

AU-10  
AIR UNIVERSITY  
CATALOG



ACADEMIC YEAR 2008-2009



# **Air University Catalog**

***Academic Year  
2008-2009***



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The *Air University Catalog* is the official Air University publication for disseminating information on Air University educational programs, including professional military education. This catalog is supplemented by the Air Force Institute of Technology (AFIT) Catalog and the Community College of the Air Force (CCAF) General Catalog.

The *Air University Catalog* serves as both a source document and a planning document for Air University schools and staff personnel. It serves as a public relations medium for Air Force, Department of Defense, and civilian audiences. The catalog also provides a brief description of the schools and professional organizations that make up Air University. Finally, it sets forth the educational opportunities available in each school, the work performed by each related organization in carrying out the educational objectives of Air University, and a brief description of all Air University educational support organizations.

The statements set forth in this catalog outline the current rules, regulations, and policies of Air University and are for informational purposes only. They should not be construed as the basis of a contract between the student and the university. While the provisions of this catalog will normally be applied as stated, the university reserves the right to change any provision listed in this catalog.

The *Air University Catalog* and other information about Air University organizations are available over the World Wide Web on the Air University home page (<http://www.maxwell.af.mil/au/index.asp>).

### **Disclaimer**

This catalog is nondirective and should not be used for quoting Air University, Air Force, or Department of Defense policy. It is intended as a compilation of Air University academic information. Cleared for public release: distribution unlimited.

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Air Command and Staff College  
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Directorate of Education Logistics and Communication  
Col Anthony J. Zucco, Director

42d Air Base Wing  
Col Kristin D. Beasley, Commander

## ***Air University Advisory Bodies***

**Command Board of Advisors.** The purpose of the Air University (AU) Command Board of Advisors is to provide the commander of AU feedback from the customer perspective of the major commands. Board members inform the AU commander about the educational needs of their respective commands and their degree of satisfaction with AU's products and programs.

The board is advisory in nature and generally meets periodically at Maxwell Air Force Base (AFB) or the Department of Defense at the Pentagon.

The membership is comprised of all the vice commanders of the major commands, as well as the Air National Guard deputy director. They are advised by the Air Force deputy chief of staff, personnel, and the United States Air Force Academy vice commander.

### **Members**

Vice Commander, Air Education and Training Command, Chair

Vice Commander, Air Combat Command

Vice Commander, Air Force Space Command

Vice Commander, Air Force Materiel Command

Vice Commander, Air Mobility Command

Vice Commander, United States Air Forces Europe

Vice Commander, Pacific Air Forces

Vice Commander, Air Force Special Operations Command

Vice Commander, Air Force Reserves

Deputy Director, Air National Guard

### **Advisors**

Air Force Deputy Chief of Staff, Personnel

Vice Commander, United States Air Force Academy



**AU Board of Visitors.** The Board of Visitors is chartered to provide advice, views, and recommendations on the educational, doctrinal, and research policies and activities of Air University. The board meets with and advises the secretary of the Air Force on matters of policy regarding the mission of Air University.

The board meets at least twice a year—in the spring and the fall at Maxwell AFB. The board presents a written report with its views and recommendations to the Air University commander. This report is then presented to the chief of staff, United States Air Force, and to the secretary of the Air Force.

The membership is selected from the fields of education, business, industry, the professions, and public service. Members normally serve annual renewable terms up to a maximum of nine years.

Designated Federal Officer	Alternate Designated Federal Officer
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Chief, Academic Affairs	Chief, Advisory Boards
Maxwell AFB, AL	Maxwell AFB, AL

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Champaign, Urbana, IL

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AL

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Corporation, Marietta, GA

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President, Naval Post Graduate School, Monterey, CA

Maj Gen Richard Paul, USAF, Retired  
Former Vice President, Strategic Development & Analysis,  
Boeing Company, Seattle, WA

Dr. (Brig Gen) Roger C. Poole, USA, Retired  
Faculty, The Citadel, Charleston, SC



## **General Information**

### **Introduction to Air University**

Air University, headquartered at Maxwell AFB, Alabama, is a major component of Air Education and Training Command and is the Air Force's center for professional military education.

**Vision.** *Air University is the intellectual and leadership center of the Air Force. We make a difference . . . one student at a time.*

**Mission.** *As the intellectual and leadership center of the Air Force, Air University provides dynamic comprehensive education to prepare graduates to develop, employ, command, research, and champion air, space, and cyberspace power at all levels.*

Air University provides the full spectrum of Air Force education, from pre-commissioning to the highest levels of professional military education, including degree-granting and professional continuing education for officers, enlisted, and civilian personnel throughout their careers. The university's professional military education (PME) programs educate Airmen on the capabilities of air and space power and their roles in national security. These programs focus on the knowledge and abilities needed to develop, employ, command, and support air and space power at the highest levels. Specialized professional continuing education (PCE) programs provide scientific, technological, managerial, and other professional expertise to meet the needs of the Air Force. Air University conducts research in air, space, and cyberspace power and education, leadership, and management. The university also provides citizenship programs and contributes to the development and testing of Air Force doctrine, concepts, and strategy.

**History.** The Wright Brothers established the first US civilian flying school in Montgomery in 1910. In the 1920s Montgomery became an important link in the growing system of aerial mail service. In the early 1930s the Army Air Corps Tactical School moved to Maxwell, and Montgomery became the country's intellectual center for airpower education.



Air University, established in 1946, continues the proud tradition of educating tomorrow's planners and leaders in air and space power for the Air Force, other branches of the US Armed Forces, federal government civilians, and many international organizations. Today, AU has a reach worldwide, affecting the careers of every Air Force member.

**Organizational Structure.** The university's primary operating locations are concentrated on three main installations. Most AU programs are located at Maxwell AFB in northwest Montgomery; some are across town at the Maxwell Gunter Annex; and one is located at Wright-Patterson AFB, Ohio. Although AU draws students from the Department of Defense (DOD) and the military forces of other nations, its mission is more easily described in terms of the two main groups it is primarily organized to serve: US Air Force commissioned officers and enlisted members.

Air University institutions at Maxwell AFB include the Carl A. Spaatz Center for Officer Education, Curtis E. LeMay Center for Doctrine Development and Education, Jeanne M. Holm Center for Officer Accessions and Citizen Development, Ira C. Eaker College for Professional Development, the Thomas N. Barnes Center for Enlisted Professional Military Education, several other support organizations, and Headquarters Civil Air Patrol. Other AU institutions located at the Gunter Annex include the Directorate of Education Logistics and Communication Extension Course Program (formerly Air Force Institute for Advanced Distributed Learning). Support for the AU organizations on Maxwell/Gunter is provided by 42d Air Base Wing, the host organization. Another important part of AU is the Air Force Institute of Technology (AFIT) located at Wright-Patterson AFB.

### **Accreditation and Degree-granting Authority**

Air University is accredited by the Commission of Colleges of the Southern Association of Colleges and Schools (SACS) (1866 Southern Lane, Decatur, Georgia 30033-4097; telephone number 404-679-4501) to award associate and master's degrees. Air University achieved regional accreditation in June 2004, effective at the beginning of the 2004 calendar year. Now a part of Air University's regional accreditation, both the Community

College of the Air Force (CCAF) and the School of Advanced Air and Space Studies (SAASS) were separately accredited by SACS earlier—CCAF in 1980 and SAASS in 1998.

In October 1994 the AU commander received congressional authority to confer the master of airpower art and science degree upon graduates of the School of Advanced Airpower Studies (now School of Advanced Air and Space Studies). In October 1999 the AU commander received congressional authority to confer the master of strategic studies degree upon graduates of the Air War College and to confer the master of military operational art and science degree upon graduates of the Air Command and Staff College.

In June 2008 the USAF Test Pilot School (TPS) was affiliated with AU, and the AU commander received congressional authority to confer the master of science in test engineering degree.

## **Policies**

**Academic Integrity.** Air University abides by an uncompromising adherence to a code of ethics, morality, conduct, scholarship, and other values related to academic activity. (See AUI 36-2309, *Academic Integrity*.)

**Admission and Enrollment.** AU schools and educational programs are offered to members of the US armed forces (primarily Air Force personnel), including the Reserves, National Guard, and selected civilian employees of the Department of Defense and other government agencies. Air University programs and schools are not open to the general public except through special programs. An exception is the Air Force Institute of Technology where non-DOD, US citizens may enroll in academic programs, provided they meet the admissions standards. As part of the United States' military assistance programs, officers from other countries may attend several Air University schools and courses. Selection for the AU schools and educational programs is made according to Air Force and other relevant government standards.

Grading Policy for Degree Programs. (See AUI 36-2317, *Air University Degree Granting and Accreditation*.)

**Transfer Credit.** Transfer credit is not accepted in Air University's master's degree programs for two reasons. First, only resident students selected by an Air Force personnel center board or by their respective organizations can attend. Second, all academic credits for degrees offered must be earned in residence.

**Degree Program Withdrawal.** For policies and procedures concerning withdrawal from the institution, refer to AUI 36-2315, *Student Disenrollment Procedures*.

**Academic Credit.** The American Council on Education (ACE) recommends graduate-level credit for completion of some AU programs. Several colleges and universities accept graduate transfer credits from AU. Accepting/awarding transfer credits is at the discretion of each college or university. For more information, visit <http://www.militaryguides.acenet.edu>.

## **Educational Documents**

**Fraudulent Documents.** Air University Student Services ensures the authenticity of each document. All fraudulent documents are given to the registrar for appropriate action to include disenrollment and/or legal action. A student disenrolled for fraud will have his/her transcript annotated with "student was disenrolled for submitting fraudulent documents."

**Information Release.** A student may authorize release of information pertaining to his/her educational record to a third party by completing and submitting a release letter (with an original signature) to the AU registrar. The student must state what information can be provided and to whom the information may be released. *The Federal Family Education Rights and Privacy Act of 1974, 5 United States Code 301, 10 United States Code 8013, and Executive Order 9397* dictate the policy regarding release of student data. These directives specify that an educational record may not be released without the student's written consent specifying records to be released and to whom.

**Transcript Request.** Individuals must complete the AU Transcript Request Form at <http://www.maxwell.af.mil/au/registrar.asp>. Complete the form, sign it, then e-mail the form to [student.services@maxwell.af.mil](mailto:student.services@maxwell.af.mil), fax it to DSN 493-8127 or commercial 334-953-8127 (electronic signature accepted), or mail it to Air University Registrar, 60 Shumacher Ave., Maxwell AFB, AL 36112-6337. The transcript(s) will be mailed to the address(es) listed on the form within five duty days of receiving the request.

## **Students**

**Responsibilities.** Military members abide by the *Uniform Code of Military Justice (UCMJ)*. A copy of this code is available in the legal office on each Air Force installation. It is the student's responsibility to read and understand the provisions of this catalog. Additionally, student must follow the standards of behavior established by the school in which he/she is enrolled. All other categories of personnel are expected to follow the same guidelines.



## **Air University Education Centers**

In 2008 four academic centers were established to maximize resources due to Air Force downsizing. The four centers are the Carl A. Spaatz Center for Officer Education, the Curtis E. LeMay Center for Doctrine Development and Education, the Jeanne M. Holm Center for Officer Accessions and Citizen Development Center, and the Thomas N. Barnes Center for Enlisted Education. These centers brought together common administrative duties that were previously managed by each school.



## **Carl A. Spaatz Center for Officer Education**

The Carl A. Spaatz Center for Officer Education (the Spaatz Center) includes the Air War College (including the Air Force Fellows and Air Force Intern Programs), the Air Command and Staff College School of Advanced Air and Space Studies, Squadron Officer College (including the Squadron Officer School and the Air and Space Basic Course), and the International Officer School.

The academic centers and colleges located within the Spaatz Center provide a focused capability that meets both the requirements of Air University and an external sponsoring agency. Centers are formed to create focused research, professional military and continuing education, and curriculum and research support on a subject of particular educational importance. They also leverage the academic expertise of resident faculty and students in support of Air Force or Department of Defense research objectives. Centers enhance the prestige of AU through their research and outreach programs within the larger military and academic communities.

Currently, the following centers support this mission: Air Force Culture and Language Center (to include the Air Force Negotiation Center of Excellence and the Behavioral Influences Analysis Center), Air Force Counterproliferation Center, Air Force Public Affairs Center of Excellence, Air University Center for Strategy and Technology, Air War College National Space Studies Center, and the Air War College Cyberspace and Information Operations Study Center.

The Air Force Culture and Language Center is a new institution designed to enhance cross-cultural competencies within the US Air Force. The center functions as a primary source of expertise for conceptual tools to communicate, collaborate, build relations, negotiate, and influence across cultural barriers. Within the Culture and Language Center, two additional centers focus on niches within the domain. The Air Force Negotiation Center of Excellence spearheads the development and application of negotiation, collaboration, and problem-solving skills as a core competency throughout the Air Force. The Behavioral Influences Analysis Center provides support to professional military and continuing education, operational-level war fighters, and policy makers to enable understand-



ing, holistic planning, and exploitation of the perceptual and behavioral dimensions of the human terrain of any military or military-supported mission.

The Air Force Counterproliferation Center undertakes counter proliferation education and research both within and external to Air University for several organizations. This includes research and education on such topics as appropriate military and diplomatic strategy when confronting opponents, international nonproliferation diplomacy, nonproliferation and arms control treaty regimes, counterterrorist activities, and deterrence of conflicts. The center organizes and conducts the annual Air Force Counterproliferation Conference. The center also publishes books and occasional papers on related issues.

The Air Force Public Affairs Center of Excellence provides education and training on effective strategic communication and associated tactics, techniques, and procedures. The center is responsible for coordinating the instruction of strategic communication topics across professional military and continuing education courses and training programs. In addition, the center serves as the office of primary responsibility for strategic communication research and analysis. Finally, the center staff serves as advisors and advocates in the development of strategic communication doctrine.

The Center for Strategy and Technology focuses on education, research, and publications that support the integration of technology into national strategy and policy. This center supports faculty and student research, publishes research through books, articles, and occasional papers; and engages in collaborative research with the United States and international academic institutions. The center is responsible for the development and execution of the annual Blue Horizons Study. This study provides a 20–25-year strategic and technological estimate to aid Air Force planning.

The National Space Studies Center supports integration of space-related education across the professional military education continuum and conducts focused national security space studies and research in which faculty and students link strategic, operational, and tactical integrated space operations. This research is conducted in the context of the USAF mission of providing inte-

grated air, near-space, and space superiority to the joint force commander to improve future joint war-fighter capabilities.

The Cyberspace and Information Operations Study Center contributes to USAF and DOD understanding and application of information operations in twenty-first century operational environments through its academic programs in which faculty and students address operational and strategic issues. The center supports curriculum development across professional military education programs and an annual group research effort focused on cyberspace and information operations topics of interest to the Air Force.

### **Curtis E. LeMay Center for Doctrine Development and Education**

The Air Force Doctrine Development and Education Center was redesignated the Curtis E. LeMay Center for Doctrine Development and Education. The LeMay Center is responsible for research, development, production of Air Force basic and operational doctrine, and critical leadership input for joint and multinational doctrine development activities.

Although the name has changed, the mission remains the same. All education, war gaming, and doctrine development will continue to operate as they always have, and the staff will continue to provide professional support to those they serve.

### **Jeanne M. Holm Center for Officer Accessions and Citizen Development**

The Jeanne M. Holm Center for Officer Accessions and Citizen Development was formally established at Maxwell Air Force Base on 2 June 2008. The Holm Center, named after the first female Air Force officer to achieve general officer rank, replaced the Air Force Officer Accession and Training Schools (AFOATS) organization. The Holm Center, commanded by Brig Gen Teresa Djuric, is made up of three distinct organizations: Air Force Reserve Officer Training Corps (AFROTC), Officer Training School (OTS), and the Air Force Junior Reserve Officer Training Corps (AFJROTC). AFROTC, located at 144 host universi-

ties and more than 900 associated colleges and universities, is designed to educate, train, and commission officers for the US Air Force. The AFROTC program is a four-year university-level program that presently commissions approximately 2,500 new Air Force officers each year. The OTS, located on Maxwell AFB, is the Air Force's flexible officer-commissioning program and capable of increasing its enrollment rapidly to meet changing Air Force officer-accession requirements. Currently, OTS produces approximately 600 new Air Force officers a year. The AFROTC and OTS taken together produce approximately 80 percent of the current Air Force requirement for newly commissioned officers. The AFJROTC program, located at 889 high schools across the world, is a citizenship-development program with a current enrollment of about 105,000 cadets.

### **Thomas N. Barnes Center for Enlisted Education**

The Barnes Center provides degree and professional development education opportunities to more than 300,000 enlisted Airmen yearly. Currently, the Barnes Center has eight enlisted academic centers.

The **Community College of the Air Force (CCAF)** provides associate in applied science degrees and other academic credentials that enhance mission readiness, contribute to recruiting, assist in retention, support the career transition of Air Force enlisted members, and facilitates enlisted members in completing their bachelor degrees.

The **Educational Programs Cadre (EPC)** provides developmental educational programs—both resident and distance learning—and faculty development for an effective, standardized continuum of Enlisted Professional Military Education (EPME). Currently, EPC provides four resident EPME programs and three distance-learning programs. More than 55,000 enlisted Airmen complete these educational programs yearly.

The **Chief Master Sergeant Leadership Course (CLC)** is the culminating level of enlisted PME and provides chief master sergeants a strategic perspective of the Air Force and its mission.

The **Air Force Senior Noncommissioned Officer Academy (SNCOA)** is the third level of enlisted PME and prepares senior noncommissioned officers to lead the enlisted force in the employment of air, space, and cyberspace power in support of our national-security objectives.

The **Noncommissioned Officer Academy (NCOA)** is the second level of enlisted PME and prepares technical sergeants to be professional, war-fighting Airmen who can manage and lead Air Force units in the employment of air, space, and cyberspace power. Currently, there are 11 NCOAs.

The **Airman Leadership School (ALS)** is the first level of the EPME continuum and prepares senior Airmen to be professional, war-fighting Airmen who can supervise and lead Air Force work teams to support the employment of air, space, and cyberspace power. Currently, there are 69 Airman leadership schools.

The **Air Force Enlisted Heritage Research Institute** preserves US enlisted heritage and history and educates and motivates enlisted leaders on that heritage.

The **USAF First Sergeant Academy** educates, trains, and prepares the Air Force's premier senior noncommissioned officers to fulfill the key leadership role of the first sergeant in leading tomorrow's enlisted force.



## **Air University Degree Programs**

This section includes the degree programs offered by the Air War College (AWC), Air Command and Staff College (ACSC), School of Advanced Air and Space Studies (SAASS), Air Force Institute of Technology (AFIT), and the Community College of the Air Force (CCAF). It also addresses the distance-learning nonresident programs of AWC, ACSC, and SOS.



## **Air University Degree Admission Requirements and Procedures**

To be admitted to the AU degree programs, an individual must

- be selected to attend the program;
- present proof of academic credentials; and
- provide an acceptable score on the Test of English as a Foreign Language (TOEFL), if required.

### **Proof of Academic Credentials**

- Air Force active duty, Guard, and Reserve officers selected to attend AU degree programs will have their degree status verified by the AU registrar without action on their part.
- Sister service and civilian students must have their official transcripts mailed within the first month of the academic year to

AU Registrar  
ATTN: Resident Degree Programs  
60 Shumacher Avenue  
Maxwell AFB, AL 36112-6337

- International Fellows interested in pursuing an AU degree must submit a transcript of a US bachelor's or bachelor-equivalent degree that has undergone a document-by-document evaluation of the academic records by an independent foreign credentials evaluation service that is a member of the National Association of Credentials Evaluation Services (NACES) or the Association of International Credential Evaluators (AICE) to determine if the records are equivalent to a US four-year bachelor's degree.
- Applications for this process are available from the AU registrar.
- An individual seeking admission to the master's degree program is responsible for the associated costs.
- An official copy of the evaluation result must be mailed to the AU registrar.



- Portfolio
  - International students who do not have a US bachelor's degree or equivalent may submit a portfolio to be considered for admission to an AU degree program. Information regarding the portfolio process can be obtained from the AU registrar's office.
  - International students selected, but who do not meet the admission requirements for the AU degree programs, will be allowed to attend the schools and will, upon graduation, receive a diploma from the school.

**Test of English as a Foreign Language (TOEFL)**

- International Fellows from countries where the official language is English who wish to apply for admission to an AU degree program are not required to take the TOEFL.
- International Fellows who have completed a bachelor's or higher degree in the United States during the past three years are not required to take the TOEFL.
- International Fellows from countries where the official language is *not* English must achieve an acceptable score on the TOEFL to be admitted to the master's degree program.
- The individual is responsible for the cost of this test.
- When taking the TOEFL, an individual must indicate Air University Institution Code 9069 for the official score to be sent to the AU registrar.
- The minimum acceptable score for admission to the AU degree programs:
  - 560 for the paper-based test (pBT), or
  - 83 for the Internet-based test (IBT).

## **Air War College**

*Internet address*

<http://www.maxwell.af.mil/au/awc/awchome.htm>

**Mission.** *To prepare students to lead in a joint environment at the strategic level across the range of military operations; to develop cross-domain mastery of joint air, space, and cyberspace power and its strategic contributions to national security; and to advance innovative thought on National Security, Department of Defense, and air forces issues.*

The War Department established the Air War College (AWC) in 1946 at Maxwell Field, Alabama, and the college has operated continuously except for a six-month period during the Korean conflict. To accomplish the AWC mission, students demonstrate mastery of dual challenges—academic enhancement and professional development. To meet these challenges, the college develops the knowledge, skills, and attitudes in its students that are significant to the profession of arms with emphasis on air, space, and cyberspace and its application in joint and multinational war fighting.

AWC is comprised of a command section, two academic directorates (Academic Affairs and Distance Learning), and two support directorates (Student Operations and Operational Support). Within the academics directorate, the program curriculum is developed and delivered through three departments—the Department of Leadership and Strategy, the Department of War Fighting, and the Department of International Security Studies.

**Resident Curriculum for the AWC Joint War-fighting Program.** The AWC resident program class membership includes officers from each US military service, civilian employees of federal government agencies, and officers from the international community of nations.

All US students will be dually enrolled in the AWC senior-level professional military education (PME) program and the AU master of strategic studies degree program and, therefore, must meet admission requirements for the master of strategic Stud-

ies degree. The AWC PME program includes joint professional military education (JPME) as defined for senior-level colleges in the Chairman of the Joint Chiefs of Staff Instruction (CJCSI) 1800.01B, *Officer Professional Military Education Policy*.

International Fellows who qualify for entry in the AWC program are enrolled in the AWC senior-level PME program, not including JPME, and may apply for admission to the master of strategic studies degree program.

### **Learning Outcomes**

- Analyze, assess, and apply the fundamental strategic concepts, logic, and analytical frameworks utilized in the formulation and evaluation of grand strategy, national military strategy, and theater strategy in a joint and combined context;
- Analyze, assess, and evaluate historical and contemporary examples of the ways in which strategic concepts, logic, and analytical frameworks are applied in the formulation and implementation of plans across the range of military operations to support national objectives;
- Analyze, assess, and evaluate the role of airpower, as well as space and cyberspace power, in a variety of joint and combined historical and contemporary contexts;
- Assess the political characteristics of today's world, America's place in it, potential threats to US national security, and strategies for achieving security, including the current *National Security Strategy*;
- Analyze how the instruments of power, including multi-agency and multinational dimensions, can be effectively integrated;
- Evaluate the political and bureaucratic processes by which the United States develops strategic options and plans to enhance national security and acquire its military forces;

- Analyze complex international issues from an Airman's perspective and develop senior-officer skills in regional and cultural understanding and cross-cultural communication;
- Synthesize and evaluate current and emerging joint war-fighting/enabling capabilities with special emphasis on the employment and sustainment of air, space, and cyberspace forces in a joint, interagency, and multinational military environment;
- Analyze emerging opposition capabilities and concepts of operations as well as how information operations are integrated to support the national military and national security strategies;
- Analyze the joint operation planning process through which combatant commanders set the military conditions for attaining national and coalition objectives;
- Synthesize and value techniques for leading in a joint, interagency, and multinational environment;
- Analyze fundamental concepts, logic, and analytical frameworks utilized in the development and application of leadership at the senior level in a joint environment;
- Evaluate historical and contemporary examples of the ways in which senior leadership concepts, logic, and analytical frameworks are applied in the formulation and implementation of leading large organizations;
- Evaluate the role of Airmen as leaders in a variety of joint and combined historical and contemporary contexts;
- Identify growing and emerging security concerns beyond the military capabilities of state and nonstate actors;
- Assess overarching social, cultural, religious, political, and economic currents that influence global, regional, and national security conditions;

- Examine the roles state and nonstate actors play in addressing key issues that shape the global environment; and
- Analyze global security issues in respect to the impact they have upon US national security strategy and identify areas of concern that need to be addressed.

