT	5050	67
3D1X3	Electronic Systems Technology	4VHP	DEAT	5050	56
3D1X4	Information Systems Technology	0IYY	DEAT	5050	67
3D1X7	Electronic Systems Technology	4VHP	DEAT	5050	56
3E0X1	Mechanical & Electrical Technology	4VGA	DEAS	5030	74
3E0X2	Mechanical & Electrical Technology	4VGA	DEAS	5030	74
3E1X1	Mechanical & Electrical Technology	4VGA	DEAS	5030	74
3E2X1	Construction Technology	4VEB	DEAS	5030	46
3E3X1	Construction Technology	4VEB	DEAS	5030	46
3E4X1	Mechanical & Electrical Technology	4VGA	DEAS	5030	74
3E4X3	Entomology	3ALC	DEAS	5030	58
3E5X1	Construction Technology	4VEB	DEAS	5030	46
3E6X1	Maintenance Production Management	4VJG	DEAS	5030	71
3E7X1	Fire Science	9IFY	DEAS	5030	61
3E8X1	Explosive Ordnance Disposal	4VRC	DEAS	5030	59
3E9X1	Emergency Management	9IMY	DEAS	5030	57
3H0X1	Aerospace Historian	9DHK	DEAS	5030	30
3M0X1	Hospitality and Fitness Management	1FRS	DEAS	5030	64
3N0X2	Mass Communications	2FDE	DEAS	5030	73
3N0X5	Mass Communications	2FDE	DEAS	5030	73
3N1X1	Music	2CHB	DEAS	5030	82
3N2X1	Music	2CHB	DEAS	5030	82
3P0X1	Criminal Justice	9IJY	DEAS	5030	48
3S0X1	Human Resource Management	1AOY	DEAS	5030	65
3S1X1	Human Services	9IKY	DEAS	5030	66
3S2X1	Education & Training Management	2BAC	DEAS	5030	55
3S3X3	Management Engineering Technology	1AWY	DEAS	5030	72
4A0X1	Health Care Management	7GCY	DEAS	5030	62
4A1X1	Logistics	1AMY	DEAS	5030	70
4A2X1	Biomedical Equipment Technology	7GAA	DEAS	5030	42
4B0X1	Bioenvironmental Engineering Technology	7GAM	DEAS	5030	41
4C0X1	Mental Health Services	7GAP	DEAS	5030	76
4D0X1	Dietetics & Nutrition	7GAD	DEAS	5030	56
4E0X1	Public Health Technology	7ECY	DEAS	5030	93
4H0X1	Cardiopulmonary Laboratory Technology	7GDA	DEAS	5030	44
4J0X2	Physical Therapist Assistant	7GAI	DEAS	5030	91
4J0X2A	Physical Therapist Assistant	7GAI	DEAS	5030	91

Specialty	Program Title	Program	Flight	DSN/ Ext	Page
4M0X1	Aerospace Physiology Technology	7GAN	DEAS	5030	31
4N0X1	Practical Nursing Technology	7GAL	DEAS	5030	92
4N0X1B	Practical Nursing Technology	7GAL	DEAS	5030	92
4N0X1C	Practical Nursing Technology	7GAL	DEAS	5030	92
4N0X1F	Practical Nursing Technology	7GAL	DEAS	5030	92
4N1X1	Surgical Services Technology	7GEA	DEAS	5030	96
4N1X1B	Surgical Services Technology	7GEA	DEAS	5030	96
4N1X1C	Surgical Services Technology	7GEA	DEAS	5030	96
4N1X1D	Surgical Services Technology	7GEA	DEAS	5030	96
4P0X1	Pharmacy Technology	7GAH	DEAS	5030	90
4R0X1	Diagnostic Imaging Technology	7GDH	DEAS	5030	52
4R0X1A	Nuclear Medicine Technology	7ABJ	DEAS	5030	84
4R0X1B	Diagnostic Medical Sonography	7GDK	DEAS	5030	53
4R0X1C	Diagnostic Imaging Technology	7GDH	DEAS	5030	52
4T0X1	Medical Laboratory Technology	7GAF	DEAS	5030	75
4T0X2	Histologic Technology	7GAE	DEAS	5030	63
4V0X1	Ophthalmic Technician	7GDI	DEAS	5030	87
4V0X1S	Ophthalmic Technician	7GDI	DEAS	5030	87
4Y0X1	Dental Assisting	7GBC	DEAS	5030	50
4Y0X1	Dental Assisting	7GBC	DEAS	5030	50
4Y0X2	Dental Laboratory Technology	7GBB	DEAS	5030	51
5J0X1	Paralegal	1CAM	DEAS	5030	88
5R0X1	Human Services	9IKY	DEAS	5030	66
6C0X1	Contracts Management	1CAO	DEAS	5030	47
6F0X1	Financial Management	9GEC	DEAS	5030	61
7S0X1	Criminal Justice	9IJY	DEAS	5030	48
8A200	Hospitality and Fitness Management	1FRS	DEAS	5030	64
8B000	Education & Training Management	2BAC	DEAS	5030	55
8B100	Education & Training Management	2BAC	DEAS	5030	55
8C000	Human Services	9IKY	DEAS	5030	66
8D000	Intelligence Studies and Technology	9INZ	DEAS	5030	69
8F000	Human Resource Management	1AOY	DEAS	5030	65
8M000	Business Administration	1AUY	DEAS	5030	43
8P100	Business Administration	1AUY	DEAS	5030	43
8RXXX	Human Resource Management	1AOY	DEAS	5030	65
9L000	Intelligence Studies and Technology	9INZ	DEAS	5030	67
9S100	Scientific Analysis Technology	4VES	DEAT	5050	92

THE DEGREE PROGRAMS BY PROGRAM CODE

Code	Program Title	Pg
0CYC	Cybersecurity	49
0CYY	Computer Science Technology	45
0IYY	Information Systems Technology	67
1AMY	Logistics	70
1AOY	Human Resource Management	65
1ATY	Transportation	98
1AUY	Business Administration	43
1AVY	Aviation Management	38
1AWY	Management Engineering Technology	72
1BAA	Strategic Operations Management	92
1CAM	Paralegal	88
1CAO	Contracts Management	47
1FRS	Hospitality & Fitness Management	64
2BAC	Education & Training Management	55
2CHB	Music	82
2FDE	Mass Communications	73
2IAA	Air Traffic Operations & Management	33
2IBB	Instructor of Tech & Military Science	68
2IBS	Survival Instructor	97
3ALC	Entomology	58
4VAB	Aerospace Ground Equip Technology	29
4VAD	Aviation Maintenance Technology	37
4VAK	Missile & Space Systems Maintenance	80
4VAN	Aircraft Structural Maint Technology	35
4VAS	Air & Space Operations Technology	32
4VAT	Aircrew Safety Systems Technology	36
4VCB	Aviation Operations	39
4VEB	Construction Technology	46
4VES	Scientific Analysis Technology	94
4VGA	Mechanical & Electrical Technology	74
4VHJ	Nuclear Weapons Systems Technology	85
4VHP	Electronic Systems Technology	56
4VHS	Avionic Systems Technology	40
4VIA	Microprecision Technology	79
4VJG	Maintenance Production Management	71
4VJKC	Vehicle Maintenance	99
4VLB	Metals Technology	77
4VRA	Munitions Systems Technology	81
4VRC	Explosive Ordnance Disposal	59
4VRY	Aircraft Armament Sys Technology	34
4VXR	Nondestructive Testing Technology	83
7ABJ	Nuclear Medicine Technology	84
7ECY	Public Health Technology	93
7GAA	Biomedical Equipment Technology	42
7GAD	Dietetics & Nutrition	54
7GAE	Histologic Technology	63
7GAF	Medical Laboratory Technology	75
7GAH	Pharmacy Technology	90
7GAI	Physical Therapist Assistant	91
7GAL	Practical Nursing Technology	92
7GAM	Bioenvironmental Engineering Technology	41
7GAN	Aerospace Physiology Technology	31
7GAP	Mental Health Services	76
7GBB	Dental Laboratory Technology	51
7GBC	Dental Assisting	51
7GCY	Health Care Management	62
7GDA	Cardiopulmonary Laboratory Technology	44
7GDH	Diagnostic Imaging Technology	52
7GDI	Ophthalmic Technician	87
7GDK	Diagnostic Medical Sonography	53
7GDP	Personnel Recovery	89
7GEA	Surgical Services Technology	96
8FYY	Meteorology	78
9DHK	Aerospace Historian	30
9GEC	Financial Management	60
9IFY	Fire Science	61
9IIY	Occupational Safety	86
9IJY	Criminal Justice	48
9IKY	Human Services	66
9IMY	Emergency Management	57
9INZ	Intelligence Studies &Technology	69

AEROSPACE GROUND EQUIPMENT TECHNOLOGY (4VAB)

Occupational Specialty 2A6X2

Degree Requirements The Journeyman (5 skill-level) must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aerospace Ground Equipment Familiarization	8
Aerospace Ground Equipment Fundamentals	8
Air Compressors	6
Air Conditioners & Refrigeration	8
Auxiliary Aerospace Ground Equipment	8
Bomb Lifts	6
CCAF Specialty Internship	18
Diesel Engines	6
Gas Turbine Engines	6
Generator Sets	8
Ground Heaters	6
Hydraulic Test Stands	6

Technical Electives	*Maximum Semester Hours*
Advanced Aerospace Ground Equipment Maintenance	12
Computer Science	6
Corrosion Control	3
Electrical/Electronic Fundamental	6
General Chemistry/Algebra-Based Physics	4
Hazardous Materials	3
Industrial Safety	3
Maintenance Management	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AEROSPACE HISTORIAN (9DHK)

Occupational Specialty 3H0X1

Degree Requirements The Journeyman (5 skill-level) must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Advanced Writing	9
Aerospace Science	9
Archival Management	3
CCAF Specialty Internship	18
Interviewing	3
Research Methodology	3
Unit Historian Development	9

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Copy Reading & Editing	3
Human Communication	6
Leadership & Management	3
Logic	3
Managerial Communications	3
Military Science	3
Philosophy	3
Political Science	6
Statistics	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AEROSPACE PHYSIOLOGY TECHNOLOGY (7GAN)

Occupational Specialty 4M0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aerospace Anatomy & Physiology Fundamentals	3
Aircrew Flight Equipment	6
CCAF Specialty Internship	18
Clinical Research	3
Hyperbaric Chamber Operations & Maintenance	6
Instructional Methodology	6
Introduction to Aerospace Physiology	6
Physiological Training Management	12
Respiratory & Circulatory Physiology	3
Survival Training	6

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Emergency Medicine	3
General Biology	4
General Chemistry	8
Guidance & Counseling	3
Human Anatomy and Physiology	8
Medical Readiness	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AIR & SPACE OPERATIONS TECHNOLOGY (4VAS)

Occupational Specialty 1A3X1, 1C5X1, 1C6X1, 1U0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Airborne Missions Systems	24
Aerospace Control & Warning Systems	24
Air Weapons Control Operations	24
Broadcast Systems Technology	24
CCAF Specialty Internship	18
Computer Networking	6
Geospatial Intelligence Fundamentals	18
Intelligence Fundamentals	12
Radio Communications	6
Remotely Piloted Aircraft Principles/Procedures	24
Space Systems Operations	24

Technical Electives	*Maximum Semester Hours*
Advanced Aircrew Principles	10
Aircraft Systems	6
Aircrew Fundamentals	6
Aircrew Qualifications	6
Aircrew Trainer/Simulator/Flying Training	6
Astronautics	3
Astronomy	3
Aviation/Flight Safety	3
Basic Electronics Theory/Applications	6
Computer Science	6
Management Information Systems	3
Programming Languages	6
Solid-State Theory/Applications	3
Space Propulsion	3
Special Weapons/Tactics	12
Survival Training	6

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AIR TRAFFIC OPERATIONS & MANAGEMENT (2IAA)

Occupational Specialty 1C1X1, 1C2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Air Traffic Facility Management	12
Air Traffic Fundamentals	18
CCAF Specialty Internship	18
Control Tower Operations	15
Non-Radar Procedures	12
Radar Procedures	15
Visual Flight Control	15

Technical Electives	*Maximum Semester Hours*
Aeronautical Science	3
Air Navigational Aids	3
Air Traffic Procedures/Principles	9
Airport Management	3
Airspace Management	6
ATC Systems Specialist	9
Aviation Principles	9
Aviation/Flight Safety	6
Climatology/Meteorology	3
Computer Science	6
Federal Aviation Laws/Regulations	6
Flight Operations Procedures	6
Oral Communications	3
Terminal Instrument Procedures	12

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AIRCRAFT ARMAMENT SYSTEMS TECHNOLOGY (4VRY)

Occupational Specialty 2W1X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aircraft Armament Launch/Ejection Systems	12
Aircraft Armament Systems	12
Aircraft Armament Systems Maintenance	12
Aircraft Automatic Weapons	12
Aircraft Electrical Systems	9
Aircraft Maintenance	9
Aircraft Munitions Loading/Unloading	12
CCAF Specialty Internship	18
Support Equipment	9
Weapons/Munitions Safety	6

Technical Electives	*Maximum Semester Hours*
Advanced Aircraft Armament Systems	12
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
Oral Communications	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AIRCRAFT STRUCTURAL MAINTENANCE TECHNOLOGY (4VAN)

Occupational Specialty 2A7X3, 2A7X5

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aircraft Corrosion Control	9
Aircraft Structural Maintenance	24
CCAF Specialty Internship	18
Low Observable Technologies	12

Technical Electives	*Maximum Semester Hours*
Advanced Aircraft Structural Repair	12
Aircraft Aerodynamics	3
Aircraft Composites & Bonded Structures	6
Computer Science	6
Corrosion Control	6
Engineering Graphics/Blue Print/Technical Drawing	3
FAA Airframe/Powerplant Certification	12
General Chemistry/Algebra-Based Physics	3
Hazardous Materials	3
Industrial Safety	3
Maintenance Management	6
Materials & Processes	3
Quality Assurance	3
Technical Mathematics	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AIRCREW SAFETY SYSTEMS TECHNOLOGY (4VAT)

Occupational Specialty 1P0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aircrew Safety Systems Principles & Procedures	24
CCAF Specialty Internship	18
Fabrication & Parachute Maintenance	24
Flight Equipment Inspection & Maintenance	9
General Principles of Survival	3

Technical Electives	*Maximum Semester Hours*
Advanced Survival Skills/Parachuting	12
Chemical Defense/Decontamination	3
Computer Science	6
Emergency Equipment	3
FAA Parachute Rigger Certification	6
Hazardous Materials	3
Industrial Safety	6
Technical Writing	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AVIATION MAINTENANCE TECHNOLOGY (4VAD)

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

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aircraft Electrical/Environmental Systems	24
Aircraft Fuel Systems	24
Aircraft Hydraulic Systems	24
Aircraft Maintenance	24
Aircraft Propulsion Systems	24
Aircrew Egress Systems	24
CCAF Specialty Internship	18
Helicopter Maintenance	24

Technical Electives	*Maximum Semester Hours*
Advanced Aircraft Accessory Systems Maintenance	12
Advanced Aircraft Maintenance	12
Advanced Aircraft Propulsion Maintenance	12
Aircraft Aerodynamics	3
Aircraft Weight & Balance	3
Airframe Repair	6
Aviation Safety	3
Avionic Systems Theory/Maintenance	3
Computer Science	6
Corrosion Control	6
Electricity/Electronics	6
Engineering Graphics/Computer Aided Drafting	3
FAA Airframe/Powerplant Certification	12
General Chemistry/Algebra-Based Physics	4
Hazardous Materials/Industrial Safety	3
Materials & Processes	3
Nondestructive Inspection	3
Quality Assurance	3
Technical Mathematics	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AVIATION MANAGEMENT (1AVY)

Occupational Specialty 1C0X2, 1C7X1

Degree Requirements The Journeyman 5 skill level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Advanced Airport Management	9
Advanced Aviation Resource Management	9
Airport Management	24
Aviation/Flight Safety	6
Aviation Resource Management	24
CCAF Specialty Internship	18
Data Information Systems Management	12

Technical Electives	*Maximum Semester Hours*
Aeronautical Science	3
Air Traffic Control Principles	6
Aviation History	3
Climatology/Meteorology	3
Computer Science	6
FAA Aircraft Dispatcher Certification	10
FCC General Radio Operator's License	9
Federal Aviation Laws/Regulations	6
Flight Operations/Procedures	9
Oral Communication	3
Principles of Accounting	6
Statistics	3
Typing/Keyboarding	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AVIATION OPERATIONS (4VCB)

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

Degree Requirements The Journeyman 5skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aerial Gunner Principles/Procedures	24
Air Transportation Principles	6
Aircraft Loadmaster Principles/Procedures	24
Aircraft Principles and Procedures	24
Aircraft Systems	12
Aircrew Fundamentals	12
Aviation/Flight Safety	6
CCAF Specialty Internship	18
Flight Attendant Principles/Procedures	24
Flight Engineer Principles/Procedures	24
Flight Rules & Regulations	3
In-flight Refueling Operations	24
Introduction to Aviation/Aeronautics	3
Special Missions Aviation Principles/Procedures	24
Survival Training	6
Trainer/Simulator/Flight Training	24

Technical Electives	*Maximum Semester Hours*
Advanced Aircrew Principles	6
Advanced Flight Engineering	12
Aerodynamics	3
Aircraft Systems	12
Aircraft Weight & Balance	3
Aircrew Fundamental	12
Aviation Law	6
Climatology/Meteorology	6
Computer Science	6
Electricity/Electronics	6
FAA Airframe & Powerplant Certification	6
FAA Flight Engineer Certifications	12
General Chemistry/Algebra-Based Physics	4
Human Factors in Aviation/Flight Physiology	3
Human Relations	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

AVIONIC SYSTEMS TECHNOLOGY (4VHS)

Occupational Specialty 2A0X1, 2A2XX, 2A3X4, 2A3X5, 2A5X3, 2A8XX, 2A9XX

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Avionics Maintenance	24
Avionic Test Equipment	12
CCAF Specialty Internship	18
Communication Systems	12
Electrical/Environmental Systems	8
Electronic Warfare Systems	12
Flight Instruments and Controls	12
Infrared Sensor Systems	12
Integrated Avionics Systems	12
Navigation Systems	12
Radar Systems	12
Weapons Control Systems	8

Technical Electives	*Maximum Semester Hours*
Advanced Avionics Maintenance	12
Aviation/Flight Safety	3
Aviation Physics	4
Basic Electronics Theory/Applications	12
CAD/CAM or Technical Drawing/drafting	3
Computer Science	6
FAA Airframe/Powerplant Certification	12
FCC General Radiotelephone Operator's License	9
Industrial Safety	3
Quality Assurance	3
Soldering Techniques	3
Solid-State Theory/Applications	6
Technical Writing	3
Transmitter and Receiver Systems	6
Trigonometry or higher-level Mathematics	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)**General Education** (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

BIOENVIRONMENTAL ENGINEERING TECHNOLOGY (7GAM)

Occupational Specialty 4B0X1

Degree Requirements The Journeyman 5 skill-levelmust be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Biochemical Hazards	4
Bioenvironmental Protection	8
CCAF Specialty Internship	18
Disaster Response Management	9
Industrial Hygiene	3
Introduction to Bioenvironmental Science	9
Hearing Conversation	4
Ionizing Radiation	4
Occupational Environment	6

Technical Electives	*Maximum Semester Hours*
Anatomy & Physiology	8
Biology	8
Chemistry	8
Computer Science	6
Epidemiology	3
Occupational Health & Safety Technologist Certification (OHST)	12
Statistics	3
Toxicology	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

BIOMEDICAL EQUIPMENT TECHNOLOGY (7GAA)

Occupational Specialty 4A2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Basic Electronics Theory/Applications	8
Biomedical Equipment Maintenance Management	12
CCAF Specialty Internship	18
Diagnostic Support Equipment Systems	12
Diagnostic Support Radiographic Systems	12
Digital Techniques	6
Introduction to Electronics	9
Microprocessor Technology	6
Physiological Monitoring Systems	9
Therapeutic Support Equipment Systems	12

Technical Electives	*Maximum Semester Hours*
Association for the Advancement of Medical Instrumentation Certification	12
CompTIA Certification	8
Computer Science	6
Human Anatomy & Physiology	8
Medical Readiness	3
Medical Terminology	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 S semester hours of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment..

BUSINESS ADMINISTRATION (1AUY)

Occupational Specialty 3A1X1, 3D0X1, 8M000, 8P100

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Administration Management	12
CCAF Specialty Internship	18
Computer Systems and Network Management	3
Information Management	13
Information Security	6
Information Systems Administration	14
Information Systems Management	9
Office Equipment	3
Postal Operations/Management	15
Records/Publications Management	6

Technical Electives	*Maximum Semester Hours*
Business/Managerial Communications	6
CompTIA Certification	8
Computer Science	6
Database Design/Management	6
Desktop Publishing	6
Global Information Assurance Certification	6
Human Resource Management	7
$(ISC)^2$ Certification	4
Leadership & Management	3
Microsoft MCSE Certification	8
Principles of Accounting	6
Principles of Business	3
Principles of Management	3
Principles of Marketing	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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

CARDIOPULMONARY LABORATORY TECHNOLOGY (7GDA)

Occupational Specialty 4H0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Advanced Cardiopulmonary Procedures	9
Cardiopulmonary Anatomy & Physiology	6
Cardiopulmonary Instrumentation	3
Cardiopulmonary Invasive/Noninvasive Diagnostic Procedures	12
Cardiovascular & Pulmonary Diagnostic Principles	8
CCAF Specialty Internship	18
Clinical Respiratory Therapy	8
Pulmonary Diagnostic Procedures	8
Respiratory Therapy	6

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Emergency Medicine	3
Medical Readiness	3
Medical Terminology	3
Pharmacology	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication English composition (not duplicative)	6
or	
Oral Communication Speech	3
and	
Written Communication English composition	3
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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)

Occupational Specialty 3D0X4

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Computer Systems Analysis/Design	8
Computer Systems Management	6
Database Administration/Management	8
Programming Languages	16
Software Engineering	12

Technical Electives	*Maximum Semester Hours*
College Algebra or higher-level Mathematics	4
CompTIA Certification	8
Computer Science	6
Cyber Surety	4
Data Structures	4
Discrete Math	3
Global Information Assurance Certification (GIAC)	6
$(ISC)^2$ Certification	4
Microsoft MCSE Certification	8
Physics	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

CONSTRUCTION TECHNOLOGY (4VEB)

Occupational Specialty 3E2X1, 3E3X1, 3E5X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Building Construction & Design	20
Carpentry/Cabinetry	12
CCAF Specialty Internship	18
College Algebra/Trigonometry	3
Computer Aided Drafting	3
Construction Inspection/Building Codes	9
Drafting/Engineering Drawing	10
Engineering Assistant	20
Engineering Operations and Management	3
Heavy Equipment Operations	20
Metals Fabrication/Characteristics	15
Pavement Construction	12
Project Management/Planning	4
Surveying	12
Welding	9

Technical Electives	*Maximum Semester Hours*
Blueprint Reading	3
Computer Science	6
Construction Material Estimating	3
General Physics	3
Hazardous Materials	3
Industrial/Construction Safety	3
Properties & Strength of Materials	6
Soils and Foundations	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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

CONTRACTS MANAGEMENT (1CAO)

Occupational Specialty 6C0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
*Business Law	3
CCAF Specialty Internship	18
*Contract Administration/Management	12
*Contract Law	6
*Pricing & Negotiation	6
*Principles of Government Contracting	7
*Purchasing Principles	9

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Human Relations	3
*Introduction to Business	3
Labor Relations	3
Materiel Management	3
*Principles of Accounting	3
*Principles of Microeconomics/Macroeconomics	6
*Principles of Marketing	3
*Statistics	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

*Courses applicable to the 24 semester hour business requirement for the Acquisition Professional Development (APD) Program. Also, may apply 8 SHs to the APD Program when 5-level career development course is completed and 2 semester hours to the APD Program when resident Airman Leadership School, NCO Academy or USAF Senior NCO Academy is completed.

CRIMINAL JUSTICE (9IJY)

Occupational Specialty 3P0X1, 7S0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion (Exception: Not required for 7S0X1).

Technical Education (24 semester hours)
A minimum of 12 S semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Criminal Investigations	16
Criminal Law	6
Fundamentals of Ground Combat Skills	12
Fundamentals of Law Enforcement	9
Introduction to Security	6
Physical Security Concepts	6
Police Administration & Supervision	6
Police Safety/Survival	6
Principles of Criminal Justice	6
Principles of Marksmanship	9
Special Weapons & Tactics	8
Weapons Maintenance	6

Technical Electives	*Maximum Semester Hours*
Antiterrorism	3
Computer Science	6
Constitutional Law	3
Corrections	6
Criminalistics/Forensic Science	3
Criminology	3
Deployment Operations	12
Emergency Medicine	4
General Psychology	3
General Sociology	3
Instructional Methodology	9
Juvenile Justice	3
Patrol Dog Operations	12
Police Community Relations	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

CYBERSECURITY (0CYC)

Occupational Specialty 1B4X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Communications-Networking Security	20
CompTIA Certification	8
Computer Systems & Familiarization & Maintenance	6
Cyber Defense & Countermeasures	12
Cyber Laws & Ethics	3
Cybersecurity Laboratory	12
Global Information Assurance Certification	6
Principles of Telephony Networks	3
Systems Analysis	6

Technical Electives	*Maximum Semester Hours*
Certified Ethical Hacker	3
College Algebra or higher-level Mathematics	6
Computer Science	6
Information Security	6
$(ISC)^2$ Certification	3
Physics	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

DENTAL ASSISTING (7GBC)

Occupational Specialty 4Y0X1, 4Y0X1H

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Dental Clinical Phase & Procedures	16
Dental Sciences	12
Oral Radiology	6
Preventive Dentistry Science	8

Technical Electives	*Maximum Semester Hours*
Advanced Dental Hygiene	9
Computer Science	6
Dental Administrative Procedures	6
Emergency Medicine	3
General Biology	4
General Chemistry	4
General Psychology	3
Human Anatomy & Physiology	4
Medical Readiness	3
Oral Hygiene	4

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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)

Occupational Specialty 4Y0X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Complete Dentures	12
Construction of Removable Partial Dentures	12
Dental Ceramics	6
Dental Laboratory Fundamentals	6
Inlays, Crowns & Fixed Partial Dentures	13

Technical Electives	*Maximum Semester Hours*
Advanced Removable Prosthodontics	8
Computer Science	6
Fixed Prosthodontics	8
Medical Readiness	3
Porcelain & Metal Ceramic Restoration	8

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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)

Occupational Specialty 4R0X1, 4R0X1C

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Diagnostic Imaging Anatomy & Physiology	6
Diagnostic Imaging Clinical Practicum	12
Diagnostic Imaging Physics	6
Diagnostic Imaging Positioning	6
Diagnostic Imaging Procedures	8
Diagnostic Imaging Functions	6
Introduction to Diagnostic Imaging Technology	6

Technical Electives	*Maximum Semester Hours*
Advanced Diagnostic Imaging Procedures	12
American Registry of Radiologic Technologists Certification	12
Computer Science	6
Diagnostic Imaging Clinical Education/Internship	12
Medical Readiness	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Written Communication	6
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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

DIAGNOSTIC MEDICAL SONOGRAPHY (7GDK)

Occupational Specialty 4R0X1B

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 SHs of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Clinical Sonography Practicum I	8
Clinical Sonography Practicum II	18
Principles of Ultrasound Physics & Instrumentation	6
Sonographic Scanning	10

Technical Electives	*Maximum Semester Hours*
American Registry of Radiologic Technologists Certification	12
Computer Science	6

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 SHs of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment.

DIETETICS & NUTRITION (7GAD)

Occupational Specialty 4D0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Diet Therapy	16
Dietary Manager/Food Protection Professional Certification	6
Dietetics	8
Food Service Operations	6
Fitness & Health	6
Introduction to Food Preparation	9
Nutrition	9
Nutritional Medicine Administration	6
Subsistence Management	6

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Food Services	6
General Biology	4
General Chemistry	4
Human Anatomy and Physiology	4
Medical Readiness	3
Principles of Accounting	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication English composition (not duplicative)	6
or	
Oral Communication Speech	3
and	
Written Communication English composition	3
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

EDUCATION & TRAINING MANAGEMENT (2BAC)

Occupational Specialty 3S2X1, 8B000, 8B100

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion. 8B100s must complete the Military Training Leader course to enroll in this program.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Administration of Education & Training Programs	15
Business Communications	3
CCAF Specialty Internship	18
Classroom Management	3
Computer-Based Instruction	9
Educational Technology	3
Guidance & Counseling	6
Instructional Methodology	6
Instructional Systems Development	9
Office Management	3
Statistics	3
Technical Writing	3
Tests and Measurements	3

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Curriculum Development	3
Educational/Developmental Psychology	3
General Psychology	3
General Sociology	3
Public Relations	3
Supervision of Instruction	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

ELECTRONIC SYSTEMS TECHNOLOGY (4VHP)

Occupational Specialty 1C8X1, 1C8X2, 2M0X1, 3D1X3, 3D1X7

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Cable Installation and Maintenance	12
CCAF Specialty Internship	18
Electronic Systems Fundamentals	18
Fiber Optic Cable Installation/Maintenance	6
Instrumental Landing Systems Theory and Operations	8
Missile & Space Systems Maintenance	24
Radar Systems Theory and Operations	18
Radio Systems Theory and Operations	18
Satellite Communication Theory and Operations	18
Tactical Air Navigation Theory and Operations	9

Technical Electives	*Maximum Semester Hours*
College Algebra or higher-level Mathematics	3
CompTIA Certification	8
Computer Science	6
Computer Systems Maintenance & Operations	6
FCC General Radiotelephone Operator's License	9
High-Reliability Soldering	3
Industrial Safety	3
Networking Fundamentals/Applications	6
Quality Assurance	3
Solid-State Theory/Applications	6
Technical Writing	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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

EMERGENCY MANAGEMENT (9IMY)

Occupational Specialty 1C3X1, 3E9X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Command & Control Information Systems	16
Emergency Management	6
Emergency Operations/Response	9
Emergency Planning	6
Environmental Science	10
Federal Emergency Management Agency Independent Study Program	12
Hazardous Materials	6
Instructor Fundamentals	6
Radiological Fundamentals	3
Risk Assessment	3
Warfare Defense	17

Technical Electives	*Maximum Semester Hours*
Cartography/Map Reading	3
Civil Defense	3
Climatology/Meteorology	3
Computer Science	6
Emergency Information Systems	3
Exercise Design	3
General Chemistry	4
Industrial Safety/Hygiene	3
Inventory Management	3
Public Administration	3
Technical Writing	3
Tests & Measurements	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication English composition (not duplicative)	6
or	
Oral Communication Speech	3
and	
Written Communication English composition	3
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

ENTOMOLOGY (3ALC)

Occupational Specialty 3E4X3

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Entomology/Pest Control	12
Environmental Awareness	6
Environmental Support	20

Technical Electives	*Maximum Semester Hours*
Botany/Plant Disease	6
Computer Science	6
Environmental Law/Compliance	3
General Chemistry/Biology	8
General Physics	4
Hazardous Materials	6
Hydrology	3
Industrial Safety	6
Microbiology	3
Pollution Prevention	3
Principles of Ecology	6
Technical Writing	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

EXPLOSIVE ORDNANCE DISPOSAL (4VRC)

Occupational Specialty 3E8X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Algebra-Based Physics	8
CCAF Specialty Internship	18
Electricity/Electronics	9
Explosive Ordnance Disposal	24
General Chemistry	8
Hazardous Materials	6

Technical Electives	*Maximum Semester Hours*
Accident Prevention	3
Basic Photography (Camera/Video Operations)	3
Blueprint Reading/Schematic Diagrams	3
Computer Science	6
Emergency Medicine	3
Heavy Equipment Operations	3
Industrial Safety	3
Industrial X-ray/Nondestructive Inspection	3
Inventory Management	3
Investigative Techniques	3
Map & Compass Reading	3
Nuclear Science	4
Principles of Marksmanship	3
Statistics	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

FINANCIAL MANAGEMENT (9GEC)

Occupational Specialty 6F0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
American Society of Military Comptrollers Certified Defense Financial Manager Certification	6
Business Law	6
Business Mathematics	3
CCAF Specialty Internship	18
Financial Analysis	9
Financial Principles/Management	9
Government Financial Systems	6
Microcomputer Software Applications	6
Military Pay & Accounting	12
Principles of Accounting	6
Statistics	3
Travel Accounting	9

Technical Electives	*Maximum Semester Hours*
Business Finance	3
Computer Science	6
International Finance	3
Leadership & Management	3
Managerial Communications	3
Money & Banking	6
Principles of Microeconomics/Macroeconomics	6
Principles of Marketing	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

FIRE SCIENCE (9IFY)

Occupational Specialty 3E7X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 SHs of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Aerospace Vehicle Firefighting	9
CCAF Specialty Internship	18
Emergency Medicine	6
Fire Apparatus Operation	6
Fire Department Administration	3
Fire Service Rescue	9
Hazardous Materials	8
Introduction to Fire Science	6
Structural Firefighting	12

Technical Electives	*Maximum Semester Hours*
Building Construction for Fire Protection	3
Computer Science	6
Fire Codes & Related Ordinances	3
Fire Command	3
Fire Hydraulics	3
Fire Instructor	3
Fire Prevention/Inspection	6
Fire Protection Systems	3
Fire/Arson Investigation	3
Firefighting Occupational Safety	3
General Chemistry	8
NREMT Emergency Medical Technician Certification	4
Technical Writing	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 SHs of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment.

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

HEALTH CARE MANAGEMENT (7GCY)

Occupational Specialty 4A0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
CompTIA Certification	10
Health Care Management	24
Health Care Statistics	3
ISC^2 Certification	3
Medical Care Evaluation	9
Medical Expense & Performance Reporting	9
Medical Records Management	9
Medical Resource Management	9
Patient Administration	9
Principles of Supervision/Management	6
Registered Health Information Technician Certification	3

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Human Anatomy and Physiology	8
Human Resource Management	3
Leadership and Management	3
Legal Aspects of Health Care	3
Managerial Communications	3
Medical Coding	6
Medical Ethics	3
Medical Readiness	3
Medical Terminology	3
Medical Transcription	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

HISTOLOGIC TECHNOLOGY (7GAE)

Occupational Specialty 4T0X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Autopsy Procedures	5
CCAF Specialty Internship	18
Chemistry	8
Histologic Clinical Practicum	16
Histologic Specimen and Stain Principles	16
Histologic Technician-American Society of Clinical Pathologists Certification	12
Histopathology Technology Lab	16
Human Anatomy & Physiology	8
Introduction to Histotechnology	8
Microbiology	12

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Human Biology	8
Medical Readiness	3
Medical Terminology	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

HOSPITALITY AND FITNESS MANAGEMENT (1FRS)

Occupational Specialty 3M0X1, 8A200

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion. A student in the 8A200 reporting identifier does not have skill levels; therefore none are required for graduation.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
American Culinary Federation Certified Chief	4
CCAF Specialty Internship	18
Contract Management	3
Culinary Institute of America Certification	6
Financial Management	3
Fitness & Sports Management	6
Food & Beverage Preparation	12
Food Service Operations/Management	9
Food Service Sanitation and Safety	3
Force Support Readiness	3
Front Office Management	3
Front Range Training & Consulting Certification	6
Hospitality/Fitness Technology	3
Human Anatomy & Physiology	4
Human Relations/Customer Service	3
International Food Service Executive Association Certification	7
Introduction to Hospitality	6
Inventory/Storeroom Management	3
Lodging Operations/Management	3
Mortuary Services	3
Principles of Accounting	6
Quantity Food Production	3
Recreation Management	3
Sports & Fitness Instruction	6

Technical Electives	*Maximum Semester Hours*
Business/Hospitality Law	3
Business/Managerial Communications	6
Computer Science	6
Convention/Event Planning	4
Economics	3
Food Science	3
Health/Nutrition	3
Human Resource Management	3
Introduction to Business	3
Leadership & Management	3
Occupational Safety	3
Principles of Marketing/Sales	3
Principles of Purchasing	3
Recreation Safety & First Aid	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

HUMAN RESOURCE MANAGEMENT (1AOY)

Occupational Specialty 3S0X1, 8F000, 8RXXX

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Guidance and Counseling	3
Human Relations/Interpersonal Communications	3
Human Resource Management/Administration	15
Interviewing	3
Organizational Behavior	3
Personnel Recruiting	15
Principles of Management	3
Principles of Marketing	3
Word Processing	3

Technical Electives	*Maximum Semester Hours*
Business Ethics	3
Business Law	6
Business/Managerial Communications	6
Computer Science	6
General Psychology	3
Industrial Psychology	3
Introduction to Business	3
Labor Relations	3
Leadership and Management	3
Microcomputer Software Applications	6
Oral Communications	3
Principles of Accounting	6
Principles of Economics (Macro/Micro)	6
Statistics	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 SHs of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment.