**Duration.** The resident program consists of 10 months of graduate-level study. As the senior Air Force PME school, AWC annually educates about 265 resident students from all US military services, federal agencies, and 45 other nations.

**Eligibility.** Lieutenant colonels and colonels or the equivalent in Navy rank or civil service grade are eligible to attend AWC. The Central Senior Service School Selection Board, Headquarters USAF, selects Air Force active duty officers who have demonstrated an outstanding potential for senior command and staff positions to attend AWC. Additionally, US Air Force Reserve (AFRES) officers, Air National Guard (ANG) officers, officers from other US military services, officers from other nations, and US federal civilians are selected to attend by their respective personnel systems. Reference AFI 36-2301, *Professional Military Education*, and the Education and Training Course Announcements (ETCA) Web site at <https://etca.randolph.af.mil> for additional information.

## **Admission Requirements for the Master of Strategic Studies Degree**

To be admitted to the master of strategic studies degree program, selected individuals must (1) present proof of academic capability by either holding a qualifying undergraduate degree (US bachelor's degree or its equivalent) or meeting academic credentials admission requirements through the portfolio admission process; and (2) provide an acceptable score on the Test of English as a Foreign Language (TOEFL), unless the student is from an English-speaking country.

International Fellows who do not meet the admission requirements for the degree program will be allowed to attend AWC and will, upon graduation, receive the Air War College Resident Diploma but will not be awarded the master's degree.

**Graduation Requirements.** Students fully admitted must

- Complete the following 38-semester-hour AWC resident program with a minimum grade of B in each course and an overall grade point average of at least 3.00 on a 4.00 scale to be awarded the master's degree for
- Six core courses (Foundations of Strategy; International Security Studies; Regional and Cultural Studies; War Fighting; Joint Strategic Leadership; and Research) and
- Three 6000-series elective courses, and
- Demonstrate fully satisfactory participation in other scheduled AWC programs to include the Solo Challenge War Game, National Security Forum, and Commandant's Lecture Series.

### Curriculum Summary

Course Title	Semester Hours
EL 6000 Core Electives (three required)	6
RES 6100 Research	5
LD 6200 Joint Strategic Leadership	2
FS 6400 Foundations of Strategy	5
WAR 6500 War Fighting	8
RCS 6600 Regional and Cultural Studies	4
ISS 6700 International Security Studies	5
SC 6800 Solo Challenge War Game	3
<b>TOTAL</b>	<b>38</b>

**Note:** All courses must be taken in residence at AWC. Courses taken in the distance learning program may not be used to satisfy course requirements of the resident master's degree program.

## **Course Descriptions**

The AWC resident curriculum includes the core curriculum and an elective program. The core curriculum consists of four major areas: leadership and ethics, international security studies, national and military strategy, and joint/coalition military operations. The AWC resident curriculum consists of the following course offerings by the Departments of International Security Studies (DEI); Leadership and Strategy (DEL); War Fighting (DEW); and the Associate Dean of Academic Programs (DEX).

### **ISS 6700 International Security Studies     5 semester hours**

The National Security and Decision Making (NSDM) subcourse assesses the context and processes for developing US security strategy and policy as well as the use of the national instruments of power in support of that policy and strategy. The context assessment encompasses the overarching cultural, religious, political, and economic currents that influence local, regional, and global security environments. The course assesses the role and impact of civil-military relations, the interagency process, Congress, the media, and public opinion in policy development and execution. To enhance the practical elements of the curriculum, the course includes several instructional periods that incorporate Department of State members in the seminar environment. The Global Security (GS) subcourse examines the roles of nations in addressing key issues that shape the global environment. The course also identifies growing and emerging security concerns beyond the military capabilities of state and non-state actors (e.g., energy security, environmental security, migration, and population growth). The course uses a comparative approach to examine the political and economic elements of actors and their impact across a wide range of global issues. The course assesses the relationship between efforts to democratize status, economic development, and national and international security. The course also analyzes power politics from a region-to-region perspective and the impact of these regional features on international security. The GS subcourse follows and is symbiotic with the Regional and Cultural Studies program. It capitalizes upon student experience from field study.

**RCS 6600 Regional and Cultural Studies      4 semester hours**

The Regional and Cultural Studies (RCS) course is an integral part of the curriculum, preparing senior leaders to investigate, analyze, and evaluate a geographic area from a combatant commander's perspective in support of international and national security policies. To meet the challenges of the Air and Space Expeditionary Force, the RCS course provides students the opportunity to evaluate an area of the world where a unified combatant commander must implement the national military strategy in support of US security policy. The RCS course provides the opportunity for students to gain unique perspectives by studying and visiting one of 16 regions. During the third term, students complete 34 classroom hours (17 instructional periods) of focused academic preparation and work on a research paper dealing with the issues in the region they are to visit. The research paper is completed following about a two-week regional field research. The regional field research allows students to discuss security policy issues with senior political, military, religious, cultural, and academic leaders. Logistic and administrative preparation and travel planning for the regional field research is accomplished throughout the academic year.

**FS 6400 Foundations of Strategy      5 semester hours**

The goal of the strategy course is to develop senior leaders who have the tools and knowledge to analyze, synthesize, and evaluate strategy to include strategy development, statecraft, and the pursuit of national interests by examining various theorists' concepts and applied disciplines. A background in statecraft and the development of historical-mindedness serves as the basis for understanding the concept of strategy and the ends, ways, and means model nations use in their pursuit of national interests. The course pays special attention to strategy development for the venues of air, space, and cyberspace and to the impact of airpower on national and military strategy. The course uses seminar discussions, readings, lectures, case studies, practical exercises, and student-written (and briefing) products to facilitate the evaluation of such various themes as the challenges of strategy development, strategy implementation and strategy analysis, the influence of politics across the



full spectrum of warfare, the importance of local circumstances, the challenges of converting military victory into political success, the challenges of coalition warfare, and the challenges of warfare in an age of information and globalization. The course also serves as the foundation for further study in other resident courses that examine the national security decision-making process and the application of military power as a means to attain national objectives.

**LD 6200 Joint Strategic Leadership**                      **2 semester hours**

The goal of the leadership course is to introduce students to the concepts and skills required of senior leaders within the joint strategic environment through an examination of various command, leadership, and management practices. The course is designed to present material that will encourage personal and professional reflection, critical assessment, creative thinking, and the consideration of issues that are found in the current volatile, uncertain, complex, and ambiguous environment. Successful leadership at the strategic level in today's complex and ambiguous environment calls for unique sets of knowledge, skills, and abilities. Building on students' experiences, the course uses a series of lectures, seminar discussions, speakers, case studies, and practical exercises to analyze and synthesize critical- and creative-thinking models, negotiating skills, organizational cultures, team-building skills, and the strategic leader's role as an agent of change to provide the foundation for the application of strategic-level leadership skills and competencies throughout the academic year and in the students' future assignments.

**WAR 6500 War Fighting**                                      **8 semester hours**

The Department of War Fighting develops senior leaders with the skills to plan, deploy, employ, and control US and multinational forces throughout the range of military operations, with an emphasis on air, space, and cyberspace forces as they contribute to joint, multinational, and interagency operations. The war-fighting curriculum is composed of two closely related subcourses. In the first course, Joint Forces, students synthesize and evaluate current and emerging joint war-fighting/enabling capabilities with special emphasis on the employ-

ment and sustainment of air, space, and cyberspace forces in a joint, interagency, and multinational military environment. The course analyzes emerging opposition capabilities, concepts of operations, and how information operations are integrated to support the national military and national security strategies and how information operations support achieving desired effects across the spectrum of national security threats. In the second course, Joint Planning, students analyze the joint operation planning process through which combatant commanders set the military conditions for attaining national and coalition objectives as both a supported and supporting instrument of power. Throughout the course, students synthesize and value techniques for leading in a joint, interagency, and multinational environment and focus on the leadership skills necessary to sustain innovative, agile, and ethical organizations in a joint, interagency, and multinational environment. The course is designed to prepare each AWC student for agile, proactive, and future-focused national security planning.

**RES 6100 Research**

**5 semester hours**

For the successful completion of the Research course, students select a topic from lists compiled from military agencies and work with advisors to research and document results, recommendations, and insights. The product of that research, the professional studies paper (PSP), must not exceed 5,000 words or approximately 20 pages. Air University places some papers on the Internet via the AU Web site and provides copies to the Muir S. Fairchild Research Information Center and the Air Force Academy Library. Additionally, the papers are forwarded to the requesting agency or office that sponsors the research. Most research will be conducted as an individual effort, but the AWC may offer selected students the opportunity to complete this requirement via a faculty-led group research project. The Research course has the following objectives:

- Provide a venue for students and faculty to address issues of relevance and importance to military organizations;

- Assist students in conducting thoughtful, logical, and critical research and analysis;
- Share the results of student research, writing, and analysis with key decision makers; and
- Assist students, if they desire, in submitting papers for publication in Air Force, sister service, and other professional journals and periodicals.

**Electives Program.** All students must complete three electives. The Electives Program has two major objectives:

- Enhance and complement the core curriculum by providing students with opportunities to achieve greater depth and breadth of understanding in issues of special interest; and
- Provide the AWC curriculum with the flexibility to adapt quickly to changes in the international and domestic security environments.

## **Leadership and Strategy Electives**

### **EL 6441 Command and Conscience                      2 semester hours**

In a prudent and practical manner, this course examines several topics of immediate professional concern to the commander. How does today's leader, for example, resolve the tension inherent in the occasional clash of command responsibility and ethical imperative? To whom or to what, for example, does the leader owe the highest loyalty—to his superior? to the Constitution? or to his religious and philosophical judgments? Which has priority—mission or men? If integrity is—as it must be—the heart of the officer corps, it must first be examined before it can be assimilated. This course, then, inquires into the nature of military integrity.

### **EL 6444 Expeditionary Leadership in World War II    2 semester hours**

Eric Larrabee's *Commander in Chief* is as good a case study file of biographies of World War II leaders as appears anywhere. This course will dissect Larrabee's biographies as well as look

at James Stokesbury's short history of the war to provide reference points and target sets.

**EL 6445 Legally Leading the Fight**                      **2 semester hours**

This seminar analyzes the evolving responsibilities of commanders as the US military continues to prosecute the war on terrorism and carries out its missions incident to the implementation of the Bush doctrine. The course focuses on the role of group and wing commanders in the interface of operations and law to support national security.

**EL 6447 Leading Change**                                      **2 semester hours**

Senior leaders in the twenty-first century will almost certainly be expected to manage significant change—both for themselves and their organizations. In fact, the entire concept of transformation focuses on change. Yet, however attractively it is packaged, individuals tend to fear change, and organizations tend to resist it, making management of change one of the most difficult leadership competencies. This course examines what goes on within the culture of organizations to accept or resist change. Using recent scholarship and case studies, the course examines examples of successful change, allowing students to develop the intellectual tools necessary for the mediation of change.

**EL 6448 Genocide and Intervention**                      **2 semester hours**

This course investigates whether and how the United States might have used its instruments of power to respond before, during, and after outbreaks of genocide. It uses case studies from the holocaust, Cambodia, Rwanda, and Yugoslavia to analyze why genocide occurred, how the United States responded, and whether military force can prevent genocide.

**EL 6449 China's Use of Force: A Case Study  
of a Non-Western Approach to Warfare**                      **2 semester hours**

This course examines the ways China might use force to advance or protect its interests. It analyzes the logic of Chinese threat perception in the light of calculation or miscalculation of consequences, with particular attention given to the Taiwan situation.

**EL 6460 Military Professionalism and Civil-Military Relations**

**2 semester hours**

This course examines the roots of the concept of the professional soldier and the relationship of professionalism to civil-military relations. It begins by defining professionalism and examining the theoretical concepts that have shaped the military community's self-concept as professionals. The course examines the most important recent study of civilian control of the military and concludes with the ongoing debate on the relationship of the military to American society. Students should be able to articulate their own understanding of the values and dangers of reliance upon traditional definitions and norms of professionalism.

**EL 6462 Why Insurgencies Win (and Lose) 2 semester hours**

This course assesses the phenomenon of materially weak insurgent victories over far more powerful states by examining the relatively small literature on this timely subject. Explanations of insurgent victories include superior political will and readiness to sacrifice blood and treasure, superior strategy, nature of the enemy regime, and the availability of foreign assistance.

**EL 6463 Coalition Warfare: Dealing with Complexity and Uncertainty**

**2 semester hours**

Increasingly, one hears the lament that, in times of conflict, coalitions cause as many or more problems as they solve. However, the history of coalitions and of warfare suggests otherwise. This course challenges the notion that coalitions are the weaker form of organizing and conducting warfare. History shows that coalition warfare, when properly conceived and conducted, is the more powerful, flexible, and resilient form of warfare. Yet coalition warfare does bring with it numerous challenges and potential pitfalls of which the military professional must be aware.

**EL 6464 Coercive Air Power**

**2 semester hours**

This course addresses the intellectual foundations of airpower strategy, focusing upon how the threat or use of airpower can achieve political objectives. It discusses coercion theory, the

history of coercive airpower strategies, and the operationalization of these strategies in planning the use of airpower in anticipated and actual conflicts. In addition, the course evaluates the strengths, weaknesses, disappointments, and triumphs of these strategies.

**EL 6465 Surprise and Deception in Modern War**

**2 semester hours**

This course examines the nature of surprise and deception, their significance and limitations, and their impact on modern war. The lessons address deception doctrine, new technologies and operating concepts, and specific cases where surprise and deception may or may not have had an impact on the outcome of campaigns or wars.

**EL 6470 Military Privatization**

**2 semester hours**

This course examines the phenomenon of privatization in Western militaries, with particular emphasis on the US armed forces. It begins by analyzing the political, economic, and technological factors that have led military organizations to outsource an increasing range of functions, ranging from mail delivery to combat operations. Students then consider the costs and benefits of privatization through a series of case studies that highlight the military, political, economic, and ethical issues involved.

**EL 6472 Communicating for Effect**

**Winning in the Information Battlespace**

**2 semester hours**

Senior military leaders must understand the information environment; how it can be exploited for military gain; the statutory and policy limitations US government places on the exploitation of information and the communications channels through which it passes; what effects various public affairs actions, integrated into information operations, can generate on US citizens, allies, and adversaries; what measures must be taken to safeguard information and the communications channels through which it passes; and how the evolving opportunities and challenges in the information environment affect military decision making. This elective provides a broad-

brushed approach to how military information operations contribute to the exploitation of the information environment in the successful mitigation of information operations. This approach explains how the unique capabilities of joint public affairs operations contribute to ensure successful joint force operations.

**EL 6474 Continuous Process Improvement  
(CPI) for Defense Leaders** **2 semester hours**

In May 2006 Deputy Secretary of Defense (DEPSECDEF) Gordon England directed the establishment of DOD-wide CPI programs aimed at improving operating effectiveness across all the military services. Each of the services has made significant gains in this CPI journey, but this journey is a long one, constituting nothing less than a change in military culture and the way the United States thinks about accomplishing its mission. This elective surveys the tools and methods of CPI and overviews the approaches each of the services is taking to implement the DEPSECDEF CPI guidance, with an emphasis on the Air Force Smart Operation for the 21st Century (AFSO21) program. The course culminates with specific leadership strategies to maximize the organizational benefits from a CPI program.

**EL 6495 Group Research: Blue Horizons I  
(Classified, US Personnel)** **2 semester hours**

**EL 6496 Group Research: Blue Horizons II  
(Classified, US Personnel)** **2 semester hours**

This study, led by the Center for Strategy and Technology, examines the current rate of technological change and assesses the implications for air and space power employment in the future international security environment. The study's participants will be organized into four research teams. Individual and group white papers will be produced, as well as an executive summary of the entire report. The Air Force chief of staff is the external sponsor for this study.

## **War-fighting Electives**

### **EL 6540 Air Mobility and the Defense Transportation System**

**2 semester hours**

This elective provides students a better understanding of the current and evolving capabilities of mobility and the critical role it plays and will continue to play during peace, war, and operations other than war. During the course class members draw from historical references, student case-study presentations, classroom discussions, and guest speakers to gain a better understanding of how mobility resources and capabilities evolved, future directions in air mobility, and the impact on current and future national security and military strategies.

### **EL 6541 Navy and Marine Corps Expeditionary Forces**

**2 semester hours**

This course is designed to provide students a comprehensive introduction into naval expeditionary warfare. It covers current Navy and Marine Corps strategy and doctrine, emphasizing Navy/Marine Corps force planning, forces and capabilities, and military operations. Students are given comprehensive briefings on US Navy and Marine Corps operations in support of joint strategy, participate in panel discussions and case studies, and take field trips for hands-on reinforcement of lessons.

### **EL 6542 Command and Control of Air and Space Power**

**2 semester hours**

This course is designed as a base-level introduction of past, current, and future issues concerning the joint force air component commander (JFACC). It is specifically intended for operators who may be assigned to a JFACC or joint air operations center (JAOC) staff. This course addresses the roles, operations, command relationships, and responsibilities of the JFACC in support of a joint force commander (JFC). It is not intended for experienced JFACC or JAOC staff officers. A blue-ribbon panel of retired general officers whose expertise is in command and control and the application of air and space power will mentor students.



**EL 6543 America's Army****2 semester hours**

This course is specifically designed for non-Army students who want to gain greater understanding about the Army. The Army is thoroughly explored, with a strong emphasis on how history and heritage influence current force and doctrine. Students gain a comprehensive awareness of Army culture and develop an appreciation for what the Army can provide to a regional combatant commander or joint task force commander. This course builds a solid foundation of knowledge about the Army, including the US Army's force structure and capabilities, doctrine, terminologies, and idiosyncrasies. Students analyze and evaluate Army doctrine relative to their own service and the joint community. The goal is to ensure students understand what it looks, feels, and smells like to be a soldier. Class culminates with a three-day practical exercise/map exercise, to validate classroom instruction.

**EL 6544 Intelligence, Surveillance, and Reconnaissance (ISR) Support to the War Fighter (Classified, US Personnel)****2 semester hours**

Joint Vision 2020 calls for decision superiority—making and implementing better decisions faster than the adversary can react. Decision superiority is only achieved through the full integration of intelligence, surveillance, and reconnaissance (ISR) operations into the military campaign. This course addresses ISR as a weapons system for strategic and operational campaign planning and execution: the intelligence mission, organization, activities, and processes; how ISR operations are integrated into air and space operations; capabilities and limitations of the seven intelligence disciplines; and challenges of meeting the increasing information needs of commanders, planners, and operators.

**EL 6545 Special Operations: Then and Now (Classified, US Personnel)****2 semester hours**

This course provides an understanding of the organization, capabilities, and missions of US special operations forces (SOF) with particular focus on their support to the combatant commanders. It provides an awareness of the roles of the assistant

secretary of defense for special operations and low-intensity conflict and the Joint Staff J-3 Special Operations Division (J-3 SOD). The course analyzes the integration of joint SOF capabilities with conventional forces; looks at SOF equipment, training, and support; and considers mission employment, civil affairs, and psychological operations.

**EL 6546 Future Total Force Issues                      2 semester hours**

From the initial vantage point of a historical review of the Air National Guard (ANG) and Air Force Reserve (AFRES), students engage in discussions surrounding the compelling issues affecting the total force today and through the next decade. Some suggest that the United States will transition to a militia nation once again. What is the right force mix for the active and reserve components? The course includes a sprinkling of outside speakers, field visits, and teleconferences with the top leaders of the Air Reserve components. It gives students the opportunity to establish multidimensional views on the issues at hand.

**EL 6548 Intelligence Requirements for  
Cyberspace (Classified, US Personnel)                      2 semester hours**

This course explores the concept of ISR and cyberspace as a domain, starting with doctrine, definitions, and threats. Legal challenges based on laws and directives are covered as well as sister service perspectives on cyberspace.

**EL 6550 Combating WMD in the DOD  
(Classified, US Personnel)                      2 semester hours**

This course examines chemical and biological warfare issues and addresses challenges posed by adversaries employing chemical and biological weapons to the successful execution of USAF roles and missions. The course analyzes threats posed by state and terrorist actions and alternative USAF responses to each in various scenarios.

**EL 6552 Strategy, Technology, and War                      2 semester hours**

Military innovation requires technology as well as the right people to put in place the appropriate doctrine and organiza-

tional structures and processes. This framework can be used to analyze past innovations and deduce lessons for implementing future innovations. This course examines the relationship between strategy and technology and the impact of technological breakthroughs on military strategy. The last portion considers future technologies, particularly those related to the genetics, nanotechnology, and robotics revolution, using recent works by Ray Kurzweil, Joel Garreau, and J. Storrs Hall.

**EL 6553 Origin and Influence of the National Reconnaissance Office** **2 semester hours**

The origin of the National Reconnaissance Office (NRO) is grounded in our nation's need for strategic reconnaissance. This elective presents many of the key issues and challenges the NRO and the Air Force faced and integrates them into a framework for viewing the overall role of air, space, and cyberspace power. By gaining a better understanding of these innovations, the United States can better understand how to improve combat effectiveness and how to win the wars of the future.

**EL 6554 Space Operations (Classified, US Personnel)** **2 semester hours**

This course focuses on military applications of space systems, to include capabilities, limitations, dependencies, vulnerabilities, policies, law, and doctrine. The course provides an understanding of current space systems and how space supports the war fighter. Current space issues in a variety of areas are discussed to provide an understanding of the issues facing senior leaders in applying space power. The readings cover background information on space characteristics, limitations, organizations, missions, functions, and contributions to war fighting

**EL 6555 International Space** **2 semester hours**

This course examines the basics of space operations: physics, policies, law, doctrine, and the capabilities and limitations of current international space forces. International issues regarding the use of space forces are discussed throughout the course. A major focus is the international force enhancement space systems available to all nations.

**EL 6558 Terrorism****2 semester hours**

Terrorism is one of the oldest of military tactics and forms of warfare. Historical evidence dates it to 5,000 BC. The root word for terrorism appears in ancient Greek, Roman, and Sanskrit languages. In more modern times, however, terrorism has become the most frequent form of conflict. This course examines why terrorism has re-erupted; the implications for political, economic, military, cultural, and religious institutions; the increasing lethality of terrorist acts; and the prospects for resort to nuclear, biological, radiological, and chemical weapons. This course addresses the capabilities and limitations of governmental authorities and what the future may hold for deterring terrorism.

**EL 6560 Homeland Security and Defense  
(Classified, US Personnel)****2 semester hours**

This course examines the threats to and vulnerabilities of the US homeland, and the actors, organizational structures, plans, policies, programs, and resources required to secure and defend the country. During the Cold-War era, only sovereign nations could create mass casualty and society-destroying events. Currently, the United States must learn how to adjust when individuals and small groups can inflict this type of misery. Given this asymmetric threat, homeland security and defense have become a top national priority. It is essential to have a strategy to protect and defend the United States. The al-Qaeda attacks on the World Trade Center and the Pentagon on September 11th, the subsequent anthrax attacks, thwarted 2006 airline mishaps, and the ongoing war on terrorism all highlight the need to secure and defend the American homeland.

**EL 6581 Medical Support to Joint  
Operations****2 semester hours**

This elective examines the challenges and capabilities of the Air Force Medical Service (AFMS) in support of military operations. The course emphasizes medical readiness, expeditionary medical support, and medical operations during deployments. Medics have participated in multiple humanitarian relief operations and are integral to responding to chemical and biologi-

cal attacks. With today's higher deployment rates, AFMS must cover the entire spectrum of military operations.

**EL 6582 Non-lethal Weapons: Technologies, Concepts, and Strategies** **2 semester hours**

This course describes and analyzes the efforts and issues that underlie nonlethal weapons. It addresses the past use of these weapons, defines capabilities that could be made available to our armed forces, analyzes their incorporation into US military doctrine and strategy, and examines the medical, legal, and public-awareness issues involved in their development and use.

**EL 6588 Information Warfare** **2 semester hours**

This seminar considers when, where, why, and how information warfare is conducted. It examines early views and theories of information warfare (reflexive control and observe, orient, decide, act, and loop process), the tools of information war, the information war battlespace (hacker war, industrial espionage, and terrorist use of cyberspace), Chinese theories of information war, and the development of an information war campaign.

**EL 6590 JCLASS-I Blue Team (Classified, US Personnel)** **2 semester hours**

**EL 6591 JCLASS-I Red Team (Classified, US Personnel)** **2 semester hours**

**EL 6592 JCLASS-II Blue Team (Classified, US Personnel)** **2 semester hours**

**EL 6593 JCLASS-II Red Team (Classified, US Personnel)** **2 semester hours**

The Joint Land, Aerospace, and Sea Simulation (JCLASS) course is a war game that focuses on the strategic and operational levels. Selected students from all of the senior service schools (SSS) play the war game. AWC plays as the JFACC. In JCLASS-I students develop options in response to multiple regional crises and prepare air campaign plans in coordination with the other senior schools to support regional combatant commander objectives in a major theater war. JCLASS-II is a

six-day war-fighting exercise that brings the SSS students together here at Maxwell and allows them to execute their plans in a dynamic environment at AFWI. JCLASS-I consists of 30 contact hours over 10 instructional periods, and JCLASS-II involves 30 hours during the six-day exercise. Enrollment in this course is through seminar director or service chairs only.

**EL 6595 Group Research: Space Issues**  
**(Classified, US Personnel) 2 semester hours**

The AU National Space Center examines a different space-related topic each year. Past topics include “The Impact on the US Economy if Space Superiority Is Lost.” Each student writes a professional studies paper (PSP) on a focused area that derives from the year’s overarching topic.

**EL 6596 Group Research: Cyberspace and Information Operations (Classified, US Personnel)**  
**2 semester hours**

This seminar—led by the Cyberspace and Information Operations Study Center—focuses on the integration of information operations (electronic warfare, network warfare, and especially influence operations) supporting a joint force commander. Issues ranging from the technical/scientific through the ethical/legal are discussed. Students write their PSP on an information operations topic related to research projects from Cyber Command, Eighth Air Force, and other organizations.

## **International Security Studies Electives**

**EL 6743 Globalization 2 semester hours**

This course examines the political, economic, cultural, and demographic implications of globalization. It views the phenomenon from both Western and non-Western perspectives to extract the main arguments for and against globalization.

**EL 6746 Psychology of Decision Making 2 semester hours**

How do people make decisions? What are the frequent mistakes of decision makers? How can I become a better decision

maker? This course explores how psychologists answer these questions and shows how information overload, organizational culture, personality, propensity for risk taking, and stress influence decision making.

**EL 6747 Cultures of Violence** **2 semester hours**

This elective addresses the issues relating to societies in which violence appears to be endemic. Using examples from such diverse environments as El Salvador, Jamaica, Yemen, East Africa, and West Africa, it examines how such groups as the cattle raiders of Karimojong and the “gangster warriors” of Liberia and Sierra Leone turn into chronically violent entities. The course also analyzes the impact that weaponization had upon these groups, with particular emphasis on how light weapons proliferation helped to encourage the creation of “Kalashnikov cultures.”

**EL 6750 Negotiation Theory and Application** **2 semester hours**

This course helps students to develop the skills necessary to successfully negotiate conflict resolution, treaties between countries, budgets between services, and memoranda of understanding (MOU) between agencies. Considerations will be given to cross-cultural factors, time constraints, negotiation styles and strategies, and profiling of involved parties. Topics to be covered include logical analysis, group problem solving, conflict management, and methods of persuasion. This course emphasizes negotiation skills and theory and assumes that students have little knowledge of this subject.

**EL 6752 Cultural Perspectives in Negotiations** **2 semester hours**

In this course students develop the skills necessary to successfully negotiate conflict resolution, treaties between countries, budgets between services, and MOUs between agencies. Emphasis is placed on cross-cultural factors, time constraints, negotiation styles and strategies, and profiling of involved parties. Topics covered in this course include logical analysis, group problem solving, conflict management, and methods of persuasion. This course assumes students have basic knowledge in these topics.

**EL 6754 The CIA and Support to the Military:  
Organizations, Functions, and Capabilities  
(Classified, US Personnel) 2 semester hours**

Intelligence—accurate and timely information about unfolding world events and international concerns or threats—is crucial to the successful conduct of US foreign policy. In the post-Cold War period, the United States may exercise even greater influence in international affairs than it did previously. Yet the dynamics of international relations are more complex, and the perception of threats to US interests may be less obvious. While US policy makers will continue to rely on intelligence to make judgments and decisions, the role of intelligence—with its need for secrecy and occasionally extralegal activities—presents many dilemmas for a democratic society.

**EL 6756 Conduct of Diplomacy 2 semester hours**

This course deals with diplomacy as an instrument of power. It examines the diplomatic processes and procedures by which nations communicate and conduct their affairs and programs and issues comprising modern diplomacy. These include economic and military assistance, intelligence collection, public diplomacy, human rights, political change, and economic pressure.

**EL 6758 International Rivals: Leaders and  
Strategic Cultures in Potential Adversary  
States (Classified, US Personnel) 2 semester hours**

This course looks at the leaders and strategic cultures of countries and groups of concern to US national security. The topics addressed include the political-psychological profiles of the leaders of Iran, Syria, China, Russia, and North Korea and such terrorist organizations as the Kurdistan Workers Party, Islamic Jihad, Hezbollah, and Osama bin Laden's organization. Who are these leaders, and what factors helped to form their worldview? What values and ideas do they espouse, and how can they be influenced? Who in their regime or group makes what kinds of national security decisions and why? How can they be deterred from war? What is their military doctrine, and what are their military capabilities? How have they used force in the past, and what is their relationship to other states in their region and to the United States?



**EL 6780 Peace and Stability Operations      2 semester hours**

The North Atlantic Treaty Organization (NATO), spearheaded by the USAF, stopped Serbian forces from ethnically cleansing 1.8 million Kosovo Albanians. Could international organizations (IO), such as NATO or the United Nations (UN), have stopped the genocidal killing of 800,000 Rwandans in 1994? In this course, students examine the role of IOs, particularly as guarantors of peace and security, and come to understand what they can and cannot do. US armed forces have acted often within the framework of IOs (within NATO in Kosovo and Bosnia and the UN in Macedonia and Haiti) or with the endorsement of IOs (the UN in Operation Desert Storm). Thus, a strategic military thinker must be cognizant of IOs and their functions. The course starts with the UN and recent cases of peacekeeping, moves to regional organizations (including NATO and the European Union), and deals with nongovernmental organizations and their role in conflict prevention and resolution.

**EL 6782 Sustainable Security      2 semester hours**

Environmentally related resource wars, water usage, and the natural human need for security are often the foundational *casus belli* that might be either triggered by a natural catastrophic event or a result of a war itself. In this elective, unconventional or unexpected sources of conflict, along with methods of conflict prevention, are studied within the context of civilian-military planning and operations, including the study of current and historical cases, international agreements, alliances, treaties, and potential concepts for sustaining the environment.

### **Additional Programs**

**SC 6800 Solo Challenge War Game      3 semester hours**

AWC conducts a six-day, unclassified capstone war game (set 10 years in the future) at the strategic and operational level, with full play by the students and faculty. As a summative application of the knowledge, skills, and attributes gained during the academic year, the Solo Challenge (SC) mission focuses on experiential learning versus doctrinal experimentation and research. With that mission, it challenges students to assess (critically think, creatively

address, and decisively communicate) complex scenarios in a time-constrained environment, prepare and defend courses of action (COA), and pursue national objectives using all the instruments of national power (diplomatic, informational, military, and economic) while applying an understanding of regional cultural issues as directed by the SC president (a faculty member). Faculty teams and subject-matter experts manually adjudicate game play to ensure synthesis of critical issues affecting national policy within the various regions of the world. The faculty's mission in directing game play and adjudicating student actions is to shape game inputs that realistically reinforce joint professional military education and AWC learning objectives. As objectives are met, the game continues its spiral development by presenting continual challenges to test the student's critical thinking and synthesis of the instruments of national power. To this end, SC supports these objectives:

- Distinguish the uniqueness of strategic-level leadership and apply competencies required by strategic leaders;
- Evaluate the national security challenges and opportunities in a future operating environment;
- Apply elements of national power in designing effects-based plans;
- Apply national security and national military strategies in developing plans to achieve desired effects across the full range of military operations;
- Evaluate the role of air, space, and cyberspace power in joint, unified, interagency, intergovernmental, and multinational operations;
- Synthesize theater strategies, estimates, and campaign plans to employ military power in a joint, unified, interagency, intergovernmental, and multinational environment; and
- Synthesize critical elements, enablers, and processes that define the strategic environment in peace and war.

**NSF 6810 National Security Forum.** The National Security Forum (NSF) is an event sponsored by the secretary of the Air

Force and hosted by AWC during the week before graduation. It is the capstone event of AWC's academic year. NSF brings together approximately 110 civilian leaders with diverse backgrounds from locations around the United States to join with the AWC class. The primary objective of the NSF is a frank and candid exchange of views on national security matters among our invited guests, AWC students, and senior military and civilian leaders. The week is devoted to exploring the many issues that affect the current and future security of our country, focusing heavily on the role of air and space power as an instrument of national security. The forum's distinguished speakers, seminars, and social functions serve to broaden and solidify the participants' understanding of air and space power and national security issues.

**CLS 6820 Commandant's Leadership Series.** The commandant and dean of Academic Affairs invite approximately 25 distinguished speakers to address the class throughout the academic year. Speakers come from the highest levels of government, military services, the press, nongovernmental organizations, and industry. They are also selected based on their stature (former prisoners of war or Medal of Honor recipients) or their expertise on current issues. The speakers integrate leadership themes or issues with which senior leaders should be familiar. Student preparation includes critical listening, questioning the speaker, and seminar discussions. The Department of Leadership and Strategy administers this core course curriculum.

**Language Programs.** The English as a Second Language (EL 1710) course, taught by the International Officers School for selected international officers only, provides intensive work in the English language. Because EL 1710 is not a graduate-level course, it does not count as an elective required for the degree. Similarly, the familiarization classes taught by the Defense Language Institute are required for US students but do not count toward the master's degree. These noncredit, nongraded courses are Arabic Language Familiarization (EL 1740), French Language Familiarization (EL 1750), Mandarin Chinese Language Familiarization (EL 1760), Spanish Language Familiarization (EL 1770), and Russian Language Familiarization (EL 1780).

## **Distance Learning Program**

Many military officers and federal government employees do not have the opportunity to attend senior developmental education in residence. Distance learning (DL) offers a challenging senior professional development opportunity regardless of their location. The Air War College DL program uses portions of the resident program's core curriculum along with selected electives and strategic-leadership-analysis papers to create a professional military experience for those officers and DOD civilians unable to attend AWC in residence. The primary difference between the two programs is the self-directed emphasis on self-directed critical thinking and analysis of current issues with the distance learning program. Note that courses taken in the distance learning program may not be used to satisfy course requirements of the resident program if selected to attend, although it will help students to be better prepared for a residence program.

Students may complete their requirements in student-led seminars, as independent learners, or by a combination of these two. Examinations, writing requirements, and course materials are identical regardless of the completion method. Students may transfer from one study mode to the other as needed.

Independent study is an excellent alternative for those students desiring a great deal of flexibility due to an extensive temporary duty schedule, unique family needs, or for those who may or may not have the option of participating in a student-led seminar. Most students complete this self-paced program in 12–18 months or less time.

Unlike the resident program, AWC DL students do not receive a master's degree upon completion of the program. However, they can request a transcript from the AU registrar's office and apply for admission with one of several participating universities and colleges offering master's degree programs for AWC distance learning graduates. These programs vary in the amount of credits they accept towards completion of their degree programs.

For enrollment information, contact an education services officer or visit <http://www.maxwell.af.mil/au/awc/DL>. If potential students meet the enrollment requirements, they can enroll online at <https://ausis.maxwell.af.mil/SIS/app>. Inquiries may

be addressed to AWC Distance Learning, 325 Chennault Circle, Maxwell AFB, AL 36112-6427; commercial phone number (334) 953-6093 or DSN 493-6093; or e-mail: awc.dl@maxwell.af.mil.

**Programs.** Air War College Distance Learning currently has two active editions: the 16th Edition, also known as the Senior Leader Course (SLC), and the 17th Edition.

**Duration.** Most of the students complete the program within 12–18 months. The time a DL student takes to complete the program is normally different from the time required for a resident student because distance learning students have their official duties, family, and possibly deployments to juggle at the same time. Students are encouraged to set realistic goals to proceed through the AWC distance learning program at a reasonable pace. Completing one lesson each week allows the student to graduate in about 18 months.

No enrollment quotas govern the number of students who can be enrolled in the program. Students should seriously consider their other commitments before enrolling to complete the program within a reasonable period.

**Prerequisites.** Enrollment in the AWC DL program is open to all US military officers from the active, Air Force Reserve, and Guard components in the grades of O-5 (to include O-5 selects) and higher, US civil servants in the grade of GS-13 and higher (and equivalent NSPS grades), and Civil Air Patrol and international officers in the equivalent grades of O-5 and above. Students may enroll using the AWC Distance Learning Web site at <https://ausis.maxwell.af.mil/SIS/app>.

**Joint Professional Military Education Credit.** The AWC DL program does not currently offer JPME credit.

**Graduation Requirements.** Students must earn at least a satisfactory grade to graduate. Note that courses taken in the distance learning program may not be used to satisfy course requirements of the resident's master's degree program.

## Distance Learning Curriculum – 16th Edition

The core curriculum of the 16th Edition (sometimes referred to as the Senior Leader Course–SLC) consists of two core courses: Institutional Leadership and International Strategy/Foundations of War Fighting (IS/FW). To graduate, students must successfully complete one elective course, two multiple-choice exams (elective and the IS/FW portion of the program), a short-answer exam, and a written assignment.

Enrollment in the 16th edition was closed in June 2008 and was replaced with the updated 17th edition. Students enrolled in the 16th edition complete their program. Coursework completed for the 16th edition cannot be transferred to the 17th edition.

### Curriculum Summary

Course Title	Lessons	Contact Hours
Institutional Leadership	17	180
International Strategy/Foundations of War Fighting	10	90
One Elective	10	60
Multiple-choice Exams	2	0
Short-answer Exam	1	0
Written Assignment	1	0

**Note:** Courses taken in the distance learning program may not be used to satisfy course requirements of the resident's master's degree program.

### Course Descriptions

**Institutional Leadership.** SLC studies begin with an introduction to strategic leadership and are designed to prepare students for senior officership. The course consists of 17 lessons covering a variety of issues and associated skills students need to succeed in high-level positions. It helps students understand that issues at the strategic level are more complex than at lower leadership levels, and in many cases, there is *no traditional school solution*. The goal is to help guide students through the critical-thinking process and assist them to determine the best or most appropriate answers to those complex problems.

**International Strategy/Foundations of War Fighting.** These lessons provide the information and analytic tools to interpret global, regional, political, and economic trends shaping our national security policies, while highlighting the US national security decision-making system and the process of defining and evaluating strategic options available to the United States at both the political and military levels. These lessons emphasize conceptual approaches to help explain how US national security is intertwined with global political and economic conditions and will also prepare students to contribute to the inevitable, and continuing, review of grand strategy, national security strategy, foreign policy, military employment, and associated bureaucratic organizations and processes.

The International Security portion consists of two key areas. The first focuses on the US national security strategy, and the second emphasizes globalization efforts, trends, and challenges. The last four lessons specifically address foundations of war fighting, primarily from the perspective of applying air and space forces.

## **Distance Learning Curriculum – 17th Edition**

The core curriculum of the 17th edition consists of five courses: Foundations of Strategy (FS), National Security and Decision Making (NSDM), Global Security (GS), Joint Military Operations (JMO), and Joint Strategic Leadership (JSL). Additionally, students must complete one elective.

### **Curriculum Summary**

<b>Course Title</b>	<b>Lessons</b>	<b>Contact Hours</b>
Foundations of Strategy	12	132
National Security and Decision Making	12	132
Global Security	12	132
Joint Military Operations	12	132
Joint Strategic Leadership	12	132
One Elective	10	60

**Note:** Courses taken in the distance learning program may not be used to satisfy course requirements of the in residence master’s degree program.

## Course Descriptions

**Foundations of Strategy.** The Foundations of Strategy (FS) course develops senior leaders who can ethically develop and evaluate strategy in the pursuit of national interests. This foundation is laid by examining various theorists' concepts and showing how they have applied to conflicts throughout history and how they apply to today's military operations. The course pays special attention to strategy development for the venues of air, space, and cyberspace; to the impact of airpower on national and military strategy; and concludes with a look at the challenges of information-age warfare. This course serves as the foundation for further study in other courses that examine the national security decision-making process and the application of military power as a means to attain national objectives.

**National Security and Decision Making.** The National Security and Decision Making (NSDM) course assesses the processes for developing US security strategy and policy as well as the use of the national instruments of power in support of that policy and strategy. The course does this by evaluating the current US national security strategy and interests, the state and nonstate threats, and the roles of the instruments of power in countering those threats. The course also focuses on the national security decision-making processes by assessing the role and impact of civil-military relations, the interagency process, Congress, and public opinion in policy development and execution.

**Global Security.** The Global Security (GS) course examines the roles of nations in addressing key issues shaping the global environment. The course also identifies growing and emerging security concerns beyond the military capabilities of state and nonstate actors (e.g., energy security, environmental security, migration, and population growth). The course uses a comparative approach to examine the political and economic elements of actors and their impact across a wide range of global issues. The course assesses the relationship between efforts to democratize status, economic development, and national and international security. The course also analyzes power politics



from a region-to-region perspective and the impacts of these regional features with regard to international security.

**Joint Military Operations.** The Joint Military Operations (JMO) course prepares senior officers to deploy, employ, and control joint forces across the spectrum of conflict. The course emphasizes the employment of air and space forces as they contribute to the joint, combined, or coalition environment in support of the national military strategy. The course assesses the best ways to present, plan, and control military resources (US and coalition) as they serve the unique requirements of the combatant commander. The course analyzes the strategic implications of emerging war-fighting concepts (sister service, global strategic operations, logistics, and special operations), plans for and evaluates future threats that are asymmetric to the US experience and expectations, and examines one's efforts from the opposing perspective. The course also assesses the friction between joint and service operational concepts as applied to the employment and control of air and space power.

**Joint Strategic Leadership.** The Joint Strategic Leadership (JSL) course educates students in the competencies and awarenesses needed to move from tactical and operational leadership levels to strategic leadership. The course examines senior leadership competencies required to be successful in today's complex, multicultural, and expeditionary war-fighting environment. The course is based on two key assumptions: first, students are already successful leaders, but future challenges will be significantly different from those they faced in the past; and second, students can significantly improve their competencies in areas vital to success as strategic leaders. The course challenges the students to develop their vision, expand their conceptual capacity through critical analysis and creative thinking, improve their communication skills, expand their capacity for executive decision making, and refine their capability for leading change. In addition, the course focuses on acceptance of responsibility, accountability, command, moral values, and awareness of the strategic environment to meet strategic and senior-leader challenges involved in leading large complex organizations. The course concludes with a capstone individual simulation. As a comprehensive applica-

tion of the knowledge, skills, and attributes gained during the academic program, the simulation focuses on experiential learning, challenging students to assess (critically think, creatively address, and decisively communicate) complex scenarios in a time-constrained environment, and pursue objectives while applying an understanding of regional cultural issues. As objectives are met, the simulation continues its spiral development by presenting continual challenges to test students' critical thinking and synthesis of the course.

### **Elective Curriculum**

(Only one elective is required.)

**Coercive Airpower.** This course addresses the intellectual foundations of airpower strategy, focusing on how the threat or use of airpower can achieve political objectives. It discusses coercion theory, the history of coercive airpower strategies, and the operationalization of these strategies in planning the use of airpower in anticipated and actual conflicts. In addition, the course evaluates the strengths, weaknesses, disappointments, and triumphs of these strategies.

**Intelligence Support to the War Fighter.** Joint Vision 2020 calls for decision superiority—making and implementing better decisions faster than the adversary can react. Decision superiority is only achieved through the full integration of intelligence, surveillance, and reconnaissance (ISR) operations into the military campaign. This course addresses ISR as a weapons system for strategic and operational campaign planning and execution: the intelligence mission, organization, activities, and processes; how ISR operations are integrated into air and space operations; and challenges of meeting the increasing information needs of commanders, planners, and operators.

**Space Operations.** This course focuses on military applications of space systems, to include capabilities, limitations, dependencies, and vulnerabilities. Space policies, law, and doctrine establish the guidelines for using space, while orbital mechanics and the space environment place physical limits on

the use of space. The course provides an understanding of current space systems and how space supports the war fighter, as well as an understanding of the issues facing senior leaders in applying space power. The readings include background information on space characteristics, limitations, organizations, missions, functions, and contributions to war fighting.

**Communicating for Effect.** Senior military leaders must understand the information environment; how it can be exploited for military gain; the statutory and policy limitations the US government places on the exploitation of information and the communication channels it passes through; what effects various public affairs actions, integrated into information operations, can generate on US citizens, allies, and adversaries; what measures must be taken to safeguard information and the communication channels it passes through; and how the evolving opportunities and challenges in the information environment affect military decision making. This course is intended to prepare current/future leaders with the means to exploit the information environment with regard to military operations through planning and execution and to use strategic communication in operations planning.

**Medical Support to Joint Operations.** This elective provides a close look at how DOD is postured to provide a fit force for deployment, prevent disease from nonbattle injuries during deployment, force package medics for employment in the field, and ensure medics are ready to care for the wounded beginning at the point of injury, and ready to provide en route care back to continental United States (CONUS). Additionally, the course covers how medics provide unique capabilities to build foreign relations, support special operations, and respond to natural disasters, pandemics, and chemical, biological, and radiological events. The main focus is placed on the Air Force Medical Service, but some discussion compares other service medical capabilities. This elective is designed for the student who wants to understand the details of how healthcare fits into operational planning at the combatant command level.

**Interest-based Negotiations.** This course develops the elements of negotiations, focusing on the interest-based negotiations (IBN)

framework. This framework includes negotiations theory, preparation and execution processes, and understanding how the environment can impact negotiations. Since negotiations rely exclusively on communications, discussions on the cultural elements of communications, ethics, and verbal and nonverbal communications are also developed. From a Western perspective, negotiation is mainly a process to solve a problem. Other cultures see negotiations as serving different purposes (to be covered in the course). There are many approaches to negotiations, and no single process or framework guarantees success. However, intelligently selecting and applying negotiations techniques and skill sets most certainly increases chances for success—especially if the alternative was to do little or no preparation for the negotiations.

**Nonlethal Weapons.** The challenge in today’s complicated security environment is for US forces to impose control and order on hostile forces, with a minimum of casualties to themselves, the belligerents, and/or the surrounding civilian population. This course describes and analyzes these efforts and the issues that underlie nonlethal weapons. It addresses the past use of non-lethal concepts and technologies; defines the capabilities that could be made available to our armed forces; examines the medical, legal, and public awareness issues involved in their development and use; and analyzes their incorporation into current US military doctrine and strategy.