HUMAN SERVICES (9IKY)

Occupational Specialty 3S1X1, 5R0X1, 8C000

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion (Exception: Not required for 3S1X1). A student in the 8C000 reporting identifier does not have skill levels; therefore none are required for graduation.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
*Airman & Family Readiness Administration	6
CCAF Specialty Internship	18
Chaplain Service Support	12
Counseling/Crisis Intervention	9
Cultural Diversity	6
Equal Opportunity Management	24
Ethnic Studies	6
General Psychology	3
Group Dynamics	3
Human/Interpersonal Communication	3
Introduction to Human Services	3
Resource Management	3
Social Problems	3
World Religions	6

Technical Electives	*Maximum Semester Hours*
Abnormal Psychology	3
Computer Science	6
Ethics	3
General Sociology	3
Human Development & Learning	3
Instructional Methodology	3
Interviewing Techniques	3
Leadership and Management	3
Managerial Communications	6
Marriage & Family	3
Principles of Accounting	3
Social Psychology	3
Social Work	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

*MUST BE COMPLETED BY 8C000 STUDENTS AS PART OF DEGREE PROGRAM UNLESS ISSUED A WAIVER AUTHORIZATION.

INFORMATION SYSTEMS TECHNOLOGY (0IYY)

Occupational Specialty 3D0X2, 3D0X3, 3D1X1, 3D1X2, 3D1X4

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Basic Electronics	12
Broadcast Information Systems/Management	15
CCAF Specialty Internship	18
Command & Control Information Systems	6
Communications-Electronics Program Management	8
CompTIA Certification	8
Computer Systems Familiarization	12
Cyber Surety	18
Cyber Surety Management	6
Data Communication-Networking Technology	20
Data Information Systems/Management	15
Systems Analysis and Design	6
Telecommunications Administration/Industry Regulation	6
Telecommunications Technology	12

Technical Electives	*Maximum Semester Hours*
Advanced Communication-Networking	6
Business Mathematics/Statistics	3
College Algebra or higher-level Mathematics	6
Computer Science	6
FCC General Radiotelephone Operator's License	9
Global Information Assurance Certification	6
ISC2 Certification	6
Microsoft MCSE Certification	8
Principles of Accounting	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

INSTRUCTOR OF TECHNOLOGY & MILITARY SCIENCE (2IBB)

Occupational Specialty This program is offered to Air Force and other service (US and international) enlisted personnel who are assigned to CCAF affiliated schools teaching CCAF degree-applicable courses.*

Degree Requirements To be eligible for registration, applicants must hold the Journeyman (5 skill-level) or fully qualified equivalent (Other service personnel), complete 3 semester hours of CCAF-approved instructor methodology coursework and hold their specialty-related CCAF degree or an equivalent degree from a civilian college. To graduate, registrants must complete program within 2 years from registration date and complete the 12 semester hour CCAF Teaching Internship. **

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Adult/Vocational Education	3
***CCAF Teaching Internship	12
Classroom Management	3
Curriculum Development	3
Educational Technology	3
Educational/Developmental Psychology	3
Foundations of Education	3
Guidance & Counseling	3
***Instructional Methodology	12
Instructional Systems Development	6
Learning Theories	3
Supervision of Instruction	3
Tests & Measurements	3

Technical Electives	*Maximum Semester Hours*
Aircrew Instructor Flight Training	9
****CCAF Specialty Internship	12
Computer Science	6
Computer-Based Instruction	9
*****Related Formal Specialty Training	6
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

*Personnel holding the 1T0X1 AFSC are not eligible.
**Other Service Instructors may enroll as the initial degree. Enlisted Professional Military Education (8T000) are exempt from the requirement to hold a career-field-related degree.
*** Required to complete technical core requirements.
****CCAF Specialty Internship 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)

Occupational Specialty 1A8XX, 1NXXX, 8D000, 9L000

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Airborne Communications Systems	9
Aircrew Fundamentals	9
Analysis and Reporting	18
CCAF Specialty Internship	18
Collection Management/Mission Planning	12
Cryptanalysis	18
Digital Network Analysis	12
Geospatial Intelligence Fundamentals	18
Intelligence Fundamentals	12
Military Operations	9
Signals Analysis	18
Voice Collection/Foreign Technical Language	18

Technical Electives	*Maximum Semester Hours*
Cartography	3
Computer Science	6
College Algebra or higher-level Mathematics	3
Cultural/International Studies	6
Geography	3
Interviewing	9
Photogrammetry	3
Principles of Communication	6
Principles of Electronics	6
Survival Training	4

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

LOGISTICS (1AMY)

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

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Contract Management	3
Cryogenic Operations	10
Distribution Management	12
Fuels Distribution	15
Inventory Management	12
Logistics Automated Systems	9
Logistics Management	14
Materiel Handling/Plant Layout	3
Materiel Management	12
Principles of Accounting	6
Principles of Microeconomics/Macroeconomics	6
Principles of Purchasing	3
Production/Operations Management	3
Warehouse Storage & Operations	8

Technical Electives	*Maximum Semester Hours*
Business Ethics	3
Business Law	3
Business Mathematics/Statistics	3
Certified Logistics Technician	3
Computer Science	6
Environmental Protection Procedures	3
General Chemistry	4
Hazardous Materials	3
Industrial Safety	3
Introduction to Business	3
Introduction to Petroleum Industry	3
Introduction to Transportation	3
Labor Relations	3
Leadership & Management	3
Managerial Communications	3
Medical Readiness	3
Principles of Marketing	6
Quality Assurance	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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MAINTENANCE PRODUCTION MANAGEMENT (4VJG)

Occupational Specialty 2RXXX, 2T3X7, 3E6X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Human Resource Management	3
Maintenance Management	3
Management Information Systems	14
Production Management	6
Scheduling & Production Control	15
Statistics	3
Systems Management	6
Vehicle Integrated Management Systems	9

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Environmental Compliance	3
Industrial Safety	3
Principles of Accounting	3
Quality Assurance	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MANAGEMENT ENGINEERING TECHNOLOGY (1AWY)

Occupational Specialty 3S3X3

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Budgeting	6
CCAF Specialty Internship	18
Data Collection and Analysis	8
Database Management	6
Human Resource Management	3
Industrial Engineering	9
Principles of Accounting	3
Project Management	6
Simulation Modeling	6
Statistics	6

Technical Electives	*Maximum Semester Hours*
Business/Managerial Communications	3
Calculus	6
College Algebra/Trigonometry	3
Computer Science	6
Microeconomics/Macroeconomics	3
Industrial/Organizational Psychology	7
Organizational Design and Change	3
Quality Control/Quality Assurance	3
Test and Measurements	3
Work Group Facilitation	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MASS COMMUNICATIONS (2FDE)

Occupational Specialty 3N0X2, 3N0X5

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Broadcast Communications	16
CCAF Specialty Internship	18
Digital/Electronic Imaging	9
Editing	6
Journalism	12
Photojournalism/Photography	16
Public Relations	6
Television/Radio Production	16

Technical Electives	*Maximum Semester Hours*
Advertising/Marketing	6
Animation/Illustration	6
Color Science/Theory	6
Computer Science	6
Desktop Publishing	3
General Psychology	3
Graphic Arts/Design	6
Interviewing	3
Mass Communication Law/Ethics	6
Principles of Communication	3
Typography	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MECHANICAL & ELECTRICAL TECHNOLOGY (4VGA)

Occupational Specialty 2M0X3, 3E0X1, 3E0X2, 3E1X1, 3E4X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Electrical Power Production	20
Electrical Systems	20
Heating Systems	20
Liquid Fuel Systems	20
Refrigeration & Air-Conditioning	20
Utilities Systems	20
Waste Management	3

Technical Electives	*Maximum Semester Hours*
Air Distribution & Filtering Systems	3
Alternate Heating & Cooling	3
Blueprint Reading/Schematic Diagrams	6
Building Codes & Ordinances	3
Computer Science	6
Control Systems/Maintenance	6
Electricity/Electronics	9
Engine Principles	3
Environmental Awareness	3
Environmental Compliance	3
Fire-Suppression Systems	6
General Chemistry	8
General Physics	4
Hazardous Materials	6
Industrial Management	3
Industrial Safety	3
Mechanics of Soils	3
Motor, Starter & Control Devices	6
Natural Gas Distribution	6
Quality Assurance	3
Technical Mathematics	3
Technical Physics	4
Technical Writing	3
Vehicle Operation/Maintenance	4
Welding/Pipefitting	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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

MEDICAL LABORATORY TECHNOLOGY (7GAF)

Occupational Specialty 4T0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Clinical Chemistry	12
Clinical Microbiology	9
Clinical Practicum	18
Fundamentals of Medical Laboratory	8
Hematology	12
Immunology/Bloodbanking/Serology	24

Technical Electives	*Maximum Semester Hours*
Biochemistry	8
Biology	8
Computer Science	6
Human Anatomy and Physiology	8
Medical Readiness	3
Medical Terminology	3
Organic/Inorganic Chemistry	8

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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

MENTAL HEALTH SERVICES (7GAP)

Occupational Specialty 4C0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Abnormal Psychology	3
Behavioral Health Practicum	4
CCAF Specialty Internship	18
Drug & Alcohol Abuse	6
Guidance & Counseling	9
Human Growth/Lifespan Development	6
Human Relations	3
Interpersonal Communications	3
Interviewing Skills	4
Mental Health Care	24
Psychology of Adjustment	3
Psychopathology/Psychiatric Interventions	12

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Drug & Alcohol Abuse Counselor Certification	6
Emergency Medicine	3
General Biology	4
General Chemistry	4
General Psychology	3
Human Anatomy and Physiology	4
Human Biology	4
Medical Readiness	3
Nursing (Mental Health related)	6

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

METALS TECHNOLOGY (4VLB)

Occupational Specialty 2A7X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Advanced Machining	12
Aircraft Metals Technology	24
Brazing/Welding Techniques	9
CCAF Specialty Internship	18

Technical Electives	*Maximum Semester Hours*
Computer Numerical Control	6
Computer Science	6
Corrosion Control	3
Engineering Graphics/Computer Aided Drafting	6
FAA Airframe and/or Powerplant Certification	12
General Chemistry/Algebra-Based Physics	4
Hazardous Materials	3
Industrial Safety	3
Maintenance Management	3
Materials & Processes	3
Physical Testing of Materials	3
Technical Mathematics	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

METEOROLOGY
(8FYY)

Occupational Specialty 1W0X1, 1W0X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Climatology	6
Dynamic Meteorology	6
Operational Weather Forecasting	16
Physical Meteorology	18
Plotting Weather Maps & Charts	12
Satellite Meteorology	6
Synoptic Meteorology	12
Weather Instruments & Observation	18
Weather Prognosis Techniques	16
Weather Radar Interpretation	6

Technical Electives	*Maximum Semester Hours*
Algebra-Based Physics	4
College Algebra or higher-level Mathematics	6
Computer Science	6
General Chemistry	4
Physical Training	3
Technical Writing	3
Thermodynamics	3
Tropical Meteorology	6
Upper Air Measurement	6
Weather Station Operation	12

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MICROPRECISION TECHNOLOGY (4VIA)

Occupational Specialty 2P0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
AC/DC Power Circuits	10
Amplifiers and Wave Generating Circuits	4
Calibration/Repair of Electronic and RF Equipment	18
Calibration/Repair of Physical and Dimensional Equipment	6
CCAF Specialty Internship	18
Digital Logic Circuits	4
Electromagnetic Devices	4
Electronic Communications	3
Metrology	12
Precision Measurement Equipment Laboratory Operations	3

Technical Electives	*Maximum Semester Hours*
American Society for Quality – Certified Calibration Technician Certification	6
College Algebra or Higher Level Math	3
Computer Science	6
Calibration and Repair of Test Sets	12
General Chemistry	4
Industrial Safety	3
Optics	3
Physics	4
Quality Assurance	3
Soldering Techniques	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MISSILE AND SPACE SYSTEMS MAINTENANCE (4VAK)

Occupational Specialty 2M0X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Missile and Space Systems Maintenance	24

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Corrosion Control	3
Drafting	3
Electricity/Electronics	6
Engineering Graphics/Computer Aided Drafting	3
Engineering Mechanics	3
General Chemistry/Algebra-Based Physics	4
Hazardous Materials	3
Heavy Equipment Operation/Maintenance	3
Hydraulic/Pneumatic Power	3
Industrial Safety	3
Maintenance Management	3
Materials and Processes	3
Nondestructive Inspection	3
Nuclear Weapons Systems Maintenance	3
Quality Assurance	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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MUNITIONS SYSTEMS TECHNOLOGY (4VRA)

Occupational Specialty 2W0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Munitions Accountability	12
Munitions Inspection	12
Munitions Logistics/Production Planning	12
Munitions Maintenance	12
Munitions Material Handling Equipment	12
Munitions Movement/Shipping	12
Munitions Safety	12
Munitions Storage	12
Munitions Systems	12

Technical Electives	*Maximum Semester Hours*
Aircraft Armament Systems	9
Advanced Munitions Systems	12
Computer Science	6
Corrosion Control	3
Electricity/Electronics	6
General Chemistry/Algebra-Based Physics	8
Hazardous Materials/Environmental Management	3
Heavy Equipment Operation/Maintenance	3
Hydraulic/Pneumatic Power	3
Industrial Safety	3
Logistics/Production Planning	6
Maintenance Management	3
Nuclear Weapons Systems	9
Oral Communication	3
Principles of Accounting	6
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

MUSIC
(2CHB)

Occupational Specialty 3N1X1, 3N2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion (Exception: Not required for 3N2X1).

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Arranging and Instrumentation	6
Audio Technology Techniques	6
Band	6
CCAF Specialty Internship	18
Chorus	6
Diction	3
Ensemble	6
Improvisation	3
Music Business	3
Music History	6
Music Teaching Methods	3
Music Theory	6
Production & Stage Craft Arts	6

Technical Electives	*Maximum Semester Hours*
Applied Music	6
Art of Mixing	6
Audio Basics for Recording	6
Aural Perception	6
Computer Science	6
Dance	3
Electricity/Electronics	3
Electronic Music (Synthesizers)	3
Fundamentals of Conducting	3
Mircrophone Techniques	6
Multi-Track Studio Techniques	6
Public Relations	3
Sound Reinforcement	6
Voice	6

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

NONDESTRUCTIVE TESTING TECHNOLOGY (4VXR)

Occupational Specialty 2A7X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Nondestructive Inspection	24

Technical Electives	*Maximum Semester Hours*
Advanced Nondestructive Inspection Techniques	3
ASNT Certification	12
Computer Science	6
Corrosion Control	3
Engineering Graphics/Computer Aided Drafting	3
FAA Airframe and/or Powerplant Certification	6
General Chemistry/Algebra-Based Physics	4
Hazardous Materials	3
Industrial Safety	3
Maintenance Management	6
Materials & Processes	3
Technical Mathematics	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

NUCLEAR MEDICINE TECHNOLOGY (7ABJ)

Occupational Specialty 4R0X1A

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Applied Nuclear Medicine Physics and Chemistry	9
CCAF Specialty Internship	18
Nuclear Medicine Procedures, Clinical and Nonclinical	24
Radiation Instrumentation	18
Radiation Safety and Procedures	14
Radiopharmaceuticals	8

Technical Electives	*Maximum Semester Hours*
American Registry of Radiologic Technologists Nuclear Medicine Registry	12
Computer Science	6

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication English composition (not duplicative)	6
or	
Oral Communication Speech	3
and	
Written Communication English composition	3
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

NUCLEAR WEAPONS SYSTEMS TECHNOLOGY (4VHJ)

Occupational Specialty 2W2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Nuclear Weapons Inspection	12
Nuclear Weapons Maintenance	12
Nuclear Weapons Movement/Shipping	12
Nuclear Weapons/Munitions Accountability	12
Nuclear Weapons/Munitions Safety	12
Nuclear Weapons Storage	12
Nuclear Weapons Systems	18
Weapons Handling/Support Equipment	12

Technical Electives	*Maximum Semester Hours*
Aircraft Armament Systems	9
Advanced Nuclear Weapons Systems	12
Computer Science	6
Corrosion Control	3
Electricity/Electronics...	6
General Chemistry/Algebra-Based Physics	8
Hazardous Materials/Environmental Mgmt	3
Heavy Equipment Operation/Maintenance	3
Hydraulic/Pneumatic Power	3
Industrial Safety	3
Logistics/Production planning	6
Maintenance Management	3
Munitions Systems	9
Oral Communication	3
Principles of Accounting	6
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

OCCUPATIONAL SAFETY (9IIY)

Occupational Specialty 1S0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Accident Prevention Management	18
Accident/Fire Investigation	12
AFOSH/OSHA Codes/Standards	12
Aviation/Flight Safety	12
CCAF Specialty Internship	18
Hazardous Materials	6
Hazardous Waste Management	6
Instructional Methodology	6
Occupational/Industrial Safety	24
Safety Engineering	6

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Electricity/Electronics	6
Environmental Science	3
General Chemistry	6
Introduction to Public Administration	4
Oral Communications	3
Safety and Risk Analysis	3
Statistics	3

Leadership, Management & Military Studies
(6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

OPHTHALMIC TECHNICIAN (7GDI)

Occupational Specialty 4V0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Assisting the Optometrist	8
CCAF Specialty Internship	18
Ocular Anatomy and Physiology	4
Optics	14
Ophthalmic Surgical Procedures	16
Spectacles and Contact Lenses	8
Vision Classification	8

Technical Electives	*Maximum Semester Hours*
Algebra-Based Physics	4
Analytic Geometry	3
Commission on Paraoptometric Certifications	8
Computer Science	6
General Biology	4
General Chemistry	4
General Psychology	3
Medical Readiness	3
Ocular Pharmacology	3
Office Management	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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)

Occupational Specialty 5J0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours) A student must complete the Air Force paralegal apprentice and craftsman courses (PAC and PCC) to satisfy the technical core requirement. Courses listed as Technical Electives may also be applied as program electives. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Civil Law	9
*Legal Ethics	3
International Law	3
Legal Claims and Tort Administration	6
Legal Claims and Tort Investigation	3
Legal Research and Writing	9
Military Justice	6
Non-Judicial Punishment	3
CCAF Specialty Internship	8
Pre/Post Trial Administration	6

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Contract Law	3
Criminal Law	3
Criminal Procedures	3
Environmental Law	3
Estate Planning and Probate	3
Evidence	3
Family Law/Domestic Relations	3
Law Office Administration	3
Law Office Supervision and Training	3
Real Estate Law	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (18 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	3
English composition	
and	
Oral Communication	3
Speech	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

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

This degree program is approved by the American Bar Association.

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

PERSONNEL RECOVERY (7GDP)

Occupational Specialty 1T2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Air Operations	12
CCAF Specialty Internship	18
Emergency Medicine	12
Evasion and Recovery	3
General Principles of Survival	12
Ground Operations	12
Mountain Travel/Rescue Techniques	9
Personnel Recovery Indoctrination	3
Psychology of Environmental Stress	3

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Human Anatomy and Physiology	4
Marksmanship	3
Parachuting/Scuba Diving	6
Physical Geography	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

PHARMACY TECHNOLOGY (7GAH)

Occupational Specialty 4P0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Fundamentals of Pharmacy	11
Inpatient Pharmacy/Pharmaceutical Preparation	5
Intro to Outpatient Pharmacy Operations	5
Introductory Pharmacology	11
Pharmacy Administration	3
Pharmaceutical Calculations	8

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Emergency Medicine	3
General Biology	4
General Chemistry	8
Human Anatomy and Physiology	4
Medical Readiness	3
Organic Chemistry	8
Pharmacy Technician Certification	12

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

The American Society of Health-System Pharmacists accredits the Pharmacy Apprentice course.

PHYSICAL THERAPIST ASSISTANT (7GAI)

Occupational Specialty 4J0X2, 4J0X2A

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours) The PTA Practicum no longer required for students who graduated the Physical medicine apprentice course from 1 Feb 2011 and after. However, the PTA Practicum is required for students who graduated the Physical Medicine Apprentice course prior to 1 Feb 2011. A student must complete the Air Force physical medicine apprentice course to satisfy the technical core requirement. A minimum of 12 SHs of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Functional Anatomy, Pathophysiology and Therapeutic Procedures	12
Human Anatomy and Physiology	8
Introduction to Physical Therapy	12
Orthotics	12
Physical Therapy Clinical Arts	6
Physical Therapy Practicum	6
Physical Therapy Procedures and Modalities	6

Technical Electives	*Maximum Semester Hours*
Advanced Physiology	3
Algebra-Based Physics	4
CCAF Specialty Internship	12
Computer Science	6
Kinesiology	8
Medical Readiness	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

The Commission on Accreditation in Physical Therapy Education of the American Physical Therapy Association accredits this degree program. CCAF graduates in this degree may sit for the Physical Therapy Assistant State License examination. Contact the Board for Physical Therapy of the state in which licensure is desired for exact details.

PRACTICAL NURSING TECHNOLOGY (7GAL)

Occupational Specialty 4N0X1, 4N0X1B, 4N0X1C, 4N0X1F

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Emergency Medicine	12
Human Anatomy and Physiology	8
Medical Assisting	24
Nursing	24

Technical Electives	*Maximum Semester Hours*
Computer Science	6
General Biology	8
General Chemistry	8
General Psychology	3
Medical Readiness	3
Medical Terminology	3
Pharmacology	3
Survival Training	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

The National Registry of Emergency Medical Technicians accredits the Aerospace Medical Services apprentice course.

PUBLIC HEALTH TECHNOLOGY (7ECY)

Occupational Specialty 4E0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
*Biological and Physical Science	9
CCAF Specialty Internship	18
Communicable Diseases	6
Entomology	6
Epidemiology	8
Food Safety/Sanitation	6
Hearing Conservation	3
Occupational Health /Ergonomics & Safety	9
Public Health	16
Public Health Medical Readiness	3

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Principles of Management	3
Statistics	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

*Biological & Physical Science include: Anatomy & Physiology, Biology, Physical Science, chemistry, Microbiology, & Ecology.

SCIENTIFIC ANALYSIS TECHNOLOGY (4VES)

Occupational Specialty 9S100

Degree Requirements A student in the 9S100 reporting identifier does not have skill levels; therefore, none are required for graduation.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Special Duty Internship	18
Communication Systems Familiarization	12
Geophysical Analysis	12
Satellite Analysis Systems	6
Scientific Lab Technology	12
Scientific Measurement	12

Technical Electives	*Maximum Semester Hours*
Advanced Electronics	6
Algebra-Based Physics	4
Basic Electronics Theory/Applications	6
College Algebra or higher-level Mathematics	3
Computer Science	6
Computer Systems Maintenance and Operations Principles	3
General Chemistry	4
Meteorology	6
Physical Science	4
Soldering Techniques	3
Solid-State Theory/Applications	6
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

STRATEGIC OPERATIONS MANAGEMENT (1BAA)

Occupational Specialty 1C2X1, 1C4X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 SHs of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Air and Space Control Network Operations	18
CCAF Specialty Internship	18
Command & Control Operations Management	18
Field Conditioning	18
Radio Communications	12
Applied Weapons & Tactics	24
Strategic Air Control	24

Technical Electives	*Maximum Semester Hours*
College Algebra or higher-level Mathematics	3
Computer Science	6
General Chemistry/Algebra-Based Physics	8
Oral Communications	3
Principles of Management	3

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 SHs of CCAF degree-applicable technical course credit otherwise not applicable to program of enrollment.

SURGICAL SERVICES TECHNOLOGY (7GEA)

Occupational Specialty 4N1X1, 4N1X1B, 4N1X1C, 4N1X1D

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
CCAF Specialty Internship	18
Fundamentals of Central Sterile Supply	8
Operating Room Practicum	16
Operating Room Technology	16
Surgical Nursing	12

Technical Electives	*Maximum Semester Hours*
Computer Science	6
Emergency Medicine	3
General Biology	4
General Chemistry	4
General Psychology	3
Human Anatomy and Physiology	8
Medical Readiness	3
Medical Terminology	3
Nursing	6

Leadership, Management & Military Studies (6 semester hours) Professional military education, civilian management courses accepted in transfer and/or by testing credit. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

SURVIVAL INSTRUCTOR (2IBS)

Occupational Specialty 1T0X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Advanced Survival Techniques	24
CCAF Specialty Internship	18
Evasion & Recovery	9
Foundations of Education	3
General Principles of Survival	16
*Instructional Methodology	9
Instructional Systems Development	3
*Teaching Internship-SERE	12

Technical Electives	*Maximum Semester Hours*
Audiovisual Media	3
Computer Science	6
Curriculum Development	3
Educational/Developmental Psychology	3
Emergency Medicine	6
Guidance & Counseling	3
International Terrorism	3
Land Navigation	3
Mountain Travel	3
NREMT Emergency Medical Technician Certification	4
Oral Communication	3
Parachuting	3
Psychology of Environmental Stress	3
Resistance Training	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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

*A 12 semester hours CCAF Teaching Internship-SERE and 3 semester hours of CCAF-approved instructor methodology coursework are required to complete the core requirement.

TRANSPORTATION (1ATY)

Occupational Specialty 2T0X1, 2T1X1, 2T2X1

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Air Cargo Procedures	9
Air Transportation Principles	9
Business/Transportation Law	6
CCAF Specialty Internship	18
Freight Transportation	6
Hazardous Materials	6
Household Goods Movement	9
Introduction to Transportation	6
Motor Fleet Management & Safety	9
Passenger Routing/Movement	9
Traffic Management	15
Transportation Automated Systems	6
Vehicle Operations	12

Technical Electives	*Maximum Semester Hours*
Business Mathematics/Statistics	3
Computer Science	6
Contract Management	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication	6
English composition (not duplicative)	
or	
Oral Communication	3
Speech	
and	
Written Communication	3
English composition	
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

VEHICLE MAINTENANCE (4VKC)

Occupational Specialty 2T3X1, 2T3X2

Degree Requirements The Journeyman 5 skill-level must be held at the time of program completion.

Technical Education (24 semester hours)
A minimum of 12 semester hours of technical core subjects or courses must be applied and the remaining semester hours applied from technical core or technical elective subjects or courses. Requests to substitute comparable courses or to exceed specified semester hour values in any subject or course must be approved in advance.

Technical Core	*Maximum Semester Hours*
Automotive Engine Computer Systems	6
CCAF Specialty Internship	18
Gas/Diesel Engine Principles	8
Introduction to Business	3
Maintenance Scheduling	6
Power Train Fundamentals	6
Radiator/Fuel Tank Repair	6
Specialized Support Vehicles	15
Suspension/Steering/Brake Systems	6
Vehicle Body Repair/Painting	8
Vehicle Electrical/Starting/Changing Systems	6
Vehicle Fuel/Emission Systems	6
Vehicle Glass, Upholstery/Trim & Hardware	6
Vehicle Heating/Air-Conditioning	6
Vehicle Integrated Management Systems	8
Welding	8

Technical Electives	*Maximum Semester Hours*
Alternative Fuel/Electric-Powered Vehicle Systems	3
Computer Science	6
Engine Lubrication/Cooling Systems	6
Engine Overhaul	6
Environmental Compliance	3
Industrial Management	3
Industrial Safety	3
Quality Assurance	3
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. See page 21.

Physical Education (4 semester hours)

General Education (15 semester hours) Applicable courses must meet the criteria for application of courses to the general education requirement and agree with the definitions of applicable courses starting on page 21.

Subjects/Courses	*Semester Hours*
Communications	6
Written Communication English composition (not duplicative)	6
or	
Oral Communication Speech	3
and	
Written Communication English composition	3
Mathematics	3
Social Science	3
Humanities	3

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 enrollment.

PROFESSIONAL CREDENTIALING …

Credentialing assists the professional development of our Airmen by broadening their knowledge and skills. Blending Air 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. Airmen benefit by being provided the education and credentials needed by highly technical Air Force career fields. Airmen will also possess highly valued skills needed by the industry when they transition from the Air Force. End result: the Air Force 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 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***. Governmental and private organizations set credentialing standards to ensure that individuals meet the standards for their profession. 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.

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 Force and our Airmen for several reasons:

- Helps develop a more diversely skilled workforce
- Broadens professional development of our Airmen
- Validates professional knowledge and skills gained through Air Force technical education and training
- Helps prepare our Airmen meet mission challenges of the future
- CCAF awards collegiate credit to Airmen 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 Airmen 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 Airmen are on par with their civilian peers

Airmen 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

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.

National professional credentials must be current in order to be awarded CCAF technical credit. Airmen who have allowed his/her credential(s) to expire or elapse 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 technical credit if the credential has expired or lapsed.

Students are responsible for contacting their E&TS to submit verification letters to the credential issuing agency. The agency will forward appropriate documentation to 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 http://www.airuniversity.af.mil/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 a waiver 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)…

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AF COOL is a valuable resource for enlisted Airmen. The AF COOL Program is managed by CCAF and provides a research tool designed to increase an Airman'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 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 Airmen 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.langley.af.mil/afvec/Public/COOL/Default.aspx.

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; E-mail ccaf.cool@us.af.mil.

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 (334) 649-5020. Or visit http://www.airuniversity.af.mil/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. 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 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. 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 the Airmen 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, 2A5X3, 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: http://www.airuniversity.af.mil/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.

PROFESSIONAL MANAGER CERTIFICATION PROGRAM…

CCAF offers the Professional Manager Certification (PMC) Program to qualified Senior Noncommissioned Officers (SNCO). The PMC is a professional credential awarded by CCAF to formally recognize a senior NCO's professional accomplishments and advanced level of education and experience in leadership and management. The program provides a structured professional development track that supplements Enlisted Professional Military Education (EPME) and the Career Field Education and Training Plan (CFETP).

Eligibility: The PMC is primarily designed for Air Force SNCOs; however, enlisted Airmen (i.e. MSgt selects) who meet all program requirements are eligible. Once members retire, separate or are commissioned, they are no longer eligible for the PMC. The awarded PMC is recorded on the official CCAF academic record and transcript.

The PMC Program is managed and administered by the CCAF Credentialing Programs Flight. For more information, visit http://www.airuniversity.af.mil/Barnes/CCAF/ or contact CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or E-mail ccaf.deal@us.af.mil.

CCAF INSTRUCTOR CERTIFICATION PROGRAM…

CCAF offers the CCAF Instructor Certification (CIC) Program for qualified instructors who teach CCAF collegiate-level credit-awarding courses at a CCAF affiliated school. The CIC is a professional credential that recognizes the instructor's extensive faculty development training, education, and qualification required to teach a CCAF course, and formally acknowledges the instructor'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 instructor and his or her professional accomplishment.
- CIC-II: designed to formally recognize the instructor's advanced professional accomplishment beyond the CIC-I.
- CIC-III: designed to formally recognize the instructor's advanced professional accomplishment beyond the CIC-II or Occupational Instructor Certification (OIC).

Eligibility: Qualified CCAF instructors who meet CIC Program requirements are eligible. Once instructors leave CCAF instructor duty, they are no longer eligible for the CIC.

- A qualified instructor is a CCAF instructor who has completed the CCAF faculty development program and is assigned to a CCAF affiliated school 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 instructor'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 http://www.airuniversity.af.mil/Barnes/CCAF/ or contact CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or E-mail ccaf.deal@us.af.mil.

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 instructors to meet some of Florida's K-12 certification requirements. The statute enables instructors 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; 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 instructor.

Florida Statute 1012.56 provides easier transition for CCAF instructors into a second career as a K-12 teacher in Florida. For more information, contact the Florida Troops to Teachers program manager at 1-888-358-7667 or (850) 245-5023 or E-mail troopstoteachers@fau.edu.

TROOPS TO TEACHERS PROGRAM

The DANTES Troops-to-Teachers Program provides a Referral Assistance and Placement service to military personnel interested in beginning a second career as a teacher in public education. The DANTES Troops-to-Teachers office will help applicants identify teacher certification requirements, programs leading to certification, financial assistance and employment opportunities. Individuals considering teaching in the public education system upon retirement or separation should contact Troops-To-Teachers at DSN 922-1111 or (800) 231-6242. Individuals may also visit http://www.dantes.doded.mil/Sub%20Pages/TTT/TTT_Main.html.

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 affiliated schools 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): http://www.airuniversity.af.mil/Barnes/CCAF/ or contact the CCAF/DEAL at DSN 749-5020 / (334) 649-5020 or E-mail ccaf.deal@us.af.mil.

AFFILIATED SCHOOLS…

The affiliated schools of the Community College of the Air Force are responsible for developing, validating and delivering CCAF courses. The courses are subject to increases and decreases in credit-hour value based on revisions and evaluations designed to meet the immediate needs of the Air Force. 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 affiliated school and part of the CCAF system is a voluntary process. Air Force schools interested in affiliating with the Community College of the Air Force should write CCAF/DECA, 100 South Turner Boulevard, Maxwell AFB, Gunter Annex, Alabama 36114-3011; call 334-649-5069, DSN 749-5069; or Fax DSN 749-5105.

Airman Leadership School
97th Operations Group
Altus AFB, Oklahoma

Airman Leadership School
Andersen AFB, Guam

Airman Leadership School
Andrews AFB, Maryland

Airman Leadership School
Aviano AB, Italy

Airman Leadership School
Barksdale AFB, Louisiana

Airman Leadership School
1st Reconnaissance Squadron
9th Munitions Squadron
Beale AFB, California

Airman Leadership School
Buckley AFB, Colorado

Airman Leadership School
Cannon AFB, New Mexico

Airman Leadership School
Charleston AFB, South Carolina

Airman Leadership School
55th Electronic Combat Group
Davis-Monthan AFB, Arizona

Airman Leadership School
436th Operations Group
Dover AFB, Delaware

Airman Leadership School
436th Training Squadron
Dyess AFB, Texas

Airman Leadership School
Edwards AFB, California

Airman Leadership School
Eglin AFB, Florida

Airman Leadership School
Eielson AFB, Alaska

Airman Leadership School
Ellsworth AFB, South Dakota

Airman Leadership School *and* NCO Academy
Elmendorf AFB, Alaska

Airman Leadership School
20th AF ICBM Center of Excellence
F. E. Warren AFB, Wyoming

Airman Leadership School
Fairchild AFB, Washington

193rd Engineering Installation Sq (ANG)
Fort Indiantown Gap, Pennsylvania

Airman Leadership School
Fort Meade, Maryland

Medical Education & Training Campus
Fort Sam Houston, Texas

AF Office of Special Investigations Academy
Glynco, Georgia

Airman Leadership School
17th Training Group
Goodfellow AFB, Texas

Airman Leadership School
Grand Forks AFB, North Dakota

Airman Leadership School
Hanscom AFB, Massachusetts

Airman Leadership School *and* NCO Academy
Hickam AFB, Hawaii

Airman Leadership School
Hill AFB, Utah

Airman Leadership School
49th Operations Group
Holloman AFB, New Mexico

AF Special Operations Air Warfare Center
Airman Leadership School
39th Information Operations Squadron
505th Training Squadron
Hurlburt AFB, Florida

Airman Leadership School
Incirlik AB, Turkey

Airman Leadership School *and* NCO Academy
18th Logistics Readiness Squadron
Kadena AB, Okinawa, Japan

NCO Academy
Kapaun AS, Germany

Airman Leadership School
81st Training Group
85th Engineering Installation Squadron
Keesler AFB, Mississippi

Airman Leadership School
58th Special Operations Wing
Kirtland AFB, New Mexico

Airman Leadership School
Langley AFB, Virginia

Airman Leadership School
189th Air National Guard
314th Operations Group
Little Rock AFB, Arkansas

Airman Leadership School
Luke AFB, Arizona

Airman Leadership School
MacDill AFB, Florida

Airman Leadership School
Malmstrom AFB, Montana

160th Attack Squadron
March AFB, California

Air Force Judge Advocate General School
Airman Leadership School
Eaker College for Professional Development
Maxwell AFB, Alabama

Barnes Center for Enlisted Education
USAF First Sergeant Academy
Maxwell AFB, Gunter Annex, Alabama

Airman Leadership School
McChord AFB, Washington

Airman Leadership School
McConnell AFB, Kansas

IG Brown TEC/PCE
McGhee Tyson (ANGB), Tennessee

Airman Leadership School
USAF Expeditionary Operations School
305th Operations Group
Joint Base McGuire-Dix-Lakehurst, New Jersey

Airman Leadership School
Minot AFB, North Dakota

Airman Leadership School
Misawa AB, Japan

Airman Leadership School
Moody AFB, Georgia

Airman Leadership School
Mountain Home AFB, Idaho

Airman Leadership School
Nellis AFB, Nevada

Airman Leadership School
Offutt AFB, Nebraska

Airman Leadership School
Osan AFB, Korea

Airman Leadership School
Patrick AFB, Florida

Airman Leadership School
NCO Academy
Peterson AFB, Colorado

607th Air Control Squadron (ANG)
Phoenix, Arizona

Airman Leadership School
Pope AFB, North Carolina

Airman Leadership School
RAF Feltwell, United Kingdom

Airman Leadership School
Ramstein AB, Germany

558th Flying Training Squadron
Randolph AFB, Texas

Airman Leadership School
Robins AFB, Georgia

Airman Leadership School
37th Training Group
356th Airlift Squadron
737th Training Group
937th Training Group
Joint Base San Antonio, Texas

Airman Leadership School
Scott AFB, Illinois

Airman Leadership School
Seymour Johnson AFB, North Carolina

Airman Leadership School
Shaw AFB, South Carolina

Airman Leadership School
82nd Training Wing
Sheppard AFB, Texas

Airman Leadership School
AF Forces Transportation Training Center-Europe
Spangdahlem AB, Germany

AATTC Air National Guard
St. Joseph, Missouri

108th Attack Squadron
Syracuse ANGB, New York

Airman Leadership School
552nd Operation Group
Tinker AFB, Oklahoma

Airman Leadership School
60th Operations Group
Travis AFB, California

Airman Leadership School
Tyndall AFB, Florida

Airman Leadership School
381st Training Group
Vandenberg AFB, California

Airman Leadership School
Whiteman AFB, Missouri

Airman Leadership School
USAF School of Aerospace Medicine
Wright-Patterson AFB, Ohio

Airman Leadership School
Yokota AB, Japan

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 Force. 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 Airman'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.

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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 Force. 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 Airman'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.

The Code Index

AAS Aircraft Armament Systems
ACL Aircrew Life Support
ACT Aircrew Technology
ADM Administration
AFM Airfield Management
AGE Aerospace Ground Equipment
AMT Aircraft Maintenance Technology
AST Astronautics
ATC Air Traffic Control
AVI Avionics
BEE Bioenvironmental Engineering
BET Biomedical Equipment Technology
CIV Civil Engineering
CLT Cardiopulmonary Laboratory Technology
CLTR Cultural Studies (Air University)
CMR Computer Maintenance & Repair
COM Communications
CON Contracts
COR Corrosion Control
CYB Cybersecurity
DAS Dental Specialist
DLT Dental Laboratory Technology
DMS Diagnostic Medical Sonography
DPO Disaster Preparedness
EDP Data Systems
EDT Education & Training
EEO Electronic Equipment Operation
ELT Electronics
EMT Emergency Medical Technology
ENM Environmental Medicine
ENV Environmental Science
EPP Electric Power Production
EXP Explosives Handling & Disposal
FDS Food Service
FHM Force Health Management
FIN Finance (Accounting)
FIP Fire Protection
FNS Food & Nutritional Science
FSC Family Support Center
FTL Foreign Technical Language
FUS Fuels
GEO Applied Geography
GPS Geophysical Sciences
GRA Graphics
HAR Heating, Air-Conditioning & Refrigeration
HEO Heavy Equipment Operation
HIS Applied History
HIT Histologic Technology
HRM Human Resource Management
HAS Health Services Administration
INT Internship
ITL Intelligence
JOU Journalism
LAW Law Enforcement
LEG Legal Service
LMM Leadership, Management & Military Studies
LOG Logistics
MAC Machinist
MAP Mapping
MAT Mathematics
MEA Measurements
MEC Mechanical Maintenance
MED Medical Assistant
MET Meteorology
MGT Management & Supervision
MIL Military Science
MKS Marksmanship
MLT Medical Laboratory Technology
MPH Military Public Health
MRD Medical Readiness
MSL Missile Maintenance Technology
MUN Munitions
NDT Nondestructive Testing
NMT Nuclear Medicine Technology
NUR Nursing
OCC Occupational Therapy
OLT Otolaryngology Technology
OPD Orthotic Prosthesis Devices
OPT Optometric Technology
ORT Orthopedic
PAV Pavements
PER Personnel
PHA Pharmacology
PHE Physical Education
PHO Photography
PHY Applied Physics
PLB Plumbing
PTH Physical Therapy
PTR Physiological Training
QCI Quality Assurance
RAD Radiologic Technology
REC Recreation
RTB Radio & Television Broadcasting
SAF Safety
SAN Sanitation
SDI Special Duty/Reporting Identifier Internship
SEC Security
SOC Social Services
SOO Solar Observation
SUR Surveying
SVE Survival Equipment
SVR Survival & Rescue
SVS Services
TRN Transportation
TVS Television Systems
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

Aircraft armament systems. Includes 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 AC and DC generation and distribution systems and 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.

AAS 1209 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.

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.

(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.

ACL2102 Aircrew Life-Support Instructor

Knowledge and techniques needed to conduct aircrew life-support continuation training. Includes navigation with global positioning system equipment, survival, evasion, resistance and escape training.

(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.

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 offloading 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.

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 TRAINING (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

ADM1101 Typing I

Touch typing to include thorough knowledge of keyboard and operation of word processing software. Emphasizes centering, simple tables, business letter, envelopes, rough drafts and manuscripts.

ADM1102 Chapel Resource Management

Introduction to the organization and management of chapel resources and activities. Includes personnel management, application of principles of funds accounting, financial planning, facility management, and government contracting instruments.

ADM1103 Document and Publications Management

Introduction to the management of publications and documents. Emphasizes the preparation and management of all types of written communication to include proper formatting and routing procedures of official memorandums, letters, and publications. Includes forms development, design, inventory controls, and acquisition.

ADM1104 Administrative Communications

Management of written communications. Includes preparation of official letters, messages and administrative orders as well as suspense control of written communications.

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.

ADM1107 Postal Operations

Principles, policies, procedures, and administration of military postal operations. Includes postal service center operations, preparation of transportation documents, domestic and international mail, registered mail, claims and inquiries, directory functions, administration of postage accounts, money order services, and postal supplies and equipment.

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 g vital records, disposition and cutoff procedures.

ADM1110 Introduction to Administration

Introduction to areas in the Administration career field and understanding the differences between duties, responsibilities, and the qualifications required. Includes identifying and discussing Customer Service techniques and the importance of etiquette related to Office Management functions. Also includes identifying parts of a computer, file storage, file extensions, and an overview of Adobe Acrobat Pro.

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

ADM 2102 Advanced Chapel Management

Organization and management of chapel activities. Includes techniques for chapel supply management, use of applicable mechanized output products, budget management, control of chapel equipment, supply management, performance ratings, decorations, on-the-job training, and funds accounting, preparation of budgets, publicity materials, professional communications and other supervisory duties.

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.

(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 techniques and procedures of airfield management. Includes flight rules, use of military airfields by civilian aircraft, emergency action procedures, coordination of airfield construction and repair, airfield inspections, and airfield safety.

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 minor maintenance of ground support equipment. Includes service inspection, preoperational inspection, forms review and annotation.

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 Electronic Fundamental

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.

AGE2101 Advanced Hydraulic Test Stands

Application of advanced principles, theory, and operation of specific ground support hydraulic test stands used to operate aircraft hydraulic systems. Interpretation and use of hydraulic, fuel, lubrication, and electrical schematics and diagrams; operation; inspection; fault-isolation procedures; repair and testing of components. Emphasis placed on electrical, hydraulic, and prime mover operating theories and advanced trouble-shooting.

AGE2103 Advance Ground Support Air Conditioner Maintenance

Application of advanced principles, theory and operation of ground support air conditioners. Emphasis on fault-isolation of electrical, engine, refrigerant, fuel, lubrication and compressor systems.

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 flight line 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.)

AMT1108 Air Force Technical Order System Management

Introduction to managing Air Force Technical Order System accounts and how to post changes, revisions, and rescissions to maintain current and accurate technical order libraries. Includes automated systems management and documentation required for performing account custodial duties.

AMT1110 Transport Aircraft Cargo Configuration

Theory of operation of aircraft configuration systems. Includes hands-on instruction for configuring aircraft for aeromedical litter support, container delivery, aerial delivery, troop drop and logistics pallets.

AMT1111 Aviation Maintenance Safety

Introduction to aviation maintenance safety to include hazardous materials and waste, reviewing Material Safety Data Sheets (MSDS) for hazardous materials, Environmental Protection Agency (EPA) reporting procedures, Air Force Occupational Safety and Health (AFOSH) standards relating to general industry and military operations, Maintenance Resource Management (MRM) programs, Risk Management (RM) programs, in-shop safety and general housekeeping, safety practices when working with electrical power and high voltages, and flight line hazards and safety protocols.

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.)

AMT1121 Aircraft Electrical Fundamentals

Fundamentals of electricity, electrical circuitry, and system components related to aircraft maintenance specialist. Principles, theories, and concepts of alternating and direct current. Includes magnetism, electrical terms, symbols, circuit construction, wire maintenance, 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 Semirigid 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 credit 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 and 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.)

AMT1167 Aircraft Throttle Rigging

Fundamentals of throttle control rigging, cable installation and adjustment, system maintenance, and alignment. Includes corrosion control and treatment, evaluation of engine system components, operational checks, fault isolation, and repair; use of special tools and support equipment; application of safety; and use of manufacturer's technical manuals. (May be repeated for credit on various aircraft - 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.)

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 Postflight 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.)

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.)

AMT2163 Turbine Engine Test Cell Maintenance

Advanced operator maintenance and preparation of engines for testing. Includes prestart checks; engine operation; and fault isolation using vibration, temperature, and pressure data to determine serviceability or isolate engine problems; and service adjustments and use of portable and semi-portable engine test facilities. (May be repeated for credit on various pieces of equipment - 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.)

AMT2183 Assessment and Maintenance of Radar Absorbing Materials

Concepts, principles, and procedures for maintenance of aircraft radar absorbing materials. Includes inspection procedures and techniques, damage limitations, and removal and installation of materials. (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 Rigging

Advanced procedures for fault isolation, adjustment, and operational checkout of aircraft landing gear and door sequencing systems; and use of special tools and equipment. Emphasizes adherence to technical data and instructions provided in maintenance manuals. (May be repeated for credit on various aircraft - Air Force Airframe & Powerplant Program applicable course.)

AMT2210 Advance Hydraulics Repair Workshop

Advanced application of design theory in specific aircraft hydraulic systems. Includes application of detailed principles to determine functions and interrelationships of components using electrical and hydraulic schematics; troubleshooting and fault isolation; and maintenance procedures and practices in removing, installing, repairing, servicing, adjusting, inspecting, and modifying aircraft hydraulic systems. (May be repeated for credit on various type of aircraft.)

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 and 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 Airplane & 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, directing maintenance 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.

(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

AST1102 Introduction To Unmanned Aerial Vehicles (UAV)

Fundamental theory and principles of Unmanned Aerial Vehicles (UAV) in an operational environment. Includes physical, operational, and communication security; launch/landing procedures; missions; and operator maintenance and troubleshooting. Also includes UAV aviation safety, emergency procedures, and emergency missions.

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.

AST1401 Introduction of Remotely Piloted Aircraft (RPA)

Fundamental theory and principles of Remotely Piloted Aircraft (RPA) in an operational environment. Includes physical, operational, and communication security; missions; and human factors. Also includes RPA aviation safety, emergency procedures, and emergency missions.

AST1402 Introduction to Remotely Piloted Aircraft (RPA) Sensors and Communication

Introduction to the purpose, characteristics, theory, and operation of the sensor and communication systems utilized on Remotely Piloted Aircraft (RPA). Includes electromagnetic spectrum; radar, infrared, television/optical, and fused optics sensors; laser and marking devices; radio and telephone procedures, radio frequency bands, and tactical chats. Also includes sensor optimization and limitations.

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.

AST2401 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.

AST2402 Introduction to Space Systems

Space systems and mechanics and defense and satellite systems. Includes launching fundamentals, identifying orbital parameters, and understanding applicable technical language and space-tracking detection systems.

AST2405 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.

AST2406 Satellite Systems Operations

Techniques and procedures for satellite control and operation. Includes satellite type and mission, components and subsystems, tracking, command and control operations, duty positions, and crew procedures.

(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.

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.

ATC 2410 Combat Control Landing and Drop Zone Operations

Perform Navigational Aid operations to establish and perform landing/drop zone support and operations. Perform marshalling to include identifying the basic tools used, demonstrating hand and arm signals, and maintaining positive control of the aircraft.

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) 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 attitude reporting systems.

AVI1717 Avionic Maintenance Management

Principles of supply systems and avionic maintenance management, procedures for maintenance inspections, and evaluation of maintenance activities.

AVI1726 Avionic Manual Test Station Operation

Principles and operation of manual test stations and test equipment used to maintain avionic systems.

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.

AVI1737 Avionic Terrain-Following Radar

Detailed circuit analysis of transmitter, receiver, antenna, power supply, computer, and indicator; and trouble analysis using wiring diagrams and 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.

AVI1746 Avionic Sensor Systems Laboratory

Circuit analysis, troubleshooting, disassembly, repair, reassembly and calibration of sensor control equipment.

AVI1747 Infrared Sensors Theory

Principles, characteristics, and functional analysis. Emphasizes circuit analysis using wiring diagrams and logic symbols.

AVI1748 Infrared Sensors Maintenance

Functional analysis and maintenance of infrared sensors. Includes operational checkout, alignment, troubleshooting, and repair using both specialized and standardized test equipment.

AVI1754 Avionic Radio Communications 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 Communications 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 System 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.

AVI2251 Identification Equipment

Tactical uses, operation, adjustment, alignment, block diagram analysis and trouble analysis of aircraft identification system.

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.

AVI2718 Airborne Early Warning Radar

Search radar principles and applications. Includes circuit analysis of stabilization, inertial, height finder and indicator systems through use of schematic diagrams.

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.

AVI2723 Radar Warning Receiver Systems

Principles of Radar Warning Receiver Systems and automatic or manually operated chaff/flare dispensers. Includes operational theory and checkout, circuit analysis, use of associated test equipment, service inspections, malfunction detection and isolation, maintenance and repair of system components.

AVI2725 Electro-Optical Viewing System

Theory of target sensing and display using low-light television, holography, and computer-aided graphic processing to detect and display targets. Includes operational checkout, alignment, troubleshooting and repair of electro-optical viewing system using specialized and standard test equipment.

AVI2728 Data Display Systems

Circuit analysis through use of logic symbols and schematics. Includes troubleshooting and bench checks.

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. Includes data flow, circuit and systems analyses.

(BEE) BIOENVIRONMENTAL ENGINEERING

BEE1300 Introduction 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.

BEE1301 Introduction to Bioenvironmental Sciences

Application of mathematics, physical and biological principles to personal protection. Includes measurement of illumination and ionizing and non-ionizing radiation.

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.

BEE1304 Water Systems Management

Collection and chemical testing of water samples, monitoring of water treatment facilities, and preparing reports with recommendations to prevent contamination.

BEE1305 Waste Management

Collection, treatment, and disposal of liquid and solid-waste materials.

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.

BEE2101 Introduction to Ergonomics

Anticipation, recognition, evaluation, and control of ergonomic hazards. Includes discussion of health effects, recognition of risk factors, methods of evaluation, standards and criteria, control of principles and methods, administrative controls, personal protective equipment, field surveys, and other current issues in ergonomics.

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.

BEE2319 Bioenvironmental Engineering Readiness

Medical readiness training program development and management. Includes peacetime and wartime plans; nuclear weapon accident response; hazardous material accident response; and medical aspects of nuclear, biological and chemical warfare.

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.

BEE2321 Advanced Bioenvironmental Measurements

Extensive fieldwork in industrial hygiene, radiation and environmental quality is conducted. Field methods include chemical and physical hazards along with other environmental programs.

(BET) BIOMEDICAL EQUIPMENT TECHNOLOGY

BET1101 Introduction to Biomedical Equipment Technology

Introduction to role and responsibilities, safety and hazards associated with biomedical equipment maintenance. Includes manufacturer's specifications, pneudraulics and refrigeration principles, hand tools, soldering techniques; and the troubleshooting and repair of biomedical equipment.

BET1102 Introduction to Medical Equipment

Familiarization with maintenance and operation of medical equipment. Demonstration of proficiency with infusion pumps, hypo and hyperthermia units, infant incubators, and audiometers in a performance lab. Principles of safety, anatomy and physiology, and clinical applications are introduced.

BET1103 Physiological Monitoring Equipment

Familiarization with maintenance and operation of physiological monitoring equipment. Demonstration of proficiency with pulse oximeters, central patient monitoring systems, telemetry monitoring systems, diagnostic ultrasound doppler units, electrocardiograph units, defibrillators, fetal heart monitors, and invasive/non-invasive blood pressure monitors in a performance lab. Principles of safety, anatomy and physiology, and clinical applications are introduced.

BET1104 Medical Support Equipment

Familiarization with maintenance and operation of medical support equipment. Demonstration of proficiency with fume and laminar flow hoods, blood cell washing systems, electrolyte analyzers, electronic particle counters, chemical automixers, blood gas analyzers, blood/fluid warmers, chemistry analyzers, and centrifuges in a performance lab. Principles of safety, refrigeration, anatomy and physiology, and clinical applications are introduced.

BET1105 Surgical Equipment

Familiarization with maintenance and operation of surgical equipment. Demonstration of proficiency with respiration monitors, pulmonary function analyzers, volume/pressure and high frequency ventilators, electrosurgical units, and anesthesia units in a performance lab. Principles of safety, anatomy and physiology, and clinical applications are introduced.

BET1106 Field Equipment Systems

Familiarization with maintenance and operation of field equipment systems. Demonstration of proficiency with generators, field power distribution systems, expandable shelter systems, environmental control systems, oxygen storage and generation systems, field lighting systems, tactical shelters, field communications equipment, and water recovery systems in a performance lab. Principles of safety and testing procedures are introduced.

BET1201 Dental and Sterilizer Systems

Principles of operating procedures, characteristics and internal circuitry of clinical and operatory dental equipment, sterilization equipment and systems, ultrasonic cleaners, plumbing and medical gas and vacuum systems. Includes technical analysis of

corrective maintenance, preventive maintenance and calibration.

BET1203 Respiratory Equipment

Introduction to volume and pressure ventilators, pulse oximeters, pulmonary function analyzers, anesthesia systems and anesthesia and pulmonary gas analyzers. Includes equipment operations theory, calibration, repair, clinical and /practical applications, external operation, and internal electronic circuitry.

BET1204 Cardiographic Diagnostic Equipment

Operation and maintenance of multichannel electrocardiographs, fetal heart monitors, defibrillators, blood pressure monitors and physiological monitors. Includes equipment operation theory, clinical and practical applications, related physiology, calibration, repair, external operation and internal electronic circuitry.

BET1205 Clinical Laboratory Systems

Operation and maintenance of optics, electrolyte, blood gas and chemistry analyzers, blood cell counters, laboratory centrifuges water purification, tissue processors and microscopes. Includes clinical and practical applications, equipment operations theory, related physiology, calibration, repair, external and internal electronic circuitry.

BET1206 Diagnostic Imaging I

Principles of diagnostic imaging, ionizing radiation, X-ray production and generation and radiation physics. Includes analysis and performance of preventive maintenance, calibration verification, and malfunction repair of radiation and X-ray generation dental panoramic X-ray systems, film processors, and mobile X-ray equipment.

BET2201 Diagnostic Imaging II

Identification, analysis and performance of preventive maintenance and inspections on fixed radiological X-ray systems. Includes diagnostic ultrasound units, nuclear medicine, magnetic resonance imaging, and mobile and fixed fluoroscopic X-ray systems.

BET2202 Biomedical Equipment Practicum

General maintenance practices and associated duties of a biomedical equipment repair shop. Includes troubleshooting, isolation and repair, or replacement of defective components, modules and circuit boards according to manufacturer's specifications; and identifying facts and statements concerning clinical applications, related physiology and complete specific maintenance tasks on a wide variety of medical systems and units.

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.

BET2401 Managerial Functions in Biomedical Equipment

Biomedical equipment manager responsibilities, workload and manpower management, administration of contractual and financial matters, employee development, maintenance and supervision of equipment, safety programs, and information management.

BET2402 Advanced Field Medical Support Systems

Emergency shelter preparation and power generation. Includes diesel generator units and field electrical systems. Emphasis on lighting, environmental control, and X-ray systems.

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.

BET2407 Advanced Medical Systems

Advanced clinical and practical applications, laser physics, related physiology, modalities, equipment operation theory, calibration, circuit analysis, troubleshooting, safety precautions and repair of advanced medical and laser 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.

(BHT) BEHAVIORAL

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 of 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 admissions 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 consultation; 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.

(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.

CIV1103 Metals Layout Fabrication

Fundamental 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, and flashing.

CIV1108 Geographic Information Systems (GIS)

Basic functions and applications of the Geographic Information System (GIS). Includes understanding and development of spatial data models, GeoBase concepts, database queries, conversion of data, metadata tools, files, ArcMap, legends and scales.

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.

CIV1151 Structural Apprentice

Introduction to structural repair. Includes construction drawings and specifications, mathematics, tools, 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, welding, and contingency operations.

CIV1152 Introduction to Drafting

Introduction to drafting fundamentals and techniques utilizing sketches that illustrate building floor plans of interior and exterior walls and door and window openings. Includes preparation of engineering drawings by use of architectural drafting scales, drafting triangles, T-squares, mechanical pencils, various types of drafting erasers, drafting papers, and use of Ames lettering guides.

CIV1153 Introduction to Automated Computer aided Design and Drafting

Basic concepts of Automated Computer-aided Design (CAD), sketches, specifications and engineering working drawings for use in the construction industry. Topics include design of accurate floor, architectural, and utilities plans which include: electrical; plumbing; and HVAC plan drawings. Introduces basic knowledge of AutoCAD menu structure, drawing setup, editing, dimensioning, symbol libraries, scaling, and plotting completed drawings.

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.

CIV2517 Architectural and Structural Design

Preparation of required program documents, design sketches, and architectural and structural working drawings. Includes use of mix data; preparation and testing of plastic concrete for slump and air content; and use of mixed concrete to prepare cylinder and beam test specimens.

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.

CIV2521 Site Planning, Facility Design, Soils and Pavement Testing

Preparation of required program documents, design sketches, and architectural and structural working drawings. Analysis of engineering design documents, sizing members for required strength, cost estimating, and master planning. Includes use of mix data, preparation and testing of concrete for slump and air content, use of mixed concrete to prepare cylinder and beam test specimens, listing specific gravity and grain size, moisture states, soil classification system, compaction control, California Bearing Ratio, density determination, field identification, soil exploration, and flexible/rigid pavements.

(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.

(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.

CMR1746 Computer Maintenance

Operational theory, logic, and circuit diagram analysis, preventive and corrective maintenance; and troubleshooting. Includes use of general- and special-purpose test equipment and technical manuals.

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 Communications Theory

Transmitter principles, receiver tuning and operation, antenna, wave propagation, and communications 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.

COM1432 Ground Electronic Digital Timing Systems

Receivers, oscillators, counters, amplifiers, indicator units, and associated power supplies. Includes theory of operation, functional applications, logic and schematic diagram analysis, malfunction isolation, corrective maintenance, and alignment procedures.

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.

COM1713 Telephone Fundamentals

Principles of telephony and sound. Includes security, safety, maintenance management procedures, and use of general- and special-purpose test equipment and technical publications.

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.

COM1735 Cable Pressure Systems

Use of manometer pressure testing gauges and gas flow indicators, leak location, flow analysis, and connection and adjustment of contractor terminals. Includes installation of pressure plugs, flanges, and valves.

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 and Information Systems Project Management

Concepts and solutions that supports the planning, scheduling, controlling, resource allocation, and performance measurement activities required for successful completion of a Command, Control, Communications, and Computer (C4) project. Includes the use of project management software for organizing, scheduling, and monitoring project progress. Also includes contract and agreement management; project acceptance parameters; and quality assurance inspections.

COM2100 Communications Systems Operations and Maintenance

Communication systems maintenance, management, and administration; automation of record communications to include video, text, and voice; and system administration includes maintenance of wireless systems, mass alert systems and subordinate menus and hardware.

COM2101 Advanced Command and Control Operations

Command post operations and communication security requirements. Includes development of operational checklists, control of classified information, physical security, communications, and supervision and training responsibilities.

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 Communications 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.

COM2739 Communications Network Evaluation

Systems analysis. Includes applicable mathematics, transmission line theory, signal distortions, line conditioning, digital theory, multiplexing, modulation, and computer and switching systems.

COM2740 Communications Network Testing

Practical approach to systems analysis. Includes use of general- and special-purpose test equipment and technical manuals.

COM2741 Digital Switching Systems Administration

Introduction to duties and responsibilities of systems administrator, interpretation of reports, and record

documentation. Includes fundamentals of transmission lines, voice mail system and line testing.

(CON) CONTRACTS

CON1618 Contract Solicitation and Award

Administration of contract solicitations, formal advertising, selection of bids, evaluation and award. Includes competition requirements, acquisition methods, compliance checks, electronic commerce, post-award procedures, and termination of purchase and delivery orders.

CON1619 Government Contracting Applications

Practical application of pre-award, award, and post-award government contracting actions through execution of simplified acquisition procedures in the contracting work center. Includes research 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 Blank Purchase Agreement.

CON2109 Introduction to Contracting

Fundamentals of government contracting. Includes contract law; planning, programming, and budgeting; types of contracts; contracting sources; methods of contracting; formal advertising and negotiation; small purchases and general contracting policies; uniform contract format; contract preparation; and file documentation.

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.

CON2607 Principles of Contract Administration

Procedures for administering contracts. Includes types of contracts, work statements, specifications and purchase descriptions, small purchase administration, quality assurance and warranties, foreign acquisitions, contract clauses and finance procedures, liquidated damages, contract modifications and disputes, contract negotiation methods, contract review and termination, contract pricing, and accounting procedures.

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.

(CYB) CYBERSECURITY

CYB1101 Cyber Defense and Countermeasures

Fundamentals of cybersecurity principles, procedures, and technologies used to identify, secure, and defend the vulnerabilities and capabilities of cyber networks. Emphasis on network warfare operations, cyber-attacks, and exploiting cyber networks.

CYB1102 Introduction to Cyber Law 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.

CYB1103 Industrial Control System Security

Fundamentals of technology and protocol vulnerabilities of Industrial Control Systems (ICS) networks. Includes theory of typical ICS applications in industries such as electric, water and wastewater, oil and natural gas, transportation, chemical, pharmaceutical, pulp and paper, food and beverage, and discrete manufacturing. Emphasizes control systems such as Distributed Control Systems (DCS) and Supervisory Control and Data Acquisition (SCADA).

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.

(DAS) DENTAL SPECIALIST

DAS1305 Basic Dental Sciences

Facial, cranial, and intraoral anatomy; tooth morphology; elementary physiology and chemistry; dental disease; infection control; and provider and patient relations.

DAS1306 Clinical Procedures

Restorative and fourhanded dentistry techniques and procedures, clinical and general emergency care, and dental instrument use, and use of materials. Includes application of administrative regulations and procedures to dental records maintenance and patient scheduling.

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.

DAS1314 Preventive Dentistry Sciences

Periodontal anatomy, microbiology, progression of periodontal disease, anticariogenic agents, anomalies, patient psychology, and chair-side counseling.

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.

DAS1316 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.

DAS2318 Advanced Dental Oral Hygiene Management

Management of periodontal maintenance program, identifying administrative tasks, documenting periodontal status, charting, health and safety concerns, and professional and patient relations.

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.

DLT1322 Construction of Inlays, Crowns and Fixed Partial Dentures Part I

Occlusion, creation of stone casts and dies, use of wax additive technique, and casting and finishing of gold alloys.

DLT1323 Construction of Inlays, Crowns and Fixed Partial Dentures Part II

Fabrication, assembly, and soldering procedures used in construction of inlays, crowns, fixed partial dentures, and acrylic resin crowns.

DLT1324 Dental Ceramics

Metal ceramic single unit restorations; wax-ups, casting, and finishing of metal substructure; and application, firing, contouring, and glazing of porcelain.

DLT1325 Fundamental 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.

DMS2202 Ultrasonic Scanning II

Ultrasonic scanning theory and procedures applying to the abdominal, liver, gallbladder, spleen, and female reproductive systems.

DMS2202 Ultrasonic Scanning III

Ultrasonic scanning theory and procedures applying to the obstetrics, pelvic and extremities.

DMS2301 Diagnostic 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 systems and urinary systems sonography scans and applications.

DMS2302 Diagnostic 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 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

Advance 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 wartime tasking in a chemical defense training facility.

DPO2105 Emergency Management Refresher

Advanced operational procedures and techniques. Includes new equipment, emergency information system; threat updates, and nuclear, chemical, biological, and conventional warfare defense concepts and operations.

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.

EDP1112 Computer Data Handler

Techniques, principles, functions, and methods of input for data-handler system. Includes report generation.

EDP1113 Data Processing, Inquiry and Retrieval Systems

Basic functions and characteristics of computer systems; operations performed by computer components from input through output; and procedures for data entry, inquiry, and retrieval; and methods required to construct, input, and retrieve data from computer using format statements.

EDP1116 Operational Systems Utilities

Characteristics and application of systems utilities. Includes system security and use of operational publications.

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.

EDP1132 Computer System Familiarization

Functions of computer systems. Includes knowledge of computer security, electronic data processing, forms management, terminology, and organizational alignment.

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.

EDP1140 Contracting Computer Applications

Introduction to basic components and functions of contracting databases utilizing basic software applications. Includes data input, retrieval and manipulation, word processing, and excel spreadsheets.

EDP1141 Introduction to Computer Networks

Fundamental theory and operational principles of computer networks, the Other Systems Interconnection (OSI) model, Local Area Network (LAN), Wide Area Network (WAN), packet transmission, interworking, Internet Protocol, World Wide Web (WWW), Java technology, wireless network technologies, and wireless routing. Also includes the fundamental 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 of Computer Networks. Includes network design; multiplexing; switching; routing; internetworking; transport protocols; congestion control; and performance evaluation. Addresses wireless network technologies; Mobile IP; wireless routing, location management, and ad-hoc wireless networks. Also includes the fundamental of Voice over Internet Protocol (VoIP) technologies; the deployment of mobile satellite communication systems, and the operation of associated equipment.

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.

EDP1204 Introduction to Logistics Automated Data System

Introduction to standard base supply system that emphasizes operation and maintenance of automated data system. Includes initialization, remote processing, interfacing microcomputers, file structure, time-sharing, query language processor retrievals, report generation, production control, and reject management.

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, vulnerabilities assessment and risk management principles in Communications Security (COMSEC), Emissions Security (EMSEC), electronic Key Management System (EKMS) system, and Computer Security (COMPUSEC) programs.

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.

EDP2208 Senior Leader Communication Systems Network Operations

Theory of local area network operations for all line replaceable units in the Senior Leader Communication Systems Secure/Non-Secure LAN (SLCS). Includes power distribution, equipment location and operation/purpose of SLCS.

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 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.

EDP2404 Advanced Data Inquiry and Retrieval

Application of file definition and generation tasks, task-loading routines, database recovery, file update tasks, file query function, retrieval tasks search processor, sort tasks, and output formats.

EDP2614 Database Applications Programming

Advanced techniques in creating, accessing, and manipulating data within a database management system using executive control language, transitioning aids, language processors, and database functions. Includes system hardware and software concepts.

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.

(EDT) EDUCATION & TRAINING

EDT1102 Objective and Test Development

Theories and principles of learning, interpretation of training proficiency code keys, and correlation of objectives. Includes principles, analysis, administration, and construction of measurement items.

EDT1501 Instructional Principles and Techniques

Learning process. Includes application of communicative skills, instructional methods and aids, developmental approach, and instructional systems development

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.

EDT1811 Computer-Based Instruction Development

Principles of Computer-Based Instruction (BCI) 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.

EDT2000 Instructor Intervention

Instructor risk management intervention skills in risk management in the training environment. Includes principles of identifying risks associated with training activities, maintaining safety in the training environment, stress innoculation, motivational training, and the instructor's role in mentoring peers and students.

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.

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.

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.

EDT2803 Applied Instructional System Development

Practical exercises in development and evaluation of an instructional system; and education and training requirements, objectives and tests, plan and validation of instruction, and evaluation of a completed instructional system.

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.

EDT2806 Basic Counseling

Comprehension of human behavior. Includes adjustment mechanisms and different considerations in academic and nonacademic counseling, application of various counseling approaches, use of referral agencies, documentation, and follow up.

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

Instruction 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, lesion 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, and writing technical materials.

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 records 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.

EDT2846 Teaching Practicum

Practice teaching under supervision of an experienced instructor supervisor, classroom and laboratory instruction, lesson planning, test administration, academic counseling, and preparation and use of audiovisual aids.

EDT2848 Teaching Internship - SERE

Survival, evasion, resistance, and escape (SERE) 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 Aircraft Control and Warning Operations III

Theory and operation of a combat reporting center. Includes control and center operator consoles with operational procedures for all positions and overview of capabilities of aircraft control and warning system.

EEO1207 Spacecraft Ground Data Systems

Orientation and coverage of responsibilities of ground data satellite control systems. Includes ground station data flow, command and control subsystems, altitude control, propulsion, power production, status processing satellite readout, data reduction, simulation, and ground data monitoring operations.

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, multisensory 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.

EEO1218 Missile Warning Operations

Operation of computerized digital radar displays and equipment for detection and tracking of ballistic missiles. Includes communication capabilities and operational procedures for relay of missile warning information.

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.

(ELT) ELECTRONICS

ELT1102 Modulator Equipment

Operational theory, logic, and circuit diagram analysis, preventive and corrective maintenance, and troubleshooting; includes use of general/special purpose test equipment and technical manuals.

ELT1103 Satellite Communications Systems

Fundamentals and characteristics of multi-band, multi-channel satellite communications (SATCOM) equipment. Incudes transmit and receive systems capabilities and limitations to include modems, multiplexors, timing, and modulation techniques as well as tracing of signal flow using diagrams, schematics, and technical manuals.

ELT1104 Satellite Communications Maintenance

Preventive and corrective maintenance and troubleshooting. Includes use of hand tools, safety procedures, general-and special-purpose test equipment, and technical manuals.

ELT1105 General Maintenance Training

Introduction to 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.

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.

ELT1110 Airport Surveillance Radar I

Theory of operation of airport surveillance radar systems. Includes the use, capabilities, limitations, and alignment of primary and secondary surveillance radar systems and associated equipment to include low voltage power supply, waveguide system, digital timing circuit, and receiver and transmitter systems.

ELT1111 Precision Approach Radar

Theory of operation of airport surveillance radar systems. Includes the use, capabilities, limitations, and alignment of primary and secondary surveillance radar systems and associated equipment to include low voltage power supply, waveguide system, digital timing circuit, and receiver and transmitter systems.

ELT1112 Aircraft Control and Warning Radar System

Theory of operation, alignment, and maintenance of aircraft control and warning radar systems and associated equipment. Included the use, capabilities, and limitations of antenna/receiver subsystems, power distribution system, transmitter, interlock network, auxiliary equipment, processor subsystem, indicators, and secondary systems. Addresses alignment and fault isolation of transmitter and receiver circuits.

ELT1113 Satellite Communication Systems Laboratory

Deployment and operation of Satellite Communication systems and associated equipment. 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/data services via network bandwidth management and multiplexing equipment.

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 gathering circuits to include transistor amplifiers, operational amplifiers, oscillators, multivibrators, wave shaping circuits.

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.

ELT1219 Electronic Cryptographic Systems Maintenance Depot

Milliwatt and microwatt logic, block diagram and circuit analysis, and operation of and component replacement for digital data encryption and decryption devices. Includes input and output modules, power supplies, message indicators, clock start modes, synchronization circuits, special test equipment, and use of hand tools for depot level repair.

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.

ELT1258 AC and DC Fundamentals

An introduction of the fundamentals of electricity, system components, AC and DC electricity, and electrical circuitry; includes a laboratory with practical experience in troubleshooting AC and DC circuitry, measuring AC and DC voltages, circuit polarity, and time periods of a waveform.

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.

ELT1264 Electromagnetic Pulse Detection Unit

Theory of electromagnetic pulse and electrostatic discharge effect upon electronic devices. Includes electromagnetic and electrostatic emission protective devices.

ELT1282 Multiplexer Maintenance

Operation, logic, malfunction analysis, and repair of multiplexer and demultiplexer equipment. Includes delay compensator, synchronizer monitor logic analysis, system troubleshooting, and use of hand tools and general test equipment.

ELT1305 Radar Identification Equipment

An introduction of 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 systems maintenance.

ELT1437 System Troubleshooting

Overall system troubleshooting. Includes alignment, adjustment, self-tests and performance checks.

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.

ELT1452 Satellite Communications Group Maintenance

Analysis of satellite communications terminal tracking and control systems. Includes maintenance, calibration, repair, and inspection of servo-electronic, monitor, control equipment, and alarm systems.

ELT1453 Missile System Electronic Analysis

Signal flow analysis and applications to integral aerospace systems. Includes loop data-flow analysis, operation of standard test equipment, troubleshooting, safety, and use of maintenance publications.

ELT1455 Communications 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.

ELT1544 Security and Intrusion Detections

Principles of operation of control units, monitoring and display equipment, audible alarms, sensors (mechanical, capacitance proximity, vibration, ultrasonic motion magnetic weapons, and passive ultrasonic), and system checkout and troubleshooting.

ELT1701 Principles of Alternating Current (AC) Circuits

Principles of Alternating Current (AC) theory. Includes waveshapes, voltage characteristics, frequency characteristics, phase relationships, 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.

ELT1713 Transmitter and Receiver Systems

Basic analysis of transmitter and receiver circuits, transmission lines, waveguides, antennas, cavity resonators, microwave oscillators, frequency control and automatic gain control circuits, crystal mixers, and parametric amplifiers. Includes schematic interpretation and troubleshooting techniques.

ELT1714 Solid-State Applications

Fundamental principles of solid-state applications in wave generation. Includes basic, pulsed, and blocking oscillators, multivibrators; and time-based generators.

ELT1716 Standard Test Equipment Laboratory

Operational theory, function and use of low-frequency generators, multimeters, electronic counters, frequency converters, audio oscillators, oscilloscopes, and differential voltmeters.