### **Additional Programs**

**Language Programs.** A language familiarization program is offered in Arabic, French, Mandarin Chinese, and Spanish.

### **Air Command and Staff College**

*Internet Address*  
<http://acsc.maxwell.af.mil>

**Mission.** *Prepare field-grade officers to develop, employ, and command air, space, and cyberspace power in joint, combined, and multinational operations.*

Air Command and Staff College (ACSC), the Air Force's intermediate professional military education (PME) institution, prepares field grade officers of all services (primarily O-4s and O-4 selects), international officers, and US civilians for positions of higher responsibility within the military and other government arenas. Geared toward teaching the skills necessary to conduct air, space, and cyberspace operations in support of a joint campaign, ACSC focuses on shaping and molding tomorrow's leaders and commanders. The college's academic environment stimulates and encourages free expression of ideas as well as independent, analytical, and creative thinking.

ACSC traces its roots to the Air Corps Tactical School (ACTS), located at Maxwell Field from 1931 to 1942. After World War II, as the independent Air Force was formed, grew, and developed, the requirements and expectations of the school evolved to fulfill the service's educational needs. The vision of pre-World War II leaders has withstood the test of time. Although six decades have passed since the founding of ACTS, the present 10-month curriculum still focuses on expanding understanding of air, space, and cyberspace power and on the growth of mid-career officers. In 1962 the school became known by its current name, Air Command and Staff College.

In academic year (AY) 1999, ACSC began aligning its curriculum under the Air University (AU) commander's Continuum of Education Strategic Guidance (CESG). The CESG reflects principles contained in Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, and reinforces and builds on principles outlined in AFDD 2-8, *Education and Training*. Air Force doctrine stresses the importance of professional development of Airmen and states that success in war depends at least as much on intellectual superiority as it does on numerical and technological superiority.

ACSC, in partnership with Air Force senior leadership, is embarking on an expansion program to provide lifelong learning opportunities focused on the intermediate force developmental years of officers and civilians. The goal is to provide value-added resources and sponsored communities of practice to take force development to the next level. Beyond traditional PME, these programs are dedicated to providing an array of both short, focused learning opportunities, along with sustained, experiential growth.

ACSC is comprised of a command section, two academic directorates (Resident and Distance Learning), and two support directorates (Mission Support and 21st Student Squadron).

Within the resident academic directorate, the curriculum is developed and delivered through three teaching departments—Department of Leadership and Strategy, Department of War Fighting, and the Department of International Security Studies. Within the distance learning academic directorate, the curriculum is developed and delivered through the Curriculum and Operations departments. ACSC's two deans—the dean of academic affairs (DE) and the dean of distance learning programs (DL)—provide academic leadership to the school's faculty and student body. The DE, assisted by the vice dean for academic affairs and vice dean for operations, coordinates the integration of curriculum content and directs the planning and implementation of the academic program through the three teaching departments.

The DL is responsible for planning, organizing, and delivering the college's nonresident program of instruction through two departments. The Curriculum Department develops courseware and provides instruction and guidance to students and online instructors, and the Operations Department receives, converts, and delivers curriculum through a spectrum of multimedia delivery methods.

The 21st Student Squadron's leadership consists of a squadron and four operations officers. This staff is responsible for the health, morale, and welfare of some 500 resident students and their families.

**Learning Outcomes.** The ACSC curriculum encourages the development of higher-order thinking by challenging students to think critically and exercise a combination of analytical and practical tools required as leaders charged with the nation's defense. ACSC graduates are well educated in the profession of arms with emphasis on the use of air, space, and cyberspace power in joint campaign planning and the operational art of war. ACSC graduates

- have broadened leadership skills to lead effectively in the twenty-first-century command and staff environment,
- have a broadened understanding of the nature of conflict and current and future threats to the United States and its allies,

- have a deeper understanding of the integration of instruments of power to meet national security objectives,
- have broadened their ability to apply air, space, and cyberspace power through the joint planning processes to meet joint force commanders' objectives,
- have a deeper understanding of cultural and regional factors that shape military operations in the international security environment, and
- have a renewed sense of warrior ethos.

**Resident Curriculum.** The primary form of instruction in the resident program is through seminars held in specially designed rooms featuring closed-circuit television, an array of multimedia equipment, and student access to a college-wide computer network and the Internet. Students are issued more than 80 books to expand their professional knowledge and a personal laptop computer to keep track of the academic schedules, online reading assignments, examinations, research, and other writing requirements throughout the academic year.

**Duration.** The resident program consists of 10 months of graduate-level study. As the center for USAF Intermediate Developmental Education (IDE) and as a joint-accredited institution for providing the first phase of Joint PME, ACSC annually educates about 500 students from all US military services, selected federal agencies, and international officers from over 60 different nations.

**Eligibility.** Air Force candidates to attend ACSC are selected in conjunction with their O-4 promotion boards. A central PME-selection board, with major command input, selects the actual ACSC class from these candidates based on their demonstrated potential for assignment to key field-grade command and staff positions. Majors, majors-select (or equivalent rank), GS-12, and GS-13 (National Security Personnel System Pay Band Two and above) government civilians are eligible to attend ACSC. Reference AFI 36-2301, *Professional Military Education*, and the Education and Training Course Announcements (ETCA) Web site at <https://etca.randolph.af.mil> for additional information.

## **Master of Military Operational Art and Science Degree**

To be admitted to the master of military operational art and science degree program, selected individuals must (1) present proof of academic capability either by holding a qualifying undergraduate degree (US bachelor's degree or its equivalent), or (2) meet admission requirements through the portfolio admission process, and (3) provide an acceptable score on the Test of English as a Foreign Language (TOEFL), unless they are from an English-speaking country.

International students not meeting the admissions requirements for the master's degree program will be allowed to attend ACSC and will, upon completion of the resident program with a cumulative grade point average of 2.7 or higher, receive the ACSC resident diploma but will not be awarded a master's degree.

**Graduation Requirements.** Students fully admitted must complete the following 33-semester-hour ACSC resident program with an overall grade point average of 3.00 on a 4.00 scale to earn the master's degree.

### **Curriculum Summary**

<b>Course Title</b>	<b>Semester hours</b>
OC 5510 Orientation Course	noncredit
LW 5510 Leadership in Warfare	3
LC 5510 The Practice of Command	3
NS 5510 Inter/National Security Studies	3
WS 5510 Applied Warfare Studies	3
AP 5510 Air, Space, and Cyberspace Power Studies	3
JF 5510 Joint Forces	3
JP 5510 Joint Planning	3
JA 5510 Joint Air Operations	3
CS 5510 Regional/Cultural Studies	3
RE 5612 Research/Electives	6
GE 5510 Gathering of Eagles	noncredit
<b>TOTAL</b>	<b>33</b>

**Note:** All courses must be taken in residence at ACSC. Courses taken in the nonresident program may not be used to satisfy course requirements of the resident master's degree program.



## **Resident Course Descriptions**

### **OC 5510 Orientation Course**

**Noncredit**

The Orientation course provides an overview of the ACSC program for joint education; USAF educational methodologies, policies, curriculum, and research requirements; and key principles and concepts that students will encounter throughout their academic experience. The program includes an introduction to small-group dynamics, communication and critical-thinking skills, the technology employed within the program, student responsibilities and requirements, and additional services that are available to enhance student success.

### **LW 5510 Leadership in Warfare**

**3 semester hours**

The Leadership in Warfare course analyzes the factors that guide military leaders' actions in establishing and maintaining an effective leadership environment. The course also seeks to both educate and inspire students to reach their full leadership potential through the study of great commanders and their conduct of warfare, as well as current problems of command in contemporary joint operations. Through these studies, students gain a unique understanding of the specific leadership challenges that leaders face in guiding people and organizations through crises and environments of change.

### **LC 5510 The Practice of Command**

**3 semester hours**

The Practice of Command course provides an opportunity for students to reflect on their personal philosophy on the art and craft of command, honing that philosophy through interaction and the study of responsibilities and challenges unique to commanding an Air Force squadron. The course introduces students to the resources available to assist squadron commanders in their duties and stresses how important it is for commanders to meld their personal philosophies on command with the unique requirements of their situation and their responsibilities to their service, their mission, their people, and themselves.

**NS 5510 Inter/National Security Studies      3 semester hours**

The Inter/National Security Studies course provides a foundation for understanding the international security environment and its implication for the United States, as well as how the United States both shapes and responds to this environment. The course also examines the instruments of power (IOP) and how they are wielded by both state and nonstate actors to affect the international environment. In addition, the course examines the US national strategic decision-making process, examining how the actors and systems translate policy into action through the use of the IOPs.

**WS 5510 Applied Warfare Studies      3 semester hours**

The Applied Warfare Studies course introduces students to the canon of military theory, focusing on such issues as the nature of war, the levels of war, the range of military operations, military strategy, and operational art. It looks specifically at traditional forms of warfare but also examines such alternative forms as guerilla warfare, insurgency, counterinsurgency, and other forms of warfare.

**AP 5510 Air, Space, and Cyberspace  
Power Studies      3 semester hours**

The Air, Space, and Cyberspace Power Studies course enhances students' understanding of military theory by introducing perspectives on war fighting with specific emphasis on air, space, and cyberspace power. It looks specifically at the development of air, space, and cyberspace power and examines the organizations and strategies that have been involved in their employment. In addition, the course analyzes the role these elements might play in future operations.

**JF 5510 Joint Forces      3 semester hours**

The Joint Forces course presents the joint and service doctrinal perspectives that guide joint force commanders and their staffs as they seek to successfully achieve assigned theater security objectives. The course provides an overview of joint force organization structures and the framework within which joint forces are

created, employed, and sustained. It also examines each of the military services, exploring their capabilities and limitations. In addition, the course analyzes the ways in which joint force commanders integrate service and functional component command support to achieve success at the operational level of war.

**JP 5510 Joint Planning**

**3 semester hours**

The Joint Planning course introduces students to the complexities and requirements of joint planning. Through the course, students study pertinent doctrine and the joint operation planning process, analyze the challenges joint force commanders face in attaining unified action, and examine ways in which operational art and design are applied to achieve objectives. Additionally, the students examine planning considerations across the range of military operations. The course culminates with students synthesizing what they have learned to create key elements of a campaign plan.

**JA 5510 Joint Air Operations**

**3 semester hours**

The Joint Air Operations course introduces students to the people, processes, and products involved in planning, directing, and executing joint air operations in support of joint force commanders' campaign plans. The course specifically focuses on the important role of the joint force air component commander (JFACC), looking at the doctrinal responsibilities of that position and the actors, processes, and products that comprise the JFACC's air operations center. Equipped with this understanding, students analyze the employment of air and space power across the full range of military operations.

**CS 5510 Regional/Cultural Studies**

**3 semester hours**

The Regional/Cultural Studies course introduces students to regional and cultural factors and discusses how these factors motivate actors within the international security environment. Through this course, students grasp the important role that culture plays in determining operational success. Students are also exposed to the unique ways in which their own cultural perspectives influence both their outlook and interaction with other societies. Through this experience, students come to

understand the unique security challenges and opportunities posed by culture and how best to respond to ensure success.

**RE 5612 Research/Electives**

**6 semester hours**

The Research/Electives program complements ACSC's core curriculum, providing an opportunity for students to investigate topics of particular interest to the Air Force in a rigorous fashion under the direction and guidance of a subject-matter expert. Through this program, students develop their ability to define an issue succinctly; conduct thoughtful, logical, and critical research and analysis; and create well-supported conclusions and recommendations of potential benefit to today's war fighters.

**GE 5510 Gathering of Eagles**

**Noncredit**

The Gathering of Eagles (GOE) is a unique course that stimulates the study of air and space history. While at ACSC, the Eagles spend time with students and participate in teaching interviews. These interviews allow the students to understand their heritage and learn lessons about air and space leadership from those who shaped it. Research conducted by students in the GOE Research Seminar forms the basis for the content of this course.

## **Other Programs and Activities**

ACSC conducts several activities that support the resident core curriculum and enrich the experience of its students and their families during the academic year.

**Commandant's Specials.** These special presentations enhance the resident curriculum by giving students and faculty the opportunity to interact with distinguished leaders and experts across political, economic, and military environments. Speakers, past and present, include members of Congress, ambassadors, and top civilian and military leaders in the DOD.

**International Officer Program.** International officers have attended ACSC annually since 1946. During its tenure the college has graduated more than 2,500 international officers from 92 nations. Before attending ACSC, international officers attend a

six-week preparatory course conducted jointly by the International Officer School and ACSC. This course increases the officers' ability to speak and understand the English language while familiarizing them with the USAF organization and mission. During ACSC, international officers participate in field trips that supplement the curriculum objectives.

**Athletic Program.** The ACSC Athletic Program is designed to improve the quality of life for students and faculty by creating and sustaining an environment that promotes personal health, fitness, and professional growth. With that in mind, the objectives of the program are designed to help personnel pass the fitness test on the first attempt and to put in place a program that fosters social interaction and team building in conjunction with healthy competition. The athletic program includes competitive seminar and intramural sports. It also includes mandatory participation in school-scheduled sports activities by all 40 flights. Students and faculty compete in base intramural activities as well. They are also required to engage in personal fitness/aerobic activities at least three times each week. ACSC conducts annual fitness testing in accordance with AFI 40-501, *The Air Force Fitness Program*.

**Spouse Program.** The Spouse Program helps to integrate resident student spouses into the ACSC experience. It offers many opportunities for spouses to learn, grow, and share the ACSC experience with students and faculty. In addition to various social events, this program acquaints spouses with the college's academic requirements, increases their awareness of current events and DOD issues, and provides opportunities for personal growth and development. Participation is completely voluntary, and the spouses determine the program's scope and direction.

### **ACSC Online Master's Program (OLMP)**

In the spring of 2006, the secretary and chief of staff of the Air Force directed ACSC to pursue an online master's degree equivalent to the college's in residence degree program. The need to provide more responsive professional military education to active duty, Guard, and Reserve officers had been a continuing topic of discussion throughout the Air Force over the past few years. The ac-

celerated pace of operations since 2001, often involving frequent and lengthy deployments for military personnel, prohibited the Air Force from assigning many of its officers to resident educational programs. Thus, the lack of nonresident programs relevant to the specific needs of military leaders was noted as a major limiting factor in securing advanced learning opportunities for these officers. At the same time, the dynamic nature of today's international security environment demands officers who are more intellectually agile, can think critically, and can develop innovative new solutions to ever-changing threat environments. Consequently, the major impetus for this initiative was to provide relevant educational opportunities to personnel when and where resident education was not feasible while simultaneously addressing the demand for military officers adept in critical thinking and innovative problem solving. It is anticipated that given the dynamic nature of today's security environment, the current trend for expanded distance learning educational opportunities will only continue to grow.

**Eligibility.** The ACSC OLMP opened with an initial capacity of 500 active duty students in June 2007. The program has expanded to include Air National Guard and Air Force Reserve students in August 2007. The ACSC OLMP was expanded further in the summer of 2008 to encompass Air Force civilians selected through an AF Civilian Personnel process. As resources permit, the program will be open to sister service majors, majors-select, DOD civilians, and other eligible federal agency civilians in major-equivalent positions, in the future.

Air Force active duty, Guard, and Reserve officers of the rank of major and major select are eligible to apply for admission to the ACSC OLMP. Federal civilians of the grade GS-11 and YA-02 and above are eligible to apply but will be selected by AFPC (POC: AFPC/DPIFA, DSN 665-2524). An undergraduate degree from a regionally accredited institution is required to meet admission requirements.

**Program Description.** The Southern Association of Colleges and Schools (SACS) has reviewed ACSC's Online Master's Degree program and approved AU's decision to award a master's degree in Military Operational Art and Science to students

who successfully complete this program. The program is a rigorous educational opportunity consisting of 11 eight-week courses, totaling 33 semester hours. The curriculum, detailed below, covers such topics as contemporary Air Force operations, national security, leadership, and joint warfare challenges and opportunities. Due to the level of work required, beginning students may take only one course each term; however, they may be approved to take two courses each term after they have successfully completed their first three courses. Each course requires 10 to 14 hours of work each week. Tuition is free, and there is no active duty service commitment associated with the program; however, students incur the cost of required books and personal computer and Internet connectivity expenses.

Students who work steadily should complete their master's degree in approximately 24 months; however, students have up to five years to meet degree requirements. Student deployments, unique duty schedules, and/or job/personal demands while enrolled can be easily managed given the scheduling approach adopted. Since members must enroll for each term, students can manage their course schedules to better coincide with personal/professional commitments.

The courses are hosted on the Blackboard® Learning Management System and are facilitated by adjunct instructors who have been selected, trained, reviewed, and credentialed by ACSC. Assessments are submitted online, and confidential instructor feedback is returned to students to assist them in improving both their understanding of course materials and their communication skills.

Upon successful completion of the program, students earn an accredited master's degree in military operational art and science, Joint PME Phase I completion credit, and USAF IDE credit. (The program was reviewed by a joint staff accreditation team and received initial Joint PME certification in 2007.) More importantly, students have the chance to participate in a learning opportunity that is focused directly upon the needs of the modern war fighter—gaining knowledge and developing skills that will serve them in their current positions—throughout the remainder of their military careers and beyond.

## Curriculum Summary

Course Title	Academic Hours
OC 5510 Orientation Course	noncredit
LW 5510 Leadership in Warfare	3
LC 5510 The Practice of Command	3
NS 5510 Inter/National Security Studies	3
WS 5510 Applied Warfare Studies	3
AP 5510 Air, Space, and Cyberspace Power Studies	3
JF 5510 Joint Forces	3
JP 5510 Joint Planning	3
JA 5510 Joint Air Operations	3
CS 5510 Regional/Cultural Studies	3
RE 5610-5611 Research/Electives I and II	6
<b>TOTAL</b>	<b>33</b>

## Course Descriptions

The ACSC OLMP consists of the following 12 courses (11 credit-hour courses and a noncredit orientation course).

### **OC 5510 Orientation Course**

**Noncredit**

The Orientation course provides an overview of the entire on-line master's degree program, including USAF educational methodologies, policies, curriculum, research requirements; and key principles and concepts that students will encounter throughout their academic experience. The course includes an introduction to small-group dynamics, communication and critical-thinking skills, the technology employed within the program, student responsibilities and requirements, and additional services that are available to enhance student success.

### **LW 5510 Leadership in Warfare**

**3 semester hours**

The Leadership in Warfare course analyzes the factors that guide military leaders' actions in establishing and maintaining an effective leadership environment. The course also seeks to educate and inspire students to reach their full leadership potential by studying great commanders and their conduct of warfare and current problems of command in contemporary joint operations. Through



these studies, students gain a unique understanding of the specific leadership challenges that leaders face in guiding people and organizations through crises and environments of change.

**LC 5510 The Practice of Command                      3 semester hours**

The Practice of Command course provides an opportunity for students to reflect on their personal philosophy on the art and craft of command, honing that philosophy through interaction and the study of responsibilities and challenges unique to commanding an Air Force squadron. The course introduces students to the resources available to assist squadron commanders with their duties and stresses how important it is for commanders to meld their personal philosophies on command with the unique requirements of their situation and their responsibilities to their service, their mission, their people, and themselves.

**NS 5510 Inter/National Security Studies      3 semester hours**

The Inter/National Security Studies course provides a foundation for understanding the international security environment, its implications for the United States, and how the United States both shapes and responds to this environment. The course also examines the instruments of power (IOP) and how these are wielded by both state and nonstate actors to affect the international environment. In addition, the course examines the US national strategic decision-making process, examining how the actors and systems translate policy into action through the use of the IOPs.

**WS 5510 Applied Warfare Studies                      3 semester hours**

The Applied Warfare Studies course introduces students to the canon of military theory, focusing on such issues as the nature of war, the levels of war, the range of military operations, military strategy, and operational art. It looks specifically at traditional forms of warfare but also examines such alternative forms as guerilla warfare, insurgency, counterinsurgency, and other forms of warfare. Through this study students apply the lessons of military theory and their understanding of warfare to operational challenges facing both today's and tomorrow's US military.

**AP 5510 Air, Space, and Cyberspace  
Power Studies**

**3 semester hours**

The Air, Space, and Cyberspace Power Studies course enhances students' understanding of military theory by introducing perspectives on war fighting with specific emphasis on air, space, and cyberspace power. It looks specifically at the development of air, space, and cyberspace power and examines the organizations and strategies that have been involved in their employment. In addition, the course analyzes the role these elements might play in future operations.

**JF 5510 Joint Forces**

**3 semester hours**

The Joint Forces course presents the joint and service doctrinal perspectives that guide joint force commanders and their staffs as they seek to achieve assigned theater security objectives. The course provides an overview of joint force organizational structures and the framework within which joint forces are created, employed, and sustained. It also examines each of the military services, exploring their capabilities and limitations. In addition, the course analyzes the ways in which joint force commanders integrate service and functional component command support to achieve success at the operational level of war.

**JP 5510 Joint Planning**

**3 semester hours**

The Joint Planning course introduces students to the complexities and requirements of joint planning. Through the course, students will study pertinent doctrine and the joint operation planning process, analyze the challenges joint force commanders face in attaining unified action, and examine ways in which operational art and design are applied to achieve objectives. Additionally, the students will examine planning considerations across the range of military operations. The course culminates with students synthesizing what they have learned to create key elements of a campaign plan.

**JA 5510 Joint Air Operations**

**3 semester hours**

The Joint Air Operations course introduces students to the people, processes, and products involved in planning, directing,

and executing joint air operations in support of joint force commanders' campaign plans. The course focuses specifically on the important role of the joint force air component commander (JFACC), looking at the doctrinal responsibilities of that position and the actors, processes, and products that comprise the JFACC's Air Operations Center. Equipped with this understanding, students analyze the employment of air and space power across the full range of military operations. Joint Planning (JP 5510) is a prerequisite for this course.

**RE 5610–5611 Research/Electives I and II**

**6 semester hours**

The Research Electives I (RE 5610) course complements ACSC's core curriculum, providing an opportunity for students to begin investigating topics of particular interest in a rigorous fashion under the direction and guidance of a subject-matter expert. Through this program, students develop their ability to define an issue succinctly; conduct thoughtful, logical, and critical research and analysis; and create well-supported research proposals that will serve as the intellectual basis for the scholarly research papers produced in Research Electives II.

The Research Electives II (RE 5611) course complements ACSC's core curriculum, providing an opportunity for students to investigate topics of particular interest in a rigorous fashion under the direction and guidance of a subject-matter expert. Through this program, students develop their ability to define an issue succinctly; conduct thoughtful, logical, and critical research and analysis; and create well-supported conclusions and recommendations that serve as the foundation for a scholarly research paper with the potential benefit to today's war fighters. Research Electives I (RE 5610) is a prerequisite for this course.

**CS 5510 Regional/Cultural Studies**

**3 semester hours**

The Regional/Cultural Studies course introduces students to regional and cultural factors and shows how these factors motivate actors within the international security environment. Through this course, students grasp the important role that culture plays in determining operational success. Students

are also exposed to the unique ways in which their own cultural perspectives influence both their outlook and interaction with other societies. Through this experience, students come to understand the unique security challenges and opportunities posed by culture and how best to respond to ensure success.

## **Nonresident Programs**

ACSC offers a number of nonresident programs supporting Air Force, Air Force Reserves, Air National Guard, sister service officers, and DOD civilians worldwide. These programs include the ACSC nonresident Intermediate Developmental Education (IDE) program; Air Reserve Component Seminar (ARCS) program; and Commander's Connection, a global community of practice dedicated to furthering the art and practice of command throughout the USAF.

### **ACSC Nonresident IDE Program**

Established in 1948, the ACSC nonresident Intermediate Developmental Education (IDE) program provides intermediate-level PME to officers unable to attend in residence. In 1969 ACSC expanded the scope of the program by implementing a seminar delivery methodology to share opinions, expertise, and experiences among the seminar members. Both the seminar and correspondence programs achieved Phase I Joint PME accreditation in 1992 and were reaccredited in 2002, 2004, and 2007. In 1999 the nonresident program was placed under the dean of distance learning (DL). The nonresident IDE program provides PME to about 85 percent of all Air Force majors and majors-select. In 2004 the program expanded to support the chief of staff of the Air Force's (CSAF) IDE initiative. The IDE initiative specifically tailors individual officers' development to the needs of the Air Force.