ELT1717 Special Test Equipment Workshop

Operation and maintenance of test equipment used to maintain automatic programming and control equipment. Includes schematic analysis, and operation and maintenance of computer programming set and power supply.

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

Ohm's law; series, parallel, and series-parallel circuit theory; meters and test equipment; and electrical code, terminology, and wiring diagrams.

ELT1727 Electron Tubes and Circuit Applications

Theory and operation of diodes, triodes, multigrids, and special-purpose tubes. Includes typical circuit applications, oscilloscope analysis, heterodyne, and principles of modulation and demodulation.

ELT1729 Radar Systems Troubleshooting

Circuit analysis of transmitters, receivers and transponders. Includes use of test equipment, troubleshooting, and preventive maintenance.

ELT1731 Surveillance Indicator Systems

Circuit analysis of plan position indicator system. Includes synchronization system, sweep circuits, video circuits, amplifiers, and cursors.

ELT1733 Radar System Maintenance

Circuit analysis and maintenance procedures applicable to a radar system. Includes use of detailed wiring diagrams and test equipment to isolate, identify and repair system components.

ELT1738 Radar Data Display Circuits

Operational theory, applications, and maintenance of precision-timing circuits, wave-shaving 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.

ELT2105 UHF Radio Communications

Analysis of UHF multichannel radio transceivers. Includes performance testing, troubleshooting, alignments and adjustments using associated test equipment.

ELT2106 Mobile Communications Systems Maintenance

Communications centrals. Includes nomenclature classification, equipment features, operational modes, malfunction analysis, field repairs, supply procedures and safety.

ELT2112 Radio Equipment Theory

Principles of HF, VHF, and UHF communication equipment. Includes performance laboratory in troubleshooting and repair of HF, VHF, and UHF mobile and portable communication equipment.

ELT2113 Ground Radio Theory

Principles of transmitters, receivers, audio and data intercept consoles, and automatic switchboard principles as applied to ground radio system.

ELT2114 Radio Maintenance Laboratory

Trouble analysis and fault isolation of subunits of transmitter, receiver, and control sites.

ELT2123 HF Receivers

Operation and circuit and functional analysis of HF receivers.

ELT2125 Radio Transceivers

Operation, maintenance, and circuit functional analyses of universal radio equipment transceivers.

ELT2126 High Frequency Transceiver

Operation and maintenance of High Frequency (HF) Transceiver systems and associated equipment. Includes the use, capabilities, and limitations of High Frequency (HF) Transceivers. Also includes the capabilities and limitations of HF Transceiver Deployable antenna Masts/Antennas.

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 (AM0 Transceivers.

ELT2129 Instrument Landing System

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. .

ELT2136 Video Processing

Circuit analysis of normal and moving target video-processing circuits, antenna azimuth processing circuits, and radar control circuits.

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, pu8lse 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.

ELT2141 Tactical Air Navigation System Test Set Maintenance and Calibration

A course designed to provide the skills and knowledge necessary to perform maintenance and calibration of TACAN test equipment. Includes servicing, operating procedures, troubleshooting, inspecting, adjusting, and maintaining advanced TACAN systems.

ELT2142 Radar test Set Maintenance and Calibration

A course designed to provide the skills and knowledge necessary to perform maintenance and calibration of Radar test equipment. Includes servicing, operating procedures, troubleshooting, inspecting, adjusting, and maintaining advanced TACAN systems.

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

Advanced quality assurance procedures to detect and analyze maintenance management deficiencies, determine cause, and recommend corrective action. Students 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 electronics installation project evaluations, training effectiveness evaluations, logistics, and research and investigation of component failures and manufacturer defects.

ELT2210 Airport Surveillance Radar II

A continuation course on airport surveillance radar systems. Advanced theory of operation, alignment, and maintenance of primary and secondary surveillance radar systems, digital airport surveillance radar, system control and monitoring system, monopulse surveillance radar and associated equipment. Includes calibration and alignment encoders, and system certification. ,

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.

ELT2704 Meteorological Radar System

Operational theory and circuit analysis of meteorological radar system. Includes inspection, installation, calibration, alignment, performance checks, troubleshooting and repair procedures, and use of applicable test equipment.

ELT2733 Logic and Circuit Analysis

Digital logic and analysis of computer circuits. Includes basic circuits, adders, registers, and coder and decoders.

ELT2739 Radar Transmitter Maintenance

Circuit analysis and repair of radar transmitters.

ELT2740 Radar Receiver Maintenance

Circuit analysis and repair of radar receivers.

ELT5728 DC and Low-Frequency AC Measurement

Introduction to metrology of voltage, current and power. Includes knowledge of instrument calibration standards, precision voltage and current measurement, differential voltmeters, thermal converter meters, voltmeter calibration system, resistance voltage dividers, ratio transformers, resistance bridges, measurement of capacitance and inductance, reactance bridges, low-frequency signal generators, function generators, and synchronization test equipment.

ELT6723 High-Reliability Soldering and Connections

Repair of miniature and microminiature 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.

ELT6778 Communications Control Console and Landline Selector Control

Maintenance of communication console control group and landline selector control group. Includes equipment operation, circuit analysis, alignments and adjustments, and fault isolation.

ELT6791 Mobile Communications Systems Maintenance

Communications centrals. Includes nomenclature classification, equipment features, operational modes, malfunction analysis, field repairs, supply procedures and safety.

ELT7767 Radar Identification Equipment

Functional and circuit analysis of identification equipment (air traffic control and friend or foe); includes analysis of transmitter, receiver, control circuits, power supply, and system maintenance.

(EMT) EMERGENCY MEDICAL TECHNOLOGY

EMT1101 Emergency Response

Introduction to Emergency Medical Services (EMS) System, 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. .

EMT1102 Emergency Medical Technician - Basic

An introduction to emergency medical care; medical and legal ethics; management of shock, trauma, fractures and hemorrhage control; management of environmental, behavioral and medical emergencies of infants, children and adults; obstetrical, gynecologic and childbirth emergencies; transportation, lifting, and moving of the sick and injured; radio communications, documentation, ambulance operations, scene evaluation and emergency medical technician safety. Includes all required modules of the 1994 *EMT Basic National Standard Curriculum*.

EMT1103 Emergency Medical Technician - Intermediate

Theory and techniques of advanced emergency medical care in prehospital and hospital settings, and prepares student to challenge National Registry Emergency Medical Technician - Intermediate examination. Includes patient assessment, advanced airway management, intravenous fluids, shock and clinical duties.

EMT2101 Emergency Medical Technician - Paramedic

Theory and techniques of advanced emergency medical care. Includes emergency pharmacology, drug calculations, and pararescue specific medications. Medical emergencies including obstetrical, gynecologic, neonatal, psychological, behavioral, and combat stress related. Prepares student to challenge National Registry Emergency Medical Technician - Paramedic examination.

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.

EMT2303 Emergency Procedures and Examinations

Emergency treatment of fractures; dislocations; head, chest, abdominal and thermal injuries; cricothyrotomy; intravenous therapy; minor surgery; temporary dental fillings; gastric lavage and gavage; and emergency childbirth.

EMT2304 Public Health

Water purification, insect and rodent control, sewage and water disposal, rabies control, occupational health, and health and sanitation procedures.

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.

EMT2316 First Aid and Self-Help

Identification and treatment of hemorrhage; shock; fracture and dislocations; burns; heat disorders; hypothermia; chemical and botanical poisons; snake, insect and marine-life bites under field conditions; and application of drug therapy, artificial respiration and heart massage.

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.

ENM2304 Advanced Occupational and Public Health Management

Introduction to Food and Drug Administration food code, epidemiological concepts, occupational and public health principles and programs, management principles and trend analysis.

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.

(ENV) ENVIRONMENTAL SCIENCE

ENV1101 Environmental Awareness

Environmental laws and regulations, forms and records, pesticide hazards and benefits, hazardous waste management characteristics, pollution prevention facts, compliance standards and documents, emergency planning, and spill response facts.

(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 Equipment and Pole Climbing

Pole-climbing techniques using hot line tools and protective equipment, crossarm installation and removal, pole step installation, and civil engineering management procedures. Includes operations, communication security, general safety practices, and pole-top rescue techniques.

EPP1504 Construction of Overhead Electrical Distribution Systems

Electrical prints and staking sheets for pole location, framing, setting, and erection techniques using anchors and guys. Includes insulated boom dielectric testing, pole grounding, inspection of substation fences and vegetation control; installation of lighting system, distribution transformers, and service drops using safe clearance procedures and conductor support devices; maintenance on electrical switchgear and equipment; emergency transformer connections; conductor splices; de-energized conductor transfers; and line and aerial bucket operation and maintenance.

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.

EPP1508 Wiring Methods

Wiring diagrams, electrical terms and symbols, conduit application, and bending techniques; and branch circuit construction, switch and outlet installation, and troubleshooting techniques using test equipment and safety procedures per national electrical code guidelines.

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 writing diagrams and associated test, measurement and diagnostic equipment to trace and extract faulty AC and DC electrical circuits.

EPP2100 High-Voltage Cable Testing and Splicing

Cable construction, splicing procedures, requirements for various underground systems, causes of underground cable failure and related preventive procedures, tape and hybrid splices, lead transition, tape termination, and separable insulated connectors.

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.

(EXP) EXPLOSIVES HANDLING & DISPOSAL

EXP1101 Explosive Ordnance Disposal Apprentice-Phase I

Methods for performing explosive ordnance reconnaissance, ordnance identification procedures, access and recovery of unexploded ordnance, and disposal operations involving nonnuclear, chemical and biological ordnance.

EXP1102 Explosive Ordnance Disposal Apprentice-Phase II

Methods and procedures for safe identification, 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.

EXP1706 Explosive Ordnance Disposal Orientation

Explosive ordnance disposal mission and history. Includes associated mathematical formulas, munitions identification, publications, nonelectrical firing procedures, and base recovery and chemical operations.

EXP2101 Advanced Explosive Ordnance Disposal

Management skills and operations training for explosive ordnance disposal craftsman. Includes base recovery after attack plans, emergency off-base response, explosive ordnance reconnaissance and environmental protection considerations.

(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)

FHM1100 Hearing Conservation

Introduction to the mechanics of hearing, anatomy of the ear, physics of sound, and types and causes of hearing loss. Familiarization with audiometric testing equipment including operation, calibration, and testing techniques. Proper selection and fitting of hearing protection. Disposition of patients and records. Course includes certification as "Hearing Conservationists" by the Council for Accreditation in Occupational Hearing Conservation (CAHOC).

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 Principles of Financial Management

Intermediate-level principles of organizational financial management. Includes practical skills and knowledge to perform the duties of financial management, such as organizational functions and responsibilities; budge processes; funding distribution; budgetary execution; base variable files; funding availability; funding control; year-end closeout procedures; and decisional support.

FIN1109 Budgeting

Planning, programming and budgeting system within the federal government. Includes the federal budget cycle, influence of foreign currency, fiscal control, management controls and reports, and fiscal year closeouts.

FIN1110 Financial Management in contingency Operations

Introduction to safeguarding of funds in contingency operations. Incudes 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.

FIN1113 Introduction to Financial Analysis

Financial statement analysis. Includes preparation of financial statements, and horizontal, vertical and ratio analyses.

FIN1119 Financial Planning

Basic principles of financial planning. Includes development of fund requirements for personnel, nonpersonal services, materiel and travel budget functions.

FIN1122 Introduction to Accounting and Finance

Functions and responsibilities of accounting and finance systems used in governmental operations.

FIN1201 Accounting Principals

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.

FIN1204 Cost Analysis

Application of concepts and techniques of cost and economic trend analysis. Includes data collection methods; establishment of cost, performance and operational standards; and analysis of cost, fiscal, and related accounting reports to develop cost and economic trends and performance indicators.

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 - Active Military

Introduction to military pay systems and accounts. Includes direct deposit pay, financial statements, address changes, computation of basic and special pay, tax tables, and allowances for housing, subsistence, clothing, and family separation. Including fundamentals of communication.

FIN1207 Finance Customer Support - Reserve Forces

Computation of pay for Reserve Forces personnel. Includes accounting procedures for annual training, inactive duty training, and retirement pay. Including fundamentals of communication.

FIN1208 Overseas Duty Pay and Allowances

Accounting procedures for overseas military duty. Includes temporary lodging, overseas housing, and cost of living allowances and computation of duty status.

FIN2113 Financial Management Supervision and Leadership

Supervisory responsibilities and managerial oversight within the finance office environment. Includes leadership philosophy, mentorship, employee development, manpower management, and deployment manager duties.

FIN2119 Accounting Liaison Web Based

Organization and functions of accounting and finance liaison principles. Includes office and various web accounting systems used at the base-level.

FIN2129 Advance 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, budge, and cost competencies through decision support by identifying the requisite narrative writing sills, 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.

FIN2134 Advanced Resource Management Accounting Systems

Organization and functions of base-level accounting and finance office and various accounting systems used in base-level accounting.

(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.

FIP1804 Structural Firefighting

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 300/400

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 Inspecting

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.

FIP2820 History of Terrorism and Weapons of Mass Destruction

Identifies the principles of terrorism, current threats, and history of weapons of mass destruction as it applies to constantly changing world events.

(FNS) FOOD & NUTRITIONAL SCIENCE

FNS1301 Introduction to Hospital Food Services

Introduction to principles and application of food safety and sanitation requirements in hospital settings. Includes modified and therapeutic diet preparation; patient tray service guidelines; basic functions of the nutrition management database system; recipe modifications for patients; and bulk patient nourishment and supplemental fluid preparations.

FNS1302 Diet Therapy and Nutrition Fundamentals

Fundamentals of diet therapy and nutrition. Includes knowledge and skills necessary for students to perform as a dietetic technician in the health delivery system. Introduces policies and educational standards of the diet therapy and nutrition program; discusses medical terminology; and identifies therapeutic diets including, disease specific medical nutrition therapy and nutrient science of age specific nutrition.

FNS2302 Advanced Nutrition and Dietetic Therapy

Practical application of nutrition in population health. Emphasis on body mass index calculations, performance nutrition, aviation nutrition, dietary programs and supplements, and advanced dietary counseling.

FNS2304 Nutritional Medicine Administration

Nutritional medicine management and procedures. Includes menu planning and development, subsistence requirements, operating Nutrition Management Information System, nutritional medicine, and diet therapy.

(FSC) FAMILY SUPPORT CENTER

FSC1102 Individual and Family Support Fundamentals

Introduction to Family Support personnel roles and responsibilities as strategic advisors to Air Force leadership. Also introduces the role as consultants to individuals and family members in building community readiness through resiliency and personal preparedness. Includes the domains of critical thinking and project management; documentation and statistical tracking of client visits; and the methods to assist leadership and clients in selecting outcome goals.

FSC1103 Individual and Family Readiness Support

Principles of community readiness support and contingency planning. Emphasizes individual and family support during stages of deployment, multiple family separations, and high operations tempo; relocations and employment assistance; crisis and disaster response; and urgent preparation and execution of effective evacuation relief services.

(FTL) FOREIGN TECHNICAL LANGUAGE

FTL1401 Intermediate Technical Russian

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1402 Intermediate Technical Chinese

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1404 Intermediate Technical Vietnamese

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1405 Intermediate Technical Spanish

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills

necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1406 Intermediate Technical Arabic

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1409 Intermediate Technical Korean

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1410 Intermediate Technical Hebrew

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes on development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1412 Intermediate Technical Persian-Farsi

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasizes development of skills necessary to translate oral communications and written materials. Prerequisite: resident language course or demonstrated proficiency.

FTL1413 Intermediate Technical Serbo-Croatian

Application of technical vocabulary and language used to describe military equipment, operations and control procedures. Emphasis on development of skills necessary to translate oral communications and written materials. Prerequisite: completion of resident language course or demonstrated proficiency.

(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

Operation, inspection, and servicing of original/modified Panero and Pritchard hydrant system; includes loading/offloading facilities, filters and separators, gauges, valves, and strainers.

FUS1507 Fuel Subsystems (Mechanical)

Operation, inspection and maintenance of fuel mechanical subsystems. Includes tanks, filtration equipment, meters, and loading and offloading equipment.

FUS1508 Specialized Fuel Systems and Tank Entry

Identification of components of Type III/IV Phillips system; motor vehicle fueling system; principles of troubleshooting, inspecting and operating; and procedures for tank entry and deactivating fuel systems. Includes identification of cryogenic product hazards, and procedures for cryogenic product issue/receipt and Fuels Mobility Support Equipment set up/tear down.

FUS1509 Fuel Hydrant and Air-Transportable Systems

Operation and maintenance of permanently installed hydrant and air-transportable systems. Includes Panero and Pritchard hydrant and application of hydrant accounting relative to transferring, receiving, issuing and defueling.

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.

FUS2102 Oxygen and Nitrogen Plant Components

Advanced operation and maintenance of oxygen and nitrogen plant components and support equipment. Includes cryogenic fuel system concepts, functions, relationships, temperatures and settings, advanced propulsion concepts, air purifiers, air separators and schematics.

FUS2103 Oxygen and Nitrogen Plant Operation

Principles of plant operation. Includes cryogenic operations, concepts of flow controls from start-up to shutdown, preventive maintenance, electrical schematics, troubleshooting and repair.

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.

FUS2504 Air-Transportable Hydrant Refueling Systems

Operation and maintenance of various air-transportable fueling systems that receive, issue, and transfer fuel. Includes implementing petroleum product quality control procedures.

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.

FUS2602 Fuel Storage Facilities Maintenance

Application of complex maintenance techniques and repair procedures for filtration equipment, electrical controls, pumps and conventional hydrant fuel systems.

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.

(GEO) APPLIED GEOGRAPHY

GEO1403 Area Studies

Geographic, climatic, economic, political, and military characteristics of a major area of interest. Emphasizes political and historical development of the area and impact of geography on deployment of weapons systems.

GEO1406 Third World Country Studies

Geographic, political, and military aspects of Middle Eastern, Far Eastern, Latin American, and African countries.

(GPS) GEOPHYSICAL SCIENCES

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.

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.

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.

(GRA) GRAPHICS

GRA1102 Media Selection

Introduction to the principles of media. Includes media selection and familiarization, the advantages and disadvantages of each type of media, and the application of media design and development.

GRA1800 Introduction to Graphics

Care and use of graphic arts equipment and materials, plus establishment and use of comprehensive art files.

GRA1803 Drawing and Illustration Techniques

Line and tone media techniques; includes selection of mediums for illustration, color techniques, basic forms, perspectives, sketch and shape descriptions, layouts, compositions, landscapes, cartoons, and caricatures.

GRA1806 Computer Automated Graphics

Theory and basic operation of computer automated graphics. Includes familiarization and use of hardware and software.

GRA1807 Multimedia Presentations

Multimedia applications and tools to create multimedia projects for online and offline presentations. Includes digital video, audio editing, animation, and Web page development.

(HAR) HEATING, AIR-CONDITIONING & REFRIGERATION

HAR1105 Refrigeration and Air-Conditioning Systems

Fundamental principles for operating, maintaining and troubleshooting the following systems and components: refrigeration, air-conditioning, pneumatic, electronic and electrical controls, dampers, air handlers, fan units, dehumidifiers and humidifiers, evaporators, generators, condensers, air compressors, water pumps, refrigeration lines, filters, water chillers, cooling towers, ventilation systems, control center, launch duct, computer room air-conditioning systems, and air balancing.

HAR1106 Domestic and Commercial Refrigeration

Maintenance, troubleshooting and repair of cold storage and small commercial systems. Includes cooling towers, evaporative condensers, water pumps, and air-compressing equipment with electrical, electronic, pneumatic, motor controls and devices.

HAR1108 Pneumatic Controls

Control fundamentals and devices, and calibration and adjustment of controllers. Includes connecting, adjusting, and operating pressure selectors and cumulators; installation and calibration of transmitters and receiver controllers; and application of system accessories such as airflow instruments, air driers and sensors.

HAR1109 Electrical and Electronic Controls

Fundamentals of electrical and electronic control operation and application; and installation, adjustment, troubleshooting, and maintenance on electrical control circuits, sensors, controllers and control devices. Includes cybernetics and energy monitoring control systems.

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 air-conditioning and refrigeration equipment. Includes use and care of tools, fabrication of refrigeration lines, application of soldering and brazing techniques, physics, refrigeration components, accessories, and compressor checks.

HAR1113 Heating Systems

Operation and maintenance of heating systems. 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.

HAR1115 Heating, Air-Conditioning and Refrigeration Contingency Training

Heating, refrigeration and water treatment equipment associated with contingency operations. Includes miscellaneous support equipment, international electrical systems and contingency responsibilities of civil engineering personnel.

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.

HAR2107 1.5 Ton Oxygen and Nitrogen Plant Operation

Principles of plant operation. Includes concepts of flow controls and inspections and maintenance of expansion engines.

HAR2110 Heating, Ventilation and Air-Conditioning System Control

Advanced operation, maintenance, and troubleshooting techniques for pneumatic controls to include their transmission system and components, electric, and electronic controls; analysis of thermodynamics and psychometrics on equipment design; and schematics and use of calibration equipment on various system configurations.

(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.

(HIS) APPLIED HISTORY

HIS1501 Introduction to Air Force Unit History

Comprehension of Air Force history. Includes development of history program, qualifications and duties of unit historian, historical concepts and techniques, nature and source of historical materials, and application of historical methodology.

HIS1502 Methods of Historical Research

Principles and methods of historical research and organization of historical materials. Includes researching sources; evaluation of documents; selection, use, and maintenance of supporting documents; conducting oral interviews; and writing historical narratives.

HIS1503 Independent Research and Historical Writing

Techniques of independent research for conducting oral interviews and historical writing. Includes preparation of outline, footnotes and bibliography, and writing narrative and abstract.

(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 personnel management, business communications, administrative functions and the selection, classification, and evaluation process. Includes elements required for training, placement, reassignment, promotion, separation of personnel, pay 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 a military personnel data system. Includes data maintenance procedures and methods, computer output products and data utilization.

HRM1003 Introduction to Human Resource Information Systems

Introduces the fundamental management of unit personnel and the implementation of procedures to ensure compliance with military standards, protocol, written correspondence, and directives. Includes the proper use of computer products containing sensitive information concerning unit personnel, administration of special duty assignments and procedures to minimize unit absenteeism. Also introduces the processes of unit grievances and inquires;

investigation of alleged medical conditions affecting a member's ability to report for duty. Includes procedures for enforcing Privacy Act policies to protect, safeguard, and transport sensitive and classified material; Operations Security and Communications Security (OPSEC); Personnel Identifiable Information (PII); system of records; correspondence management; information protection and releasable information; and responses to security police reports and handling private, unit, or government property damage reports

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.

HRM2105 Personnel System Data Management

Personnel data system orientation, equipment configuration, network architecture, user management, communications interfaces, and retrieval of data. Includes table and password management, UNIX system administration, construction of queries for retrieval of data, and security administration procedures.

HRM2106 Military Justice System

Analysis of history and evolution of military law and military justice system. Special emphasis on US Constitution, Uniform Code of Military Justice and Manual for Courts-Martial. Includes application of rules of evidence and legal aspects of apprehension, search and seizure regarding suspect's constitutional rights and legal and procedural aspects of court testimony.

HRM2108 Quality Force Management

Principles and procedures for achieving and maintaining a quality workforce. Enforcement of unit policies associated with dormitory management, individual financial responsibility, professional military education, retention programs, the military weight control program, derogatory information files, other disciplinary actions and administrative separation of personnel from the military.

HRM2109 Human Resource Preventive Interventions

Principles of human resource management. Includes policies and procedures regarding orientation and guidance of newcomers to the workforce; counseling referrals to various agencies; purpose of morale, welfare, and recreation programs; policies and procedures for control of drug and alcohol abuse; maintenance of discipline using prevention-correction punishment methods; and workplace relationships.

HRM2110 Deployment Issues

Analysis of the first sergeant's roles and responsibilities during a deployment processing line and application of human resource management skills in a deployment scenario. Concentration on military law, quality force issues and administrating unit specific policies at the Aerospace Expeditionary Force employment sites.

HRM2201 Salesmanship

Sales fundamentals and the importance of personal qualifications required for effective selling. Includes advertising, recruiting aids, the sales interview and closing the sale. Sales performance is evaluated using simulated prospects.

HRM2202 Human Resource Selection Methods & Techniques

Principles and procedures for personnel recruitment, selection and placement. An in-depth view of sound selection and evaluation practices, including statistical concepts and tools and techniques essential to effective selection and evaluation programs. These tools and techniques may include, but are not limited to, advertising, recruiting aids, speech deliveries, interviews, test evaluations, eligibility processing, placement and legal considerations.

HRM2203 Human Resource Information Systems

Hardware, software and basic personnel file maintenance. Includes application software, databases and time and activity management.

HRM2204 Compensation and Benefits

Salary compensation, education, training, advancement and retirement benefits. Includes advancement through promotion and commissioning programs, travel, recreation and family services.

HRM2205 Advanced Human Resource Management

Advanced policy and procedures of human resource management. Includes customer service

management; support program referrals; career enhancement; adverse administrative actions; management of automated systems; and contingency operations.

(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

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.

HSA2006 Health Professions Education and Training

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.

HSA2315 Medical Readiness Planning

Introduction to planning, exercises, readiness training, National Disaster Medical system, status of resources, and unit medical training system.

(INT) INTERNSHIP

INT3000 Internship - Apprentice

Successful completion of apprentice training requirement of Air Force dual channel on-the-job training (OJT) program. A performance-based program, focused on a specific occupational specialty includes completion of career field fundamentals and basic principles through technical training, demonstration of job proficiency of task outlined in specialty training standard, and supervisor's recommendation for advancement to apprentice level.

INT5000 Internship - Journeyman

Successful completion of fully skilled journeyman training requirements of the Air Force dual channel on-the-job training (OJT) program. A performance-based program, focused on a specific occupational specialty includes a minimum of 6 months' satisfactory experience at apprentice level, completion of comprehensive Air Force career development course with a closed-book proctored examination or other approved written training materials needed to increase knowledge of career field beyond apprentice level;

minimum of 12 months' satisfactory full-time performance in a journeyman specialty, and supervisor's recommendation for advancement to journeyman level.

INT7000 Internship - Craftsman

Successful completion of craftsman training requirements of the Air Force dual channel on-the-job training (OJT) program. A performance-based program, focused on a specific occupational specialty includes a minimum of 18 months' satisfactory, full-time performance in a craftsman specialty, a comprehensive Air Force career development course with a proctored closed-book examination or other approved written training materials needed to increase knowledge of career field beyond the journeyman level, completion of management training through airman leadership school, and supervisor's recommendation for advancement to craftsman level.

(ITL) INTELLIGENCE

ITL1101 Intelligence Fundamentals

Mission and organization, intelligence cycle, libraries, administration and data-handling systems. Emphasizes recognition of document security, operations security and communication security.

ITL1102 Analysis and Reporting of Intelligence Data

Identification of essential elements of information, selection of reporting vehicle, and production of concise, timely and technical summaries.

ITL1103 Intelligence Operations Laboratory

A comprehensive laboratory designed to improve intelligence skills proficiency through the employment of intelligence operations scenarios.

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, and intelligence community operations.

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 Fundamentals

Fundamentals of Intelligence, Surveillance, and Reconnaissance (ISR) operations to include history, facts, and terminology; traditional and non-traditional ISR operations; ISR operations planning and Air Operations Center structure, purpose, products and teams; battle management procedures, processes and tools; Processing, Exploitation, and Dissemination (PED) and Tasking, Collection, Processing, Exploitation and Dissemination (TCPED); and Distributed Common Ground System (DCGS) enterprise architecture.

ITL1201 Airborne Intelligence Operations

Procedures relating to airborne command, control and communications. Includes pre-mission preparation, aircraft system operation, mission objective orientation, crew coordination, airborne battle staff support for electronic combat, weapons systems, and targeting and post-mission operations.

ITL1202 Geospatial Intelligence Fundamental

Basic principles of Geospatial Intelligence and related technology. Facts, terms, capabilities, and limitations of the Electromagnetic Spectrum, Electro-Optical, RADAR, Infra-Red, Spectral, motion Geospatial Sensors and platforms used. Includes imagery exploitation and analysis theory.

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.

ITL1301 Aircrew Intelligence Training

Aircrew intelligence using available resources and presentation media to present aircrew intelligence training in evasion and escape, survival and rescue, and enemy capabilities.

ITL1401 Electronic Signal Exploitation

Analysis of electronic signals to obtain electronic intelligence. Includes technical documents, computerized data for management and analysis, and potential for electronic intelligence usage in electronic combat.

ITL1402 Radio Communications Analysis

Computerized data in analysis of radio communications network administration. Includes determining network organization, operation and types of related communications.

ITL1403 Data Transmission System

Identification and analysis of tactical and strategic data transmission systems. Determination of command-level and service component use of system.

ITL1404 Signal Analysis

Use of oscilloscope and sonograph for specific purpose of radio signal analysis, and analyzing, identifying and recording communications.

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 Platforms and Sensors

Introduction to Intelligence Surveillance and Reconnaissance (ISR) collection platforms and sensor systems used for the collection and exploitation of intelligence data. Includes capabilities, limitations, roles, tactics, utilization and tasking for ISR platforms and sensors.

ITL1601 Mission Planning and Support

Target determination and analysis of threat parameters, and selection and plotting of mission tract using all available intelligence data.

ITL1602 Conventional Weapons Application

Use of computer-assisted weaponeer data, target analysis and knowledge of delivery systems to solve weapons application problems.

ITL1603 Predictive Battlespace Awareness

Fundamentals of Predictive Battlespace Awareness (PBA) and Intelligence Preparation of the Battlespace (IPB). Includes concepts of theater level command and control, joint forces operations; and Intelligence, Surveillance, and Reconnaissance (ISR) capabilities.

ITL1902 Introduction to Cyrptanalysis

Statistical considerations in determining cryptographic system; includes unilateral frequency distribution, diagraphic frequency distribution, and discriminant indicators encryption system.

ITL1903 Target Materials Management

Indexing, maintaining and issuing target materials to fulfill unit intelligence and mission requirements; and use of reference documents and procedures to keep materials current.

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.

ITL2401 Voice Intelligence Collection

Aural recognition and comprehension of foreign language voice communications, communication procedures, and weapons systems parameters unique to various nations.

ITL2402 Airborne Intelligence Collection

Application of operational procedures relating to the collection of communications and electronic intelligence. Includes ground preparation; operation of aircraft interphone and keyboard equipment; emergency procedures; and performance of preengagement, engagement and postengagement operations.

ITL2504 Multisensor Analysis

Multispectral analysis of designated system capabilities to counter specific DoD intelligence problems. Includes special operations, denial and deception, low-intensity conflict, and possible solutions.

ITL2505 Theory and Fundamentals of Electromagnetic Spectrum Sensors

Electromagnetic spectrum and light table orientation; and theory; operation and parameters of electro-optical, infrared, radar and multispectral systems.

ITL2506 Exploitation Support Data

Imagery interpretation and analysis to support DoD designated intelligence problems using imagery titling and exploitation support data with mensuration techniques.

ITL2601 Advanced Intelligence Operations Planning

Advanced effects-based intelligence operations planning. Design and application of the Joint Operations Planning Process (JOPP) to include developing verbal or graphic statements to express mission intent (Concept of Operations), plans for the conduct of military operations, varied courses of action to accomplish mission intent, and other planning products in support of combatant commanders and Air Operation Center missions.

(JOU) JOURNALISM

JOU1101 Basic Journalism

The history, philosophy, ethics, and practices of the press in preparing multimedia communications. Includes an introduction to the techniques of communication through printed, oral, graphic, radio and television media to support preparation of news releases, articles, photographs and broadcasts.

JOU1102 News Writing for Print

Fundamentals of news writing. Includes structural components of a news story, research, writing style and evaluating news. Authors various types of news copy for external release.

JOU1103 Newspaper Production

Application of photojournalism, news, sports and feature writing techniques. Emphasis is placed on editing, layout and design for newspaper or magazine production.

JOU1104 Radio and Television Writing

Applied script writing for radio and television spot announcements, newscasts and features. Includes writing and editing applications in broadcast journalism, formatting techniques and the importance of sound and visual effects on the presented material.

JOU1105 Public Affairs

Theory, concepts and principles of public affairs. Includes the fundamentals of foreign and domestic policy; state, local, and federal governments; international relations; US foreign policy; foreign country study and the functions of overseas governmental agencies.

(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.

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.

LAW1901 Fundamentals of Security Forces

Fundamental concepts of law enforcement and security operations required for the protection of Air Force resources. Includes skills and techniques needed to perform patrol tactics, self awareness and safety, domestic violence issues and various types of responses to priority resources.

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.

LAW2811 Traffic Planning and Management

Analysis of police traffic functions and services, traffic patterns, and traffic movement in response to emergency situations. Includes theory of traffic control and safety procedures, analysis of traffic trends and collision causes, preparation of reports and records, traffic engineering and control techniques, research and development, and use of speed-measuring devices and breathalyzer units.

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

Responsibilities, jurisdiction and interagency relationships with federal investigative agencies. Includes collection and dissemination of counterintelligence information; legal processes pertinent to evidence; legal rights of the accused; apprehension, search and seizure; methods of interviewing and interrogating; report preparation and processing of case files; and communicative skills.

LAW2843 Criminal Investigations

Fundamentals of criminal investigation in the field. Emphasis on the analysis of special techniques and procedures in crime-scene processing, collecting and preserving physical evidence, interviews and interrogations, sources of information, advisement of rights, felony crimes, surveillance and case preparations.

LAW2845 Advanced Principles of Security Forces

Comprehensive examination of law enforcement and security operations. Includes advance study of traffic laws, operation of speed detection equipment, use of force/confrontation management, and air base defense operations.

LAW2846 Information Security

Protection of information critical to the Air Force mission and the security of the United States. Includes identification, classification, downgrading, declassification, marking, protecting and destroying classified material and information.

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

LEG2107 Legal 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.

LEG2111 Introduction to Civil Law

An introduction to law for the paralegal. Includes career progression as a paralegal; ethics; preventive law; legal assistance; powers of attorney and wills; law office administration and law libraries; and administrative separations, inquiries and investigations.

LEG2112 Legal Claims and Tort Investigation

Fundamentals of claim and tort investigation, legal procedures and the Armed Forces Claims Information Management System. Includes legal research, techniques for investigating incidents and accidents, witness statements and special research assignments involving accident and hospital recovery claims.

LEG2113 Legal Claims and Tort Administration

Procedures for processing general claims and tort litigation. Includes the Military Personnel and Civilian Employees' Claims Act, claimant interviewing and documentation for processing claims, insurance recovery, depreciation, salvage procedures, settlement letters and use of the Armed Forces Claims Information Management System.

LEG2114 Nonjudicial Punishment

Nonjudicial punishment and the Uniformed Code of Military Justice. Includes jurisdiction and sufficiency of evidence, elements of proof, supplementary actions and the Automated Military Justice Analysis and Management System. Using case studies, students determine appropriate punitive article(s) and prepare a nonjudicial punishment action from offer through legal sufficiency.

LEG2115 Pre- and Post-trial Administration

Pre- and post-trial procedures and administration. Includes interviewing and handling of victims and witnesses, types of courts-martial, records of trial, action and court-martial order, appellate review and use of the Automated Military Justice Analysis and Management System.

LEG2116 Legal Research and Writing I

Introduction to legal research and writing techniques. Identify basic facts on legal publications, categories of legal literature, case citation, methods of research and instruments used in legal research and writing. Includes manual and computer-assisted research, drafting legal memoranda and legal reviews.

LEG2118 Paralegal Ethics I

Introduction to ethics and ethical responsibilities of the Air Force paralegal. Emphasis is on institutional, legal and personal ethics. Includes basic facts on Attorney-Client Privilege, safeguarding privileged and confidential information, authorized and unauthorized legal practices, Joint Ethics Regulation, and standards of Conduct for Government Employees.

LEG2211 Advanced Civil Law

Advanced instruction in civil law for the paralegal. Includes unfavorable information files, discharge of officer and enlisted personnel, environmental law, and line of duty and report of survey case files. Joint services ethic regulations and professional responsibilities of a paralegal in accordance with Air Force Rules of Professional Conduct and Air Force Standards for the Administration of Criminal Justice are emphasized throughout the course.

LEG2212 Advanced Claims Administration

Principles and procedures for management of Air Force claims funds. Includes claims investigation, medical malpractice claims, hospital recovery claims, detection of fraudulent claims, and property damage tort claims.

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. Emphasis on the use of the law library and computerized research tools, preparation of accurate, well-written legal memoranda, research and analysis of published opinions. Includes preparation of legal reviews, case briefs and analysis and summary of property damage tort claims.

LEG2215 Military Justice

Nonjudicial punishment, court-martial charges and specifications, trial procedures and the Automated Military Justice Analysis and Management System. Includes pretrial procedures, investigative techniques, witness interviews, lawful search and seizure, confessions, rights to counsel, and post-trial procedures.

LEG2216 Law Office Supervision and Training

Supervisory skills, techniques, and training management within the legal office environment. Includes mentoring, conflict management, the Paralegal Career Field Education and Training Plan and on-the-job training, determination of training needs, development of training standards, and management of related automated products and individual training records.