The DL staff continually explores new and better ways to meet the PME demand for mid-career officers stationed throughout the world. By capitalizing on technological advances and Internet connectivity, the nonresident course is narrowing the gap between resident and nonresident education and is clearly identifying ACSC as a pacesetter in AU and the educational community.

As of 15 April 2008, the ACSC DL program supports 10,425 students: 42.2 percent USAF active duty; 24.2 percent Air National Guard and USAF Reserve; 17.4 percent Navy, Army, and Marine Corps; 14.8 percent DOD civilians; and 1.4 percent “other.”

**Eligibility.** ACSC nonresident programs are offered to US active duty, Reserve, and National Guard majors, majors-select, and their equivalents from all services. DOD civilian employees in the grade of GS-11 or above or in equivalent National Security Personnel System (NSPS) positions may also enroll. Civil Air Patrol officers serving in the grade of major or above may also enroll in the correspondence program. International applicants for nonresident ACSC programs must be majors-select or higher or equivalent-grade civilian employees of the military department of a country or international organization assigned to a DOD billet. International officers may enroll through the Foreign Military Sales (FMS) training sponsorship program. Reference AFI 36-2301, *Professional Military Education*, the ACSC public Web site: <https://ausis.maxwell.af.mil>, and the Education and Training Course Announcements Web site at <https://etca.randolph.af.mil> for further information.

**Program Description.** The course of study is an integrated process. It begins with lessons designed to enhance the students’ leadership and command skills and concludes with an exercise that offers students an interactive, educational experience in planning, generating, and employing air and space forces in support of a joint force commander’s mission. In between, students explore national security issues; strategy and war theory; air, space, and cyberspace power history and theory; expeditionary Air Force force-employment concepts; and the capabilities and limitations that the USAF and its sister services can contribute to joint force commanders. The curriculum is delivered via printed books, DVDs and CD-ROMs, and the Internet. Students receive an integrated multimedia curriculum that includes textbook readings, digitized multimedia offerings, and interactive applications. They have 18 months to complete this program and must achieve a minimum score of 70 percent on each of seven examinations and complete three on-line exercises and a written requirement. Students may choose

several methods to complete the program. The same personnel record entry (nonresident) is made for both forms of enrollment upon successful completion of the IDE program. **Note:** Courses taken in the nonresident program may not be used to satisfy course requirements of the resident program nor may they be used to satisfy course requirements in the OLMP. The specific delivery methods for the curriculum are listed below.

**Non-Master's Distance Learning Program (Self-Study).** This self-paced method of study affords students the opportunity to choose the time and place of study. ACSC offers a framework for completing this program within the 18-months allotted by providing a recommended schedule for students to follow. To enhance flexibility, however, students may enroll anytime throughout the year and deviate from the ACSC recommended completion schedule as personal and professional time commitments permit. Because of its flexibility, this method is the most popular one for completing the nonresident IDE program.

**Base-level Seminar.** In this 10.5-month version of the IDE program, students coordinate with the base education office to form the seminar; then, they meet weekly at participating home stations in a forum designed for the free exchange of ideas and opinions. Seminar participants share unique background experiences and technical expertise. ACSC provides the framework for conducting the seminar program by providing a schedule for the seminars to follow. The seminars are composed of five to 18 members and may begin anytime co-located students elect to form a seminar. Although seminars typically start in August, to coincide with dependents' school schedules, they can start any time throughout the year.

**Internet.** ACSC also maintains its IDE courseware on its Web site. Any student enrolled in the ACSC IDE program may access the courseware electronically via the Internet. The Web site contains a library with lesson plans, digitized multimedia files, readings, and interactive computer exercises. For additional information on these capabilities, contact ACSC Student Services at DSN 493-7901, (334) 953-7901, 1-800-316-7042, or e-mail: [acsmdl@maxwell.af.mil](mailto:acsmdl@maxwell.af.mil).

## Nonresident Curriculum

The ACSC nonresident IDE program is organized into seven curriculum blocks.

### Curriculum Summary

Course Title	Contact Hours
00030A The Challenges of Leadership and Command	27
00030B National Security Studies	27
00030C Strategy and War	27
00030D Air, Space, and Cyberspace Power	27
00030E Joint Forces	27
00030F Joint Planning	27
00030G Joint Air and Space Operations	27
<b>TOTAL</b>	<b>189</b>

### Course Descriptions

#### **00030A The Challenges of Leadership and Command.**

The Challenges of Leadership and Command (LC) course is designed to equip mid-career officers and civilians with the knowledge and tools that will assist them in successfully meeting the challenges of leadership and command in today's dynamic environment. It builds upon leadership information introduced during previous Air Force professional military education experiences. The course further introduces students to the special leadership situation of command. Like leadership, command is based on relationships. It is also a unique position that brings with it special responsibilities. The course will explore these responsibilities and common resources available to individuals to help meet the challenges of command.

The course argues that leadership can be learned and understood through study and deliberate application. The first phase of the course introduces critical thinking, innovation, creativity, the concept of shared global values, and the role culture plays in leadership.

**Phase I.** Phase I illustrates its main points through historical examples that include those of leaders who have overcome adversity to achieve phenomenal success by applying the cognitive abilities presented in this phase.

**Phase II.** Phase II of the course exposes students to the notions of morals, ethics, and accountability. By applying the intellectual concepts introduced in Phase I, students learn to identify and resolve ethical dilemmas in their own environments. Several case studies from current events are used to support this phase and to show how individuals who fail to properly employ the tools presented in Phase I can sometimes suffer extreme consequences.

**Phase III.** Phase III introduces the unique responsibilities of command. The differences between leadership and command occur when the legal responsibilities of command and the resources and support agencies typically available to aid commanders are introduced. Students will read real-life scenarios describing enormous leadership and command challenges. After reading these scenarios, students must apply the tools and techniques they have learned throughout the course to develop their own responses to these realistic leadership challenges. The course culminates with a proctored examination. Students must score at least 70 percent on the multiple-choice exam to pass.

**00030B National Security Studies.** The National Security Studies course is built upon the premise that ACSC students—military officers and their civilian counterparts—must understand today’s complex and dynamic national and international security environment to operate effectively at all levels of war. To achieve this understanding, students must first realize how policy makers in the United States shape and respond to the security environment through the development of national-level strategies and plans. Only then can students properly plan for the most effective use of the military instrument of power in synergy with the other IOPs to protect and pursue national interests.

**Phase I.** During Phase I, National Strategy, students first consider how major trends in the international system shape the potential for both conflict and cooperation for all actors on the international stage. Next, the course shows how decision makers analyze these trends in terms of values, objectives, and interests. Students examine the idea of strategy as a bridge between the IOP and national objectives. Students conclude this phase by examining these concepts throughout the *National Security Strategy of the United States of America*.



**Phase II.** Phase II, National Policy Makers and the IOP, continues the discussion of national security by examining the role of key national policy makers—the president, the National Security Council, and Congress—and how they work together through the interagency process to use the IOPs to respond to security issues.

**Phase III.** Phase III, Global Security Issues, considers the most serious threats to the security and interests of the United States as laid out in the *National Security Strategy*. Here, students assess the strategies and IOP that policy makers can employ in response to terrorism and weapons of mass destruction in the hands of both state and nonstate actors.

**00030C Strategy and War.** The Strategy and War (SW) course provides ACSC students with an understanding of how military strategy and the military IOPs support the *National Security Strategy* and national objectives. Students will develop a better understanding of the crucial relationship between levels of strategy and levels of war. The course examines key concepts associated with military force—both the preferred American way of war and other types of warfare more prevalent in some cultures. Students also see how the DOD is attempting to transform itself better to meet changing security concerns. Military practitioners must be prepared for the difficult challenges they will face when attempting to apply operational art to achieve strategic goals in complex cultural contexts such as those found in Iraq.

**Phase I.** Phase I, War, Strategy, and Operational Art, introduces students to strategic and operational art, relating those important concepts to the idea of war itself, the three levels of war, and the difficulty of planning for the appropriate level of military force to achieve national political goals. The SW course contrasts traditional American approaches to war with other irregular ways of warfare prevalent in different cultures and in small and limited wars.

**Phase II.** In Phase II, Transforming American Military Strategy, students are introduced to the responsibilities of the DOD for providing direction and guidance to the armed forces in support of national objectives. Students will consider the current US defense strategy, military strategy, and *Quadrennial Defense Review*, along with specific guidance related to stability opera-

tions and the military strategic plan for the war on terrorism. This phase concludes with an examination of how the DOD and the US military are transforming to meet future challenges.

**Phase III.** Phase III, Applying Operational Art, assesses Operation Iraqi Freedom (OIF) in terms of strategic and operational realities in both the major combat and the stability operations phases. This case study presents students with the opportunity to think critically about US military strengths and weaknesses in carrying out both combat and stability operations and how military professionals might improve in the future.

**00030D Air, Space, and Cyberspace Power.** The Expeditionary Air, Space, Cyberspace Power (AP) course is designed to help students understand the most effective methods for employing air and space power by surveying historical examples, leadership influences, and doctrine. The AP course describes the transformation of air and space power from the end of World War I through OIF, reveals how that transformation is reflected in current USAF doctrine, and explains how USAF air and space expeditionary force operations provide air and space power for combatant commanders. The course introduces such basic Air Force doctrinal concepts as USAF distinctive capabilities and the operational functions of air and space power and helps students grasp the unique capabilities and limitations of modern air and space power. Taken as a whole, this course equips students with the practical information they need to become more effective advocates for air, space, and cyberspace power.

**00030E Joint Forces.** The Joint Forces (JF) course defines the term *joint* and prepares students for assignments as members of a joint staff. To plan and conduct military campaigns on a joint staff, student must have a thorough understanding of each service's capabilities, limitations, service-specific doctrine, and an understanding of joint doctrine. Students also must understand that an effective organizational structure is vital to a joint force's ability to achieve synergy and unity of effort. To be well informed and effective members of a joint staff, students must comprehend how each military service presents its forces to the joint force commander (JFC) and how these forces may be

employed best to accomplish the JFC's mission objectives. This course is presented in two phases and provides an operational-level viewpoint of joint force capabilities and limitations and key mission areas that are critical to supporting the joint force commanders in joint war fighting. A thorough understanding of this material equips students for success in the next two courses.

**Phase I.** Phase I provides an overview of joint force command structures, responsibilities, components, and staffs. It begins with an overview of the Unified Command Plan that establishes missions, responsibilities, and force structure for commanders of combatant commands and establishes their geographic or functional area of responsibility and missions. It then discusses the responsibilities and missions of the five regional and four functional combatant commands, describing their unique mission areas and their capabilities and limitations.

**Phase II.** Phase II provides an overview of the US Army, US Navy, US Marine Corps, and US Coast Guard to include each service's doctrine and capabilities and limitations. It also discusses how these services are employed by the joint force commanders to accomplish the joint mission. With this foundation established, this phase explains how joint force commanders execute their missions by effectively utilizing the available forces.

**00030F Joint Planning.** The Joint Planning Operations Course provides students with an analysis and comprehension-level understanding of how combatant commanders support global security for US interests at home and abroad. The course summarizes the national-level systems that are the driving force behind the complex planning performed by combatant commanders, and then it explains doctrinal concepts, including non-US military integration, common terminology, and tools used in joint operations planning. It also distinguishes between the two planning processes used at the strategic and operational levels: the contingency and the crisis-action planning processes. The course concludes with a hands-on exercise that reinforces key concepts by having students apply their knowledge in a simulated joint force planning cell.

By the conclusion of this course, students should comprehend planning activities that occur in any given regional combatant command throughout the entire range of military operations. They should be able to describe any type of operation

plan, up to and including a campaign plan. Additionally, they should be able to give examples of the factors, principles, players, and processes that affect planning for joint force employment.

**00030G Joint Air and Space Operations.** The Joint Air and Space Operations (JA) course focuses on joint war fighting from air, space, and cyberspace. The course examines the people, processes, and products involved in planning, directing, and executing joint air and space operations in support of the joint force commander's operations plan. Using joint and Air Force doctrine, the course addresses the roles and responsibilities of the joint force air and space component commander (JFACC) and his or her war-fighting headquarters—the JAOC. The course describes considerations for employing joint and multinational forces at the operational level of war. JA further introduces students to the fundamentals of space and information operations. Students use the concepts learned in the JA course to plan and execute the final exercise of the curriculum: the Joint Air and Space Exercise (JAEX). JAEX requires students to develop a strategy to achieve stated objectives and then execute that strategy by developing and executing air tasking orders (ATO).

### **Other ACSC Nonresident Offerings**

**Air Reserve Component Seminar.** The Air Reserve Component Seminar (ARCS) is specifically focused on the unique needs of select Air Force Reserve and Air National Guard students. The ARCS, a hybrid seminar-correspondence program offering, run from one summer to the next. Initially, students assemble in seminars to complete the first two courses of the seven-course curriculum. These seminars are faculty facilitated, feature guest speakers, and allow students to benefit from shared experiences in a collaborative learning environment. At the end of the two-week period, students return to their homes and have one year to complete the next three courses individually, through correspondence. They re-assemble the following summer to complete their final two courses in the enhanced seminar method previously described.

**Commanders Connection.** Commanders Connection, the professional forum for Air Force squadron commanders, is a student-led ACSC project focused on meeting the training and education needs of today's Air Force leaders. Part of the ACSC in residence research seminar program but administered by ACSC DL, Commanders Connection uses a Web-based community of practice to connect tactical-unit leaders across the globe in a collaborative environment dedicated to the sharing of information and ideas, with the goal of advancing the practice of command. Fifteen resident students serve as researchers and facilitators for the community, answering questions from the field and developing best practices for use across the entire Air Force. Commanders Connection has produced multiple guides on leadership and is now a core component of many major commands' squadron-commander training programs.

## **School of Advanced Air and Space Studies**

*Internet Address*

<http://www.au.af.mil/au/SAASS>

**Mission.** *Produce strategists through advanced education in the art and science of air, space, and cyberspace power to defend the United States and protect its interests.*

A revolution in AF PME began in the late 1970s. As it continued in the 1980s, the revolution led Air Force chief of staff, Gen Larry D. Welch, to charter a new graduate school, the School of Advanced Airpower Studies (SAAS), at AU in 1988. The first class convened in the summer of 1991 and graduated in June 1992. Beginning with the graduation of the first class, SAAS has produced many of USAF's most influential and innovative airpower strategists and leaders. In November 2002 SAAS was re-designated the School of Advanced Air and Space Studies (SAASS).

SAASS is an 11-month, follow-on school for selected graduates of intermediate-level DOD PME schools. SAASS creates

warrior-scholars who have a superior ability to develop, evaluate, and employ airpower. Upon completion of all requirements and with faculty recommendation, graduates receive a master of airpower art and science degree.

SAASS faculty members hold a doctorate or an equivalent degree in their fields of academic expertise. The breadth, depth, and diversity of their expertise are enhanced in that the SAASS faculty is divided between terminally credentialed field-grade or senior officers and civilian scholars.

## **Curriculum**

The SAASS curriculum is designed to accomplish two major objectives:

- I. Enhance the student's ability to *think critically* about airpower and warfare resulting from
  - A. a thorough evaluation of military and airpower theories, and
  - B. a thorough evaluation of the reality of the airpower experience, and resulting in
  - C. a reasoned synthesis of theory and experience, the articulation of which informs the question of how modern airpower can best be applied across the spectrum of conflict.
- II. Enhance the student's ability to argue effectively and responsibly about airpower using evidence and logic resulting from experience in
  - A. introducing and defending propositions in a graduate colloquium environment,
  - B. composing interpretive arguments in prose that meets accepted publication standards, and
  - C. reducing complex formal arguments to comprehensible briefings.

The primary instructional forum is the graduate colloquium that facilitates maximum interaction between students and the expert faculty.

**Duration.** The SAASS curriculum is an intensive 50-week program. Class size is limited to 37 Air Force officers, one Army officer, one Navy officer, one Marine officer, two officers from the Air Reserve component, and several officers from closely allied nations upon invitation from the chief of staff of the USAF. Total enrollment will not exceed 45 students.

**Prerequisites.** SAASS students are chosen by a central selection board at the Air Force Personnel Center (AFPC). To apply for consideration, officers must have completed or be in attendance at an intermediate developmental education program in residence.

**Admission Requirements and Procedures.** Admission to SAASS is highly competitive. Those wishing to be admitted must formally apply while or after attending an intermediate development education program. The application process includes a requirement to write an essay on a subject selected by the commandant. Applicants must either already have a master's degree from an accredited institution or have a bachelor's degree with an overall grade point average of 2.75 or higher on a 4.0 point scale. AFIT verifies academic qualifications for applicants attending nondegree-granting intermediate residence programs. A central selection board convened at AFPC makes the final admission selections among qualified applicants.

International students must be native English speakers or score in the 95th percentile of the Test of English as a Foreign Language (TOEFL) within three years before entering SAASS. Nonnative English speakers must have attended an English-speaking resident intermediate developmental education program, preferably Air Command and Staff College. Those attending ACSC must attend the International Officers School prep course. Those entering without having attended ACSC must have attended an English-speaking intermediate program in residence but will have to forego the prep course due to conflicts with the SAASS course schedule. International students should possess undergraduate or graduate degree qualifications equivalent to those required of US students.

**Graduation and Degree Requirements.** To graduate with a degree, a student must:

- achieve a weighted grade point average of 3.0 or higher on a 4.0 grading scale for all letter-graded courses;
- achieve a “pass” grade for all courses graded “pass/fail”;
- prepare a thesis based on research in primary source materials that meets generally accepted standards of research, analysis, and expression at the master’s-degree level; and
- pass an oral comprehensive examination conducted by a faculty board with a grade of “B” or higher.

To graduate with a certificate, a student must:

- achieve a weighted grade point average of 2.5 or higher on a 4.0 grading scale for all letter-graded courses;
- achieve a “pass” grade in all courses graded “pass/fail”;
- prepare a thesis based on research in original source materials that meets generally accepted standards of research, analysis, and expression for Air Force staff work;
- complete an oral comprehensive examination conducted by a faculty board with a grade of “B-” or higher.

**Curriculum Summary**  
(Not listed in order of presentation)

Course Title	Semester Hours
SAASS 600 Foundations of Military Theory	4
SAASS 601 Foundations of Strategy	3
SAASS 627 History of Airpower I	4
SAASS 628 History of Airpower II	4
SAASS 632 Coercion and National Security	3
SAASS 643 Strategy and Campaign Planning	3
SAASS 644 Irregular Warfare and Terrorism	3
SAASS 660 Technology and Military Innovation	3
SAASS 665 Space Power	3
SAASS 667 Information and Cyber Power	2
SAASS 670 Contemporary Defense Policy	3
SAASS 690 Thesis	8
SAASS 699 Comprehensive Examination	3
<b>TOTAL</b>	<b>46</b>



## Course Descriptions

### **SAASS 600 Foundations of Military Theory**

**4 semester hours**

This course analyzes the writings of military theorists who significantly influenced thought about the art and science of war. Through this analysis, students gain a broad background in the development of military thought and develop critical thinking skills as they test theoretical propositions against the criteria of logic and evidence.

### **SAASS 601 Foundations of Strategy**

**3 semester hours**

This is a “tools” course that provides a background and understanding of decision-making theories and strategy. These tools allow the student to better analyze airpower theories, ideas, issues, and concepts. Defense planning issues are discussed to illustrate decision-making challenges and issues pertinent to future airpower strategists.

### **SAASS 627 History of Airpower I**

**4 semester hours**

This course examines the historical development of air and space power in terms of organizations, technology, doctrine, and application. It provides an experiential database required for students to evaluate the theory and practice of airpower. Theories of Giulio Douhet, Hugh Trenchard, Billy Mitchell, Alexander P. de Seversky, and John C. Slessor, among others, are studied in detail. The transition point to the second course in the sequence (History of Airpower II) is governed by the staff ride. For this year the staff ride will explore airpower in France and the Netherlands, and the sequence will break with the end of World War II.

### **SAASS 628 History of Airpower II**

**4 semester hours**

This course analyzes the development of air and space power theory and history from the end of World War II to the present. It examines the theories of John Warden and others as well as effects-based operations and compares them with the practice of airpower over the past 60 years. The coercion theories of SAASS 632 also undergo the practical scrutiny of historical experience.

**SAASS 632 Coercion and National Security**

**3 semester hours**

This course analyzes modern theory and contemporary thought regarding strategic deterrence and coercion; crisis stability; strategic nuclear offense, defense, and proliferation; conventional strategic air attack; force projection; and the adaptation of US grand strategy to changes in the international distribution of power, focusing on the use of airpower to pursue and support these national security objectives.

**SAASS 643 Strategy and Campaign Planning**

**3 semester hours**

This course examines both the substance and process of making strategy and applies it to a real-world situation through a war game. Military decision-making process receives a thorough review, as does the process of formulating commander's intent and translating that to a campaign plan. The unique approach to campaign planning taken by the different services receives treatment. The joint war game includes participants from other advanced study groups—Army, Navy, and Marine. The course includes a one-week field trip to Hurlburt Field, Florida, where a seminar with Air Force senior mentors clarifies course concepts in the context of current planning and operations.

**SAASS 644 Irregular Warfare and Terrorism**

**3 semester hours**

This course develops the theory of small wars and examines the use of airpower in nonstate warfare, with a particular emphasis on revolutionary and counterrevolutionary insurgent warfare. The phenomenon of terrorism and the “global Salafist jihad” of radical Islam also receive treatment.

**SAASS 660 Technology and Military Innovation**

**3 semester hours**

This course focuses on the theory and history of technological development and its impact on innovation in military affairs. The course attempts to develop habits of mind and patterns of inquiry that inform successful military innovation. Theories of

technological determinism, social construction, and heterogeneous engineering form the basis of inquiry.

**SAASS 665 Space Power 3 semester hours**

This course examines the development of military space operations, organizations, strategy, and policy. It explores the contentious issues surrounding space in modern warfare and deals explicitly with weaponization, as well as the organization of space forces in the Department of Defense.

**SAASS 667 Information and Cyber Power 2 semester hours**

This course defines the cyber domain and explores networks, intelligence, influence operations, and the paramount role of information in modern warfare. The history of computers and network development, as well as the implications for terrorism, receive treatment.

**SAASS 670 Contemporary Defense Policy 3 semester hours**

This course focuses on the main actors in the defense arena, from the president to the Congress, secretary of defense, and individual service cultures. It examines topical areas of current and potential US defense concerns and surveys geographic regions likely to present issues in the near future.

**SAASS 690 Thesis 8 semester hours**

The students develop and present to the faculty a research proposal. Once their proposal is approved, the students, with the advice and assistance of a faculty research advisor, prepare a 50- to 80-page thesis based on primary sources. In writing their theses, the students must demonstrate sound scholarship and conform to generally accepted stylistic and methodological canons.

**SAASS 699 Comprehensive Examination 3 semester hours**

A two-hour oral examination is administered by a board of three faculty members (one of whom is usually from outside the SAASS faculty). The exercise is designed to determine if the student has satisfactorily synthesized the entire SAASS

curriculum. The examination begins with the student presenting a briefing of his or her thesis. The relationship between the thesis and course material is often a prominent feature of the examination.

## **USAF Test Pilot School**

*Internet Address*

<http://www.edwards.af.mil/library/factsheets/factsheet.asp?id=6467>

**Mission.** *Produce highly adaptive critical-thinking flight-test professionals to lead and conduct full-spectrum test and evaluation of aerospace weapon systems.*

As long as the United States has had military airplanes, it has needed skilled test pilots. In the earliest days, the nation's entire air force consisted of one Wright biplane and a handful of officers and men in the tiny aviation section of the US Army Signal Corps. These stalwart Airmen did their own testing and maintenance and often taught each other how to fly.

During WW II the need for standardized training for test pilots became obvious. The Flight-Test Training Unit, the first formal US test pilot training program, was stood up on 9 September 1944 at Wright Field in Dayton, Ohio. After a single class, it was renamed the Flight Performance School.