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. Emphasis is on institutional, legal and personal ethics. Includes application of Attorney-Client Privilege, safeguarding privileged and confidential information, authorized and unauthorized legal practices, Joint Ethics Regulation, standards of Conduct for Government Employees, and ethics in estate planning.

(LMM) LEADERSHIP, MANAGEMENT & MILITARY STUDIES

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; global diversity; standards of discipline; counseling and interpersonal relationships; mentoring; group dynamics; team development; ethics and core values; evaluation of enlisted personnel; time 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; diversity; 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.

LMM2132 Managerial Communications III

Advanced practical experience in communications through written and oral reports on various military topics.

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

Organizational structure and functions, definitions, terminology, basic concepts and processes of Air Force supply system.

LOG1102 Introduction to Logistics Planning

Logistics principles, practices and techniques. Includes career progression, logistics module, wartime and contingency planning, logistics command and control, support agreements, and deployment management.

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 Materiel Storage and Distribution

Principles of handling and storing property, warehouse types, layout and design, storage aid systems, and material handling equipment. Includes warehouse validations, inventory processes, hazardous commodity management, and inspection procedures to determine identity, condition and shelf-life.

LOG1202 Logistics Automated Systems

Processing transactions and performing system inquiries using supply automated systems and associated interfaces. Includes computer security practices, file interrogation, issue requests, backorders, receipts, shipments, turn-ins and other item record updates.

LOG1302 War Reserve Materiel and Document Control

Introduction to War Reserve Materiel with Readiness Spares Packages (RSP) and the Materiel Management Systems and Publications. Addresses Individual Protective Equipment and the shelf-life for Mobility and the Mobility Inventory Control and Accountability System (MICAS). Includes degraded operations, inventories with document control processes in sourcing documents, quality control and

maintaining letters of authorization of classified property.

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 Material

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 Logistic Maintenance Support

Interpreting automated records and file maintenance; includes rejects and inquires, repair cycle, bench stock, issue procedures, and inventory.

LOG1602 Stock Control

Maintenance of proper stock levels. Includes practical exercises in requisitioning, materiel control, monitoring requirements, due-out releases and shipments.

LOG1603 Equipment Management

Management of equipment allowances and authorizations. Includes Practices in turn-in procedures, records maintenance and special procedures.

LOG1608 Stock Fund Management

Management and control of inventories; analysis of stock fund management reports and listings; interrelationships of accounting and finance, base supply and supported organizations; relationship of stock fund transactions and monetary records; satellite procedures; reporting procedures; interface of accounting and finance and supply computer records; and preparation of general support operating program

LOG1609 Introduction to Medical Materiel

Introduction to supply discipline. Includes principles and concepts of property accounting by computer systems, and use of medical materiel publications and computer terminals.

LOG1611 Medical Stock Control

Stock control procedures peculiar to medical materiel. Includes issues, inventory control, requisitioning, maintenance of due-in and due-out files, and receipts resulting from requisitions.

LOG1612 Medical Asset Management

Principles of storage and warehousing. Includes potency dated items, controlled medical items, quality assurance, inventory stratification, turn-ins, disposition of medical materiel, physical inventories and quality control after daily processing cycle.

LOG1701 Introduction to Medical Logistics

Principles of supply discipline, information protection polices and measures, and the Defense Medical Logistics Standard Support (DMLSS) system.

LOG801 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.

LOG2101 Advanced Logistics Planning

Advanced logistics planning techniques. Includes wartime and contingency planning, logistics command and control systems, and deployment management.

LOG2103 Contingency Response Training Advanced

Practical application of logistics processes and terminology, advanced 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 advanced-level understanding of the mission, roles, core capabilities, limitations, organization, and operating environments of the Contingency Response Group.

LOG2201 Logistics Feasibility Analysis Capability (LOGFAC)

Advanced knowledge of logistics principles in determining mission sustainment requirements. Includes roles and responsibilities of users, overview

of processes and formulas related in calculating aircraft and crew sustainment requirements, requirements vs. asset assessment, and procurement and storage.

LOG2202 Logistic Feasibility Analysis Capability System

Advanced techniques, functions and processes in determining mission sustainment requirements. Includes analyzing and validating logistics data, conducting assessments on war reserve materials requirements, references and logistics tools

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.

LOG2302 Autonomic Logistics Information system (ALIS) Operations Scheduler

Advanced techniques, procedures, and use of the Autonomic Logistics Information System (ALIS) for operations schedulers. Includes the ALIS infrastructure; training management systems and functions; mission planning and scheduling; sortie planning; flight records; schedule creation and execution; duty management; computerized maintenance management system; unit health management; and flight scheduling decision support.

LOG2601 Introduction to Planning and Programming

Logistics planning techniques and concepts. Includes types and composition of plans, mobility planning, logistics center operation and planning for contingency, war reserve material and crisis actions.

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.

LOG2604 Electronic Communications Programs Management

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, managing systems and records, and administering minor changes to ongoing programs.

LOG2605 Supply System Management and Analysis

Understanding supply computer system, customer support procedures, materiel management, financial management and supply management analysis. Includes extensive use and analysis of management reports and listings.

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.

LOG2611 Automated Asset Sourcing

Methods and procedures for sourcing of mission-essential assets using standard base supply system interfaces to query and analyze local, lateral and depot assets. Includes monitoring and updating status, interrogation of various automated systems, web-

based customer account tracking and web visual logistics information processing.

LOG2620 Contingency and Wartime Support

Strategic material management during wartime contingencies. Includes wartime processing procedures, special requisitions, and manning and reporting actions using concepts from combat supply management and weapons system management information systems, and combat follow-on supply systems using war reserve material, deployable assets and war-readiness spares kits.

(MAC) MACHINIST

MAC1101 Machine Shop Fundamentals

Fundamentals of machine shop operations. Includes shop mathematics and problem solving, care and use of precision measuring devices, construction and interpretation of shop drawings and sketches; use of shop 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.

MAC1104 Milling Operations

Milling operations within drawing specifications. Includes plain and face, angular, form, gear cutting, internal milling operations and adjustment, maintenance, storage, and cleaning of milling equipment and attachments.

MAC1105 Lathe Operations

Lathe operations within drawing specifications. Includes turning (straight, shoulder, taper), filing, parting, knurling, boring, external and internal threading, tool grinding, center alignment, facing and center drilling, drilling, and reaming.

MAC2101 Intermediate Computer Numerical Control

Intermediate-level computer numerical control machine operations for use in computer-aided manufacturing. Includes technical mathematics, programming and multidimensional milling techniques.

(MAP) MAPPING

MAP1401 Introduction to Cartography

Maps and charts, geographic coordinates, world geographic reference system coordinates and universal transverse Mercator coordinates. Includes determination of true and magnetic courses.

(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.

MAT1405 Spectrum Analysis Mathematical Applications

Basic mathematical functions used to determine emission symbols as applied to spectrum management. Includes square root, exponents, plain and solid geometry, and basic algebraic and trigonometric functions.

MAT1601 Electronic Mathematics

Mathematic principles and their application to electronics. Includes algebraic expressions, solution of equations, word problems and trigonometric functions.

(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 Operation

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.

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.

MEA2710 Electronic Measurements

Time and frequency measurements. Includes practice in phase, distortion and frequency measurements; waveform analysis; and use of oscilloscope calibrating equipment.

MEA2716 Precise Time and Frequency Calibration Systems

Advanced precise time and frequency calibration. Includes measurements, standards and time-transfer methods.

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.

MEC1507 Mechanical Fundamentals (Missile Complex)

Knowledge of principles of mechanics. Includes configuration of a missile complex, use and care of hand tools, security, weapons system operational capabilities, technical orders, civil engineering manuals, maintenance management and missile safety.

MEC2501 Diesel Generator Maintenance Laboratory

Troubleshooting, repair and maintenance of diesel-powered generating equipment.

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

MED1301 Introduction to Medical Assisting

Preventive, occupational, and disaster medicine; hearing conservation programs; clinical procedures; office file maintenance; and ordering and management of office supplies and materials.

MED1302 Medical Assisting

Techniques for preparing, examining, and treating patients; patient relationships; basic pharmacology; assisting in minor surgery; cardiopulmonary resuscitation; emergency treatment of shock and injuries; recording and screening results of refraction, visual testing, audiometry, and conductive and perceptive deafness; and electrocardiography procedures.

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, physical exams, visual screening, administrative functions and aerospace medicine. Includes an overview of Air Force Medical Doctrine, Aerospace Medical Service Apprentice scope of practice, and aspects of Air Expeditionary Force medical service.

(MET) METEOROLOGY

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.

MET1802 Meteorology and Weather Instruments

Elementary meteorology providing a foundation for understanding and observing weather elements. Includes applied concepts in using temperature, humidity, pressure, wind, cloud height instruments; weather radar; and communication equipment.

MET1803 Weather Observation

Practice in observing weather elements; making instrument evaluations; encoding and recording weather observations of sky conditions, cloud forms, atmospheric phenomena, visibility and obstructions, wind, temperatures, humidity, pressure and precipitation; and classification of storm echoes received on storm detection equipment.

MET1807 Environmental Support of Electro-optical Systems

Principles of operation and environmental sensitivity of precision-guided munitions, and application of physics of atmospheric radiative heat transfer to provide data necessary for target acquisition and tactics.

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.

MET1809 Weather Forecasting Products

Interpretation of meteorological bulletins, products and codes. Includes observations, forecasts, space bulletins, numerical prediction products and cross sections.

MET2102 Automated Weather Data-Handling System

Operation and management of automated weather data-handling system; includes man-machine interface, loop/sequences, composites, graphic editing alerts, tables, plot models, command sequences, data types, and products.

MET2103 Field Weather Operations

Installation and operation of tactical weather equipment and performance of weather related duties under simulated conditions. Establishment of encampment and perimeter defenses and simulation of actions necessary to protect resources.

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 Macroscale Analysis Techniques

Analysis of mesoscale weather techniques to include atmospheric stability, mass continuity theory, convective and non-convective severe weather.

MET2205 Macroscale 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 and operation of weather radar system. Emphasizes interpretation of weather radar echoes.

MET2805 Weather Analysis Laboratory

Analysis of upper level and surface weather maps; includes application of basic concepts of analysis, wind pressure relationships, elements of frontal theory, geostrophic and gradient wind exercises, hydrostatic equation, and vertical sounding data.

MET2806 Synoptic Meteorology

Analysis techniques of synoptic scale weather including physics, dynamics; upper and lower atmospheric weather features, along with surface layer weather features. Relate principles of the analysis process, analysis tools, vertical interactions of the atmosphere, and model interpretation. Identify weather regime characteristics; barotropic and baroclinic regimes.

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.

MET2821 Atmospheric Physics

Interpretation of concepts of force, motion, friction, work, energy, velocity, acceleration, thermodynamics, and pressure as applied to characteristics and structure of atmosphere and heat transfer process.

MET2822 Weather Prognosis Techniques

Advanced analysis of synoptic features and application of rules and methods to prognosticate their movement. Includes long and short waves, pressure system, fronts and vorticity patterns; application of rules, methods, and materials used to predict movement of above features; and isallobaric indicators, tropospheric flow and steering, time differential charts, and grid and J.J. George methods.

MET2825 Advanced Weather Station Operations

Requirements and procedures for acquisition and management of weather resources and programs, environmental support plans, certification of weather personnel, unit quality control programs, management information system input, obtaining meteorological support from other weather agencies, and determining concepts and procedures to support unique operations requirements.

MET2826 Space and Solar Forecasting

Utilization of space and solar data to develop solar event forecasts, advisories, and warnings. Includes Proton, shock arrival and geomagnetic events. Integration of various solar products to develop routine solar forecasts. Includes geomagnetic, sunspot, HF/UHF and high altitude radiation. Knowledge of data resources and procedures for anomaly assessment.

MET2827 Mesoscale Meteorology

Identification of atmospheric stability, mass continuity theory, convective and non-convective severe weather. Includes analysis of skew-t charts and radar products.

MET2828 Macroscale Meteorology

Identification of atmospheric motion, dynamics, long waves, jet streams, satellite imagery, and analysis of these features. Includes principles of model products, as well as, recording and encoding weather observations.

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.

(MGMT) LEADERSHIP MANAGEMENT

MGT202 Leadership

Concepts of leadership and its relationship to management. Prepares the student with leadership and communication skills needed to motivate and identify leadership styles. Address working with groups/teams and how to identify and manage conflict as a leader.

MGT203 Strategic Management

Managerial tasks of crafting and implementing strategic plans and the tools of strategic analysis.

(MGT) MANAGEMENT & SUPERVISION

MGT1108 Data Collection and Analysis

An introduction to the basic principles and procedures of collecting and extracting data for statistical analysis. Collection and extraction of data from such sources as Man-Hour Availability Factors, Manpower standard developments processes, Mission Capability Statements, Air Expedition Force Unit Type Codes Status Reporting Tools, Deployment Requirement

Manning Document Comparisons to prepare the data for statistical analysis.

MGT1109 Overview of Maintenance Systems Analysis and Scheduling

Maintenance concepts, policies and procedures. Includes career progression, security, publications, Air Force supply system, safety precautions, and Air Force Occupational Safety and Hazard program.

MGT1110 Introduction to Maintenance Scheduling

Introduction to time compliance technical order system; responsibilities and duties of various organizations connected with maintenance activities; automated products, time cards, slides, logs and records to plan, schedule, track, and/or report maintenance actions. Emphasizes use of computer terminal.

MGT1601 Automated Maintenance Data Systems

Introduction to Core Automated Maintenance Systems (CAMS), Integrated Maintenance Data Systems (IMDS), and other associated maintenance data systems for job scheduling, status determination, and documentation management. Includes initialization, microcomputer processing, file structure, time-sharing, query language processor retrievals, report generation, reject management, and database management.

MGT2116 Production Control Management

Production control management techniques. Includes interpreting work requirements, planning duties, controlling work requests and applying material management techniques.

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.

MGT2206 Maintenance Control and Analysis Craftsman

Controlling maintenance scheduling, and analyzing and reporting vehicle and equipment status. Includes troubleshooting system errors using the on-line vehicle integrated management system, applicable software and related publications.

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.

MGT2600 Management Applications, Functions and Techniques

Management principles and techniques, organizational assessment skills, supervisory and leadership techniques, and application of principles to planning and scheduling use of resources.

MGT2601 Maintenance Systems Management

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.

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.

MGT2964 Advanced Communications-Electronics Maintenance Management

Techniques/concepts of electronic communication system maintenance and personnel management. Major focus on required documentation and publications, understanding configuration controls, hardware quality control and tracking, support resources, hardware engineering and installation, organizational design specifications, mobile communication systems, wide-area network usage, command and control systems, unique functional organizations and mission needs, and personnel training and supervision.

(MIL) MILITARY SCIENCE

MIL1201 Military Operations

Concepts and principles of ground, air and naval operations. Includes strategic, tactical and support operations.

MIL1202 US and Allied Offensive and Defensive Forces

Components, functions and capabilities of US and allied offensive and defensive forces. Emphasizes weapons systems and method used for effective employment.

MIL1203 Third World and Nonaligned Nations Forces

Components, functions, and capabilities of offensive and defensive forces of nonaligned nations. Emphasizes weapons systems and employment.

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.

MIL1302 Offensive and Defensive Forces

Force components, functions, and capabilities of foreign offensive and defensive forces. Emphasizes weapons systems and methods of employment.

MIL1402 Air Defense

Principles of territorial air defense stressing command, control, communication and warning procedures as well as map reading relating to plotting of airborne aircraft locations.

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.

MIL2403 Analysis of Foreign Air Forces

Evaluation of command, control, communications and employment capabilities of Communist air forces. Includes organizational structure, installations and equipment.

MIL2503 Analysis of Foreign Ground Forces

Evaluation of capabilities, command, control, communications, and employment. Includes organizational structure, installations and equipment of foreign ground forces.

MIL2602 Foreign Naval Forces

Evaluation of command, control, communications and military capabilities of foreign naval forces. Includes employment, organizational structure, installations and equipment.

MIL2702 Special Military Studies

Analysis of foreign and domestic forces denial and deception techniques, specialized warfighting concepts, and counternarcotics 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.

MIL2802 Defensive Missiles

Analysis of foreign defensive missiles. Includes organizational structure, installations and employment; and functions and components of launch sites, support facilities and related electronic equipment.

MIL2803 Influence Operations

Concepts and application of Influence and Information Integration Operations to include understanding the influence environment, understanding and managing perceptions, social engineering attack methods, public affairs operations, counterpropaganda, counterintelligence, Missions in Support Of (MISO), media and target audience analysis, counterintelligence, Military Deception (MILDEC), Operations Security, and how to integrate strategic communication throughout operations.

(MKS) MARKSMANSHIP

MKS1104 Combat Arms Instructor

Fundamentals of teaching in a Combat Arms environment with an emphasis on instructing weapons fundamentals, operations, and maintenance. Includes instructional systems development, course writing, tests and measurements. Students will also learn techniques of dry and live fire supervision, coaching, range types and characteristics; firearms range operations and safety; administrative forms, records, and reports; munitions types and weapon accountability.

MKS1105 Initial Marksmanship Laboratory

Initial qualification in the use of handguns, shotguns, rifles, machineguns and grenade launchers. Includes basic nomenclature, capabilities and characteristics of

specific weapons; operator care, cleaning and maintenance; application of marksmanship fundamentals, weapons safety and clearing procedures; and types of ammunition.

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.

MLT2307 Medical Laboratory Administration

Principles and procedures of procurement and disposition of laboratory equipment and supplies, supervision of personnel, quality improvement, and required standards to maintain accreditation and regulatory agency guidelines.

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 Introduction to Public Health

Fundamentals of public health operations. Introduction to medical intelligence, biostatistics and public health metrics. Also includes briefing techniques and written communication as they relate to public health responsibilities.

MPH1101 Biological and Physical Sciences

Fundamentals of microbiology and chemistry as they apply to the field of public health. Introduction to medical terminology, ethics, and record entries. Applied concepts of the Health Insurance Portability and Accountability Act of 1996.

MPH1102 Principles of Communicable Disease Control

Terminology, detection, and control of communicable diseases including tuberculosis, viral hepatitis, HIV/AIDS, and sexually transmitted diseases. Investigation of animal bite incidents and epidemiological events. Development of education and training programs.

MPH1103 Principles of Food Safety and Sanitation

Introduction to food safety, chemistry, preservation, storage, and foodborne pathogens. Roles and responsibilities in food facility evaluations, subsistence inspections, hazardous food recalls, and foodborne illness outbreaks in accordance with the Food and Drug Administration (FDA) Food Code.

MPH1104 Occupational Medicine/Industrial Hygiene

Introduction to the workplace environment with emphasis on the health and safety of the industrial worker. Principles of toxicology, industrial operations, hazard communication, material safety data sheets, reproductive health, occupational illness/injury reporting and investigation, industrial case files, and personal protective equipment. Familiarization with chemical and physical occupational hazards as well as Air Force and OSHA regulations.

MPH1105 Medical Entomology

Theory of entomology and its importance in public health and transmission of diseases. Principles of biology and control of mosquitoes, arthropods, ticks, rodents, mites, roaches, fleas, lice, and other pests or vectors of medical significance. Familiarization with surveillance and trapping methods; packaging and shipment of specimens. Concepts of 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.

(MRD) MEDICAL READINESS

MRD1300 Basic Medical Readiness

Relationship of human body systems to triage, treatment and transportation of casualties.

MRD1301 Advanced Medical Readiness

Under isolated field conditions, theory of medical concepts and problems, maintenance of medical supplies, assembly and use of medical equipment, administration and maintenance of drugs, theory of treatment, protocol and patient transportation, and communications in emergency situations.

MRD1302 Field Medical Facility

Techniques, functions and methods to assemble, disassemble and maintain a field medical facility. Includes stocking medical supplies and equipment, site selection and facility configuration, concept of operation, aeromedical evacuation, and principles of facility security.

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.

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

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.

(MSL) MISSILE MAINTENANCE TECHNOLOGY

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.

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 as alert support, alert emergencies and launch procedures.

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.

MSL2206 Missile Maintenance Laboratory

Missile and weapons systems familiarization and troubleshooting; manufacturer's maintenance manuals and technical data; removal and replacement of access panels for adjustment of mechanical subsystems; and replacement of components; experience in electrical checkout of ordnance circuits; and inspection and maintenance of environmental and RF interference shielding.

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.

(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.

MUN1203 Operation and Function of Nuclear Weapons

Operation and function of components of specific nuclear weapons. Includes preparation for strike, disassembly, limited life-component exchanges, weapons buildup, inspections and application of emergency procedures.

MUN1204 Nuclear Weapons Maintenance

Standard specifications for nuclear weapons, operation and maintenance of special tools, measurement of defects, packaging, and general repair procedures. Includes cleaning, painting, marking, and surface repair and prevention.

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 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.

MUN2201 Reentry Systems Maintenance

Advanced operation and maintenance of specific space reentry systems. Includes functions, shroud operation, deployment module, reentry system final buildup, preparation and packaging for transport, and application of safety and security procedures.

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.)

NDT2103 Advanced Dye Penetrant, Magnetic Particle and Radiographic Inspection

Advanced training in penetrant, magnetic particle, and radiographic inspection techniques and procedures. Includes in-shop process control techniques, radiation techniques, curve charting and special radiographic inspection procedures; radiation safety; and equipment maintenance and operation. (AF A&P program applicable course.)

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

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

NUR1203 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.

NUR1204 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.

NUR1205 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

NUR1101 Urology

Genitourinary anatomy and physiology, medical terminology, surgical/urologic equipment instrumentation, and care and handling of urology patients. Includes treatment of voiding disorders, causes and treatment modalities, and procedures of assisting in urologic surgery.

NUR1103 Otolaryngology

Functions and responsibilities of clinical and surgical assistant to an otolaryngologist. Includes audio evaluations; maintenance and care of specialized otolaryngolic instruments and equipment; diagnosis and treatment of common ear, nose and throat disorders; and pre- and postoperative patient care. Emphasizes procedures and administrative management.

NUR1105 Neuroanatomy and Physiology

Neuroanatomy and neurophysiology of the human body as it relates to neurology; neurological disorders and how they affect neurodiagnosis.

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 instrumentation, wave pattern interpretation, electroencephalographics, and evoked potentials.

NUR1108 Genitourinary Diseases and Disorders

Exploration of the developmental stages of male and female genitourinary systems, common congenital anomalies, classification and treatments of urinary tract obstructions, infections, and disorders of the external male genitalia. Includes cancers of the genitourinary system, understanding tumors, testing and treatment.

NUR1109 Urology Clinical Practicum

Clinical practice of procedures in urology. Includes urologic radiography, urologic laboratory, minor procedures and urologic surgery.

NUR1110 Urologic Testing Procedures

Introduction to radiology, radiographic and ultrasonic techniques and their uses specific to urology. Includes theory and practice in performing urine tests, seminal fluid analysis, and basic laboratory testing in a urology clinic.

NUR1111 Electroneurodiagnostic Instrumentation

An in-depth study of the fundamentals and technology in the field of electroencephalography. Included are the fundamentals of basic electricity, voltage and resistance, and demonstration of electrode applications for various patient studies.

NUR1112 Wave Pattern Interpretation

An analysis and detailed study of the basic wave patterns produced in electroencephalographic recordings, awake and sleep rhythms and abnormal rhythms.

NUR1113 Electroencephalographic Abnormalities

An in-depth study of abnormal encephalographic recordings, signs, symptoms and etiology of the various diseases, disorders and other medical issues that create them. Includes recognition of encephalopathies, neoplasms, cerebrovascular disorders, headaches and head traumas as seen in both the clinical and electrocorticographic settings.

NUR1114 Electroencephalographic Procedures I

Theory and practice in performing electroencephalograms. Introduction of the various aspects of electroencephalographic procedures

performed in a clinical setting; including infection control, adult and pediatric electroencephalograms using analog and digital instruments and performing electro-cerebral inactivity studies.

NUR1206 Electroneurodiagnostic Procedures II

Theory and practice of auditory, visual and somatosensory evoked potentials performed in a clinical setting. The use of evoked potentials and electroencephalography in the operating room. Introduction to and performance of nerve conduction studies. Introduction to polysomnography, sleep disorders and the related procedures.

NUR1207 Neurology Clinical Internship II

Performance within established standard and neonatal/pediatric electroencephalograms, all modalities of evoked potential testing, polysomnograms, multiple sleep latency onset testing, telemetry and ambulatory monitoring.

NUR1214 Electroencephalographic Procedures II

Continuation of theory and practice in performing electroencephalograms as well as various aspects of electroencephalographic procedures performed in a clinical setting; including infection control, adult and pediatric electroencephalograms using analog and digital instruments and performing electro-cerebral inactivity studies.

NUR1304 Fundamentals of Patient Care

Human anatomy and physiology, medical terminology, interpersonal relations and human needs, patient needs, basic nursing techniques, and cardiopulmonary resuscitation.

NUR1318 Basic Nursing

Basic knowledge and skills needed to perform patient care. Includes anatomy and physiology, primary care optimization, infection control, interpersonal relationships and customer service. Focus on inpatient care and nursing technologies.

NUR1319 Intermediate Nursing

Intermediate nursing knowledge and skills in nutrition/elimination, specimen collection, medication administration, and intravenous therapy in normal duty and contingency operations.

NUR1324 Introduction to Operating Room Technology

Anatomy and physiology, medical terminology, safety, surgical supplies and equipment, anesthesia, pre- and postoperative patient care, and transportation and positioning of surgical patient.

NUR1325 Operating Room Technology

Microbiological basis for sterilization, asepsis and disinfection of operating room; and scrubbing, gowning and gloving in this environment.

NUR1326 Operating Room Practicum

Practicum in scrub and circulator duties, preparation of surgical patient, and professional ethics.

NUR1328 Introduction to Clinical Practicum

Introduction to hospital nursing care. Includes patient sensitivity, safety, security, medical readiness, plans, documents and patient care.

NUR1332 Emergency Department 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.

NUR1341 Introduction to Mental Health Services

Mental health procedures and documentation, psychological testing methods, emergency life-support procedures, crisis management, psychopharmacology, and role playing exercises demonstrating ability to appropriately handle client scenarios likely to be encountered in mental health services profession.

NUR1342 Allergy-Immunology

Vaccination procedures; methods of properly administering intradermal, subcutaneous and intramuscular injections; pollen counting; allergen identification; composition of various vaccines; mechanisms of anaphylaxis and shock; and pharmacology of various drug groups.

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.

NUR2315 Aerospace Physiological Principles and Survival Techniques

Effects of hypoxia, hyperventilation, stress and changes in barometric pressure on the human body; use of oxygen; altitude indoctrination; and survival techniques.

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.

NUR2334 Operating Room Administration

Human and fiscal management of surgical environment, time management, supervision and resource management. Emphasizes staff development, professional and patient relationships, quality, and medical readiness.

NUR2335 Mental Health Interventions

Mental health intervention for psychiatry, psychology, family advocacy and substance abuse prevention. Includes certification process for substance abuse counselors; practical application in treatment planning, development and implementation; and documentation of patient care.

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.

NUR2350 Health Promotion and Fitness

Development and management of health promotion programs. Includes population health principles, tobacco cessation, fitness and nutrition, appointment processing, weight and body fat measurement, marketing and office administration.

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.

NUR2351 Emergency Medical Technician Basic (EMT-B) II

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.

(OCC) OCCUPATIONAL THERAPY

OCC1101 Occupational Therapy

Anatomy, kinesiology and psychology, and their relationship to human performance; physical and mental clinical conditions; and techniques and application of craft activities. Includes planning and implementing therapeutic activity programs directed toward functional restoration of patients with physical and/or psychosocial dysfunction.

(OLT) OTOLARYNGOLOGY TECHNOLOGY

OLT2306 Clinical Technology and Practicum

Special emphasis placed on clinical examinations, diseases of head and neck, emergencies and functional problems of ear, nose, and throat, and dysfunction of eustachian tube; includes clinic procedures, administration, and design; related pharmacology and microbiology; related radiography, radiotherapy, and radioisotopes; photography in otolaryngology; and local anesthesia, otoneurology, electronystagmography, and equipment nomenclature; also includes patient counseling, patient history taking, cancer patient follow-up, and clinical practicum.

(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

Introduction and study of axial skeleton treatment of pathophysiological conditions and prescription interpretations. Includes instruction on material; 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

Introduction to the treatment of pathophysiological foot conditions and prescription interpretations. Includes instruction on anatomy and physiology pertaining to the foot; materials, fabrications, modifications, measure, fit, wear and care of foot orthotics; and fabrication, fit, wear and care of custom functional, accommodative and diabetic foot orthoses.

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.

OPD2101 Orthotics Management

Advanced knowledge and skills necessary to perform as an orthotic craftsman. Includes patient and professional relations, supervision, safety and management of resources and medical materials. Proficiency in the selection, fabrication, fitting and modification of the Boston Scoliosis Orthosos Module is required.

(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 Assisting Optometrist Practicum

The practicum includes the applications of tonometry, visual fields and eye safety measures, and fitting of contact lenses.

OPT1306 Optometry Fundamentals

Introduction to the roles and responsibilities of an optometric technician. Includes identifying and reporting safety and security issues, review of ethical concepts and professionalism, patient information documentation procedures, and familiarization of medical record systems.

OPT1307 Ocular Anatomy and Physiology

Introduction to anatomy and physiology of the eye. Includes basic identification and treatment of common ocular injuries and disorders.

(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.

OPT1102 Orthopedic Techniques with Lab

Introduction to musculoskeletal systems with emphasis on gross anatomy laboratory. Includes splinting and casting techniques as related to treatment of orthopedic injuries with emphasis on principles,

concepts and practices pertaining to cast room protocols, instrumentations, assessment and treatment of splinting problems, advanced application of splints for upper and lower extremities, basic orthotics and ambulatory training, principles of traction and age-specific care.

(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.

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.

(PER) PERSONNEL

PER1110 Personnel Support for Contingency Operations

Concepts of deployment of personnel in contingency or exercise situation emphasizing duties and responsibilities to support area commander at a deployed site. Includes concepts, accountability, predeployment planning, operation of microcomputers, field condition procedures and redeployment.

PER2108 Manpower Management

Methodologies for evaluating and improving effectiveness of organizations. Includes familiarization of functional chronology; review and analysis of work performance processes; feasibility studies and planning; standards development; cost analysis and comparison; training requirements and productivity; operational audits; and simulation modeling.

PER2121 Organizational Evaluation and Development

Methodologies for evaluating and improving effectiveness of organizations. Includes familiarization of functional chronology, review and analysis of work performance processes, feasibility studies and planning, standards development, cost analysis and comparison, training requirements, and productivity enhancement.

(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 Introductory to Outpatient Pharmacology

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 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.

PHE1001 Battlefield Airman Introductory to Physical Training

Provides the introductory concepts and theories of maintaining physical fitness within special tactics units. Prepares Battlefield Airmen to conduct ground operations that assist, control, enable and execute air and space power missions. Includes the fundamental knowledge of nutrition, resource conservation, energy conservation, and risk management needed to perform surveillance, weather forecasting, airfield surveying, air traffic control, directing air strikes, airdrop marking, trauma care and personnel recovery (including downed aircrews) within hostile environments.

PHE1101 Battlefield Airman Basic Physical Training

Provides the basic knowledge of facilities, personal equipment, and progressive physical training activities within special tactics units. Prepares Battlefield Airmen to conduct ground operations that assist, control, enable and execute air and space power missions. Includes the fundamental knowledge 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 (including downed aircrews) within hostile environments.

PHE1800 Physical Conditioning

Calisthenics and running to condition muscle and body organs (heart, lungs). Includes coordination, stamina and overall fitness for extensive field exercises.

PHE1801 Physical Conditioning and First Aid

Body conditioning through exercise, running, walking and negotiation of a confidence course. Includes first aid, heat disorders, life-saving steps, and respiratory and circulatory emergencies.

PHE2001 Battlefield Airman Intermediate Physical Training

Performance of intermediate physical conditioning based on progressive physical training activities required within special tactics units. Prepares Battlefield Airmen to conduct increased levels of ground operations that assist, control, enable and execute air and space power missions. Includes the demonstration 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 (including downed aircrews) within hostile environments.

PHE2101 Battlefield Airman Advanced Physical Training

Performance of advanced physical conditioning based on progressive physical training activities to become qualified to operate within special tactics units. Prepares Battlefield Airmen to conduct advanced ground operations that assist, control, enable and execute air and space power missions. Includes the assessment 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 (including downed aircrews) within hostile environments.

(PHO) PHOTOGRAPHY

PHO1101 Basic Broadcasting

Organization, function, station management and administrative services; news writing; spot announcements; and feature material for radio and television. Includes announcing news, sports, features and special events; interview techniques; control room operation; programming and production; and regulatory agencies and broadcast standards.

PHO1102 Basic Still Photography

Theory and application of photographic fundamentals, chemistry, optics, sensitized materials, light sources; exposing and processing black-and-white films; printing black-and-white negatives; camera operations for standard and reproduction photography; portraiture; exposing and processing color reversal film; color slide reproduction; exposing, processing and printing color negatives; sensitometric procedures; and electronic imaging techniques.

PHO1408 Fundamentals of Photography

Characteristics of sensitized materials, camera familiarization, appropriate procedures for setting proper film exposure, processing exposed film, print finishing, handling of negatives, principles of photographic optics, composition, filters, and lighting.

PHO1409 Advanced Principles of Photography

Laboratory principles and procedures for photocopying, spotting, enlarging, printing of copy negatives, and use of chemistry for various emulsions.

PHO1414 Photoprocessing Quality Control

Fundamentals of continuous processing methods and equipment. Includes chemical process control, sensitometry, densitometry and analysis of film characteristics.

PHO1457 Photographic Assignments

Theory and procedures for applied photographic assignments. Includes lighting techniques, filters and portrait, passport, identification, aerial and industrial photography.

PHO1458 Photojournalism

Journalistic techniques, communicative composition, photo layout, and public relations. Includes practical work in writing captions and news, techniques of sports photography, developing a picture story, photographing small groups, and constructing photo features.

PHO1500 Basic Motion Picture Photography

Introduction to the principles of motion picture photography. Includes camera operation, film selection, handling of sensitized material, camera shutters and exposures, optics and the uses of motion pictures.

PHO1501 Motion Picture Photography

Framing, composition, basic sequencing and reestablishment techniques. Includes performance of screen direction, arrangements, cutaway techniques, use of filters and exposure meters and assembly of film.

PHO2405 Color Film Processing

Introduction to color film emulsions, color process control, plotting characteristic curves, exposing and processing color film and color slide duplication.

PHO2406 Color Printing

Internegative film, masking, and creating black and white and color prints from color negatives. Includes chemical analysis, use of densitometer, and photographic quality assurance.

PHO2417 Digital Imagery

Introduction to the technology and use of computers for photographic purposes. Emphasis is on the creative use of the computer to develop and execute aesthetic solutions to photographic digital problems. Includes use of digital camera systems, imaging software, scanners, and digital printers.

PHO2501 Combat Camera Operations

Principles of contingency readiness. Includes principles and practices of base defense, communications security and operations, physical security, night operations, military tactics and operations, field sanitation, and field operations in the joint war-fighting environment.

(PHY) APPLIED PHYSICS

PHY1422 Applied Technical Physics

Physics survey. Includes basic principles, atomic structure, quantitative processes, interactions, transformations, principles of radiation, detectors, and measurement techniques.

(PLB) PLUMBING

PLB1501 Introduction to Plumbing

Fundamental principles of plumbing systems. Includes project planning, technical publications, maintenance of tools and equipment, structural openings, plumbing terminology, engineering drawings, and sewer systems.

PLB1504 Fixtures and Appurtenances

Installation of bathtubs, showers, water closets, lavatories and urinals; winterization of piping; and inspection and maintenance of water supply and waste systems. Includes materials recovery and restoration.

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.

PLB1507 Water and Waste Distribution Systems

Waste, water supply and building distribution systems. Includes fire-suppression, deluge, sound suppression, hazardous waste water, installation of water heaters, safe work practices; steel pipe and copper tubing assembly, corrosion identification and control, and application of fraud, waste and abuse information.

PLB2502 Backflow Prevention Devices

Theory, operation, maintenance and testing of plumbing backflow prevention devices. Includes records and logs of actions taken.

PLB2503 Fire-Suppression System Maintenance

Advanced testing, inspecting, maintaining and repairing of fire-suppression systems (excluding electrical). Includes inspection and operational checks, principles of operation, and troubleshooting and repair of fire sprinkler and other fire-suppression systems.

(PTH) PHYSICAL THERAPY

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.

PTR2350 Hyperbaric Physiology and Therapy

Nitrogen narcosis, oxygen toxicity, air embolism, carbon monoxide poisoning, gas gangrene, mechanical effects of compression and decompression, and application of treatment tables and therapy.

PTR2351 High-Pressure Chamber Operations

Compressor operation and maintenance; control panels; air storage and breathing gas systems; system inspection, maintenance, and repair; and crew duties during practice dives to different ocean depths.

PTR2352 Aerospace Physiology Management

Management of an aerospace physiology unit. Advanced theory on flight operations & management of High Altitude Airdrop Mission Support (HAAMS), High Altitude Reconnaissance Mission Support (HARMS), Parachute Familiarization Training (PFT), and decompression sickness. Includes safety programs, ground and space mishaps and course curriculum development.

PTR2353 Human Performance Operations

Physiological stresses and human performance implications in aviation, space operations, and deployment environments. Emphasis is on expertise needed to consult and train on human performance in aircraft mishaps. Includes principles of crew resource management, situational awareness, airfield operations, and basic flight procedures.

(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

Radiologic technology and its role in delivery of health care. Includes health care delivery systems, hospital and radiology department organization, professional development, accreditation and credentialing, basic radiation protection, professional ethics, medical terminology and communications, methods of patient care, radiobiology, and computer applications in radiology department.

RAD1302 Introduction to Radiographic Physics

Production and characteristics of radiation, matter, energy, Ohm's law and basic X-ray circuits; methods of rectification; X-ray detection and measurement; construction of X-ray tubes; use of tube rating charts; and effects of kVp, mA, distance and collimation on patients.

RAD1305 Introduction to Radiographic Positioning

Osteology and arthrology of upper and lower extremities, abdomen, thorax, vertebral column, and skull. Includes related standards and special radiographic projections using radiographic phantoms.

RAD1307 Radiographic Anatomy and Physiology

Structure and functions of cells and integumentary, muscular, reproductive, endocrine, respiratory, cardiovascular, lymphatic, venous, digestive, biliary, urinary, skeletal, muscle and central nervous systems.

RAD1308 Imaging Equipment and Film Processing

Operation and characteristics of diagnostic imaging equipment and procedures for processing radiographic film. Includes radiographic equipment; image intensified fluoroscopy; various imaging equipment; imaging noise-recording media; techniques, characteristics, handling and storage of film; intensifying screens; automatic processing; silver recovery; and film artifacts.

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.

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..

RAD2303 Advanced Special Radiographic Procedures

Radiographic equipment used for special procedures, review of radiographic examinations that require negative or positive contrast media, infection control procedures, surgical radiographic procedures, and mobile radiographic and fluoroscopic procedures.

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.

RAD2311 Management of Diagnostic Imaging Services

Diagnostic imaging services workload accounting, budgeting, occupational safety and health standards, and manpower applications. Emphasizes professional ethics, continuing education, total quality management and team building.

(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.

(RTB) RADIO & TELEVISION BROADCASTING

RTB1101 Film/Video Lighting

Concepts and application of principles of lighting to various systems. Skills developed in both studio and remote location through lecture and application with primary emphasis on video production.

RTB1102 Film/Video Editing

Concepts and principles of post-production editing. Includes film and video-editing techniques, equipment, progression, and sequencing with primary emphasis on video production.

RTB1400 Introduction to Television Production

Various aspects of production; includes equipment use, direction techniques, control room responsibilities, floor management, color and black-and-white lighting techniques, studio operation, special effects, telecine theory, script analysis, and camera operation.

RTB1500 Introduction to Radio Production

Fundamentals of radio production. Includes equipment use, direction techniques, studio and control room operation, audio editing, programming and production, and broadcast standards.

RTB1801 Audio Mixing and Production

Basic audio theory. Includes use of microphones and tape recorders; techniques for splicing, editing, duplicating, storing, and handling equipment and materials; and user maintenance of audio equipment.

RTB1802 TV Studio Operation

Principles for television production. Includes personnel functions, control room responsibilities, set construction, camera operations, video switching, makeup techniques, fundamentals of color theory, telecine operations, TV lighting and teleprompter operations.

RTB1803 TV Production

Advanced special effects and video-editing techniques; includes planning and producing TV productions, single and multiple concepts, dramatization techniques, and final product analysis.

RTB1805 Electronic Field Production (EFP)

Setup and operation of electronic field production equipment under controlled and uncontrolled conditions; includes body braces and tripods, handheld operations, lighting requirements, pictorial continuity; operator maintenance; and practice with EFP video-editing systems.

(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.

SAF1811 Safety Engineering

Safety techniques and program requirements concerning electrical problems, high-pressure liquids and gases, explosives, chemical safety, environmental health and portable power hand tool hazards; protective equipment and procedures for machine guarding, hazard identification, safety color coding and use of industrial shop safety surveys. Includes practical exercises in shop layout and resolving problems in storage, construction and flight-line safety.

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.

SAF2102 Aviation Mishap Investigations

Advanced application of aviation mishap investigation and safety inspection programs. Techniques for conducting mishap investigations to include inspecting structures and materials for signs of loads, stress, strains, failures, fatigue cracking, and composites; inspecting engines and systems; inspecting bloodborne pathogens and composite material. Also includes performing mishap simulation and animation; site diagram and impact analysis; fire analysis; conducting mishap investigation boards and witness interviews; writing mishap reports; and a thorough knowledge of mishap history, philosophies, and associated terms.

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.

(SAN) SANITATION

SAN1506 Vegetation Management

Identification of terrestrial weeds and characteristics of ornamental and turf pests, plant biology, and physiology; classification of herbicides and aquatic pests; application of pesticides; and herbicide use problems.

SAN1507 Pest Management

Application of integrated pest management program and performance of chemical control procedures. Includes medical and economic impact, introduction to entomology, and identification of household, structural, vertebrate, venomous, disease vectoring and stored product pests.

SAN1808 Environmental Support Equipment

Environmental support equipment, corrosion control procedures, use of hand and special tools, operation and maintenance of specific water and wastewater treatment support equipment, and pump maintenance.

SAN2802 Water Analysis and Treatment Laboratory

Analysis of basic chemistry as it pertains to water and wastewater treatment, water testing procedures, and treatment of water for industrial use.

SAN2821 Field Water Purification Systems

Advanced principles and operations of field water purification and distribution systems. Includes installation and maintenance of waste water disposal systems; potable water systems for kitchen and medical facilities; set up of water and fuel bladder systems; and setup, operation, and maintenance of 1500 Reverse Osmosis Water Purification Units.

(SDI) SPECIAL DUTY/REPORTING IDENTIFIER INTERNSHIP

SDI3000 Special Duty Internship - Apprentice

Demonstrated knowledge and job proficiency (minimum 4 months) at apprentice level with rank of Airman (E-2) or higher in career field represented by a special duty identifier and reporting identifier.

SDI5000 Special Duty Identifier - Journeyman

Demonstrated knowledge and job proficiency (minimum 8 months) at journeyman level with rank of Airman (E-2) or higher in career field represented by a special duty identifier and reporting identifier.

SDI7000 Special Duty Identifier - Craftsman

Demonstrated knowledge and job proficiency (minimum 12 months) at craftsman and supervisor level with rank of staff sergeant (E-5) or higher or career field represented by a special duty identifier and reporting identifier.

(SEC) SECURITY

SEC1804 Fundamentals of Ground Combat Skills

Analysis of airbase defense operations and instruction in subjects such as fire control and distribution measures, prisoner-war processing, early warning devices, land navigation, camouflage, and threats against resources. Includes application of tactical communications, 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 of performing security operations required for the protection of Air Force resources. Includes fundamental skills and techniques required to perform basic Security Forces duties; assuming post; weapons retention; building and area searches; arming and use of force; nuclear/non-nuclear weapons security and physical security; security reporting and alerting system; and types of responses to secure priority resources.

SEC1807 Fundamental of Signature Management

Introduction to Air Force Signature Management operations to support Operational Security (OPSEC) and Military Deception (MILDEC) objectives. Emphasizes basic flowcharting fundamentals, base threat profiling, identification of critical information and indicators, base threat analysis, base vulnerability analysis, risk assessment, identification and employment of signature management countermeasures, and lessons learned and after action reporting.

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.

SEC2850 Intrusion Detection Equipment Operator

Understanding the characteristics, capabilities, limitations and vulnerabilities of associated sensor subsystems, small permanent communication and display segment equipment. Emphasis placed on the technical orders, system operation and control of response forces.

SEC2851 Closed-Circuit Television Operator

Understanding the characteristics, capabilities, limitations and vulnerabilities of perimeter surveillance and system closed-circuit television equipment. Emphasis placed on troubleshooting, system operations and television monitoring to prevent unauthorized entry into controlled areas.

SEC2853 Organization of Base Defense Forces

Leadership, organization and management of US military security forces. Emphasis on the legal and procedural aspects of police operations. Includes evaluation of base threat analysis, preparation of security response options, and practical exercises in deployment of security forces in response to various hostile threat scenarios.

SEC2855 Support Weapons Qualification

Application and knowledge of mortars, recoil 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 and Management

Analysis and application of logistical and tactical planning for employment of security forces units engaged in ground defense operations for US installations located in hostile areas. Includes concepts, principles and organization for distributed area defense. Emphasizes leadership of combat elements, patrol planning procedures and integration of defense forces. Includes increasing awareness of terrorist operations, application of special weapons and team concepts in tactical situations.

SEC2857 Tactical Marksmanship Laboratory

Employment of fire team, squad, and flight weapons in tactical situations with emphasis on types and classes of fire and methods of engagement for personnel and materiel targets.

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, annuciator systems and thermal imagers.

(SOC) SOCIAL SERVICES

SOC1101 Introduction to Chaplain Corps

Introduction to processes and functions of the Chaplain Corps. 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.

SOC1102 Chaplain Corps Readiness

Fundamentals of religious support in contingency operations. Includes development of deployed ministry plan, support for field religious observances, control center operations, unit visitation, religious cultural awareness, and religious leader engagement.

SOC1103 Crisis Support

Introduction to the principles, policies, and techniques required for conducting crisis response. Includes analysis of individual communication styles, conflict management strategies, rules of confidential communication, crisis intervention counseling, traumatic stress response, and resiliency principles.

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.

SOC1208 Applied Counseling Techniques

Counseling interviews; includes transactional analysis, group counseling, crisis intervention, telephone

counseling, awareness of basic human needs, value clarification techniques, and conducting practice counseling sessions.

SOC1209 Introduction to Equal Opportunity

Introduction to equal opportunity advisor skills and the human relations climate. Includes self-awareness and social concepts such as socialization, perception, motivation theory, diversity, race and ethnic studies, and human relations. Emphasis on Equal Opportunity Advisors' roles and responsibilities.

SOC1210 Equal Opportunity Problem Solving

Equal Opportunity conflict resolution and prevention. Includes knowledge and application of mediation techniques, confidentiality and ethical standards, military complaint policies and procedures, and organizational assessments.

SOC1504 Social Issues

Analysis of the signs and impact of various social issues to military readiness. Emphasizes racism, power and privilege, sexism, prejudice and discrimination, extremism, and sexual harassment.

SOC1610 Equal Employment Opportunity (EEO) Fundamentals

Prepares personnel for roles and responsibilities as an Equal Employment Opportunity (EEO) counselor. Includes the EEO complaints process and resolution, Federal personnel procedures, workplace harassment, EEO inquiries, and EEO laws for personnel with disabilities.

(SOO) SOLAR OBSERVATION

SOO2501 Solar Theory and Related Principles

Advanced solar theory as applied to solar observation. Includes explanation of structure, characteristics and features of sun; optics, spectroscopy and Solar Observing Optical Network telescope system; computer application and operating principles; solar observations; and classification of solar data.

(SUR) SURVEYING

SUR1501 Fundamentals of Surveying

Surveying principles, theories, practices and management using manual, automated and Global Positioning System surveying equipment. Distance and direction measurement, establish horizontal and vertical control, and compute horizontal and vertical angles. Perform traverse and grading computations and instrument adjustment. Perform topographic surveying requirements, site reconnaissance, and perform and compute construction layout requirements. Utilize Global Positioning System surveying equipment and accessories. Upload/download, process, and convert survey data.

SUR1502 Construction Surveys

Basic topographic mapping, road layouts, profile and cross-section surveys, vertical road alignments, earthwork computations, grade stakes, building layouts, and utility surveys.

(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.

SVE1102 Sewing Machine Maintenance

Introduction to the operation, inspection, timing, adjustment, troubleshooting analysis, preventive maintenance of different series of sewing machines, and use of maintenance manuals to perform operator maintenance and troubleshoot malfunctions.

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.

SVE1105 Survival Equipment Orientation

Introduction to survival equipment operations and practices. Includes identifying basic facts relating to Air Force Office of Safety and Health safety practices, operations security, use of Air Force publications, Air Force supply system, maintenance management, inspection systems, shop and maintenance practices, and environmental issues.

(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 fire craft 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.

SVR1805 Psychology of Environmental Stress

Stresses encountered in prisoner-of-war environments. Includes resistance to exploitation; international agreements relative to captivity and camp organization; application of escape-and-evasion techniques; and Communist history and theory, interrogation and indoctrination procedures, and group resistance in captivity.

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.

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.

SVS2100 Services Management

Management principles of services functions. Includes food production, mortuary services, fitness and recreation, accounting, budgeting, quality assurance, marketing, and hotel and motel operations; and customer service techniques and employee relations. May include field operations.

(TRN) TRANSPORTATION

TRN1604 Air Passenger Management

Flight schedules and publications, aircraft identification, preparation of air passenger documents, passenger reservations/scheduling, and transportation funding procedures.

TRN1605 Air Passenger Processing and Services

Processing and manifesting air passengers and baggage, operation of passenger and baggage handling equipment, terminal announcements, passenger handling techniques, and good customer relations.

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 pre-inspection of aircraft loading equipment, loading and restraining cargo for flights.

TRN1617 C-17 Loadmaster Qualification

Overview of C-17 cargo-handling system and passenger and aeromedical-handling procedures. Includes flight operations, mission preparation and special-handling procedures.

TRN1618 Surface Transportation of Dangerous Materials

Introduction to traffic management and terminal service for rail, motor vehicle, and water transportation. Includes special problems related to movement of dangerous materials.

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

Inspection, certification, and safety supervision in transporting cargo; includes discrepancy reporting, compatibility planning, and special handling requirements.

TRN1622 Cargo Processing and Documentation

Techniques, principles, and computer methods of processing air cargo. Includes understanding requirement for mail, dangerous cargo and special equipment.

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.

TRN1638 Aircraft Systems Familiarization and Operations - C-5 Loadmaster

C-5 auxiliary power unit operation, hydraulic and kneeling systems, and forward and aft door operation. Includes preoperation inspection, trouble-isolation

techniques, operational checks, operating limitations and use of synthetic trainers.

TRN1640 Cargo Aircraft Operations

Ground operations, preflight, in-flight and post flight duties of aircraft loadmaster. Includes positioning aircraft, determining load arrangement, aircraft preparation, preflight and in-flight briefings of passengers, aircraft preparation, and post flight 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, transportation and movement procedures, consolidation of shipments, and routing of freight shipments.

TRN1648 Air Passenger and Cargo Management

Transportation responsibilities, resources, and management of Military Airlift System (MAS). Special responsibilities of each transportation subdivision, safety, types of aircraft, airlift systems, military air terminals and manning and resources for operation. MAS capability to respond in war and peacetime.

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.

TRN1801 Basic Combat Convoy Course

Introduction to ground operations during wartime contingencies. 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.

TRN1802 Transportation Combat Readiness and Resources

Introduction to transportation deployment operations and wartime contingency planning. Includes resource management accounting systems, war reserve materials, manpower and personnel processes, airlift validations and air expeditionary force planning.

TRN2602 Aircraft Cargo Loading

Principles, techniques, and methods of cargo load planning. Includes loading/offloading; use of cargo loading system; cargo tiedown requirements for general, vehicular, and special cargo; and weight-and-balance computations.

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.

TRN2612 Advanced Traffic Management

Movement of cargo and passengers using modern traffic management automated systems. Includes resolution of case problems, budgeting, planning, and scheduling.

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.

TRN2627 Aerial Port Operations

Principles of aerial port operations; includes the command level functions and their relationship with aerial port functions and automated systems; basic responsibilities of capability forecasting; basic functions of information control, cargo palletization, shoring, restraints and load planning; passenger/baggage handling procedures and documentation; and customer service, terminal security, aircraft services, and airlift scheduling.

TRN2628 Transportation of Personal Property

Policies and procedures for movement of personal property. Includes entitlements; counseling of personnel; management and selection of carriers; packing, storage, and tracking of household goods; contract management; second destination funding; quality control responsibilities; and report generation using the Transportation Operational Personal Property Shipping System.

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.

TRN2801 Advanced Combat Convoy Operations

Convoy operations during wartime contingencies. Includes ground operations; field communications; weapon fire control measures; weapon range estimations; surveillance; night observation devices; land navigation; combat lifesaving techniques; and urban reaction operations.

(TVS) TELEVISION SYSTEMS

TVS1730 Basic Television Equipment Maintenance

Maintenance of receivers, monitors, videotape recorders, cameras and audio systems. Includes fundamentals of television communications, operational maintenance of studio transmissions and computer-embedded control systems.

(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, and manufacturer’s and specifications 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 use of 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.

VEM1505 Accessory Equipment Repair

Window and door regulator alignment and adjustment, trim hardware and automotive glass replacement, and removal, repair and replacement of upholstery. Armor removal and installation. Includes safety procedures, manufacturer's specifications and tools equipment.

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.

VEM1533 Body and Fender Repair and Painting

Repair, replacement, and refinishing of body panels, fenders, and frames. Includes manufacturer's specifications, tools and spray painting equipment.

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. Includes troubleshooting, disassembly, reassembly and replacement of hydraulic, pneumatic and electrical systems; use of tools, test equipment and publications; and 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.

(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.

WEL1502 Metallic Arc Welding

Basic 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.

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.

WEL1513 Heat Treatment

Fundamental principles of heat treatment. Includes identification and classification of metals, analyzing hardness and testing and evaluating heat treatment of all aluminum and ferrous metals.

TERMS & ACRONYMS …

AA, Associate of Arts

AAS, Associate in Applied Science Degree

A&P, Airframe and Powerplant

AC&W, Aircraft Control and Warning

ACE, American Council on Education

AETC, Air Education and Training Command

AF COOL, Air Force Credentialing On-Line

AFOSH, Air Force Occupational Safety and Health

AFRC, Air Force Reserve Command

AFSC, Air Force Specialty Code

Air Force Specialty is a group of related Air Force occupations that require common qualifications and are identified by title and code, the Air Force specialty code (AFSC).

Air Force Specialty Code (AFSC) the alphanumeric identifier of occupational specialty of Airmen and skill level: unskilled (1 level), apprentice (3 level), journeyman (5 level), craftsman (7 level) or superintendent (9 level).

AGE, Aerospace Ground Equipment

Airman refers to both male and female enlisted personnel.

AMT, Aircraft Maintenance Technician

ANG, Air National Guard

APD, Acquisition Professional Development

Armed Services Vocational Aptitude Battery (ASVAB) consists of prerequisite tests for USAF enlistment and is a factor in occupational assignment.

AS, Associate of Science

ASAP, Affiliated Schools Advisory Panel

ASCP, American Society of Clinical Pathologists

ATC, Air Training Command

AU, Air University

AU-ABC, Air University Associate-to-Baccalaureate Cooperative

AWACS, Airborne Warning and Control Systems

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.

CAD, Computer-Aided Design

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 associate in applied science 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 Air Force courses taught in affiliated schools.

CCAF degree-applicable courses may be applied toward the technical core, technical elective, LMMS or program elective portion of CCAF associate degree programs or toward certifications.

CCAF nondegree-applicable courses may be applied toward certification but are not applicable to the degree program.

CCAF permanent record is the official record of each student who completes an Air Force course for which the college awards credit applied toward degree completion.

CCAF, Community College of the Air Force

CLEP, College-Level Examination Program

Commandant is the chief executive officer with command authority.

CRL, Command and Telemetry Command Reference Loop

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 a manual review by CCAF administrative staff reveals 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

ECE, Excelsior College Exams

EFP, Electronic Field Production

ELINT, Electronic Intelligence

EMT, Emergency Medical Technician

ESAP, Education Services Advisory Panel

FAA, Federal Aviation Administration

FAR, Federal Aviation Regulation

FCC, Federal Communications Commission

FEMA, Federal Emergency Management Agency

GEM, General Education Mobile

GER, General Education Requirement

ICC, International Certification Commission

Internship is a performance-based and documented system that may include a correspondence course; documented on-the-job training; and a closed book, proctored examination, all based on an Air Force specialty.

ISD, Instructional Systems Development

ITMS, Instructor of Technology and Military Science

IVD, Interactive Videodisc

JSAMTCC, Joint Service Aviation Maintenance Technician Certification Council

JST, Joint Service Transcript

LMMS, Leadership, Management and Military Studies

MWR, Morale, Welfare and Recreation

NCO, Noncommissioned Officer

Occupational specialty codes are alphanumeric identifiers of Air 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).

OIC, Occupational Instructor Certification

OJT, On-the-Job Training

OSHA, Occupational Safety and Health Administration

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.

Proficiency (P) credit is awarded to Air Force enlisted personnel who complete Tri-Service or DoD *initial skills* career education/technical training and demonstrates apprentice level competency. Students demonstrate learning objective knowledge and skill competency through a minimum of 15 months of supervised performance. Awarded proficiency credit is CCAF degree-applicable credit.

Program managers are occupational specialists who evaluate permanent student records and progress reports, review courses from affiliated schools, develop degree programs relevant to occupational specialties and work with education services personnel in advising students.

Programmatic 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 internal worksheet reflecting a student's record, including credits applied toward degree completion and 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.

Residency is the requirement that at least 16 semester hours of CCAF credit be applied toward a CCAF degree.

RF, Radio Frequency

RIP, Report on Individual Personnel

SACSCOC, Southern Association of Colleges and Schools Commission on Colleges

SATCOM, Satellite Communications

Separated student is an individual who has been withdrawn from a degree program due to commissioning, retirement or separation.

SH, Semester Hour

SOON, Solar Observing Optical Network

Special Duty Identifier (SDI) is an alphanumeric occupational specialty code assigned to Airmen 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.

TACAN, Tactical Air Navigation

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.

USAF, United States Air Force

VFR, Visual Flight Rules

Withdrawn applies to a student who has been removed from active student status because of administrative reasons or a personal request.

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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
- 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
- Joint Services Aviation Maintenance Technician Certification Council
- National Aerospace Technical Education Center
- National Center for Aircraft Technician Training

This publication has been reviewed and approved by the preparing agency according to current directives on policy, essentiality, propriety and quality. 2/2/17

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AEROSPACE GROUND EQUIPMENT TECHNOLOGY

AFSC(S): 2A6X2, Aerospace Ground Equipment

PROGRAM GOAL: The goal of the **CCAF Aerospace Ground Equipment Technology Degree Program** is to prepare graduates for productive careers in the aviation industry with special emphasis on aerospace ground equipment in the federal and civilian aviation communities. This program equips students with the fundamental skills necessary to maintain, repair and operate ground equipment used to support various types of aerospace vehicles. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan and organize aerospace ground equipment (AGE) maintenance activities in support of aircraft systems and subsystems.

2. Remove, disassemble, repair, clean, service, treat for corrosion, assemble and re-install AGE accessories and components.

3. Utilize appropriate ground support equipment and material to accomplish maintenance functions on specialized equipment.

4. Demonstrate a thorough understanding of mechanical, electrical, hydraulic and pneumatic disciplines as they apply to industrial power systems including pre-use inspections and operation.

5. Diagnose ground equipment malfunctions and apply effective repair techniques.

6. Analyze mechanical and electronic circuitry malfunctions using visual and auditory senses, test equipment, and technical publications.

7. Perform scheduled and unscheduled maintenance on AGE.

8. Demonstrate the ability to use automated data systems to monitor maintenance trends, analyze equipment requirements, maintain equipment records, and document maintenance actions.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AEROSPACE HISTORIAN

AFSC(S): 3H0X1, Historian

PROGRAM GOAL: The goal of the **CCAF Aerospace Historian Degree Program** is to prepare graduates with the necessary knowledge and skills to perform historical research and analysis, and manage historical activities, programs, and functions. The program includes emphasis in areas such as research methodology, interviewing, advanced writing, and preparation of analytical historical publications. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Provide historical research and information services using reference materials and knowledge of the organization or event.

2. Coordinate involvement in contingency and wartime operations and readiness exercises, deploy to support operational historical requirements, and maintain deployment equipment and kits.

3. Manage an organization's history programs by assessing compliance, documenting findings, recommending corrective action, conducting quality assessments, and ensuring compliance with security and administrative directives.

4. Interview key personnel for knowledge and insight, document deliberations and decisions, and systematically collect and organize historical data from correspondence, messages, staff studies, and reports.

5. Determine topics of special interest, evaluate data for accuracy, objectivity, and pertinence, write well-organized narratives, and prepare charts, tables, graphs, and statistical summaries of information and supporting documents.

6. Maintain a historical document repository by collecting, organizing, and indexing historical research publications and documents.

7. Manage historian functions and activities to include advising on historical and museum program matters, maintaining facilities and equipment, and addressing security issues.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AEROSPACE PHYSIOLOGY TECHNOLOGY

AFSC(S): 4M0X1, AEROSPACE AND OPERATIONAL PHYSIOLOGY

PROGRAM GOAL: The goal of the **CCAF Aerospace Physiology Technology Degree Program** is to prepare graduates for rewarding careers as paraprofessionals in the Aerospace Physiology field. Graduates will evaluate and instruct flight crew personnel and high altitude parachutists, operate altitude chambers, and instruct on simulated flights to altitude. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assist the aerospace physiologist and flight surgeon in establishing local flying activity procedures to physiologically indoctrinate flying personnel by operating low-pressure chambers and simulating changes in the barometric pressure.

2. Plan and conduct physiological activities for flying personnel to include the operation of hyper and hypobaric chambers, perform flying duties in support of high altitude airdrop mission support (HAAMS), and monitor air and oxygen pressure gauges.

3. Operate and maintain training equipment to include ejection seat trainers, night vision trainers, and life support systems used in training flight crew personnel.

4. Perform basic maintenance on pressure chambers and pumps, interphone equipment, pressure suits, oxygen equipment.

5. Act as consultants during mishap investigations and make recommendations for preventive measures to eliminate mishap potentials.

6. Conduct training and testing with aerospace physiology devices, consult with aerospace physiologist to improve training methods, and review policies and procedures to determine compliance with directives.

7. Operate aerospace physiology equipment to include the hyperbaric chamber for special patient treatments, such as, decompression sickness, diabetic wound care, and hypoxia.

8. Apply the principles, techniques and methods of instruction in a safe and effective learning environment

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AIR AND SPACE OPERATIONS TECHNOLOGY

AFSC(S): 1A3X1, Airborne Mission Systems Operator
1C5X1, Aerospace Control and Warning Systems
1C6X1, Space Systems Operations
1U0X1, Unmanned Aerospace System Sensor Operator

PROGRAM GOAL: The goal of the **CCAF Air and Space Operations Technology Degree Program** is to provide graduates a comprehensive education in aerospace control and warning systems, including functions involving surveillance, identification, weapons control, data link management, communications/computer system management and electronic attack and protection. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Operate aerospace control and warning systems equipment.

2. Interpret and react to RADAR presentations and associated early warning systems procedures.

3. Perform surveillance, identification, weapons control, data link, and data management functions.

4. Conducts mission planning and prepare and execute air and airspace control tasking orders.

5. Exchange air movement and identification information among air defense, range control and air traffic control agencies on matters pertaining to aircraft operations.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AIR TRAFFIC OPERATIONS AND MANAGEMENT

AFSC(S): 1C1X1, Air Traffic Control

PROGRAM GOAL: The goal of the **CCAF Air Traffic Operations and Management Degree Program** is to prepare graduates for challenging careers within the military and aviation industry as certified Air Traffic Control (ATC) specialists meeting present and future needs of the Federal Aviation Administration (FAA) and National Airspace System (NAS). Graduates will gain a comprehensive knowledge of control towers, radar approach control facilities, flight service stations, communications, and navigation procedures and competently perform air traffic control of en route and terminal aircraft. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Prevent a collision between aircraft and provide a safe, orderly, and expeditious flow of traffic.

2. Demonstrate ATC fundamentals to include basic aviation knowledge, terminology, facility responsibilities, aircraft performance characteristics and separation procedures.

3. Utilize federal and local air traffic regulations, aeronautical charts, instrument approach procedures, visual approach procedures and terminal procedures.

4. Perform radar and non-radar procedures to separate and control aircraft along established airways and routes between and over terminal areas.

5. Issue ATC clearances, instructions and advisories to air traffic operating under Instrument Flight Rules (IFR) and Visual Flight Rules (VFR).

6. Demonstrate knowledge of VFR terminology, identification methods, separation, control instructions and aviation regulations pertaining to aircraft engaged in VFR flight.

7. Apply principles of radar approach control operations and equipment to include use of terminology, identification procedures, separation, and control instructions of radar-controlled aircraft.

8. Demonstrate a basic knowledge of weather principles, interpretation of reports and forecasts as applied to flight.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AIRCRAFT ARMAMENT SYSTEMS TECHNOLOGY

AFSC(S): 2W1X1, Aircraft Armament Systems

PROGRAM GOAL: The goal of the **CCAF Aircraft Armament Systems Technology Degree Program** is to equip graduates with the skills necessary to manage aircraft armament systems in support of national defense. Graduates will be capable of loading, unloading and maintaining aircraft armament systems and successfully perform in the high-stress world of aircraft maintenance. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, organize and direct aircraft armament systems activities.
2. Understand methods and techniques used in loading and unloading of munitions.
3. Load, unload and position munitions on aircraft.
4. Inspect, repair and maintain launch, release and suspension systems.
5. Evaluate efficiency of aircraft munitions and recommend modifications.
6. Establish and evaluate performance and training standards.
7. Ensure compliance with policies, directives and safety procedures.
8. Determine probable effect of modifications on future maintenance and operational problems.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AIRCRAFT STRUCTURAL MAINTENANCE TECHNOLOGY

AFSC(S): 2A7X3, Aircraft Structural Maintenance
2A7X5, Low-Observable Aircraft Structural Maintenance

PROGRAM GOAL: The goal of the **CCAF Aircraft Structural Maintenance Degree Program** is to prepare graduates for productive careers in the aircraft structural maintenance and low-observable industries. Graduates are prepared to perform varied functions, with special emphasis placed on the preservation of aircraft structural integrity to include low-observable coatings. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assemble structural parts and components to meet requirements for preserving structural integrity and low observable qualities.

2. Assess damage to aircraft structural components and low observable coatings.

3. Use metalworking equipment and tools to form, cut, bend, and fasten replacement or repair parts to damaged structures and components.

4. Apply preservative treatments to aircraft, aerospace ground equipment, and support equipment.

5. Inspect and maintain work center tools and machinery utilizing lock-out/tag-out procedures.

6. Use and dispose of hazardous waste and materials according to environmental standards.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AIRCREW SAFETY SYSTEMS TECHNOLOGY

AFSC(S): 1P0X1, Aircrew Flight Equipment

PROGRAM GOAL: The goal of the **CCAF Aircrew Safety Systems Technology Degree Program** is to prepare graduates for productive careers in the aerospace and manufacturing industries, with special emphasis on management, inspections, maintenance, fabrication, assembly of personnel survival equipment, emergency evacuation systems, aircrew life support, and chemical warfare defense equipment. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate a thorough understanding of parachutes, emergency evacuation systems, thermal radiation barriers, protective covers, flotation equipment and protective clothing.

2. Operate, maintain, adjust, and inspect, survival and life support equipment machinery, test equipment and tools.

3. Disassemble, assemble, inspect, clean, fabricate, repair, and pack, fabric and rubber components, including protective clothing, upholstery, thermal radiation barriers, protective covers, flotation equipment, emergency evacuation systems, aircrew life support equipment, chemical defense equipment, and various parachutes such as deceleration, cargo, and personnel.

4. Evaluate and process work-orders for local manufacturing, plans layout and fabrication of new items; evaluate data involving equipment development and modifications resolving life support and chemical defense equipment problems.

5. Install, remove, inspect, test, and set, manual and automatic rip cord release opening devices.

6. Conduct aircrew life support and chemical defense equipment training classes by instructing aircrews on equipment use, theory of operation, and capabilities.

7. Effectively teach aircrew techniques such as evasion procedures, emergency egress, combat survival procedures, environmental hazards and other survival actions.

8. Identify and document equipment and personnel training discrepancies, and recommend corrective actions.

9. Store, handle, use and dispose of hazardous waste and materials in accordance with environmental standards.

10. Plan, direct, organize and evaluate aircrew life support operational aspects such as equipment accountability, personnel reliability, mobility readiness, and other activities necessary to meet operational readiness.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AVIATION MAINTENANCE TECHNOLOGY

AFSC(S): 2A3X3, Tactical Aircraft Maintenance
2A3X7, Tactical Aircraft Maintenance
2A5X1, Aerospace Maintenance
2A5X2, Helicopter/Tiltrotor Maintenance
2A5X4, Refuel/Bomber Aircraft Maintenance
2A6X1, Aerospace Propulsion
2A6X3, Aircrew Egress Systems
2A6X4, Aircraft Fuel Systems
2A6X5, Aircraft Hydraulic Systems
2A6X6, Aircraft Electrical and Environmental Systems

PROGRAM GOAL: The goal of the **CCAF Aviation Maintenance Degree Program** is to provide graduates quality academic, technical and hands-on training on a variety of aircraft and aircraft systems. The program prepares graduates to apply the practical skills and knowledge required for employment in the aviation industry, providing safe, serviceable and quality aviation maintenance. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, organize and direct aircraft systems maintenance activities.

2. Troubleshoot and maintain aircraft systems, components, and related equipment.

3. Remove, install, modify and repair aircraft components and conduct functional tests of components and systems.

4. Use schematic and technical publications to advise on and solve component installation, maintenance and repair problems.

5. Diagnose aircraft malfunctions and recommend corrective action.

6. Interpret and implement maintenance directives and publications applying environmentally safe maintenance practices.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AVIATION MANAGEMENT

AFSC(S): 1C0X2, Aviation Resource Management
1C7X1, Airfield Management

PROGRAM GOAL: The goal of the **CCAF Aviation Management Degree Program** is to prepare graduates to succeed in mid-level management positions in the military and in the dynamic Aviation Management industry. The program provides comprehensive education in aviation studies and regulations, terminal procedures, support facilities, disaster plans, noise abatement, navigational aids and other aspects of airport and aviation management. Additionally, the program includes specialty information on aviation and parachutist resource management functions related to scheduling, standardization and evaluation, training and qualifications, and flight record maintenance. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Conduct flight planning, routing, arrival and departure procedures and management of airfield functions.

2. Demonstrate knowledge of weather, airfield and runway condition assessments as they pertain to flight safety and airport/flight procedures.

3. Demonstrate knowledge and ability to use aeronautical publications, diagrams, charts and regulations pertaining to airfield management.

4. Employ computer skills to conduct operational scheduling, flight data management, aviation coding and aeronautical orders.

5. Demonstrate knowledge of aviation, aircrew, and parachutist publications pertaining to aviation resource management.

6. Accurately interpret public law to plan, organize, and direct aircrew and parachutist resource activities.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: AVIATION OPERATIONS

AFSC(S):1A0X1, In-Flight Refueling
1A1X1, Flight Engineer
1A2X1, Aircraft Loadmaster
1A6X1, Flight Attendant
1A9X1, Special Mission Aviation

PROGRAM GOAL: The goal of the **CCAF Aviation Operations Degree Program** is to prepare graduates for successful careers in the aviation arena. This program is designed to equip students with the fundamental skills necessary to function as part of a crew by using effective crew resource management, operating aircraft systems, and providing for passenger safety and comfort. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Prepare and maintain forms, records and documentation associated with aviation operations.

2. Effectively communicate with crewmembers and outside organizations.

3. Utilize appropriate ground support and material handling equipment to accomplish safe ground operations.

4. Demonstrate a thorough understanding of mechanical, hydraulic, electrical, and pneumatic systems and how they apply in-flight.

5. Perform emergency procedures on ground and in-flight.

6. Conduct pre-flight, in-flight, and post-flight inspections of related aircraft systems.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: AVIONIC SYSTEMS TECHNOLOGY

AFSC(S): 2A0X1, Avionics Test Station and Components
2A2X1, Integrated Communication/Navigation/Mission Systems
2A2X2, Integrated Instrument and Flight Control Systems
2A2X3, Integrated Electronic Warfare Systems
2A3X4, Fighter Aircraft Integrated Avionics
2A3X5, Advanced Fighter Aircraft Integrated Avionics
2A5X3, Electronic Warfare Systems
2A8X1, Integrated Communication/Navigation/Mission Systems
2A8X2, Integrated Instrument and Flight Control Systems
2A9X1, Integrated Communication/Navigation/Mission Systems
2A9X2, Instrument and Flight Control Systems
2A9X3, Electronic Warfare and Radar Surveillance Integrated Avionics

PROGRAM GOAL: The goal of the **CCAF Avionic Systems Technology Degree Program** is to prepare graduates for long-term careers in the aviation industry as avionics technicians or employment as electronic technicians in related industries. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Analyze performance, isolate malfunctions and repair aircraft components within avionics systems and sub-systems.

2. Diagnose malfunctions using technical orders, schematics, wiring diagrams, integrated test systems and other support test equipment.

3. Demonstrate the ability to trace logic through the use of schematics, test flows and wiring diagrams.

4. Follow recommended safety procedures to include proper Electric Static Discharge (ESD) handling when working on aircraft equipment.