To cope with the surge of wartime work, teams of Wright Field pilots and engineers began flying in the ideal airspace over Muroc Dry Lake in Southern California. In September 1949 the school was renamed the Air Materiel Command Experimental Test Pilot School, and on 4 February 1951, moved to Edwards AFB, California. Two months later the Air Force created the Air Research and Development Command (ARDC), and the school's official designation likewise changed once more to the ARDC Experimental Test Pilot School. On 1 January 1953 the school was renamed the USAF Test Pilot School (TPS).

In 1959 the Test Pilot School began to develop additional courses to prepare test pilots for flight beyond the atmosphere. This movement came to full term on 12 October 1961, when

the Experimental Test Pilot School was redesignated the USAF Aerospace Research Pilot School (ARPS), the first military organization in the world to provide specialized astronaut training; three NF-104 Starfighters were among the systems used to train pilots at altitudes beyond 100,000 feet.

In the late 1960s, the rise of the systems technology approach in the aerospace community had dramatically begun to reorient the traditional approach to the development and acquisition of modern aircraft. Gradually, the Aerospace Research Pilot School began to de-emphasize its spaceflight training mission. On 1 July 1972 the ARPS faded into history. The school then received its present designation, the USAF Test Pilot School.

**Learning Outcomes.** Graduates of TPS should have a thorough grounding in the following core competencies:

- **Diverse Aerospace Vehicle Exposure.** The graduate will have flown different types of aerospace vehicles and flown/monitored various operational tasks to ensure a solid fundamental understanding of a broad range of military missions. The graduate will also have demonstrated rapid adaptability and understanding of new or unfamiliar aerospace vehicles and systems.
- **Flight-Test Engineering.** The graduate will have sufficient math, science, and engineering skills to evaluate aerospace vehicle, system, and munitions design and apply academic theory, flight-test techniques, and modeling and simulation to successfully determine specification compliance and military utility of the system under test.
- **Flight-Test Techniques (FTT).** The graduate will have the ability to select, develop, understand, and execute the appropriate FTT to achieve a test objective.
- **Flight-Test Planning.** The graduate will be able to comprehend and apply the test-management process to effectively plan and execute a flight test to include how to access and efficiently allocate test resources.

- Safety Planning and Risk Management. The graduate will be able to consistently apply a test safety process for identifying test-unique hazards and developing procedures to mitigate risk.
- Flight-Test Execution. The graduate will be able to safely, effectively, and efficiently conduct a mission as part of a test team either on board the aircraft or in the control room.
- Data Management. The graduate will be able to collect and analyze the data required to determine if an airplane or system meets mission requirements and/or specifications. Inherent in data management is the ability to determine the type, quantity, accuracy, and precision of the data required, how the data is to be used and was collected, and the type of data analysis to be used.
- Flight-Test Evaluation. The graduate will be able to apply knowledge and skills gained through critical thinking by analyzing, synthesizing, and evaluating test results to reach substantiated conclusions and recommendations.
- Flight-Test Reporting. The graduate will be able to effectively convey a point in written, oral, and graphical form to clearly document test and safety planning, test accomplishments, and deficiencies and their mission impact.
- Integrated Test Teaming. The graduate will have an understanding of the acquisition life cycle and where test and evaluation (T and E) fits into the process. The graduate will be familiar with applicable governing regulations and directives and the requirements process for developing a test program. Inherent to any test program is building an integrated, multi-disciplinary test team of development and operational personnel from military, government, and contractors.

**Duration.** Two classes are held each year. Each class session is 48 weeks. Selected individuals attend 15 months of class work and thesis preparation before completing the USAF TPS curriculum. Once graduated from TPS, these students stay to

finish their master's theses (using data gathered during the Test Management phase project) and defend their theses three months after their TPS graduation.

**Prerequisites.** The Test Pilot School selects up to eight students each year (three to four students each class) to attend the Air Force Institute of Technology at Wright-Patterson AFB, Ohio. These students must meet the following prerequisites.

### Resident Curriculum Summary

Course	Time in Service	Education	Experience	Physical Qualifications
Pilot	≤ 10 yrs	BS in Engr, Math or Physics (GPA > 2.5)	750 hrs or instructor pilot major weapons systems (MWS) 12 mos AC in MWS	Annual Flying Class II
Navigator	≤ 10 yrs	BS in Engr, Math or Physics (GPA > 2.5)	500 hrs or intelligence (MWS)	Annual Flying Class II
Engineer	≤ 8 yrs	BS in Engr, Math or Physics (GPA > 2.8)	≥ 2 yr experience in 13XX, 14NX, 21AX, 21CX, 21LX, 21MX, 3SX, 61SX, 62EX ,63AX (civ: ≥ 2 yrs in T and E)	Annual Flying Class II

**Admission Requirements and Procedures.** Admission into the USAF TPS is extremely competitive. It is not uncommon for potential students to be alternatives two or three times before being accepted. There are three tracks for which students may apply: Experimental Test Pilot (ETP), Flight-Test Engineer (FTE), or Flight-Test Navigator (FTN). Civilian, Navy, Marine Corps, and Allied Nation personnel are also encouraged to apply for these programs. Refer to AFI 99-107, *Test Pilot School*, for the application process details.

**Graduation and Degree Requirements.** To meet the requirements for completion of the AU master of science in flight-test

engineering degree, students must be in good standing and satisfactorily complete all academic tests, oral and written reports, curriculum flying missions, and comprehensive exams with an overall GPA greater than 3.0.

### **Curriculum Summary**

<b>Course Title</b>	<b>Semester Hours</b>
PF 5416 Fixed-Wing Aerodynamics	3
PF 5417 Performance Data Standardization	3
PF 5418 Performance Optimization	3
FQ 5426 Unaugmented Airplane Motion	4
FQ 5427 Flight Control Systems Testing	4
FQ 5428 Stall/Departure/Spin/Failure State Testing	4
FQ 5429 Handling Qualities and Envelope Expansion Testing	4
SY 5436 Human Factors and Avionics	3
SY 5437 Airborne Sensors	3
SY 5438 Weapons and Integrated Systems Evaluations	3
TM 5446 Test Planning and Reporting	4
TM 5449 Test Management Project and Comprehensive Exams	9
QE 5459 Single-Look Qualitative Evaluation Program	3
<b>Total</b>	<b>50</b>

### **Course Descriptions**

#### **PF 5416 Fixed-Wing Aerodynamics** **3 semester hours**

This course contains academic theory lectures for Introduction to Aerodynamics, Compressible Aerodynamics, and Cruise. This theory is the basis of flight and aerodynamics for fixed-wing aircraft. The flight-test techniques included in this course are mission director, aerodynamic modeling, cruise data, fighter performance check ride, high lift over drag ratio (L/D), and low L/D.

#### **PF 5417 Performance Data Standardization** **3 semester hours**

This group of courses consists of Pilot Statistics, Modeling and Simulation, and Propulsion. These courses are the basis of



atmosphere measuring devices on aircraft and different thrust-generating devices for aircraft. The flight-test techniques for this group of courses consist of tower fly-by, pacer/global positioning system (GPS), and the propulsion demonstration.

**PF 5418 Performance Optimization                    3 semester hours**

This group of courses consists of Takeoff, Landing, and Energy. These courses demonstrate the equations needed for normal flight and departure from flight. The flight-test techniques for this group of courses consist of Takeoff and Landing, C-12 Level Accelerated/Turn, Level Accelerated/Saw Tooth Climb, and turn. Also, the Performance Final Check Ride is within this set of courses.

**FG 5426 Unaugmented Airplane Motion           4 semester hours**

This group of courses consists of Unaugmented Equations of Motion, Trim, and Stability. These courses demonstrate the basic overview of flying qualities flight testing and the flying qualities phase curriculum. The flight-test techniques for this group of courses include C-12 Long-Stab/Man-Flt (LS/MF) Demonstration FTT, LJ-24 VSS Introduction and Long Demonstration FTT, C-12 Lat Dir Demonstration FTT, LJ-24 VSS Lat/Dir Demonstration FTT, and T-38 Dynamics FTT.

**FG 5427 Flight Control Systems Testing           4 semester hours**

This group of courses consists of Introduction of Flight Control Systems (FCS), Parameter Estimation, Analog Flight Control Systems, Aero/Servo/Elasticity (ASE), Criteria for Flight Control System Design, Frequency Content, Aliasing and Filters, Frequency Response Estimation, Digital Flight Control Systems, Redundancy Management Systems, Flight Control Systems Ground Testing, and Flight-Test Simulators. These courses demonstrate the origins and history of flight control systems. The course also reviews control augmentation systems and the terminology associated with flight control systems. The flight-test techniques for this group of courses consist of Variable-Stability In-Flight Simulator Test Aircraft (VISTA) HQ Demonstration FTT. The lab test techniques for this group of courses consist of the Flight

Control System Project called ground test and flights. The flying qualities simulator is also taught in this set of courses.

**FQ 5428 Stall/Departure/Spin and Failure State Testing** **4 semester hours**

This group of courses consists of Stall, Departure and Spin Testing, and Failure State (engine out) Testing. These courses demonstrate the qualities and testing of an aircraft departing from normal straight and level flight. The flight-test techniques for this group of courses consist of Glider Spin Demonstration FTT, T-38 Stall Demonstration FTT, T-38 HQ Demonstration FTT, C-12 Engine Out Demonstration/Data FTT, KC-135 Engine Out Demonstration/data FTT, F-16 departure demonstration FTT, F-16 Departure Data FTT, and T-38 Departure Chase FTT.

**FQ 5429 Handling Qualities and Envelope Expansion Testing** **4 semester hours**

This group of courses consists of Overview of Flying Qualities Testing, Configurations for Flying Qualities Testing, Taxi Testing, First Flight Flying Qualities Testing, Flying Qualities Envelope Expansion Testing, Handling Qualities Evaluation, One-Flight Evaluations of Flying Qualities, Stores Certifications, and Structures. These courses preview the types of flying accomplished during a typical test program. The flight-test techniques for this group of courses consist of F-16 LCO FTT, ME flying qualities demonstration FTT, KC-135 Ground School, Glider Flying Qualities Demonstration FTT, C-12 First Flight Check Ride FTT, F-16 HQ Demonstration FTT, F-15 CFP/Asymmetric Stores Demonstration FTT, AT-38 CFP Check Ride FTT, and F-16 Structure FTT.

**SY 5436 Human Factors and Avionics** **3 semester hours**

This group of courses consists of the Systems Phase Introduction, Human Factors, Integrated Navigation Systems, Communications and Data Link Systems, Avionics Systems Integrations (ASI), and Unmanned Aircraft Systems (UAS) lectures. These courses demonstrate different systems within the cockpit and how their design is tested. The flight-test techniques for 15E Systems Demostration FTT. The lab test techniques (LTT)

in this group of courses consist of Avionics Systems Integration Lab LTT IFAST and ASI integration facility for Avionics System Testing (IFAST) lab. Also, within this group of courses is the F-15E Systems Ground School.

**SY 5437 Airborne Sensors** **3 semester hours**

This group of courses consists of the Electro-Optics Lecture and the Radar Lecture. These courses demonstrate different sensor systems used in modern-day warfare. The flight-test techniques for this group of courses consist of F-16C/D Electro-Optics FTT, F-16D (or VISTA) Air-to-Air Systems Evaluation FTT, and the ASTARS FTT. The lab test techniques in this group of courses consist of the Electro-Optics Lab LTT, the IFAST Radar LTT, and the Airborne Systems Test and the Research Support Airplane ASTARS Cockpit-Training Lab. Also, within this group of courses are the F-16C/D EO Systems Academics/Ground School and the ASTARS Ground School.

**SY 5438 Weapons and Integrated Systems Evaluations** **3 semester hours**

This group of courses consists of the Electronic Warfare Lecture, the Weapons Delivery Testing Lecture, the F-16C/D Air-to-Ground Lecture, the Smart Weapons Air-to-Air Lecture, the Smart Weapons Air-to-Ground Lecture, and the Weapons and Tactics Overview Lecture. These courses demonstrate different weapons systems and the test of their delivery for modern warfare. The flight-test techniques for this group of courses consist of EC Testing LTT/FTT, F-16 Weapons Delivery Familiarization FTT, and the T-38C Systems Evaluations Check Ride FTT. Also, within this group of courses is the T-38C Systems Evaluation Ground School.

**TM 5446 Test Planning and Reporting** **4 semester hours**

This group of courses consists of the Test Management Phase Introduction, Probability and Statistics (P and S), Test Conduct, Intermediate T and E, the Test Management Course (TMC), Unit Safety Officer (UTSO) Training, TMC Mod Planning, Design of Experiments (DOE), All-Weather Testing, Deficiency Reports, and Executive T and E. These courses demonstrate

the proper planning and execution procedures for flight testing. Also, within this group of courses are the TPS reports program, initial flight reports, technical report formatting, and the DOE project.

**TM 5449 Test Management Project and Comprehensive Exams** **9 semester hours**

Sponsored Research–Test Management Projects. The test management projects (TMP) are customer-funded flight-test projects that are preformed by the USAF TPS students with guidance from the TPS staff. The students are divided into test teams of pilots, navigators, and engineers with approximately four to six individuals to a team. TMPs are designated for approximately 10 to 15 fighter aircraft test hours or 20 to 25 heavy aircraft test hours. Eight TMPs occur each year at USAF TPS (four in the spring and four in the fall). The customer provides the research concept or the part that is to be flight-tested. The customer funds specialized support of major aircraft modifications. USAF TPS provides the test aircraft, which are normally Air Force Flight-Test Center (AFFTC) assets. The Test Pilot School also funds “minor” aircraft modifications and the cost for flight hours of testing and evaluations. The TPS students take the flight-test data, reduce the data, conduct data analysis, and provide a Defense Technical Information Center (DTIC)-ready technical report for the customer at the end of the process.

**Comprehensive Written Test.** The comprehensive written test is a four-hour exam. It is a closed notes/text exam (equation sheets are provided). Each subdivision is allocated an hour of the exam, in which the master instructors can ask any and all related material the students have seen over their time at USAF TPS.

**Comprehensive Oral Test.** The test is a panel examination of the individual students to ensure their comprehension of test principles and concepts. A panel of two or three USAF TPS faculty presents the student with a possible test scenario. The

student must then develop a test concept and defend it to the panel to pass the test.

**QE 5459 Single-Look Qualitative Evaluation Program**

**3 semester hours**

As future testers for the USAF, TPS students must graduate with a broad range of knowledge of flying and testing aircraft. Therefore, throughout the 48 weeks of the course, several types of aircraft are brought to the school for the students to fly and test. The basic list of these aircraft follows:

T-1A Jayhawk, T-6A Texan II, T-37B Tweet,  
B-17 Flying Fortress,  
T-38C Talon, T-43A (B737) Nav Trainer, HU-16 Albatross,  
MiG-15 Fagot, F-4G Phantom II, L-39 Albatros, and  
Goodyear Blimp, DC-3

These aircraft are the baseline of aircraft brought to TPS; each class sees approximately 30 aircraft types throughout the courses. The qualitative evaluation aircraft come to the school on a rotating basis, making QE 5459 a slightly varying and a unique experience for each class.

Additionally, a two-week field trip is part of this course. The students visit Eglin AFB, Florida, to perform qualitative evaluations on the F-15D Eagle, F-15E Strike Eagle, F-16DJ Block 50/52 Fighting Falcon, UH-1 Huey, T-34 Turbommentor (from Whiting Field), and other aircraft not available at Edwards AFB, California. Students also visit the US Naval Test Pilot School at Patuxent River, Maryland, where they perform qualitative evaluations on the SH-60 Seahawk, F/A-18 Hornet, and other naval aircraft. Finally, they visit a foreign test center to perform qualitative evaluations on available aircraft. Foreign test centers visited in the past included Empire TPS (Boscombe Down, United Kingdom), EPNER (France test pilot school), Italy, Brazil, India, Germany, Spain, and Sweden. Additionally, the student test pilots visit Davis-Monthan AFB, Arizona, to perform qualitative evaluations on the A-10, while student FTEs visit Luke AFB, Arizona, to perform qualitative evaluations on the F-16DG in operationally representative training missions.

## **Air Force Institute of Technology**

*Internet Address*  
<http://www.afit.edu>

**Mission.** *To provide responsive, defense-focused graduate and continuing education, research, and consultation to improve Air Force and joint operational capability.*

The Air Force Institute of Technology (AFIT) traces its roots to the early days of powered flight when it was apparent that the progress of military aviation depended upon special education in this new science. In 1919 the Air School of Application was established at McCook Field in Dayton, Ohio, the home of Orville and Wilbur Wright. When Congress authorized creation of the Air Corps in 1926, the school was renamed the Air Corps Engineering School and moved to Wright Field in 1927. Shortly after the bombing of Pearl Harbor, the school suspended classes, but it reopened as the Army Air Forces Engineering School in 1944 to conduct a series of accelerated courses to meet emergency requirements.

After World War II, in 1946, the Army Air Force Institute of Technology was established as part of the Air Materiel Command (AMC). The institute was composed of two colleges: Engineering and Maintenance, and Logistics and Procurement. These colleges were later redesignated the College of Engineering Sciences and the College of Industrial Administration. When the Air Force became a separate service in 1947, the institute was renamed the Air Force Institute of Technology. In that same year, the Air Installations Special Staff School was established as a part of the institute, which became the Air Installation Engineering School in 1950. In 1951 the two AFIT colleges were combined into the resident college.

The institute established a logistics education program at Wright-Patterson AFB in 1955, and Ohio State University conducted the first courses on a contract basis. In 1958 AFIT began a series of short courses in logistics as part of the Air Force Logistics Command (AFLC) Education Center. Later that year the School of Logistics became a permanent part of AFIT.

In 1954 the 83d Congress authorized the commander of Air University (AU) to confer degrees upon students in the AFIT resident college. The college was later divided into the School of Engineering, the School of Logistics, and the School of Business. The first undergraduate engineering degrees were granted in 1956, and the first graduate degrees in business in 1958. The School of Business programs were transferred to civilian universities in 1960.

In 1962 the School of Logistics was established to teach graduate and professional continuing education courses in the areas of acquisition and logistics. That same year the Air Installation Engineering School became the Civil Engineering Center. In 1963 the School of Logistics was redesignated the School of Systems and Logistics. In 1969 the Civil Engineering Center was redesignated as the Civil Engineering School. On 1 October 1999 AFIT's two graduate schools were combined to become the Graduate School of Engineering and Management.

During the past 89 years, AFIT has granted over 16,500 degrees, more than 16,000 master's degrees, and nearly 500 doctoral degrees. More than 270,000 Department of Defense (DOD) personnel—including 30 US astronauts—have attended AFIT courses.

**Accreditation.** AFIT is separately accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (NCACS) and maintains its own official catalog. The information about AFIT contained in AU's catalog serves the informational needs of Air Force and DOD members. AFIT is accredited by the Higher Learning Commission and is a member of the NCACS. The NCACS can be contacted at the Higher Learning Commission, North Central Association of Colleges and Schools, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602-2504, Phone: (800) 621-7400, Fax: (312) 263-7462.

In addition to institutional accreditation, the Accreditation Board for Engineering and Technology accredits selected programs within the Graduate School of Engineering and Management. Contact this agency at Accreditation Board for Engineering and Technology, Inc., 111 Market Place, Suite 1050, Baltimore, MD 21202, Phone: (410) 347-7700, Fax: (410) 625-2238.

**Schools within AFIT.** AFIT provides graduate education programs through the Graduate School of Engineering and Management (<http://www.afit.edu/en>). The School of Systems and Logistics (<http://www.afit.edu/lis>) and the Civil Engineering and Services School (<http://www.afit.edu/cess>) provide professional continuing education (PCE) short courses to assist Air Force and DOD military and civilian members with proficiency in technical and support tasks.

AFIT supports the Air Force and national defense by providing degree-granting graduate education and PCE, research, and consulting services that are responsive to Air Force and DOD needs and requirements. Graduate-level work, available to selected officers, noncommissioned officers, DOD and non-DOD civilians, and international officers produces experts in engineering, scientific, and managerial disciplines to develop solutions to complex national defense problems and develops individuals with a broader perspective necessary for understanding the role of technology in national defense. PCE courses support Air Force and DOD needs for immediately applicable knowledge and help prevent scientific and technical obsolescence.

Detailed information about AFIT, its component schools, directorates, research, and consultation services—as well as the official catalogs for AFIT’s three schools—are available online at <http://www.afit.edu>.

## **Community College of the Air Force**

### *Internet Addresses*

Public site: <http://www.au.af.mil/au/ccaf>

Nonpublic site: <https://ccaf.maxwell.af.mil>

Air Force Virtual Education Center: <https://my.af.mil/afvecprod>

**Mission.** *Offer 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 of Air Force enlisted members.*

The Community College of the Air Force (CCAF) serves the educational needs of the Air Force enlisted community by of-



fering associate in applied science degrees and other credentialing programs that enhance mission readiness, contribute to recruiting, assist in retention, and support the career transitions of Air Force enlisted members. It is the only federally chartered institution in the United States that awards college degrees solely to USAF enlisted personnel.

The college was established in April 1972 at Randolph AFB, Texas; relocated to its present location, Maxwell AFB, Alabama, in April 1979; and realigned under Air University in July 1993. The college mailed its first official transcript in November 1972 and issued its first career education certificate in August 1973.

The college received degree-granting authority in July 1976 and awarded its first associate in applied science degree in April 1977. From 1980 to 2004, the college was separately accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, GA 30033-4097; telephone number [404] 679-4501) to award the associate degree.

With more than 340,000 registered students, the college is the largest multicampus community college in the world. Its affiliated schools are located in 38 states, the District of Columbia, and nine foreign locations. Nearly 6,500 CCAF faculty members provide quality instruction for the professional development of enlisted personnel. The college has awarded more than 298,500 associate in applied science degrees to enlisted members of the active duty Air Force, Air National Guard (ANG), Air Force Reserve Command (AFRC), and enlisted members of the Army, Navy, Marine Corps, and Coast Guard teaching in CCAF-affiliated schools.

### **Associate in Applied Science Degree**

CCAF awards an associate in applied science degree in five areas: Aircraft and Missile Maintenance, Allied Health, Electronics and Telecommunications, Logistics and Resources, and Public and Support Services.

The detailed listing and description of each CCAF degree program is available in the separate CCAF General Catalog, published every three years. The detailed listing and description of individual CCAF courses comprising degree programs are

available at each of the 103 affiliated schools specifically teaching those courses. Similarly, the listing of CCAF's more than 5,300 qualified instructors and 1,100 student instructors is available at each school where those instructors teach or in a central database located in the CCAF administrative center.

## **CCAF System**

The college functions as a single institution with respect to credit documentation, records, and educational program management. The system is supported by the Air Force Recruiting Service, USAF Occupational Measurement Squadron, Airman Classification Squadron, and Headquarters Air Education Training Center. These agencies provide the recruitment, job analysis, and staff support required for successful operation of the system.

**Affiliated Schools.** The instructional programs of the college are conducted by the Air Force in traditional learning environments. Even when advanced instructional technology and individualized instruction are used, students attend regularly scheduled classes and complete specified course work under assigned faculty in much the same manner as students in the classrooms of most traditional civilian colleges, except that students typically attend one course at a time, eight hours each day, five days a week until satisfactorily completing the course.

What is often perceived as nontraditional about the college is its form of organization and administration. Air Force schools provide instruction at numerous locations because of the geographic mobility of the students as they pursue their Air Force occupations. Accordingly, each of these separate education and training organizations, called affiliated schools, is a component of a worldwide educational system.

**Education Services Centers.** The general education component of every degree program must be completed in civilian colleges and/or through nationally recognized testing programs, during off-duty time, with the Air Force paying all or a portion of the tuition costs. Counseling of students is accomplished by trained education counselors located on all major Air Force installations and CCAF advisors at each ANG and AFRC installation.

The education services centers administer the College-Level Examination Program, Defense Activity for Nontraditional Education Support Subject Standardized Tests, and Excelsior College Examinations. They also conduct formal graduations worldwide at least once each year, usually during April and October.

### **CCAF Transcript Requests**

Students can order their own free transcripts online through the Air Force Portal at <https://www.my.af.mil/faf/FAF/fafhome.jsp>. To ensure compliance with the Family Educational Rights and Privacy Act, students can only order transcripts for themselves.