5. Use automated data systems to monitor maintenance trends, analyze equipment requirements and document maintenance actions while performing avionics tasks.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE TITLE: BIOENVIRONMENTAL ENGINEERING TECHNOLOGY

AFSC(S): 4B0X1, Bioenvironmental Engineering

PROGRAM GOAL: The goal of the **CCAF Bioenvironmental Engineering Technology Degree Program** is to provide graduates with the knowledge and practical skills necessary to perform and manage bioenvironmental engineering activities in the fields of industrial hygiene, occupational health, radiological health, and environmental protection. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate knowledge of environmental principles, applied field and laboratory methods, applied mathematics, diverse computer applications, and environmental compliance.

2. Perform and direct surveys to detect and identify chemical, biological, and radiological contaminants, and advise on health hazards and protective measures for exposed populations and emergency response personnel.

3. Evaluate drinking water quality, swimming and public bathing areas, domestic waste treatment, and solid waste disposal systems and procedures.

4. Develop, implement, and conduct water pollution surveillance programs.

5. Investigate chemical spills and other environmental releases, collect samples, and coordinate necessary corrective actions with state, federal, and local officials.

6. Collect industrial hygiene data on noise, ionizing and non-ionizing radiation, illumination, ventilation, air quality, ergonomics, and thermal stress to assess degree of hazard and worker exposure.

7. Survey facilities, equipment, materials, and operations for ionizing and non-ionizing radiation hazards and monitor radioactive waste disposal and shipment to ensure compliance with current environmental, safety, and health standards, and licensing or permit requirements.

8. Advise medical personnel on decontamination procedures and train non-medical personnel in the medical aspects of defense against nuclear, biological, and chemical agents.

9. Maintain and calibrate survey equipment.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: BUSINESS ADMINISTRATION

AFSC(S): 3A1X1, Administration
SDI(S): 3D0X1, Knowledge Operations Management
8M000, Postal
8P100, Defense Attaché

PROGRAM GOAL: The goal of the **CCAF Business Administration Degree Program** is to prepare graduates for employment in a variety of settings within the communications and information profession. Graduates are prepared to perform, supervise and manage a variety of communication and administration tasks and activities, including staff support, records management, forms and reports preparation, and administrative communications. The program is designed to develop effective leaders of our most valued resource – our people – and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

10. Comply with Privacy Act (PA) and Freedom of Information Act (FOIA) procedures and provide assistance to ensure others comply.

11. Manage information flow to include processing, controlling, and distributing mail.

12. Implement procedures for manual and electronic creation, control, coordination, dissemination, and disposal of administrative communications.

13. Establish and carry out departmental and/or organizational goals, policies and procedures.

14. Manage general activities related to making products and providing services.

15. Consult with other executives, staff about operations.

16. Utilize and leverage technology prevalent to the Business and Information Community

Continued for AFSC 3A1X1, Administration

17. Manage processes and activities to support organizational communications, including correspondence preparation, distribution, suspense tracking, workflow management, electronic mail management, content management and other related duties.

18. Provide administrative support for organizational personnel and manpower programs.

19. Assist in planning, preparing, arranging and conducting official functions. Managing special ceremonies, schedule event locations, coordinating gifts, and manage guest lists.

Continued for AFSC 3D0X1, Knowledge Operations Management

20. Identify and analyze data, information, and knowledge requirements to facilitate discovery and dissemination of decision-quality information.
21. Manage and enforce use of metadata, enabling data to be accessed, tagged, and searched regardless of physical location, media, source, owner, or other defining characteristics.

22. Assists organizations with meeting statutory records management requirements, to include training, policies, and technologies used to identify, organize, protect, share, archive, and dispose of official government records.

23. Operate and manage records, information, management systems, and records staging facilities for long-term and permanent records.

24. Provide assistance and training with Privacy Act, Freedom of Information Act, and Civil Liberties program.

Continued for SDI 8M000, Postal

25. Operate a postal service center to include developing postal operations plans and reports, managing resources, and supervising assigned postal personnel.

26. Perform postal financial functions to include processing money orders, postage stock, and special service fees and advising patrons of applicable postal and customs requirements.

27. Maintain postal records, prepare forms and reports, and perform supply functions in support of postal operations.

Continued for SDI 8P100, Defense Attaché Specialist

28. Prepare and maintain the Defense Attaché Office (DAO) budget according to the Defense Intelligence Agency (DIA) regulations and update all DAO informational reports.

29. Coordinate US naval ship visits and US military aircraft over-flights and landing clearances with host country officials.

30. Provide briefings to US ship and aircrew members concerning host county immigration, laws, customs and courtesies.

31. Maintain correspondence files, forms, technical orders, and publication accounts.

32. Prepare, type, edit and dispatch office correspondence and coordinate with embassy officials and representatives of various US military services

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE TITLE: BIOMEDICAL EQUIPMENT TECHNOLOGY

AFSC(S): 4A2X1, Biomedical Equipment

PROGRAM GOAL: The goal of the **CCAF Biomedical Equipment Technology Degree Program** is to prepare graduates for challenging careers in the health care field as biomedical equipment technicians. The program provides graduates with the knowledge and practical skills necessary to serve as professionals responsible for installing, calibrating, maintaining and repairing biomedical equipment. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Provide organizational maintenance support for all medical devices used within the treatment facility, medical research laboratory, or clinic.

2. Inspect, service, and modify biomedical equipment and support systems.

3. Install medical equipment, conduct pre-operational tests to verify compliance with medical and technical standards, and resolve installation and associated maintenance support problems.

4. Perform formal acceptance testing of complex medical equipment and installations, including diagnostic radiology systems and physiological monitoring systems.

5. Perform pre-procurement surveys and provide technical advice regarding the purchase of new biomedical equipment systems and the required facility interface requirements.

6. Calibrate medical equipment according to manufacturer's technical literature, pertinent federal regulations, national standards, state and local laws, and Air Force standards.

7. Perform preventive maintenance tasks such as lubrication, mechanical adjustment, and replacement of filters, tubing, and other parts subject to deterioration.

8. Use modern test equipment, technical data, engineering drawings, schematics, and reference materials for troubleshooting and repair of medical equipment.

9. Inspect and test medical and patient-related non-medical equipment for compliance with current safety standards.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: CARDIOPULMONARY LABORATORY TECHNOLOGY

AFSC(S): 4H0X1 Cardiopulmonary Laboratory

PROGRAM GOAL: The goal of the **CCAF Cardiopulmonary Laboratory Technology Degree Program** is to prepare graduates to operate under the direction of physicians and other healthcare professionals in inpatient and outpatient settings. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Perform and supervise electrocardiograms, electrocardiography monitoring, exercise stress testing and other cardiopulmonary laboratory functions.

2. Assess heart structures and flows via 2-D and m-mode echocardiography, Doppler, and contrast colors.

3. Assist in the placement of specialized equipment into the cardiovascular system for diagnosis and treatment including cardiac catheterization, balloon pumps and cardiac pacemakers.

4. Provide respiratory care including spirometry, oxygen and aerosol therapy, mechanical ventilator operation, and prepare and administer respiratory medications.

5. Observe and record patient care information by taking vital signs, interpreting cardiac arrhythmias and blood oxygenation levels by drawing arterial blood gas samples and pulse oximetry.

6. Maintain certifications in CPR and other training in accordance with the Joint Commission on Accreditation of Healthcare Organizations (JCAHO) and Health Services Inspections requirements.

7. Perform and manage cardiopulmonary laboratory administrative, maintenance and support functions.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: COMPUTER SCIENCE TECHNOLOGY

AFSC: 3D0X4, Computer Systems Programming

PROGRAM GOAL: The goal of the **CCAF Computer Science Technology Degree Program** is to prepare graduates for long-term careers as computer science professionals in the information technology field. The program prepares students for entry-level employment as computer programmers and analysts. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Determine, analyze, and develop requirements for software systems through interpreting standards, specifications and user needs.

2. Determine and recommend the most reasonable approach in designing new systems or modifying existing systems.

3. Translate system specifications and requirements into program code and database structures, and implement design functionality as software coders.

4. Analyze output products and debug source code to isolate and correct errors in program logic, syntax, and data entry.

5. Prepare system graphical descriptions, standard language statements, workload data, and present and propose cost.

6. Implement security techniques designed to preclude unauthorized access to computer data and to reduce computing resource misuse.

7. Design, develop, maintain and execute test plans for formal qualifications testing, system integration testing, regression testing and verification, validation and acceptance testing as software testers.

8. Manage software or database components, specifications, test plans, procedures and results, and revision history to ensure systems in use meet user requirements.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: CONSTRUCTION TECHNOLOGY

AFSC(S): 3E2X1, Pavement and Construction Equipment
3E3X1, Structural
3E5X1, Engineering

PROGRAM GOAL: The goal of the **CCAF Construction Technology Degree Program** is to prepare graduates for successful careers as professionals within the construction industry. The program provides a quality career-oriented education focused on the latest technological advancements in the field of civil engineering. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Direct and execute civil engineering projects in support of the Air Force and civilian communities.

2. Investigate and survey proposed work sites to determine material, labor and resource requirements.

3. Prepare and interpret working drawings and schematics for maintaining, altering and repairing pavements, buildings and structures.

4. Apply engineered performance standards to plan and estimate jobs.

5. Prepare cost estimates for construction activities.

6. Determine type and application of equipment to use in various construction, maintenance and repair operations.

7. Perform inspections of work to ensure quality and compliance with policies, regulations and other publications.

8. Manage functions within the commercial, residential and industrial sectors of the construction industry.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: CONTRACTS MANAGEMENT

AFSC(S): 6C0X1, Contracting

PROGRAM GOAL: The goal of the **CCAF Contracts Management Degree Program** is to prepare graduates for productive careers as contracting and purchasing advisors. This program builds a firm foundation for employment as professionals equipped with the necessary skills for successful careers in business, industry, and government. Graduates will master contracting skills in such areas as commodities, services, and construction using simplified acquisition procedures, negotiation, and other approved methods. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Perform as a business advisor, buyer, negotiator, administrator, and contracting officer to include duties such as terminating contracts, resolving claims and disputes, providing contingency support to stateside and deployed locations, reviewing and evaluating bids, and protesting mediation.

2. Effectively provide training and advise organizational leaders on contracting-related issues using data from marketing trends, supply sources, and trade information.

3. Prepare, maintain, file, and review documents ensuring contractor compliance with bonding, insurance, tax requirements, and adherence to delivery schedules, prices, regulations, laws, and statutes.

4. Develop, explain, and present purchasing strategic and tactical plans.

5. Train, conduct, and monitor quality assurance site visits to determine adequacy of contractor compliance, customer satisfaction, and labor law compliance.

6. Perform market research and review requirements to include descriptions, government furnished property, availability of funds, sole-source justifications, brand name purchasing, and delivery requirements .

7. Manage and utilize automated contracting systems to prepare documents, analyze statistical data, and process transactions relating to contracting and purchasing requirements and overall organizational structure.

8. Understand and utilize the organizational skills required to develop and maintain effective financial accountability records and reports.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: CRIMINAL JUSTICE

AFSC(S): 3P0X1, Security Forces
7S0X1, Special Investigations

PROGRAM GOAL: The goal of the **CCAF Criminal Justice Degree Program** is designed to provide an understanding of the individual, society, crime and the criminal justice process. The interdisciplinary approach associated with this program prepares graduates to improve their leadership, service and stewardship skills in a variety of career, work and community environments. Emphasis is placed on corrections, probation and parole, juvenile delinquency, criminal behavior, crime and loss prevention. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Practice criminal justice skills that meet the highest state and national standards.

2. Comprehend the U.S. Constitution, judicial structure and rules of evidence as they relate to human behavior, the criminal justice process, and exploration of ethical issues inherent in criminal justice.

3. Understand police administration and the continuing development of police practices within organizational structures.

4. Analyze the nature, extent, and causation of crime.

5. Critically evaluate the problems of crime and justice both verbally and thru written communication.

6. Explain the role of criminal law in the regulation of human conduct and maintenance of stability in society.

7. Utilize knowledge in research methods and statistical applications to promote an understanding of criminal behavior and assess the effectiveness of criminal justice policies and instructions.

8. Understand, practice, enforce and supervise widely accepted procedures, concepts and principles of professional security administration.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: CYBERSECURITY

AFSC: 1B4X1, Cyber Warfare Operations

PROGRAM GOAL: The goal of the **CCAF Cybersecurity Degree Program** is to prepare graduates for long-term careers as network security professionals in the information technology field. The program prepares students for entry-level employment as network administrators, systems operations analysts, and network security technicians. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Direct personnel and conduct computer/network attack, defense and exploitation operations.

2. Analyze national defense guidance to develop cyberspace defense plans and tactics, techniques, and procedures.

3. Perform network attack operations on an adversary's communication infrastructure and equipment.

4. Conduct active and passive network defense operations of friendly forces and vital interests from hostile attacks.

5. Participate in research, development, testing and evaluation to determine new capabilities and modifications to existing systems through reverse engineering network nodes and infrastructure devices.

6. Provide preemptive cyber security by identifying dependencies and reduce vulnerabilities before they can be exploited.

7. Perform battle damage assessments and analysis on network hardware and software components by means of applying computer forensics and reverse engineering tactics, techniques, and procedures.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: DENTAL ASSISTING

AFSC(S): 4Y0X1, Dental Assistant

PROGRAM GOAL: The goal of the **CCAF Dental Assistant Degree Program** is to prepare graduates for rewarding and challenging careers in the dental health care profession. The program prepares graduates to serve as members of highly qualified health teams with knowledge of the basic dental sciences, proficiency in office management procedures, and practical experience involving specialized dental skills. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assist a dentist with patient treatment to include retracting tissues and maintaining a clear operating field, preparing a syringe for injection of anesthetics, and preparing materials for making impressions and restoring defective teeth.

2. Perform dental health duties to include oral prophylaxis and scaling procedures using dental hand instruments and oral hygiene aids, applying anticariogenic agents and materials, and polishing restorations.

3. Assist in planning, developing, and conducting comprehensive dental health programs.

4. Expose and process dental radiographs practicing and enforcing accepted radiation safety standards.

5. Perform daily inspections and conduct user maintenance of dental equipment.

6. Perform dental administrative and material duties to include functions related to procurement, custodial responsibilities, and budgeting, maintaining, and disposing of dental supplies and equipment.

7. Instruct patients in dental health maintenance.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: DENTAL LABORATORY TECHNOLOGY

AFSC(S): 4Y0X2, Dental Laboratory

PROGRAM GOAL: The goal of the **CCAF Dental Laboratory Technology Degree Program** is to prepare graduates for rewarding careers as paraprofessionals in the Dental Laboratory field. This program enables graduates to design, sculpt, construct, and repair fixed and removable dental prostheses providing an essential support service for the dental profession. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Fabricate and repair complete dental prostheses, fixed and removable partial dental prostheses, and individual crowns, inlays, pontics, splints, stabilizers, and space maintainers.

2. Use precious and nonprecious metals, acrylic resins, and porcelain as basic materials in dental laboratory work.

3. Perform and supervise dental laboratory administration tasks.

4. Inspect fabrication equipment and make minor repairs.

5. Evaluate and refine dental prostheses fabrication technical procedures.

6. Consult and coordinate with dental surgeon for improving procedures.

7. Identify dental laboratory deficiencies, institute corrective measures and maintain follow-up actions to ensure adequacy and compliance.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE TITLE: DIAGNOSTIC IMAGING TECHNOLOGY

AFSC(S): 4R0X1, Diagnostic Imaging
4R0X1C, Diagnostic Imaging (MRI)

PROGRAM GOAL: The goal of the **CCAF Diagnostic Imaging Technology Degree Program** is to prepare graduates to function as entry–level radiographers in fixed and deployable medical facilities, performing radiographic procedures and related patient care duties under the supervision of a healthcare provider. Graduates will demonstrate the ability to comprehend, apply, and evaluate information relevant to technical proficiency in all skills, and personal behaviors consistent with the professional expectations for the entry-level radiographer. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assist the radiologist in radiation treatment of disease and apply the principles of radiation protection for the patient, health care providers, and others.

2. Apply the knowledge of anatomy, positioning, and radiographic techniques to show anatomical structures on the radiograph.

3. Recognize the needs of the patient are first and foremost, and possess the knowledge and skills to attend to those needs.

4. Use specialized equipment to perform mammography, computerized tomography, and magnetic resonance imaging (MRI).

5. Safely perform fluoroscopic, interventional, and special examinations.

6. Effectively use the picture archiving computer systems (PACS) and other computer-based imaging modalities.

7. Plan, organize, and supervise diagnostic imaging activities to include analyzing the workload, establishing production controls and performance standards, and preparing equipment purchase requests and justifications.

8. Demonstrate critical thinking skills and effectively communicate with the patients and colleagues in a professional and humanistic manner.

9. Maintain emergency response carts, recognize emergency patient conditions, and initiate life saving first aid and basic life support procedures.

10. Manage the release of medical information within the limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE TITLE: DIAGNOSTIC MEDICAL SONOGRAPHY

AFSC(S): 4R0X1B, Diagnostic Imaging (Ultrasound)

PROGRAM GOAL: The goal of the **CCAF Diagnostic Medical Sonography Degree Program** is to prepare graduates to perform basic clinical diagnosis and facilitate patient care in a health care setting through the practice of radiologic technology with special emphasis in medical Sonography (ultrasound). Through didactic courses: Ultrasound Physics, Sonography of the Abdomen, Small Parts Sonography, Basic Vascular Sonography, Sonography of the Pelvis, and Obstetrical Sonography; laboratory participation, and clinical experiences, students will acquire the professional, ethical and technical skills required of radiologic/ultrasound practitioners. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Recognize the needs of the patient are first and foremost, and possess the knowledge and skills to attend those needs.

2. Locate, evaluate, and record pertinent anatomical, pathological, and functional data to aid the physician in the diagnosis of disease and injury.

3. Apply advanced knowledge of anatomy and positioning to capture images needed to diagnose and treat patients, using specialized ultrasound components and equipment.

4. Effectively use the picture archiving computer systems (PACS) and other computer-based imaging modalities.

5. Apply critical thinking skills and effectively communicate with the patients and colleagues in a professional and humanistic manner.

6. Maintain emergency response carts, recognize emergency patient conditions, and initiate life saving first aid and basic life support procedures.

7. Manage release of medical information within limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: DIETETICS AND NUTRITION

AFSC(S): 4D0X1, Diet Therapy

PROGRAM GOAL: The goal of the **CCAF Dietetics and Nutrition Degree Program** is to prepare graduates for rewarding careers as Dietetic Technicians. Graduates gain the knowledge and skills necessary to assist in providing nutritional care to individuals and groups through community agencies and health care facilities. The Dietetic Technician serves under the direction of a registered dietitian and is an integral part of the health care team. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan menus and practice quality fundamentals of food preparation for regular and therapeutic diets, tube feedings, and therapeutic in-flight meals.

2. Establish and continually evaluate production controls and standards for quantity, quality, sanitation, safety and security of foods.

3. Provide field feeding, accountability, layout, and sanitation during disasters or deployment contingencies.

4. Receive and process diet orders, menus, and other directives related to the dietary needs of patients.

5. Conduct dietary rounds to interview patients on regular and therapeutic diets to determine satisfaction and food preferences.

6. Evaluate and use a patient's dietary history to plan nutritional care and assist in writing individual therapeutic diet menus according to established guidelines.

7. Accomplish supply and subsistence management control and other administrative duties.

8. Advise dietician on equipment status, maintenance, and adequacy; personnel training; and operational efficiency.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: EDUCATION & TRAINING MANAGEMENT

AFSC(S): 3F2X1, Education and Training
8B000, Military Training Instructor
8B100, Military Training Leader

PROGRAM GOAL: The goal of the **CCAF Education & Training Management Degree Program** is to prepare graduates for rewarding careers as professionals in the Education & Training Management field. This program prepares students to develop, administer and manage training programs and provide effective advice and guidance to assist others in reaching their educational and professional goals. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate values, beliefs and attitudes that inspire others to achieve their educational and professional goals.

2. Lead groups and individuals in development and implementation of short and long-range education and training goals.

3. Articulate a vision consistent with a well-developed education and training management program.

4. Demonstrate a working knowledge of principles, policies and procedures of Air Force education and training programs.

5. Sequence learning objectives, select instructional design, methods and media, and identify resources to meet student education and training needs.

6. Review and monitor training progress, identify problem areas, determine causes, provide effective counseling and initiate appropriate corrective action for substandard performance.

7. Manage the various uses of technology for instructional and administrative purposes in an educational setting.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: ELECTRONIC SYSTEMS TECHNOLOGY

AFSC(S): 1C8X1, Ground Radar Systems
1C8X2, Airfield Systems
2M0X1, Missile and Space Systems Electronic Maintenance
3D1X3, RF Transmission Systems
3D1X7, Cable & Antenna Systems

PROGRAM GOAL: The goal of the **CCAF Electronic Systems Technology Degree Program** is to prepare graduates for successful careers in a variety of occupations within the field of electronics. This program provides graduates a solid foundation of knowledge and wide range of general and specific skills focused on the theory and practice of electronic systems operations and maintenance with application emphasis in communication systems. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Remove, repair and replace assemblies, subassemblies and electronic components.

2. Isolate malfunctions by using operational troubleshooting and testing techniques, software controlled diagnostics, logic diagrams and equations, visual inspections, voltage checks, and other tests using electronic test equipment.

3. Repair systems according to technical orders, manufacturer's handbooks and local procedures.

4. Check and inventory equipment and project material for serviceability.

5. Identify corrosion problems and accomplish corrective measures.

6. Maintain inspection and maintenance records and complete maintenance forms.

7. Operate and perform maintenance on tools, test equipment and auxiliary equipment.

8. Ensure mechanical or electrical installations and maintenance techniques meet technical standards, specifications and engineering directives.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: EMERGENCY MANAGEMENT

AFSC(S): 1C3X1, Command Post
3E9X1, Emergency Management

PROGRAM GOAL: The goal of the **CCAF Emergency Management Degree Program** is to prepare graduates for careers in the growing and challenging field of emergency operations and management. Graduates gain professional knowledge and skills required to effectively respond to disasters at the federal, state and local levels, reduce loss of life and property, minimize suffering, and prepare the Air Force and other government agencies to address the consequences of terrorism, natural disasters and catastrophic events. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Research and assist in developing disaster preparedness plans, including measures to minimize casualties and damage from natural disasters, major accidents, wartime operations, and military operations other than war.

2. Coordinate the response to large-scale emergencies requiring the activation of the local Emergency Management System and Emergency Operations Center.

3. Assist local governments with emergency and disaster response.

4. Establish priorities and adjudicate conflicting demands for support during times of emergency.

5. Conduct disaster preparedness and hazardous material emergency response training.

6. Establish and manage an integrated conventional and Nuclear-Biological-Chemical (NBC) detection, warning and reporting system.

7. Supervise teams engaged in monitoring and contamination control operations including detection, identification, and measurement and reporting of hazardous material contamination.

8. Prepare for an effective peacetime response to the use of Weapons of Mass Destruction (WMD).

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: ENTOMOLOGY

AFSC(S): 3E4X3, Pest Management

PROGRAM GOAL: The goal of the **CCAF Entomology Degree Program** is to prepare graduates for rewarding careers in the field of pest management. The program provides graduates with the knowledge and skills necessary to meet the community's health needs through the effective control of environmental health hazards. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

9. Comply with safety and environmental regulations for hazardous materials.

10. Perform planning activities, evaluate proposed work to determine resource requirements, and inspect facilities to plan and estimate jobs.

3. Conduct pest management surveys and determine pest management actions needed to control and prevent infestations of plant and animal pests.

4. Select chemicals and operate pesticide dispersal equipment adhering to applicable laws and directives.

5. Provide technical assistance to building managers on pest preventative and control practices.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: EXPLOSIVE ORDNANCE DISPOSAL

AFSC(S): 3E8X1, Explosive Ordnance Disposal

PROGRAM GOAL: The goal of the **CCAF Explosive Ordnance Disposal Degree Program** is to provide extensive knowledge and skills enabling graduates to instruct base and community members on ordnance recognition and improvised explosive device countermeasures. Graduates are prepared to provide a hazardous-materials (HAZMAT) response capability for incidents involving explosive ordnance. The skills learned and applied are valued in specialized Joint Service Task Force operations. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Conduct area reconnaissance for detecting and identifying unexploded ordnance.

2. Estimate the depth of buried explosive ordnance by using probing techniques or detection equipment.

3. Remove earth and debris surrounding unexploded ordnance using mechanical tools, hand tools and appropriate equipment.

4. Demonstrate the ability to neutralize, seal leaks, decontaminate, package and dispose of chemical, biological, incendiary, and nuclear ordnance.

5. Safely remove and dispose of explosives, explosive devices and explosive ordnance rendered hazardous due to accident or incident, to include, ejection and catapult devices, squibs, explosive bolts, warheads, bombs, rockets, guided missiles, guns and gun ammunition.

6. Inventory, store and maintain supplies, tools and equipment relative to explosive ordnance disposal.

7. Conduct explosive ordnance ancillary training programs for disaster teams and other agencies.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: FINANCIAL MANAGEMENT

AFSC(S): 6F0X1, Financial Management & Comptroller

PROGRAM GOAL: The goal of the **CCAF Financial Management Degree Program** is to prepare graduates for productive careers as financial services managers and advisors. This program provides graduates with a firm foundation as professional financial leaders possessing skills necessary for successful careers in business, industry, and government. Graduates learn and apply the fundamental financial management and decision-making skills necessary to effectively serve as vital members of a management team. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Provide exceptional customer service through a variety of processes and actions to include, interpreting and supplementing financial directives; preparing, auditing, and processing pay transactions and travel claims; estimating travel costs; and accounting for cash, checks and other negotiable instruments.

2. Determine propriety of funding; certify fund availability; and schedule, prepare, verify, and submit financial accounting reports.

3. Analyze accounting reports and financial data to identify trends for evaluating effectiveness and efficiency of organizational activities, and develop and implement factors for improved planning, programming and budgeting.

4. Demonstrate a working knowledge of financial and comptroller management through planning, designing, advising and facilitating organizational and functional process improvement using integrated process teams.

5. Prepare budgets, financial plans, and execution reports to include analyzing execution of financial plan, identifying and explaining variances, and preparing narrative justification to support financial requirements.

6. Use and manage computer software programs and technology designed to support personnel financial records, policies and procedures relating to financial requirements, and overall organizational structure.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: FIRE SCIENCE

AFSC(S): 3E7X1, Fire Protection

PROGRAM GOAL: The goal of the **CCAF Fire Science Degree Program** is to prepare graduates for careers as firefighters for municipal, industrial, state, and federal fire departments. This program prepares students to identify and mitigate emergencies in order to preserve life and property. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of the program students will be able to:

1. Demonstrate effective fire prevention, fire fighting, rescue, first aid and hazardous material responses.

2. Demonstrate a breadth and depth of knowledge in industrial hygiene, safety, accident prevention and ergonomics.

3. Demonstrate in-depth knowledge of fire safety regulatory compliance standards at the state and federal levels.

4. Demonstrate knowledge of fire inspection techniques and various types of basic fire protection systems.

5. Identify fire and safety problems relative to property inspections.

6. Investigate and identify causes of fire to include arson, structural design flaws and electrical faults.

7. Conduct fire prevention awareness and educational training.

8. Assume supervisory/management positions in fire departments and serve as fire safety specialists in industry.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: HEALTH CARE MANAGEMENT

AFSC(S): 4A0X1, Health Services Management

PROGRAM GOAL: The goal of the **CCAF Health Care Management Degree Program** is to prepare students to work in administrative support areas in a health care setting. This program enables students to apply the practical skills and knowledge required to plan, manage, and perform health services activities. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assist in the planning, organizing, and coordination of health care delivery at hospitals, outpatient clinics, medical and dental offices and other health care facilities.

2. Manage patient administration duties and appointments, record patient treatment information and maintain clinical and outpatient medical records.

3. Demonstrate knowledge of medical terminology, anatomy/physiology and medical ethics.

4. Prepare patient-related correspondence, medical expense reports and vouchers.

5. Manage release of medical information within limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

6. Oversee quality assurance and risk management programs to maximize patient safety.

7. Assist health care providers with basic medical coding and medical transcription.

8. Collect and organize health care statistics to assist in the medical treatment facility's population health initiatives.

9. Demonstrate understanding of practice and theory of health care policy and regulation.

10. Perform and manage medical information technology functions and activities.

11. Educate beneficiaries on insurance plans, costs/deductibles, and coverage.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: HISTOLOGIC TECHNOLOGY

AFSC(S): 4T0X2, Histopathology

PROGRAM GOAL: The goal of the **CCAF Histologic Technology Degree Program** is to prepare graduates for rewarding careers in the healthcare profession as Histologic Technicians. Graduates are prepared to assist in the collection, preparation, and recording of tissue specimens obtained for pathological evaluation. The program enables graduates to effectively work together with laboratory personnel to provide doctors with vital information for making a diagnosis. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Prepare surgical, cytological, and autopsy tissue specimens.

2. Submit finished tissue slides to the pathologist along with the pertinent data received from the originating agency and gross examination by the pathologist.

3. Serve as technical assistants to the pathologist during autopsies.

4. Assist the pathologist in opening abdominal, pleural, and cranial cavities; examining various organs; and procuring and handling specimens from the organs.

5. Prepare remains for transfer to the mortuary, to include cleaning and closing of all incisions, and labeling and storing autopsy specimens until the pathologist makes the final examination.

6. Maintain all histopathology records and complete records of all surgical, cytological, and autopsy specimens.

7. Inspect and maintain all surgical and autopsy instruments, to include sharpening microtome blades, scissors, knives and chisels.

8. Continually evaluate current and new procedures for proper implementation and effectiveness.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: HOSPITALITY AND FITNESS MANAGEMENT

AFSC(S): 3M0X1, Services
8A200, Enlisted Aide

PROGRAM GOAL: The goal of the **CCAF Hospitality and Fitness Management Degree Program** is to prepare graduates for careers as hospitality and fitness professionals in a growing and ever evolving industry. The degree program fosters "a path to excellence" with a unique combination of culinary, fitness, hotel, event, and recreation management skills. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, manage, and supervise food service and lodging operations.

2. Demonstrate the basic culinary and customer service skills needed to advance in the hospitality industry.

3. Plan, prepare, arrange, and conduct social functions and activities such as receptions, parties, dinners, sporting events, and tournaments.

4. Demonstrate a thorough understanding of physical fitness and exercise principles as it pertains to compliance with Air Force Fitness Standards.

5. Conduct fitness, sports, and individual wellness programs with emphasis on developing healthy lifestyles, promoting esprit de corps, and enhancing quality of life.

6. Skillfully apply the principles of organizational management, human resource management, diversity leadership, and financial management.

7. Meet the varied demands of the hospitality profession in both military and civilian environments.

8. Demonstrate professional and technical competence in preparation for leadership responsibilities within the hospitality industry.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: HUMAN RESOURCE MANAGEMENT

AFSC(S): 3S0X1, Personnel
8F000, First Sergeant
8R000, Recruiter (Enlisted Accessions)
8R200, Second Tier Recruiter
8R300, Third Tier Recruiter

PROGRAM GOAL: The goal of the **CCAF Human Resource Management Degree Program** is to prepare graduates for productive careers as Human Resource Management specialists. This program provides graduates with an understanding of the issues faced by human resource administrators, and others in the employee management field. Graduates gain fundamental skills in the areas of employment, recruiting, training, development, employee and community relations, and strategic planning. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate the high ethical standards required within the Human Resource profession.

2. Effectively advise and provide in-depth training for individuals on personnel programs, to include, staffing, assignments, promotions, employee benefits, career progression and professional development.

3. Demonstrate a working knowledge of human resource management through planning, designing, advising and facilitating organizational and functional process improvement using integrated process teams.

4. Manage and utilize computer software programs and technology designed to support personnel records, policies and procedures relating to administrative communications, correspondence, general office management and overall organizational structure.

5. Understand and utilize the organizational skills required to develop and maintain effective recruiting, publicity and community relations programs.

6. Develop and implement rewards, recognition and retention strategies, programs and presentations.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: HUMAN SERVICES

AFSC(S): 3S1X1, Military Equal Opportunity
5R0X1, Chaplain Assistant
8C000, Airman & Family Readiness Center RNCO

PROGRAM GOAL: The goal of the **CCAF Human Services Degree Program** is to prepare graduates to perform as human services practitioners committed to helping those in need while providing social services for individuals, families, groups, organizations and communities. Program emphasis is placed on methods of intervention, core helping skills, therapeutic communications, and service to others. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of the program students will be able to:

1. Develop and manage human relations programs that promote an environment of equity, dignity, and respect regardless of race, culture, ethnicity, national origin, disability, age, gender, or sexual orientation.

2. Work with a diverse population of individuals and groups, particularly those who are vulnerable due to emotional and social challenges.

3. Provide advice, consultation, and education with emphasis on reinforcing clients' strengths, augmenting their ability to plan effectively, and enhancing their readiness capabilities in both military and civilian settings.

4. Effectively apply conflict resolution, facilitation, and crisis intervention skills.

5. Understand the effects of prejudice, social inequality, and institutionalized discrimination upon the lives and opportunities of constituent communities.

6. Identify and connect clients with available resources and services provided by local human services agencies.

7. Function effectively as client advocates; analyzing social support needs and developing client goals.

8. Assist individuals and families during contingency operations to include developing advance plans and preparations for deployments, extended separations, emergencies, and natural disasters.

9. Prepare and maintain public relations materials and professional information resources.

10. Understand and respect cultural differences as well as religious sensitivities that may affect human relations, social behavior, and beliefs.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: INFORMATION SYSTEMS TECHNOLOGY

AFSC(S): 3D0X2, Cyber Systems Operations
3D0X3, Cyber Surety
3D1X1, Client Systems
3D1X2, Cyber Transport Systems
3D1X4, Spectrum Operations

PROGRAM GOAL: The goal of the **CCAF Information Systems Technology Degree Program** is to prepare graduates for a challenging career in the information technology career field. The program builds a solid foundation of knowledge and skills for the effective use of computers and associated equipment to process, manage and communicate information. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Operate process, manage, inspect and troubleshoot industry-standard communications and electronic systems.

2. Provide physical and operational security for a wide variety of Communication-Computer Systems.

3. Perform preventive maintenance on communications and electronic equipment.

4. Employ industry-standard systems analysis techniques to manage and control operational processes.

5. Assume supervisory/management positions responsible for a wide variety of communication-computer systems that are used to process, manage, and communicate information.

6. Demonstrate proficiency for analyzing and developing information systems.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: Intelligence Studies and Technology

AFSC(S): 1A8X1, Airborne Cryptologic Language Analyst
1A8X2, Airborne Intelligence, Surveillance, and Reconnaissance Operator
1N0X1, Operations Intelligence
1N1X1A/C, Geospatial Intelligence Analyst/Targeteer
1N2X1A/B, Electronic/Communications Signals Intelligence
1N3X1, Cryptologic Language Analyst
1N4X1A/B, Digital Network Analyst/Analysis and Production
8D000, Strategic Debriefer
8D100, Language and Culture Advisor
9L000, Interpreter/Translator

PROGRAM GOAL: The goal of the **CCAF Intelligence Studies and Technology Degree Program** is to prepare students for careers in the various Intelligence disciplines. The program provides graduates with the basic skill sets involved in collecting, producing, and distributing data that have strategic, tactical, or technical value from an intelligence viewpoint, to include functions necessary to maintain information security and language translation and interpretation. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of the program students will be able to:

1. Plan, organize, and implement intelligence activities.

2. Understand the relationships between intelligence community organizations and their roles in government and decision making.

3. Apply detailed knowledge in areas such as geography, international events, and foreign government, cultures and languages in support of intelligence-related activities.

4. Employ the fundamentals of operational and communications security.

5. Properly safeguard restricted material and equipment.

6. Process and disseminate information using enhanced written and oral communications skills.

7. Perform exploitation and analysis on a wide range of intelligence information to include imagery and geospatial data, signal emissions, communications, and all-source data.

8. Effectively use intelligence systems, software, and databases to produce timely and actionable intelligence information.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: INSTRUCTOR OF TECHNOLOGY & MILITARY SCIENCE

AFSC(S): 8T000, Professional Military Education Instructor
AF and other service enlisted personnel who are assigned to CCAF affiliated schools teaching CCAF degree-applicable courses except 1T0X1, SERE Instructor.

PROGRAM GOAL: The goal of the **CCAF Instructor of Technology and Military Science Degree Program** is to prepare graduates for challenging and meaningful careers in the vocational, occupational, and community college teaching professions. Students learn and apply the fundamental principles of effective teaching enabling them to plan, develop, administer and evaluate learning experiences that meet the diverse needs of adult learners. The program requires completion of an approved instructional methodology course and a CCAF teaching internship. Students experience optimal intellectual growth and professional development building a solid foundation for graduates to pursue community college and vocational/occupational teacher certification. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of the program students will be able to:

1. Demonstrate knowledge of the major principles of teaching, teaching strategies, learning theory, evaluation techniques, classroom management, student differences, and counseling.

2. Apply the fundamental principles of effective curriculum development, including planning and developing student-centered learning objectives, lesson plans, testing and evaluation instruments, and multi-media instructional aids.

3. Prepare and manage the classroom environment, integrate technology into the learning process, and match instructional tools and resources to satisfy instructional needs.

4. Apply the principles, techniques, and methods of instruction in a safe and effective learning environment.

5. Effectively evaluate and analyze student-learning outcomes in support of curriculum improvement and development.

6. Provide feedback and academic counseling to students using a variety of formal and informal assessments.

7. Demonstrate subject matter proficiency in a discipline applicable to a CCAF associate in applied science degree program.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: LOGISTICS

AFSC(S): 2F0X1, Fuels
2G0X1, Logistics Plans
2S0X1, Materiel Management
4A1X1, Medical Materiel

PROGRAM GOAL: The goal of the **CCAF Logistics Degree Program** is to prepare graduates for employment as skilled logistics technicians able to manage, administer, and operate supply systems and activities. Graduates will understand the principles of logistics and the role of the logistics process in national and multi-national business and government activities. The program will enable students to develop analytical and problem-solving skills, and recognize areas for improvement to gain a logistical advantage in the military and civilian communities. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Describe the increasing significance of logistics and its impact on both costs and service.

2. Design, develop, analyze, and operate varied supply systems

3. Comprehend and apply the operating and managing principles of materiel storage warehousing.

4. Inspect, review and evaluate various materials and property for compliance with policies, procedures, and directives.

5. Process computer transactions to ensure proper billings, identify system inefficiencies, perform trend analysis, and recommend corrective actions to improve operations.

6. Determine and establish proper stock control levels for inventory control.

7. Analyze, interpret, and utilize management data to accurately plan for supply, demand, and order fulfillment.

8. Prepare, analyze and evaluate reports and policy data to ensure appropriate prioritization of support requirements.

9. Provide exceptional customer service and support both domestically and worldwide.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MAINTENANCE PRODUCTION MANAGEMENT

AFSC(S): 2R1X1, Maintenance Management Production
2R0X1, Maintenance Management Analysis
2T3X7, Vehicle Management and Analysis
3E6X1, Operations Management

PROGRAM GOAL: The goal of the **CCAF Maintenance Production Management Degree Program** is to prepare graduates to conduct operational research, special studies, and statistical analysis. The graduate will be prepared to make independent investigations and exercise analytical judgment in recommending changes in complex factors affecting work operations. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Design systems, procedures, forms, and work measurements to effect methods improvement, work simplification, improvement of manual processing, or for adaption to computer processing.

2. Identify work elements in detail and develop complex flow charts, work standards and work method improvements.

3. Improve operations, decrease turnaround times, streamline work processes, and work cooperatively to provide quality seamless customer service.

4. Review output reports from Management Information Systems. Analyze for patterns and trends, prepare reports and graphs depicting results of these analyses, and recommend appropriate follow-up actions.

5. Analyze equipment and material failures, identifying causes and responsibility, and recommends corrective action and prevention procedures.

6. Analyze obsolete formula computations and determine economic point of replacement for each equipment type and year.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: MANAGEMENT ENGINEERING TECHNOLOGY

AFSC: 3S3X3, Manpower

PROGRAM GOAL: The goal of the **CCAF Management Engineering Technology Degree Program** is to prepare graduates for productive careers as Management Engineering Technology specialists. This program provides graduates with an understanding of the issues faced by human resource administrators, industrial relations managers, and others in the management engineering field. Graduates gain fundamental skills in the areas of organizational development, benchmarking, consultation, process improvement, performance measurement development, cost analysis. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

7. Evaluate organizational structures (mission, structure, and workload) for effectiveness and efficiency.

8. Develop and maintain standardized organizational structures and manpower standards.

9. Conduct reengineering studies to define defendable manpower requirements and build statistical equations to meet future programming needs.

10. Allocate and control position mix among types of personnel (military, civilian, and contractors) to ensure mission accomplishment and most efficient and effective use of resources.

11. Prepare manpower change documents, reports, and date extracts.

12. Manage performance through planning, designing, advising, and facilitating organizational and functional process improvement through integrated process teams, benchmarking, process mapping, work measurements, modern business practices, and organizational designs.

13. Use industrial engineering and computer techniques to facilitate work measurement and process improvement.

14. Assist individuals and organizations in process improvement programs.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MASS COMMUNICATIONS

AFSC(S): 3N0X2, Broadcast Journalist
3N0X5, Photojournalist

PROGRAM GOAL: The goal of the **CCAF Mass Communications Degree Program** is to prepare graduates for challenging and rewarding careers in media and public relations. The program emphasizes an understanding of print, broadcast and photo-journalism, to include scripting, writing, editing, publishing, and other journalistic and public relations skills and techniques. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Establish and maintain a Unit Public Affairs Representative Program (UPAR) to include biographies, fact sheets, editorial policies, and local stylebook supplements.

2. Adhere to copyright and reproduction standards, obtain copyright permission, disseminate copyright protected products, and comply with regulations on libel and slander, plagiarism, Privacy Act, Freedom of Information Act (FOIA), Security Accountability Policy and Propriety Review (SAPP), and Health Insurance Portability and Accountability Act (HIPAA).

3. Understand and apply principles of communication theory and techniques in response to on- and off-base crises and other emergency operations related events, base support operations, public requests for information, and official complaints.

4. Determine the best medium and message content to reach a target audience, and develop, conduct, and analyze coordinating multimedia programs.

5. Maintain long-and short-range planning products for public affairs programs to include quality programs, commander's call programs, commander's access channel, Joint Hometown News Program, and Action Lines.

6. Conduct media operations to include interacting with the media, supporting embedded media, managing media contacts, conducting media training, and arranging media interviews, travel and escort.

Continued for 3N0X2, Broadcast Journalist

7. Identify facts and terminology associated with various multimedia production equipment to include microphones, lighting, audio consoles, teleprompters, vectorscopes, green/blue screens, cameras and camera stabilization devices.

8. Demonstrate knowledge of media production to include production planning, proper voice and diction, on-camera skills, interviewing, and various lighting and video shooting techniques.

9. Be able to produce and edit written scripts for various types of broadcast media.

Continued for 3N0X5, Photojournalist

7. Demonstrate knowledge of digital and studio photography to include posing, ratios, background, special effects, and lighting techniques and identify and operate various imagery production related devices.

8. Understand the fundamentals of photography principles and effects to include light sources, exposure, optics, filters and composition.

9. Be able to properly write and edit for news, features, sports, series, commentaries, captions, headlines, speeches and various other written products.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MECHANICAL AND ELECTRICAL TECHNOLOGY

AFSC(S): 2M0X3, Missile and Space Facilities
3E0X1, Electrical Systems
3E0X2, Electrical Power and Production
3E1X1, Heating, Ventilation, Air Conditioning and Refrigeration
3E4X1, Water and Fuel Systems Maintenance

PROGRAM GOAL: The goal of the **CCAF Mechanical and Electrical Technology Degree Program** is to prepare graduates to install, maintain and inspect operational systems in a variety of maintenance occupations. This program provides graduates a solid foundation of knowledge and wide range of general and specific skills focused on the practice of electronic and dispensing system operations. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Diagnose malfunctions and repair mechanical, electrical and electronic circuitry using visual and auditory senses, test equipment, systems knowledge and technical publications.

2. Operate high and low voltage switches, and other controls on switchgear and distribution panels.

3. Maintain electrical, hydraulic, pneumatic systems, and other electronic components.

4. Ensure compliance with safety and environmental regulations for various hazardous materials.

5. Solve complex maintenance problems by studying layout drawings, wiring and schematic drawings, and by analyzing construction and operating characteristics.

6. Troubleshoot malfunctions using technical orders, manufacturers' handbooks, local procedures, codes and directives.

7. Inspect and inventory equipment and project material for serviceability.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE TITLE: MEDICAL LABORATORY TECHNOLOGY

AFSC(S): 4T0X1, Medical Laboratory

PROGRAM GOAL: The goal of the **CCAF Medical Laboratory Technology Degree Program** is to prepare graduates to perform clinical laboratory procedures used in the diagnosis, treatment and prevention of disease of patients in a health care setting. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate knowledge of medical terminology, anatomy/physiology, and medical ethics.

2. Collect samples from patients for analysis while demonstrating principles of sterilization and disinfection.

3. Perform analysis of blood, blood components, bacteria, pathogenic fungi, parasites and other organisms of medical significance.

4. Operate and maintain laboratory equipment utilizing proper quality control and safety procedures.

5. Perform routine clinical laboratory procedures adhering to acceptable quality control limits under the supervision of a Clinical Lab Officer.

6. Employ knowledge of Hematology, Chemistry, Immunhematology, and Microbiology to provide scientific information needed in diagnosis and treatment of disease.

7. Report lab findings to health care providers and ensure patient confidentiality is preserved.

8. Manage release of medical information within limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MENTAL HEALTH SERVICES

AFSC(S): 4C0X1, Mental Health Service

PROGRAM GOAL: The goal of the **CCAF Mental Health Services Degree Program** is to prepare graduates for challenging careers in the Mental Health Services field. Graduates are prepared to assist in the assessment and treatment of patients requiring mental health care and support mental health services in psychiatry, psychology, social work, family advocacy, substance abuse prevention and rehabilitation, and mental health programs. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Conduct and assist in the assessment, treatment, rehabilitation, and disposition planning of mental health patients.

2. Establish, maintain, and evaluate specific mental health, family advocacy, and substance abuse training programs.

3. Plan and supervise mental health service activities by coordinating with other agencies regarding specified care, treatment, prevention, rehabilitation, and administrative functions.

4. Conduct and assist in group and individual counseling sessions.

5. Care for patients in combat and disaster casualty care situations managing acute and post-traumatic stress situations.

6. Compile and prepare medical and administrative reports based on statistical data and program assessments.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: METALS TECHNOLOGY

AFSC(S): 2A7X1, Aircraft Metals Technology

PROGRAM GOAL: The goal of the **CCAF Metals Technology Degree Program** is to prepare graduates for productive careers in the manufacturing and fabrication industry. Graduates are prepared to perform varied functions, with special emphasis placed on managing, performing inspections, maintenance, fabrication, measurement theory, and manufacturing processes. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate a thorough understanding of the theories of design, welding, heat treatment and machining operations of precision tools, components, and assemblies for aerospace weapon systems and related support equipment.

2. Design, manufacture, and modify special precision tools, gauges, dies and fixtures, to facilitate metal working operations.

3. Perform metals technology mathematical shop calculations, determine cutting speeds and settings, welding processes, and preheat and postheat requirements.

4. Weld, braze, solder, and heat-treat metals.

5. Use manual and computer numerical controlled (CNC) metal working machines, mills and lathes to manufacture and repair cams, gears, slots and keyways for aircraft components and support equipment.

6. Writes programs for CNC machines using manual and Computer Aided Design-Computer Aided Manufacturing (CAD-CAM) methods

7. Use metal working equipment, tools and supplies to produce surface finish specifications for components and ensure the components are within wear tolerances using precision measuring devices.

8. Inspect and maintain work center tools and machinery utilizing lock-out/tag-out procedures.

9. Use and dispose of hazardous waste and materials according to environmental standards.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: METEOROLOGY

AFSC(S): 1W0X1-Weather
1W0X2-Special Operations Weather

PROGRAM GOAL: The goal of the **CCAF Meteorology Degree Program** is to prepare graduates for careers in the meteorological sciences. The program provides a comprehensive education in atmospheric weather and space environmental studies. Studies and practical training enable graduates to evaluate meteorological conditions utilizing related equipment and to disseminate atmospheric and space environmental information and forecasts. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Operate atmospheric and space-sensing instruments, weather radar and meteorological computer workstations and utilize satellite imagery and products provided by military, national, and international weather agencies.

2. Collect, analyze and disseminate atmospheric and space environmental information and forecasts.

3. Observe and evaluate current environmental conditions for recording and transmittal of surface weather and space environment observations.

4. Forecast and brief local area, mesoscale and synoptic weather features, and severe weather potential.

5. Issue advisories, watches and warnings to alert users of dangerous or inclement weather.

6. Use a detailed understanding of the atmosphere and space environment to translate raw data into useful military intelligence information.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: MICROPRECISION TECHNOLOGY

AFSC(S): 2P0X1 – Precision Measurement Equipment Laboratory

PROGRAM GOAL: The goal of the **CCAF Microprecision Technology Degree Program** is to prepare graduates for successful careers in a variety of occupations within the field of electronics. This program provides graduates a solid foundation of knowledge and wide range of general and specific skills focused on the theory and practice of electronic systems operations and maintenance with application emphasis in communication systems. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Remove, repair and replace assemblies, subassemblies and electronic components.

2. Isolate malfunctions by using operational troubleshooting and testing techniques, software controlled diagnostics, logic diagrams and equations, visual inspections, voltage checks, and other tests using electronic test equipment.

3. Repair systems according to technical orders, manufacturer's handbooks and local procedures.

4. Check and inventory equipment and project material for serviceability.

5. Identify corrosion problems and accomplish corrective measures.

6. Maintain inspection and maintenance records and complete maintenance forms.

7. Operate and perform maintenance on tools, test equipment and auxiliary equipment.

8. Ensure mechanical or electrical installations and maintenance techniques meet technical standards, specifications and engineering directives.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MISSILE AND SPACE SYSTEMS MAINTENANCE

AFSC(S): 2M0X2, Missile and Space Systems Maintenance

PROGRAM GOAL: The goal of the **CCAF Missile and Space Systems Maintenance Degree Program** is to prepare graduates for productive careers in the missile and space industry. This program equips graduates with the fundamental skills necessary to service and maintain missiles, boosters, payloads, research and development systems, environmental blast doors and valves, support equipment, and special purpose vehicles. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Perform missile maintenance actions at support base, and launch, launch control, and storage facilities ensuring compliance with technical data, Air Force Instructions, and international treaties.

2. Prepare missile and launch facilities for depot level repair, hardness survivability, simulated electronic launch, operational test launches, and follow-on tests and evaluations.

3. Transport and handle nuclear reentry systems, missile guidance sets, propulsion system rocket engines, missile downstages, and secondary ordnance devices for dispatch to launch facilities.

4. Perform preventive maintenance inspections and electrical tests on missiles, missile components, launch facilities, launch control centers, special purpose vehicles, support vehicles/equipment, and hydraulic, pneudraulic and pneumatic systems.

5. Assemble, install and test research and development systems such as laser, electromagnetic launcher, energetic materials, propulsion, high-powered microwave, satellite, telescope, and pointing and tracking equipment.

6. Practice safety procedures when handling hazardous waste, nitrogen, liquid fuels, oxidizers, and ordnance devices.

7. Prepare missiles and propulsion system rocket engines for shipping and receiving in support of depot maintenance.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: MUNITIONS SYSTEMS TECHNOLOGY

AFSC(S): 2W0X1, Munitions Systems

PROGRAM GOAL: The goal of the **CCAF Munitions Systems Degree Program** is to prepare graduates for careers as managers and technicians within the munitions industry. This program is designed to develop fundamental skills enabling graduates to develop and implement munitions material management concepts and procedures and comply with explosive, missile, ground safety, security and environmental directives and practices. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Comprehensively test, assemble, disassemble, maintain and modify munitions and associated handling equipment.

2. Store, handle and transport munitions.

3. Comply with missile, explosive and general safety measures, weapons systems safety rules, and technical publications and orders.

4. Operate and maintain automated data processing equipment (ADPE) to perform munitions accounting, computations and research.

5. Perform weapons inventory and verification procedures using inventory management system.

6. Establish and evaluate performance standards, maintenance controls, and work procedures to include procedures for assembling, renovating and storing munitions.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: MUSIC

AFSC (S): 3N1X1 – Regional Band
3N2X1 – Premier Band

PROGRAM GOAL: The goal of the **CCAF Music Degree Program is** to provide a comprehensive educational program that preserves the highest standards of our cultural heritage and prepares graduates for professional career opportunities in the varied field of music and the performing arts. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate basic music knowledge from the perspective of various cultural heritages.

2. Demonstrate an awareness and appreciation of the musical arts.

3. Present music in a manner that promotes it as an art form.

4. Plan, organize, direct and inspect band activities.

5. Analyze local musical requirements and provide appropriate services.

6. Plan and schedule such activities as rehearsals, drills, training, classes and performances.

7. Perform minor maintenance on musical equipment.

8. Express themselves through musical knowledge and develop new approaches to instrument playing.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: NONDESTRUCTIVE TESTING TECHNOLOGY

AFSC(S): 2A7X2, Nondestructive Inspection

PROGRAM GOAL: The goal of the **CCAF Nondestructive Testing Technology Degree Program** is to prepare graduates for productive careers in a variety of fields including aerospace, petroleum, chemical, automotive, metals, advanced composites, nuclear, marine, construction, and utilities. Graduates are prepared to perform object and material examinations utilizing nondestructive methods from six major areas: radiography, ultrasonics, and eddy current, magnetic particle, liquid penetrant and visual inspection. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Determine the appropriate nondestructive test method, and prepare fluids and parts for inspection.

2. Perform nondestructive inspection on structures, components, and systems to detect flaws such as cracks, delaminations, voids, processing defects and heat damage.

3. Interpret nondestructive test results, and provide information and feedback about defects to repair, design, and maintenance authorities.

4. Obtain results through testing, and analyze wear metal traces in engine lubricating oil and other fluid samples.

5. Establish radiation areas for radiographic operations, compute and monitor personnel exposure areas for radiographic operations, and monitor personnel exposure data.

6. Determine metallurgical information of components according to temper, conductivity and associated factors.

7. Operate, maintain, and inspect nondestructive equipment, and perform operator maintenance and service inspections on shop equipment and tools.

8. Accomplish lock out and tag out procedures prior to maintenance on equipment.

9. Ensure compliance with safety standards, to include the handling and disposal of hazardous waste materials.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE TITLE: NUCLEAR MEDICINE TECHNOLOGY

AFSC(S): 4R0X1A, Diagnostic Imaging (Nuclear Medicine)

PROGRAM GOAL: The goal of the **CCAF Nuclear Medicine Technology Degree Program** is to prepare graduates to perform basic clinical diagnosis and facilitate patient care in a health care setting through the practice of nuclear medicine technology. Graduates will utilize the nuclear properties of radioactive and stable nuclides to make diagnostic evaluation. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Prepare and administer tracer radiopharmaceuticals to patients and perform diagnostic procedures on various human organ systems.

2. Provide therapy with unsealed radioactive sources.

3. Apply the principles of radiation protection for the patient, self, and others.

4. Apply the knowledge of anatomy, positioning, and radiographic techniques to show anatomical structures.

5. Recognize the needs of the patient are first and foremost, and possess the knowledge and skills to attend to those needs.

6. Use quality control measures to document the operations related to the disposition of radioactive materials.

7. Maintain emergency response carts, recognize emergency patient conditions, and initiate lifesaving first aid and basic life support procedures.

8. Apply critical thinking skills and effectively communicate with patients and colleagues in a professional and humanistic manner.

9. Manage the release of medical information within the limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: NUCLEAR WEAPONS SYSTEMS TECHNOLOGY

AFSC(S): 2W2X1, Nuclear Weapons

PROGRAM GOAL: The goal of the **CCAF Nuclear Weapons Systems Degree Program** is to prepare graduates for careers as managers and technicians within the nuclear industry. This program is designed to develop fundamental skills enabling graduates to develop and implement nuclear weapons material management concepts and procedures and comply with nuclear, explosive, missile, ground safety, security and environmental directives and practices. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Comprehensively test, assemble, disassemble, maintain and modify nuclear weapons and associated handling equipment.

2. Store, handle and transport nuclear weapons.

3. Comply with nuclear, missile, explosive and general safety measures, weapons systems safety rules, and technical publications and orders.

4. Operate and maintain automated data processing equipment (ADPE) to perform nuclear weapons accounting, computations and research.

5. Perform weapons inventory and verification procedures using inventory management system.

6. Establish and evaluate performance standards, maintenance controls, and work procedures to include procedures for assembling, renovating and storing nuclear weapons.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: OCCUPATIONAL SAFETY
AFSC(S): 1S0X1, Safety

PROGRAM GOAL: The goal of the **CCAF Occupational Safety Degree Program** is to provide trained professionals for the demanding field of Occupational Safety. This program prepares students to implement and manage safety programs and provides valuable safety guidance used to enhance the welfare of employees and their families. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, organize and direct safety activities.

2. Perform inspections, surveys, and program evaluations of areas and operations to identify regulatory compliance, risk to personnel and resources, and to assess integration and efficacy of risk management approaches, hazard controls, and safety and health work practices.

3. Prepare and conduct briefings, meetings, training classes, and associated functions related to the field of safety.

4. Maintain close liaison with federal, state, municipal, and private agencies sharing common safety concerns.

5. Describe the roles, responsibilities and policies of the Occupational Safety and Health Administration (OSHA), National Institute for Occupational Safety and Health (NIOSH), Environmental Protection Agency (EPA), and other federal agencies that conduct inspections and enforce safety, health, and environmental standards; as well as to identify and apply safety, health, and environmental regulatory requirements.

6. Analyze and discriminate between alternative methods of compliance with current safety and health standards and necessary hazard mitigation.

7. Manage all facets of incident investigations with special emphasis on hazard and risk control measures, prevention strategies, and the interface with the legal system.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: OPHTHALMIC TECHNICIAN

AFSC(S): 4V0X1/S, Ophthalmic

PROGRAM GOAL: The goal of the **CCAF Ophthalmic Technician Degree Program** is to prepare graduates for rewarding careers as paraprofessionals in the Ophthalmic field. This program prepares graduates to perform diagnostic testing and measurements used by ophthalmologists and optometrists in evaluating and treating patients with eye diseases. Graduates are able to provide direct patient care in private offices, clinics, and surgery centers. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assist the health care provider in the examination and treatment of patients by performing visual tests and procedures.

2. Record/conduct patient history, visual acuity testing, cover testing, pupillary testing, color vision, depth perception, visual field charting, tonometry, eye movement function, Optical Coherence Tomography, corneal topography, contact lens insertion and removal, and A and B-scan ultrasonography for analysis and interpretation.

3. Inspect and calibrate clinic diagnostic equipment.

4. Review clinic visual programs for accuracy and compliance.

5. Perform as specialized surgical assistants for all types of ophthalmic surgery by preparing and administering ophthalmic medications and treatments, taking ophthalmic photographs, and providing pre-/post-operative care.

6. Establish and recommend ophthalmic standards, regulations, policies, and procedures to ensure quality patient care in a safe, efficient, and effective clinical environment.

7. Manage clinic activities and resources by reviewing clinic budgets and determining requirements for supplies, equipment, and personnel.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: PARALEGAL

AFSC(S): 5J0X1, Paralegal

PROGRAM GOAL: The goal of the **CCAF Paralegal Degree Program** is to prepare graduates for rewarding careers in the legal industry as paralegal professionals working under the direct supervision of lawyers in the public and private sector. This program prepares students to apply the practical skills necessary to meet the high standards in industry proficiency and professional integrity expected and required to serve the legal community. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate high ethical standards within the legal profession.

2. Utilize the concepts of critical and analytical thinking skills in paralegal work assignments.

3. Demonstrate a working knowledge of the military justice system.

4. Provide clients with information on civil law, claims, and military justice matters.

5. Accurately draft the forms and documentation utilized in military and civilian legal practice.

6. Manage and use legal computer software programs and technology designed to support the military justice system.

7. Demonstrate the ability to conduct in-depth electronic legal research and apply expanded legal writing skills.

8. Understand and utilize the organizational skills required to develop and maintain effective case management.

9. Comprehend the principles and concepts of international law and status of forces agreements.

10. Demonstrate effective supervisory skills, techniques, and training management concepts within the legal office environment.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: PERSONNEL RECOVERY

AFSC(S): 1T2X1, Pararescue

PROGRAM GOAL: The goal of the **CCAF Personnel Recovery Degree Program** is to prepare graduates for productive careers as rescue and recovery specialists. As the air link in Personnel Recovery operations, graduates are prepared to perform and lead survival, evasion, resistance and escape (SERE) actions and provide emergency trauma and field medical care. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Demonstrate a thorough understanding of mission planning and preparation; studying terrain and situation; organizing and selecting personnel, equipment and weapons; and rehearsing mission plan, making reconnaissance, conducting back brief and safeguarding information.

2. Supervise and perform insertion, infiltration, exfiltration, and extraction functions providing enroute emergency trauma and medical care.

3. Perform, supervise, and evaluate surface movements, navigate on land or water, use firearms and munitions to provide movement security and perform immediate action drills.

4. Direct emergency close air support along with conducting scuba, adverse terrain, and mountain rescue and recovery operations.

5. Provide on-scene triage, survivor handling and evasion assistance.

6. Provide intelligence and operation information through photographic documentation.

7. Support the National Aeronautics and Space Administration (NASA) in recovery of aerospace personnel and material.

APPENDIX
DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE TITLE: PHARMACY TECHNOLOGY

AFSC(S): 4P0X1, Pharmacy

PROGRAM GOAL: The goal of the **CCAF Pharmacy Technology Degree Program** is to prepare graduates to manage administrative and technical pharmacy activities under the supervision of a pharmacist. The program provides students with a broad knowledge of pharmacy practices and the skills necessary to order, stock, package, and prepare medications. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Requisition, stock, compound, and dispense pharmaceuticals in accordance with accepted compendia and reference literature.

2. Prevent, identify, and resolve pharmacy-related patient care problems.

3. Interpret and screen prescription and medication orders for completeness, authenticity, and accuracy, and process adverse drug reaction reports for review by the pharmacist.

4. Establish pharmaceutical requirements and perform inventory control functions for maintenance, emergency, and controlled drugs in accordance with state and federal law.

5. Recommend appropriate therapeutic and generic substitutions, and perform pharmaceutical dosing calculations for health care providers.

6. Use effective education techniques to counsel patients and caregivers on topics to include drug therapy, adverse effects, compliance, appropriate use, handling, and drug information.

7. Perform pharmacy administrative functions to include proper maintenance and disposal for all pertinent state and federal drug records.

8. Maintain and operate pharmacy information systems, and revise data automation needs in accordance with current technology.

9. Conduct periodic inspections of all drug storage and usage areas, correct discrepancies, and maintain inspection reports.

10. Manage the release of pharmaceutical information within the limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: PHYSICAL THERAPIST ASSISTANT

AFSC(S): 4J0X2, Physical Medicine
4J0X2A, Physical Medicine, Orthotic

PROGRAM GOAL: The goal of the **CCAF Physical Therapist Assistant Degree Program** is to prepare graduates for rewarding careers as medical professionals in the Physical Therapy Assistant field. This program provides students with the necessary knowledge and skills needed to effectively assist in the treatment and testing of physical therapy patients. Graduates will administer direct patient care and teach patients, their families and other health care providers how to perform selected physical therapy procedures. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, perform, implement and manage the delivery of physical medicine and orthotics in a safe and effective manner under the supervision of a physical therapist.

2. Conduct treatments utilizing special equipment, modalities, and other treatment procedures.

3. Fabricate splints and aid devices to protect or assist patients in achieving optimal independent physical function.

4. Train medical staff personnel in the therapeutic management of patients, including lifting techniques, safety and use of mobility equipment.

5. Ensure compliance with inspection and maintenance procedures and safeguarding of equipment.

6. Observe, record, and report patient response to treatment.

7. Assist physical therapist with wound and burn care.

8. Manage the release of medical information within the limits of the Health Insurance Portability and Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: PRACTICAL NURSING

AFSC(S): 4N0X1, 4N0X1B, 4N0X1C, 4N0X1F Aerospace Medical Service

PROGRAM GOAL: The goal of the **CCAF Practical Nursing Degree Program** is to prepare graduates for rewarding careers as multi-skilled professionals in the Health Sciences field. Graduates are well prepared to assist the physician with the clinical and administrative aspects of patient care. Through active engagement, graduates will contribute to the goal of a healthy nation. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assess and analyze the health status of patients, identify health goals, recognize subtle changes in conditions, interpret these changes, and immediately determine appropriate course of action in a variety of health care settings.

2. Utilize the nursing process for patients by promoting and maintaining health, preventing disease and disability, and caring for and rehabilitating individuals who are experiencing an altered health state.

3. Adhere to ethical, legal and public health nursing standards.

4. Book patient appointments, record patient treatment information, maintain medical records, and manage various patient administration duties.

5. Conduct population-based health assessments to ascertain levels of risk and target health promotion activities.

6. Perform basic life support and triage in emergency situations.

7. Provide field medical care in contingency operations and disasters.

8. Manage release of medical information within limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE TITLE: PUBLIC HEALTH TECHNOLOGY

AFSC(S): 4E0X1, Public Health

PROGRAM GOAL: The goal of the **CCAF Public Health Technology Degree Program** is to prepare graduates for rewarding careers in the field of Public Health. Graduates are prepared to assume duties related to communicable disease prevention and control, health education and training, occupational health and safety, medical entomology, and food safety and sanitation. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Assess the quality of life and health of individuals, groups, organizations, and communities.

2. Conduct patient interviews and epidemiological investigations, and provide patient education for communicable disease prevention.

3. Educate workers and supervisors in personal hygiene, occupational hazards, hazard communications, and the use of personal protective equipment.

4. Conduct audiometric evaluations to detect significant occupationally-related hearing loss.

5. Advise health care workers on workplace hazards, and monitor results of occupational health examinations to detect adverse trends.

6. Conduct food safety and security programs including inspecting foods for wholesomeness and contract compliance; accessing risks associated with production, transportation, storage, preparation, and serving of food; and recommending measures to prevent contamination and deterioration.

7. Conduct sanitary evaluations of food service establishments, public facilities, and military and civilian aircraft in accordance with the Food and Drug Administration Food Code.

8. Plan and conduct medical entomology programs including evaluating the risk of vector borne disease by sampling and identifying potential disease-carrying hosts, monitoring compliance and effectiveness of vector and pest management control programs, and recommending prevention and control measures.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: SCIENTIFIC ANALYSIS TECHNOLOGY

AFSC(S): 9S100, Scientific Applications Specialist

PROGRAM GOAL: The goal of the **CCAF Scientific Analysis Technology Degree Program** is to prepare graduates for long-term careers in a wide range of applied science and technology fields. The program offers hands-on scientific research using the latest electronic equipment. Graduates are prepared to apply advanced physical science techniques to perform data collection and analysis, observation, study, experimentation, and research and development. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Install, maintain, repair, modify and operate scientific equipment and systems.

2. Direct data collection and analysis efforts of sensor systems.

3. Supervise analysis, interpretation, and reporting of sensor data.

4. Identify operational trends and problem areas, and assist in cause identification and resolution.

5. Brief senior government, civilian and military officials on data collection and the results of analysis.

6. Field prototype and operational electronic sensors and systems on specialized geophysical, nuclear radiation, chemical, biological, electro-optic, radio frequency, infrared discrimination, radar, and rapidly deployable and fixed airborne materials sampling platforms.

7. Utilize the Tasking, Processing, Exploitation, and Dissemination (TPED) process; computer processing applications; and information operations.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: STRATEGIC OPERATIONS MANAGEMENT

AFSC: 1C4X1, Tactical Air Control Party

1C2X1, Combat Control

PROGRAM GOAL: The goal of the **CCAF Strategic Operations Management** degree is to prepare graduates for productive careers as Strategic Operations Management specialists. This program provides graduates with an understanding of the issues faced from the leadership level to the apprentice level in the management of joint/special operations. Graduates gain fundamental skills in the areas of organizational development, consultation, operational procedures, and strategic operational management. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Develop mission planning and coordination of tactical air missions; prepare and execute air and airspace control tasking orders.

2. Manage, coordinate, and conduct strategic operations, to include intelligence, surveillance, and reconnaissance, as well as complete combat-oriented objectives.

3. Plan and advise operations to senior officers and staff on combat capabilities of air and space power.

4. Apply systems analysis for effective decision-making, problem-solving, and technical skills required for management decisions and operational success.

5. Design, organize, establish, control, and supervise air traffic in the target area.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: SURGICAL SERVICES TECHNOLOGY

AFSC(S): 4N1X1, Surgical Service

PROGRAM GOAL: The goal of the **CCAF Surgical Services Technology Degree Program** is to prepare graduates for rewarding and challenging careers as surgical services specialists able to effectively perform as integral members of the surgical team. Graduates are well trained to support surgeons and nurses by preparing and handling operative equipment and supplies, instrumentation during operative procedures, and other patient care activities to maintain a safe and therapeutic environment for the patient. Graduates learn and apply specific techniques and practices designed to exclude all pathogenic microorganisms from the operative wound. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Manage surgical patient care activities to include transporting patients and their records to and from the operating room, assisting the nursing staff with pre-operative care, and applying the principles of asepsis, infection control, and medical ethics.

2. Perform recovery room and basic nursing tasks to include assisting the surgeon and nursing staff with monitoring and recording vital signs, administering oxygen, helping with patient arousal, carrying out the surgeon's post-operative orders, and identifying post-operative complications.

3. Perform surgical specialty functions in various fields to include Urology, Orthopedics, and Otorhinolaryngology.

4. Schedule and conduct in-service training in new procedures, self-aid and buddy care, basic life support, and aseptic techniques.

5. Anticipate the surgeon's needs and provide additional assistance, care for surgical specimens on the sterile field, and clean and prepare instruments and reusable supplies for terminal sterilization and decontamination.

6. Administer local anesthetic under the supervision of a physician.

7. Determine storage requirements, maintain and issue equipment and supplies, and supervise the preparation of reports and records.

8. Manage the release of medical information within the limits of the Health Insurance Portability & Accountability Act (HIPAA) of 1996.

APPENDIX
DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: SURVIVAL INSTRUCTOR

AFSC(S): 1T0X1, Survival, Evasion, Resistance, and Escape

PROGRAM GOAL: The goal of the **CCAF Survival Instructor Degree Program** is to prepare instructors to train aircrew members and selected Department of Defense personnel in survival, evasion, resistance, and escape techniques. The program of studies includes instructional methods and skills, wilderness living, fire building, map and compass navigation, food and water procurement, wilderness medicine and basic first aid, rescue techniques, escape and evasion, and prisoner of war (POW) resistance techniques. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, organize, direct and conduct Survival, Evasion, Resistance, and Escape (SERE) training activities.

2. Design and develop curriculum, functional structures and procedures for SERE courses and programs.

3. Determine training schedules according to course control documents, directives, policies and instructional principles.

4. Conduct classroom, laboratory and operational training using lecture, demonstration-performance, guided discussion, and time and circumstance instructional methodology.

5. Develop SERE joint tactics, techniques and procedures.

6. Instruct and perform static line, military free fall and emergency parachuting techniques.

7. Coordinate SERE activities to support personnel recovery-related exercises.

8. Inspect and evaluate SERE training and personnel recovery operational support activities.

APPENDIX

DEGREE-SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES INDEX

DEGREE PROGRAM TITLE: TRANSPORTATION

AFSC(S): 2T0X1, Traffic Management
2T1X1, Vehicle Operator/Dispatcher
2T2X1, Air Transportation

PROGRAM GOAL: The goal of the **CCAF Transportation Degree Program** is to prepare graduates for challenging careers in the transportation, traffic and physical distribution fields. The program offers quality academic, technical, and customer service education and "hands-on" training vital to successful progression within the industry. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Plan, organize, and schedule transportation operations and support requirements using automated transportation systems.

2. Conduct pre-operating vehicle inspections and prepare associated documentation.

3. Monitor transportation equipment availability and resolve operational problems concerning property and passenger movement.

4. Receive, package, identify, mark and label cargo and personal property for shipment or storage.

5. Classify and arrange cargo by priority and coordinate pickup and delivery of cargo shipments.

6. Prepare, complete and maintain transportation movement records, documents, logs and reports.

7. Determine and implement necessary safety and security precautions for handling and storage of dangerous materials, special cargoes, mail and baggage.

8. Coordinate manning requirements, manage work centers and develop operating and administrative procedures that meet industry standards.

APPENDIX

DEGREE–SPECIFIC PROGRAM GOALS AND LEARNING OUTCOMES

DEGREE PROGRAM TITLE: VEHICLE MAINTENANCE

AFSC(S): 2T3X1, Vehicle & Vehicular Equipment Maintenance
2T3X2, Special Vehicle Maintenance

PROGRAM GOAL: The goal of the **CCAF Vehicle Maintenance Degree Program** is to provide graduates quality academic, technical, and hands-on training on Automotive, Diesel/Heavy Equipment and Auto Body Repair. This program prepares students to apply the practical skills and knowledge required for performance of duties within their Air Force career field and employment in the automotive industry providing safe, serviceable and quality repair. The program is designed to develop effective leaders of our most valued resource—our people—and cultivate managers of complex systems, processes, and technologies essential to the Air Force and our Nation.

LEARNING OUTCOMES: Upon completion of this program students will be able to:

1. Meet vehicle maintenance regulatory compliance standards at local, state and federal levels.

2. Determine the overall serviceability and mechanical condition of vehicles and equipment.

3. Systematically analyze malfunctions by visual and auditory examination or through the use of test equipment.

4. Perform repair, adjustment, overhaul or replacement of major components such as drive trains, air conditioning systems, brakes, steering and pumping systems.

5. Remove, disassemble and repair gasoline or diesel engine components.

6. Diagnose, isolate malfunctions and repair vehicle electrical, emissions, gasoline, diesel and alternative fuel systems.

7. Remove, install, and adjust body fenders, doors, hoods, bumpers and quarter panels.

8. Weld, cut, and repair metals using oxyacetylene, gas-shield and arc welding.

9. Supervise, plan and control vehicle maintenance work methods, production schedules, operating procedures and performance standards.

10. Successfully challenge the National Institute for Automotive Service Excellence examination in their respective specialties.