## **Air University Non-Degree Programs**

Air University's professional military education (PME) schools prepare junior, mid-career, and senior commissioned and non-commissioned officers and selected civilians for progressively more responsible positions through the Air Force and DOD. All colleges, schools, and programs operate within the framework of the Air Force continuum of education, a coordinated and integrated educational system that links curricula across Air University so that each college, school, and program builds on the education provided at the previous level. This continuum includes five core areas: the profession of arms, military studies, international security studies, communication studies, and leadership and management studies.

PME for officers includes the Air War College and the Air Command and Staff College, both addressed in the another section. This section includes the remainder of officer PME conducted by Squadron Officer College and enlisted PME conducted by the Thomas N. Barnes Center for Enlisted Education. This section also addresses officer accession and training schools, professional continuing education, extension course programs, and citizenship education programs.

Air University also supports the nationwide Civil Air Patrol programs that provide emergency service to the nation and instill citizenship values among our nation's youth.



## **Squadron Officer College**

*Internet Address*

<http://soc.maxwell.af.mil/>

**Mission.** *Develop twenty-first century Airmen who can advocate what air, space, and cyberspace power bring to the fight, value team achievement over individual success, and value their role in the profession of arms.*

The Squadron Officer College (SOC) is designed to educate company-grade officers on the basic concepts of modern-day air, space, and cyberspace warfare and the essentials of military leadership. Commissioned as an AU college in February 2000, SOC is composed of two educational schools: the Air and Space Basic Course (ASBC) and the Squadron Officer School (SOS).

SOC staff support divisions include an Academic Affairs Directorate and Directorate of Mission Support. The dean of Academic Affairs develops and maintains educational lessons, readings, and a distinguished speaker program for both ASBC and SOS; manages the day-to-day classroom schedules, evaluation procedures, and course surveys; executes advanced technology, war games, and distance learning programs; and is responsible for initial and advanced faculty development. The Directorate of Mission Support oversees the manning of faculty, works on student personnel issues, and ensures maintenance of all facilities, including extensive field leadership facilities, physical fitness courses, equipment, and military leadership obstacle courses.

SOC provides initial faculty development instruction to all faculty members through the Theories and Principles of Adult Education course. Faculty members include personnel who design, develop, or implement SOC curriculum or who supervise those involved in such activities. Thus, faculty members include flight commanders, squadron commanders, faculty development and training personnel, and curriculum development personnel. Following initial faculty development experience, SOC's two schools teach school- or lesson-specific execution requirements. Curriculum developers are provided with the Advanced Principles of Instructional Design course, which focuses on applying the Air

Force Instructional Systems Development model to ASBC and SOS lesson research, development, and implementation.

The college has significantly upgraded its faculty by adding six doctoral staff positions. Currently, they are charged with constructing graduate-level distance learning courses that are linked to the Air Force's Institutional Competency List. However, they will assist in curriculum development and execution of lessons taught in ASBC and SOS in residence courses.

## **Faculty Development**

### **MSOC001 Fundamentals of Instruction**

This course prepares newly assigned faculty to instruct at either of the two schools reporting directly to the Squadron Officer College—Air and Space Basic Course and Squadron Officer School (SOS). The course embodies a tightly structured, comprehensive, and fast-paced course requiring extensive reading, moderate research, and writing by students to prepare personalized lesson plans. Major curriculum areas focus on learning theory communication skills, teaching methods, and evaluation. Fundamental of Instruction is organized to provide maximum participation in learning. A majority of the class time is devoted to small-group activity. Students are required to use SOC-specific lesson plans to prepare the required teaching lessons. Methods taught include informal lecture, guided discussion, case study, and experiential exercises.

### **MSOC002 Advanced Principles of Instructional Design**

This course prepares education and curriculum personnel with the education and professional skills required to create instructional materials specifically for the two schools reporting directly to SOC—ASBC and SOS. This structured, comprehensive, and fast-paced course requires extensive reading, moderate research, and writing assignments. The major curriculum area focus is in Instructional Systems Development (ISD), the three most widely used Domains of Learning (cognitive, affective, and psychomotor), and the evaluation process. The course is designed to provide maximum participation in learning and culminates with the student completing a final project requiring application of instruc-

tional design theories and comprehension of the ISD process from start to finish. Teaching methods used include informal lecture, guided discussion, case study, and experiential learning.

## **Squadron Officer School**

*Internet Address*

<http://www.maxwell.af.mil/au/soc/sos>

**Mission.** *Develop dynamic Airmen ready to lead air, space, and cyberspace power in an expeditionary war-fighting environment.*

The Squadron Officer School was originally commissioned in the 1950s during the Korean War. Initially, it was organized as a war leadership school, teaching USAF captains the salient concepts of aerial warfare and the command responsibilities involved in combat situations. Col Russell V. Ritchey, USAF, the school's founder, stated that SOS's primary purpose was to study war. "I wanted no off-shoots," explained Colonel Ritchey, "which would distract the student from his primary aim or compromise the purity of the profession."

Following these guidelines, today's SOS is designed to teach the essence of military leadership; air, space, and cyberspace doctrine; international security issues; and communication skills. Students are not only exposed to these new concepts, they are required to apply these lessons in many complex experiential learning exercises that involve fatigue, frustration, and team esprit. Physical fitness, team problem solving, and proper military decorum are critical aspects of the school's offerings. Recently, the program has added three pivotal activities to include a leadership development simulator decision tool, granite sentry war game, and combat leadership exercise intense field event. Over the years, Medal of Honor recipients, astronauts, and principal military commanders—both in the United States and from various international countries—have graduated from this institution. SOS remains the Air Force's premier military leadership school.

**Learning Outcomes.** Students will value their unique role as Air Force officers by



- broadening their commitment to the concept of officership, core values, and the unique role of the Air Force officer in the profession of arms;
- valuing the distinctive capabilities of air, space, and cyberspace power as guided by Air Force doctrine and apply those principles to current and future war-fighting scenarios;
- strengthening leadership and followership skills by building effective, cohesive teams that can adapt successfully to accomplish challenging goals; and
- applying sound problem-solving, management, and communication practices to operate successfully in an expeditionary war-fighting environment.

SOS is an AU educational institution designed to teach USAF company grade officers the skills of command leadership. The institution originated in 1946 at Tyndall Field, Florida, and was called the Air Tactical School. In 1950 the Air Tactical School closed, and the faculty transferred to Maxwell Field, Alabama. Under the leadership of Col Russell V. Ritchey, they developed a new educational program called the Squadron Officer Course. The first company-grade officers began attending this institution on 23 October 1950. From 1950 to 1959, SOC was an organizational unit within ACSC. Above all, noted Colonel Ritchey, the course was developed primarily to educate officers regarding the expertise of the profession of arms. In 1959 this course was renamed Squadron Officer School and began reporting directly to the AU commander.

SOS teaches the key leadership concepts of being able to analyze situations, develop plans, train followers, perform as a team, and critique the effort. For the academic year 2004–5, SOS integrated AFDD 1-1, *Leadership and Force Development*, throughout the entire curriculum, specifically focusing on the enduring leadership competencies. While attending SOS, students step away from their special technical skills and broaden their focus on the Air Force as an institutional fighting force. They prepare for leadership responsibilities, study the significance of the Air Force Core Values, and learn about air, space, and cyberspace doctrine. After studying various military leadership concepts, students are required to apply these lessons in various experiential learning exercises.

Three dynamic activities have been added to the program to enhance student development and teamwork: Combat Leadership Exercise (CLX), Granite Sentry, and Team Structure and Culture Leadership Development Simulation (LDS). The CLX experience provides students with the opportunity to use leadership skills during the fog of war in various time-pressured, team-oriented environments. Granite Sentry is the capstone simulation integrating concepts and ideas introduced in previous lessons into a fast-moving, competitive simulation, allowing students to extrapolate the relationship between AFDD 1-1 enduring leadership competencies and the USAF distinctive capabilities. LDS consists of three modules. Two of them are presented in the flight room/auditorium, and the third is discussed in the form of a simulation. Students are taught to comprehend characteristics of various organizational structures and to apply knowledge of the connection between individual values and team values. The simulation allows students to use effective leadership skills to achieve mission goals.

SOS not only provides students with an opportunity to understand how leadership skills influence team achievement but also provides these officers the opportunity to experience the responsibilities of being an effective follower. This focus on followership includes such functions as taking risks, working with others, and constructively dissenting when the team or leader is headed in the wrong direction. In addition, the SOS experience helps students to refine their written and oral communication skills as well as to establish a foundation of knowledge on how the Air Force fights wars.

**Prerequisites.** Captains with at least four but less than seven years of total active federal commissioned service who are not in a failed or deferred promotion status are eligible to attend SOS. DOD civilians in the grades of GS-9 to GS-12, with at least four years of continuous civil service, are also eligible. See the Education and Training Course Announcements (ETCA) for additional information.

**Duration.** SOS will conduct seven classes during academic year 2008–09 for a total of 2,970 students. Each class lasts 25 training days.

## Resident Curriculum

SOS presents the US service's history, doctrine, and employment concepts to the students throughout the course. The students improve their knowledge of the Air Force and its mission through multiple readings, seminar discussions, and lectures presented by air, space, and cyberspace power experts.

To emphasize team building, leadership, and followership, the SOS curriculum lessons are sequenced concurrently, rather than sequentially. Students, therefore, are required to study a lesson, work as a team, and then apply the ideas in a complex exercise afterward. This approach to learning helps officers improve professionally and promotes the inculcation of the warrior-leader ethos.

### Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	13.75
Leadership/Management	85.33
Military Studies	9.00
Communication Studies	14.42
International Studies	6.25
<b>Total Instruction</b>	<b>128.75</b>
Administration and Testing	36.33
Physical Fitness	12.00
<b>TOTAL</b>	<b>177.08</b>

## Course Descriptions

**Profession of Arms.** Officership principles are threaded throughout the SOS curriculum to teach company grade officers specific functions within air, space, and cyberspace power, including their role in joint and coalition warfare. Company grade officers understand officership, what being an Airman means, moral and ethical development, and accountability.

**Leadership/Management.** The heart of SOS is leadership. SOS focuses on flight-command-level leadership skills for success in today's expeditionary Air Force. Company grade officers are provided the necessary tools to build and lead small teams in addition to serving as dynamic followers. Graduates leave SOS with

a solid understanding of the dynamics surrounding individual leadership skills and group interaction in building successful teams. Instruction is focused on concepts and philosophies officers can use to improve individual leadership skills, adjust leadership styles to the situation or task at hand, and identify the abilities of followers. Leadership philosophies and concepts are bolstered with application-based strategies to teach company grade officers how leadership, followership, and team building combine to efficiently and effectively accomplish the mission at hand. Leadership skills are based on enduring leadership competencies in AFDD 1-1, *Leadership and Force Development*. This curriculum area gives students an opportunity to meet face-to-face with senior leaders, understand intricacies of writing Officer Performance Ratings and the officer promotion process, and appreciate the role of command with respect to the *Uniform Code of Military Justice*.

**Military Studies.** Rather than study history, SOS uses historical examples to magnify officership and leadership skills found in the S1000 and S2000-series curriculum. Company grade officers learn the value of airpower theory, doctrine, objective, and strategy (TDOS) and how contextual and operational elements influence the TDOS cycle. Military Studies curriculum focuses on lessons learned from past conflict, focusing on the previous 10 years, to understand the changing complexity of future warfare. The level of company grade officer graduates understanding of war, the nature of warfare, and how certain aspects of warfare is seen in every major conflict.

**Communication Studies.** SOS teaches company grade officers the basic principles of writing and briefing. Writing and briefing products are designed to emphasize basic communication techniques and teamwork. Curriculum concentrates on writing skills and briefing skills and demonstrates how active listening can dramatically affect interpersonal communication and team building. Effective communication is inherent in all aspects of SOS curriculum and is crucial to a student's success.

**International Studies.** Company grade officers must be more in harmony with world affairs and their role in National Secu-

rity Strategy than ever before. Company grade officers leave SOS with a solid grasp of how Air Force company grade officers and their superiors have a significant role in joint and coalition warfare, international and national security affairs, and the instruments of power. Students are presented with concrete examples of their role in various national strategies and how the Air Force accomplishes the mission within National Security Strategy with respect to Homeland Security.

**War Fighting.** Specific learning objectives within this area are being addressed in the Air University Continuum of Education Strategic Guidance re-write. When completed, this core area will develop SOS student understanding and appreciation of the nature of war and the art of employing military power across the spectrum of operations.

### **Nonresident Curriculum**

The SOS Nonresident Program presents similar, but not parallel, material to the resident curriculum. During the past two years, the SOS Nonresident Program has discontinued its book version and CD-ROM version and replaced them with an online program. Presently, the SOS Nonresident Program 28 (online version) consists of five courses: 28A, Profession of Arms; 28B, Military Studies; 28C, International and Joint Studies; 28D, Communication Studies; and 28E, Leadership and Management Studies. This online education program features Web-based instruction and permits rapid, worldwide deployment of the SOS nonresident course. It also features computerized testing, with immediate test feedback results. While formative feedback is available online, students take electronic course exams at designated education offices or other sanctioned testing sites.

**Eligibility.** Any US armed forces officer (active duty, Reserve, or National Guard) selected for the grade of captain (O-3) or above is eligible for enrollment into the SOS Distance Learning Course. Additionally, officers of the Civil Air Patrol (CAP) selected for captain and above and federal civilian employees in the grades of GS-9, WG-10, WL-9, and WS-8 (or equivalent)

and above are eligible. Under normal circumstances, students must complete the entire program within 18 months. See the Squadron Officer College Advanced Distributed Learning Web site (<http://sos.maxwell.af.mil/socadl>) for detailed course description and enrollment information.

### Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	12.00
Military Studies	21.00
International and Joint Studies	18.00
Communication Studies	18.00
Leadership and Management	27.00
<b>TOTAL</b>	<b>96.00</b>

### Course Descriptions

**Profession of Arms.** Profession of Arms focuses on military professionalism; what it means to be a military officer; an officer's roles and responsibilities; and Air Force core values, morals, and ethics.

**Military Studies.** Military Studies examines the history of air-power, military theory and doctrine, the concept of the total force, and other military services.

**International and Joint Studies.** International Studies discusses international organizations, joint operations, joint and Air Force vision/transformation, and the national security strategy process.

**Communication Studies.** Communication Studies teaches the concept of writing and briefing in a well-organized, well-supported, and concise manner.

**Leadership and Management.** Leadership and Management Studies explores the complete range of leadership, including what it is, how to lead, historical examples, followership, team building, problem solving, mentoring, and the Air Force personnel system.

## **Air and Space Basic Course**

*Internet Address*

<http://www.maxwell.af.mil/au/soc>

**Mission.** *To inspire new USAF officers to comprehend their roles as Airmen who understand and live by USAF core values, can articulate and advocate what air, space, and cyberspace power brings to the fight, and are dedicated as warriors in the world's most respected air, space, and cyberspace force.*

The Air and Space Basic Course (ASBC) is an educational program for newly commissioned second lieutenants and for selected DOD civilians. It was originally created as a test program in 1997 and was commissioned as a formal AU educational program in January 1999. On 8 February 2000 ASBC became one of the schools within Squadron Officer College.

In April of 2003 the chief of staff of the Air Force directed an "order of magnitude increase in officer and enlisted interaction in PME." From this guidance evolved ASBC's new combined operations with the Air Force Senior Noncommissioned Officer Academy. This revolutionary change increased the ASBC course length from four to six weeks and included new curriculum topics focusing on hands-on leadership, improved communications, and enlisted- and officer-force development issues. Test classes were conducted in August and October 2003, with full-scale implementation beginning in January 2004.

ASBC's curriculum explores the foundations of air, space, and cyberspace doctrine, illuminates the distinctive capabilities, and examines how air, space, and cyberspace power are employed in combat. In each lesson, the importance of the Air Force core values is continually reemphasized. Students attending ASBC are encouraged to comprehend and value their roles as Airmen in the world's most respected air, space, and cyberspace force. They are required to articulate how the USAF distinctive capabilities were forged in the fires of aerial combat in the skies over Europe, Japan, Korea, Vietnam, Iraq, Serbia, and now Afghanistan. They are required to demonstrate how the Air Force plans to fight and operate in wars as a key part of a joint or coalition force.

In this post-Cold-War era, where military threats are complex and elusive, ASBC was created to provide young officers with the logic and the grammar of their unique Air Force profession. Author Carl Builder states, “To prepare for an uncertain future, the Air Force needed to readdress its fundamental ‘sense of identity and purpose.’ ” Because of its emphasis on heritage and on the study of air, space, and cyberspace operational planning, ASBC is different from the traditional curriculum used in most pre-commissioning programs.

The Air and Space Basic Course is a 30-training-day program organized to teach new company grade officers (CGO) the essential concepts of how the Air Force prosecutes aerial wars utilizing Air Force doctrine and team concepts. The course begins with a survey of key Air Force weapon systems and includes descriptions of how these weapons are employed in combat. Other lessons include an introduction to war theory, historical airpower principles, strategic concepts, and the basics of air, space, and cyberspace doctrine. Additionally, the program includes a three-day combined operations period with the Air Force Senior Noncommissioned Officer Academy. This integrated curriculum includes a focus on hands-on leadership skills, improved communication abilities, and a better appreciation of both officer and enlisted force development issues. During the entire ASBC program, students are required to act as military teams, using what they have learned in the ASBC curriculum to solve complex problems. After learning these fundamental concepts, students work as a combat team in a simulated air, space, and cyberspace operational center and develop an appreciation for Air Force systems and capabilities. Through these efforts, ASBC provides the fundamental concepts and motivation for lieutenants to begin learning and inculcating the skills, values, and ethos of a professional Airman.

### **Learning Outcomes:**

- Embrace the profession of arms by applying the Air Force core values with the heart, mind, and body of an air, space, and cyberspace warrior.
- Value the expeditionary air, space, and cyberspace force as a team, and value the role of Air Force officers in leading within this team.



- Comprehend air, space, and information operations as the primary means for effectively employing air, space, and cyberspace power as a part of the joint war-fighting team.
- Comprehend Air Force history, doctrine, and distinctive capabilities as the foundation for the effective employment of air, space, and cyberspace power.

ASBC is in the midst of a major curriculum overhaul to address a “warrior ethos” shortfall identified by the chief of staff of the Air Force. Known affectionately as “Retooled ASBC,” the new emphasis of the course will be on the expeditionary skills required in today’s operational environment. Two weeks of the course will be conducted in field conditions with a focus on combat skills training events and will serve as the officer equivalent of Common Battlefield Airmen Training. This course continues to serve as the common bond experience from which graduates develop a warrior mind-set and enhance their professional military education. ASBC graduates return to their duty stations having accomplished a significant portion of their deployment readiness training.

**Prerequisites.** Newly commissioned officers and Department of Defense (DOD) civilians GS-7 or NSPS Pay Band 2 or above who have completed a baccalaureate degree are eligible to attend ASBC.

**Duration.** Each class lasts 30 training days.

**Curriculum.** The ASBC curriculum consists of two interconnected methods of study. The first method is linear, and builds upon the preceding one, and addresses the achievement of the designated cognitive educational goal. The second method is nonlinear and strives to create the affective changes to motivate students to consider themselves Air Force officers above all else.

To maximize the learning of entry-level students, ASBC employs state-of-the-art educational technologies in the classroom and in various exercises. To help students to learn and instructors to teach, the learning material includes the following:

- DOD Digital Versatile Disk classroom application “What Would You Do?” presents core values/ethics case studies

for random access and full-screen, full-motion professional video segments.

- Multiplayer networked war games, AFEX and AIRGAP II, are played to reinforce application-level learning, with an emphasis on the Air Force core competencies, joint-service teamwork, integration of theory and doctrine concepts, crisis-action planning under stress, and decentralized execution.
- Expeditionary Air Base Exercise is an ASBC multiplayer team exercise consisting of four student functional teams and installation battlestaff using the computer multiplayer Expeditionary Air Base Simulation. The functional teams command simulated squadrons and specialists of an Air Force contingency response group to construct an expeditionary air base by deployment of force modules. As the newly constructed air base achieves the operational capability to receive and support combat aircraft, functional teams transition to the expeditionary group mission of generating combat sorties (maintenance, fuel, weapons) while continuing to harden their air base against terrorist attacks.

### Curriculum Summary

Curriculum Area	Academic Hours
Profession of Arms	101.15
Leadership/Management	31.04
Military Studies	13.25
Communication Studies	7.20
International Studies	2.30
War Fighting	5.00
<b>Total Instruction</b>	<b>159.94</b>
Administration and Testing	12.00
Physical Fitness	21.35
<b>Course Total</b>	<b>193.29</b>

### Course Descriptions

**Profession of Arms.** This course offers a study of the military as a profession and the characteristics that separate the uniformed service from the society it serves. It focuses on distinctive knowledge, exclusive group coherence, career structure, and the

Airmen's role in society. The course also addresses core values, roles and responsibilities, discipline, morals and ethics, dress and grooming, oath of office, drill and ceremonies, customs and courtesies, accountability, and security awareness.

**Leadership/Management.** Future plans for ASBC include adding a distinct focus on leadership growth currently not found in the curriculum. Using A2305 will set the stage for this growth by introducing the lieutenants to the principles of AFDD 1-1, the USAF new leadership doctrine document. The speaker will address those doctrinal competencies most applicable to Company Grade Officer (CGO) leadership development. Course A2310 will follow up with a dynamic look at Assess Self, a personal leadership competency emphasized in AFDD 1-1 and considered a foundational leadership behavior in all the relevant literature. Using A2920, *Promote Collaboration and Teamwork*, will add another key AFDD 1-1 competency to the ASBC curriculum. Speakers for this lecture will include senior noncommissioned officers who will teach lieutenants prior to Combined Operations Week proven skills and concepts that successfully build all-ranks AF teams, identifying CGOs as a linchpin between enlisted and senior leadership.

**Military Studies.** Lesson rewrites and improvements will emphasize studies of doctrine and lessons learned from Gulf War I through present, including the global war on terrorism (GWOT) and joint operations.

**Communication Studies.** Lesson improvements included significant changes to A4330, Public Affairs Training. Cooperation between SOC and the Public Affairs Center for Excellence resulted in a more current and relevant approach to public affairs issues. S4410, Interpersonal Communications, was revamped to add interactivity and streamline the content for a more effective flight room presentation.

**International Studies.** The International Security Studies portion of the curriculum is designed to provide a base from which

the CGO can make educated decisions. ASBC is continuously looking for ways to improve the ISS portion of its curriculum to include the GWOT, geo-political issues, and cultural astuteness.

**War Fighting.** Specific learning objectives within this area are being addressed in the Air University Continuum of Education Strategic Guidance lesson plan rewrite. When completed, this core area will develop ASBC student understanding and appreciation of the nature of war and the art of employing military power across the spectrum of operations.

## **Jeanne M. Holm Center for Officer Accessions and Citizen Development**

*Internet Address*  
<http://www.afoats.af.mil>

**Mission.** *Develop the best Air Force leaders and citizens of character, dedicated to serving the nation.*

In 1995 the Air University Board of Visitors recommended that AU combine officer accession sources to streamline the organizational structure and reduce the commander's span of control. Air Force Officer Accession and Training Schools (AFOATS) was activated on 14 February 1997, merging Officer Training School (OTS) and the Air Force Reserve Officer Training Corps (AFROTC). On 1 June 2008 the school's name officially changed to the Jeanne M. Holm Center for Officer Accessions and Citizen Development.

The Holm Center furnishes coordinated leadership and policy direction for the Air Force's officer recruiting, training, and commissioning programs at OTS and at AFROTC detachments at 144 host universities. The Holm Center's staff manages support and develops curriculum to train tomorrow's Air Force officers. The merger of AFROTC and OTS provides

- a single focal point for AETC's officer accessions,
- centralized support and curriculum development,

- one organization to commission and train more than 75 percent of Air Force line officers and nearly 100 percent of nonline (medical professionals and chaplains) and legal officers, and
- a method to smooth production flow between AFROTC and OTS.

The Holm Center also directs the Air Force's high school citizenship training program, the Air Force Junior ROTC (AFJROTC).

## **Officer Training School**

*Internet Address*

<http://www.afoats.af.mil/OTS>

Air Training Command activated Officer Training School (OTS) at Lackland AFB, Texas, on 1 July 1959. OTS moved to the Lackland Training Annex in 1961. In November 1971 the Air Staff launched an extensive curriculum review that produced a core curriculum common to the Air Force Academy, AFROTC, and OTS. On 25 September 1993 OTS relocated to Maxwell AFB and began a new era when it became a part of Air University. From inception OTS has been committed to providing top-quality officers.

Throughout its history, OTS has adapted to a challenging training environment. After graduating 12 women and 78 men in its first class, OTS successfully commissioned more than 500 second lieutenants its first year. By 1964 more than 10,000 individuals had graduated, and to date more than 107,000 officers have entered the Air Force through OTS. Over the years OTS has functioned as a flexible partner to the other accessions sources to meet Air Force changing manning requirements. Additionally, the school began to train commissioned medical students, chaplains, and judge advocates in 1981 and medical service officers in 1991. In 1996 the Commissioned Officer Training School combined existing training programs for chaplains, judge advocates, and medical service officers and trained more than 14,000 newly commissioned officers at the Maxwell-Gunter Annex. Commissioned Officer Training (COT)

officially moved to Maxwell AFB in December 2002, and OTS became a centralized training campus.

OTS commissioning and training programs

- instill a commitment to the profession of arms,
- inspire internalization of Air Force core values,
- enhance officership skills,
- provide a relevant, up-to-date curriculum, and
- meet USAF production goals.

**Courses.** OTS consists of two programs: Basic Officer Training (BOT) and COT. BOT leads to a line officer commission as a second lieutenant. COT provides initial officership training for Air Force judge advocates, chaplains, and medical officers.

**Basic Officer Training (24th Training Squadron).** BOT is a challenging 60-training-day program that imparts to graduates the importance of leadership, discipline, attention to detail, and dedication to service. It stresses commitment to the profession of arms and motivates graduates to adhere to the highest standards of integrity, excellence in all they do, and service before self. This challenging environment provides numerous tests for leadership skills through classroom and field training exercises and operation of the officer trainee and student wing. The capstone event is a four-day, three-night Air and Space Expeditionary Force (AEF) exercise.

**Commissioned Officer Training (23d Training Squadron).** COT stood up in 1996 and is an intense 23-day program. It provides the fundamentals of officership and the initial leadership training required for newly commissioned medical, chaplain, and judge advocate Air Force officers (active duty, Air National Guard, and Air Force Reserve). It stresses commitment to the profession of arms and motivates graduates to live up to Air Force core values. COT students' ranks range from second lieutenant to lieutenant colonel, depending on the newly commissioned officers' professional qualifications. A three-day, two-night AEF exercise is also the capstone event for COT.

Additionally, the Medical Readiness Indoctrination Course is incorporated into the AEF exercise for medical service officers.

The Reserve Commissioned Officer Training (RCOT) course was instituted in 1999. This abbreviated course was designed to train hard-to-recruit Air National Guard and Air Force Reserve medical professionals. It combines distance learning correspondence work and a Web-based pretest with a demanding 17-day in residence course.

**Programs and Operations.** OTS conducts training for BOT and COT at Maxwell AFB. The AEF exercise for both programs is conducted at the Blue Thunder training site and confidence course located at the north end of the runway at Maxwell AFB. The Vigilant Warrior AEF training site north of Montgomery is a newer site. The AEF exercise is also conducted as part of a joint training exercise with Special Operations Command at varying locations, depending upon the exercise scenario.

The OTS program is continually assessed with survey data, and course content is reviewed to improve program effectiveness. The OTS complex consists of two academic buildings, four dormitories, a dining facility, and a fitness center.

OTS makes every effort to provide incoming officer candidates with information to facilitate their transition to commissioned officer status. The OTS home page (<http://www.afoats.af.mil/OTS>) gives prospective trainees access to current information on OTS. The home page also assists students with preparing mentally and physically for OTS.

**Faculty Development.** Before assuming leadership of a flight, each flight commander must attend and be certified through the OTS Academic Instructor Course.

**MAFOATS004 OTS Academic Instructor Course.** This course prepares instructors to teach at the Officer Training School. This rigidly structured, comprehensive, and fast-paced course requires extensive reading and writing by students to prepare personalized lesson plans. Major curricular areas focus on

communication skills, teaching methodologies, cognitive lesson planning, evaluation methodology, and construction of basic instructional aids. It is designed to maximize opportunities for learning and practicing basic instructor skills. The majority of the course is devoted to small-group activities. Students plan and present teaching lessons that meet their individual schools' needs. Students are encouraged to use their core lesson plans and subject matter to prepare the required lessons.

## **Curriculum**

The major areas of instruction are leadership studies, military training and application, profession of arms, military studies/international security studies, and communications skills. OTS teaching methods include auditorium lectures, readings, flight room classes (informal lecture, guided discussion, and case studies), and practical exercises (athletic campaigns, a leadership reaction course, and the end-of-course AEF exercise).

**Duration.** OTS currently conducts seven BOT classes, six COT classes, and two RCOT classes each year. The BOT program is 12-weeks long (60 training days); the COT program is four and one-half weeks long (23 training days); and the RCOT program is two weeks long (13 training days), plus the correspondence portion. In fiscal year (FY) 07, BOT graduated 530 students, and COT graduated 1,156 students. In FY 08 it is expected that these numbers will remain about the same as the previous FY numbers.

**Prerequisites.** Students attending BOT must have a bachelor's degree, be less than 30 years of age (waiverable to the age of 35), and meet minimum physical requirements for becoming an officer. Competition for entry into this program is rigorous. The following tables summarize BOT, COT, and RCOT curricula.



## **Student Curriculum Summaries**

### **Basic Officer Training**

<b>Instructional Area</b>	<b>Academic Hours</b>
Leadership Studies	111.00
Communication Skills	28.50
Profession of Arms	74.00
Military Studies	82.25
Military Training and Application	137.25
Admin/Processing/Testing/Orientation	193.25
Physical Training	60.00
<b>TOTAL</b>	<b>686.25</b>

### **Course Description**

The BOT program provides pre-commissioning training for selected applicants to meet Air Force requirements by career area. It includes the basic military subjects essential in developing selected college graduates to take their places as second lieutenants in the Air Force. The program also includes communication skills, leadership studies, professional knowledge, defense studies, and military application and training (practical field leadership, physical fitness, and drill and ceremonies).

### **Commissioned Officer Training**

<b>Instructional Area</b>	<b>Academic Hours</b>
Leadership Studies	30.00
Communication Skills	7.00
Profession of Arms	26.50
Military Studies	12.00
Drill and Ceremonies	12.50
Admin/Testing	31.25
Physical Training	10.00
Leadership Development	9.00
Assessments	12.75
AEF/Combat Skills	46.00
<b>TOTAL</b>	<b>197.00</b>

## **Course Description**

The COT program provides training in basic military subjects essential in developing directly commissioned officers to serve in the US Air Force. It provides post-commissioning training for officers in the US Air Force medical services (Medical Corps, Dental Corps, Nurse Corps, Medical Service Corps, and Biomedical Science Corps); Judge Advocate Corps (legal); and Chaplain Corps and also trains Air Force Reserve officers selected to participate in the Air Force Health Professions Scholarship Program and those enrolled in the Uniformed Services University of Health Sciences. This training is also provided for those officers selected to serve in the Air Force Reserves and Air National Guard. Training includes, but is not limited to, instruction in four major areas: profession of arms, military and international security studies, leadership studies, and communication skills. The profession of arms area includes dress and grooming; professional appearance; customs and courtesies; pay, leave, and allowances; and base services. Military and international security studies classes include Air Force heritage, terrorism/force protection, and US policy. Leadership studies classes include leadership and management theory and officership. Leadership instruction is reinforced with practical field leadership exercises. Communication skills include basic military speaking principles and writing formats. Drill and ceremonies and physical fitness training are also included.

### **Reserve Commissioned Officer Training (In Residence)**

<b>Instructional Area</b>	<b>Academic Hours</b>
Leadership Studies	23.00
Communication Skills	5.00
Profession of Arms	20.00
Military Studies	5.00
Military Training and Application	17.00
Admin/Testing	33.75
AEF Exercise	23.25
<b>TOTAL</b>	<b>127.00</b>

## **Course Description**

These courses provide training in basic military subjects essential to developing medical officers in the US Air Force Reserve and Air National Guard. Training includes, but is not limited to, instruction in four major areas: profession of arms, military and international security studies, leadership studies, and communication skills. The profession of arms area includes dress and grooming; professional appearance; customs and courtesies; pay, leave, and allowances; and base services. Military and international security studies classes include Air Force heritage, terrorism/force protection, and US policy. Leadership studies classes include leadership and management theory and officership. Leadership instruction is reinforced with practical field leadership exercises. Communication skills include basic military speaking principles and writing formats.

## **Air Force Reserve Officer Training Corps**

*Internet Address*

<http://www.AFROTC.com>

The Air Force Reserve Officer Training Corps (AFROTC) is the Air Force's largest and oldest commissioning program. Initially based on the Morrill Act of 1862 and the National Defense Act of 1916, the ROTC program underwent a major change with the ROTC Vitalization Act of 1964. This act, which eliminated compulsory ROTC at state land-grant colleges and universities, offered two- and four-year scholarships, with a focus on academics and leadership. The ROTC Vitalization Act also established the Junior ROTC program.

AFROTC currently operates at 144 colleges and universities and has 984 crosstown agreements with other institutions. As of April 2008, cadet enrollment included nearly 12,000 college students. AFROTC's scholarship program includes about 6,000 cadets and a scholarship budget of about \$60 million in FY 2008.

**Programs and Operations.** AFROTC offers two primary routes to an Air Force commission for college students: the four-year

program and the two-year program. Students attend AFROTC classes and other college courses. The four-year program is divided into two phases: the General Military Course (GMC) and the Professional Officer Course (POC). The GMC, which encompasses the freshman and sophomore years, consists of one hour of classroom work and from one to two hours of leadership laboratory work each week. Upon completion of GMC requirements, cadets who wish to compete for entry into the last two years of the program, the POC, must do so under the requirements of the POC selection system. After POC selection, students must complete a four-week summer field-training unit at Maxwell AFB to assess their potential as officers. Cadets enrolled in the POC attend class three times a week and participate in a weekly leadership laboratory (LLAB) lasting from two to three hours. Once enrolled in the POC, cadets are enlisted in the Air Force Reserve and assigned to the Obligated Reserve Section. This entitles them to a monthly nontaxable subsistence allowance.

Cadets not enrolled in ROTC as freshmen or sophomores attend a five-week summer field-training unit. These two-year applicants must satisfactorily complete an extended field-training unit. This five-week field-training allows extra time for these cadets to gain the leadership skills GMC cadets acquire in LLAB during the first two years of ROTC. Students entering the two-year ROTC program also complete entry-level classroom work during this field training. Two-year applicants are not committed to the AF until they return to school in the fall and make a decision to enlist through AFROTC.

**Special Programs.** Many AFROTC optional programs provide cadets with specialized off-campus learning experiences. These include professional development training (PDT), base visits, and orientation flights on Civil Air Patrol aircraft.

**Professional Development Training.** The PDT program provides cadets with specialized and individual professional development. The learning experience is similar to an intern program: Cadets are placed at Air Force bases to acquaint them with life, duties, and responsibilities of Air Force personnel. This program provides an important transition for a cadet be-

tween training conducted at field training and commissioning as a second lieutenant.

Cadets are assigned to Air Force bases normally for two to four weeks. Limited opportunities are also available in foreign language immersion, parachuting, glider, and survival training courses.

**Base Visits.** Base visits give cadets a firsthand look at operational Air Force bases. They are normally conducted during the academic year. An AFROTC instructor accompanies each visit to add personal knowledge of the Air Force mission to the cadets' base visit experience. This program shows cadets the AF professional environment.

**Scholarships.** AFROTC currently issues well over half of its College Scholarship Program awards to candidates pursuing undergraduate engineering or other scientific and technical disciplines. However, students in every degree program enjoy scholarship opportunities as the Air Force seeks to engage students who excel both academically and militarily. The In-College Scholarship Program has both competitive and fully qualified programs targeting the best and brightest college students interested in a career as an officer in the US Air Force.

AFROTC awards scholarships in increments ranging from two years to four full years. AFROTC offers several types of scholarships. Type 1 covers full tuition and most required fees. Type 2 covers tuition and fees but is capped at \$15,000 annually. Type 3 covers tuition and fees but is capped at \$9,000 annually. Type 6 covers tuition and fees but is capped at \$3,000 annually. Type 7 scholarships pay full college tuition and most fees at a college/university where the tuition is less than \$9,000 each year or at any institution where the student qualifies for the in-state tuition rate. All scholarships provide an allowance for books and a monthly nontaxable subsistence allowance.

All scholarship cadets are required to meet certain academic, military, and physical fitness standards to earn and maintain scholarship benefits. Also, scholarship recipients must be younger than 31 as of 31 December of the calendar year during which commissioning is scheduled.

**Extracurricular Activities.** AFROTC cadets participate in a variety of extracurricular activities. Several units have special drill teams, color guards, and honor guards. Many students enrolled in AFROTC also participate in unit-sponsored intramural sports and social functions.

**Enrollment Criteria.** During the first two years of the AFROTC college program, the GMC, are open to all students who are at least 14 years old. Second-year scholarship cadets and all cadets entering the last two years of the college program, the POC, must be at least age 17. These contract cadets must meet AFROTC and Department of Defense eligibility standards ranging from physical fitness to US citizenship.

**Faculty.** The teaching staff of AFROTC units is composed of experienced Air Force officers. Selection is determined by professional experience, academic background, and qualifications as instructors. Detachment commanders and AFROTC instructors are required to complete faculty development training at Maxwell AFB, Alabama, to enhance their teaching skills and learn more about their jobs before reporting for their teaching assignments. Detachment commanders complete the following course.

**MAFOATS005 AFROTC Detachment Commander Instructor and Orientation Course.** A 10-day, mission-essential course hosted by the Holm Center Curriculum Directorate (AFOATS/CR). This course provides newly assigned AFROTC detachment commanders with the skills needed to teach within the AFROTC academic environment as well as orients and prepares them for the myriad of AFROTC detachment duties at geographically separated units. Major areas of study include learning theory, teaching methods, critiquing of student writing, and speaking and evaluation. Students also receive AFROTC instruction in curriculum, professional relations, leadership, counseling, and legal issues and meet with subject-matter experts concerning a variety of administrative and instructional issues.

Similarly, AFROTC instructors of Aerospace Studies complete the following course.

**MAFOATS002 AFROTC Assistant Professor of Aerospace Studies Instructor and Orientation Course.** A 10-day, mission-essential course hosted by the Holm Center Curriculum Directorate (AFOATS/CR), Maxwell AFB. This course prepares newly assigned AFROTC instructors to teach and supervise within the AFROTC academic environment and orients and prepares them for AFROTC detachment duties at geographically separated units. Major areas include learning theory, teaching methods, critiquing of student writing, speaking, and evaluation. Methods usually taught include the informal lecture, guided discussion, experiential method, demonstration-performance, and case study. The course is organized to provide for maximum participation in learning. The majority of class time is devoted to small-group activity. Each student must plan and present teaching lessons. Students are urged to use AFROTC lesson material to prepare the required teaching lessons and test items. Student also receive ROTC instruction in curriculum, professional relations, leadership, counseling, legal issues, and meet with subject-matter experts concerning instructional development.

Each AFROTC detachment has enlisted personnel (3S) and information manager (3A) specialists assigned to assist with daily operations. These individuals are required to complete the following course.

**MAFOATS001 AFROTC NCO Orientation Course.** A 10-day, mission-essential course hosted by the Holm Center Curriculum Directorate (AFOATS/CR). The faculty includes enlisted personnel currently assigned to AFROTC detachments. Newly assigned NCOs are taught the critical aspects of personnel and information management as they relate to the day-to-day operations at AFROTC detachments and the interface between detachments and HQ AFROTC. The purpose of the course is to improve performance, increase productivity, and enhance mission accomplishment of new AFROTC cadre members. This course covers the basic skills and knowledge associated with the AFROTC mission and structure, unit support, logistics support, cadet personnel and financial management programs, and various computer functions. The course also addresses various documentation processes, regulatory guid-

ance and procedures, and other topics related to the AFROTC environment.

The primary curriculum areas taught in AFROTC are leadership studies, field leadership, profession of arms, military studies, international security studies, and communications skills. Teaching methods include informal lecture, guided discussion, case studies, readings, and practical exercises (athletics, group leadership problems, and the leadership reaction course). The table below summarizes the AFROTC curriculum.

### Curriculum Summary

Instructional Area	Academic Hours
Leadership Studies	65.0
Communications Skills	44.0
Profession of Arms	43.0
Military Studies	57.0
Admin/Testing	31.0
LLAB	240.0
Field Training*	380.0
<b>TOTAL</b>	<b>860.0</b>

\*Standard Field Training, 380 Hours; Extended Field Training, 429.5 Hours

### Course Descriptions

For more information regarding AFROTC courses, go to [www.afrotc.com/overview/programs.php](http://www.afrotc.com/overview/programs.php).

## Air Force Junior Reserve Officer Training Corps

*Internet Address*

<http://www.afoats.af.mil/AFJROTC>

**Mission.** *Develop citizens of character dedicated to serving their nation and community.*



AFJROTC can track its heritage to a program founded in 1911 in Cheyenne, Wyoming, by Army lieutenant Edgar R. Steevers. Lieutenant Steevers was assigned as an inspector-instructor of the organized military of Wyoming. During his assignment, he envisioned a noncompulsory cadet corps comprised of high school students aimed toward making them better citizens.

The National Defense Act of 1916 authorized a junior course for noncollege military schools, high schools, and other non-preparatory schools. The Army implemented JROTC in 1916. Public Law 88-647, commonly known as the *ROTC Vitalization Act of 1964*, directed the secretaries of each military service to establish and maintain JROTC units for their respective services. The first Air Force JROTC programs were opened in 1966. As *Title 10, United States Code, Section 2031* reads, “[The] purpose of Junior Reserve Officers’ Training Corps [is] to instill in students in United States secondary educational institutions the value of citizenship, service to the United States, personal responsibility, and a sense of accomplishment.”

The AFJROTC is a continuing success story. From a modest beginning of 20 units in 1966 and over 102,000 cadets, AFJROTC has grown to 879 units throughout the world. The program eventually will expand to 955 units with additional funding. The AFJROTC program positively influences the United States by helping one student at a time. Comprised primarily of active duty Air Force retirees, the AFJROTC instructor force is helping to form tomorrow’s nation by educating proud and patriotic cadets—tomorrow’s leaders.

In academic year 2008, the AFJROTC program enrolled approximately 102,000 cadets, employed more than 1,900 instructors, and operated units in 48 states, the District of Columbia, Puerto Rico, Italy, Germany, Belgium, Netherlands, United Kingdom, Japan, Korea, and Guam. AFJROTC units are located in host high schools, public and private, and, by law, the program is limited to students in grades 9–12. AFJROTC instructors are employees of the host school.

The Holm Center at Maxwell AFB, Alabama, houses the AFJROTC headquarters. There are two branches within the AFJROTC headquarters at the Holm Center: instructor management and operations. The instructor management branch recruits, certifies eligibility to teach AFJROTC, monitors per-

formance of AFJROTC instructors, and recommends decertification of AFJROTC instructors, as necessary. It provides assistance and authoritative guidance to instructors and school officials, including assistance in the selection and hiring of instructors. Additionally, it processes instructor applications and administers the instructor evaluation system. The operations branch provides staff initiatives and policy to implement the air and space science and leadership education curriculum. It ensures the program is conducted pursuant to DOD and Air Force instructions; develops policies and procedures for the day-to-day operation of the program; and establishes standards for unit operations, instructor qualifications, and cadet performance.

The objectives of AFJROTC are to educate and train high school cadets in citizenship, promote community service, instill responsibility, character, and self-discipline; and provide instruction in air and space fundamentals.

## **Faculty Development**

**MAFOATS003 AFJROTC Academic Instructor Course.** This course prepares newly assigned AFJROTC faculty to teach in private, public, and Department of Defense Directive high schools around the world. This rigorous, comprehensive, and fast-paced course requires extensive reading, preparation, and moderate research. Its major curricular areas include learning theory, communication skills, teaching methods, lesson planning, and evaluation. The methods usually taught are the formal and informal lecture, guided discussion, teaching interview, and demonstration performance. The course is organized to provide for maximum participation in learning. A majority of class time is devoted to seminar activities. Students plan and present teaching lessons, develop test items, and participate in specialized labs to meet AFJROTC needs. Students are urged to use AFJROTC lesson plans to prepare the required teaching lessons. Students also receive JROTC instruction in curriculum, professional relations, leadership, counseling, and legal issues and meet with subject-matter experts concerning instructional needs.

**MAFOATS008 AFJROTC Instructor Recertification.** This course provides “in-service” training to AFJROTC instructors who have been teaching in private, public, and Department of Defense dependents high schools for at least five years to maintain their currency of teaching credentials and provides updates on Air Force policy. Major curricular areas are learning theory, communication skills, teaching methods, and other secondary education critical areas. Students also receive AFJROTC instruction and guidance on curriculum, professional development, operations, instructor management, financial management, individual concerns, cyber campus, and the Cadet Inventory Management System. The course is organized for maximum participation in learning and sharing of best practices through presentations, computer lab time, and small-group cross-feed sessions. This is a required course directed by AFOATSI 36-2004, *AFJROTC Instructor Management Publication*.

## **Curriculum**

The AFJROTC program is grounded in Air Force core values. The curriculum emphasizes Air Force heritage and traditions, the development of flight, applied flight sciences, military air and space policies, space exploration, and global awareness.

The success of the AFJROTC program lies in its progressive and academically sound curriculum and the numerous extra-curricular activities AFJROTC offers students. The curriculum comes in three parts: aerospace studies, leadership/life-skills education, and wellness/fitness education. Host schools may emphasize a particular portion of this curriculum to gain core graduation credit or other non-elective credit, based upon the needs of the students and approval of the respective school district.

**Aerospace Studies (AS).** The academic program provides for selection from a menu of courses to expose cadets to aerospace studies and a leadership education component. The recommended first-year AS course covers the history of aviation and the history of the US Air Force. The recommended second-year AS course addresses the cultural study of six major regions of the world. The recommended third-year AS course examines the environment in which aircraft and spacecraft operate, including

flight and navigational principles and the requirements for human flight. Rocketry, space vehicles, and the exploration of space are covered in the recommended fourth-year AS course. A variety of other options are available for units that desire to teach alternate AS courses: Management of the Cadet Corps; Honors Program-Aviation Ground School; and Laboratory Manual, World Geography, Astronomy, Policy and Organization, and Survival.

**Leadership/Life-Skills Education.** AFJROTC focuses on leadership education with emphasis on the development of life skills while exposing cadets to opportunities to learn and practice basic leadership. The leadership/life-skills course work helps to prepare cadets for positions in any career. Classes provide cadets with a basic knowledge of military customs and courtesies, military organization and principles of leadership, flag etiquette, and drill and ceremony.

**Wellness/Fitness Education.** AFJROTC recently added a wellness/fitness component to its curriculum. This program motivates cadets to lead active, healthy lifestyles beyond the program requirements and into their adult lives. Wellness/fitness will make up 20 percent of the curriculum within each AFJROTC program and is designed to address physical fitness as well as proper nutrition.

The tables below show typical AFJROTC curriculum plans. The first table reflects a typical plan for units receiving core graduation credit, while the second table reflects an elective credit plan. The core credit chart reflects the headquarters approval to eliminate the wellness/fitness component to allow time for coverage of material needed to earn core graduation credit.

**Typical Core Credit Curriculum Plan**

Year	Aerospace Science	Hrs	Leadership Education	Hrs	Total Hours
1	A Journey into Aviation History	108	Citizenship, Character, and Air Force Tradition	72	180
2	Global and Cultural Studies	108	Communication on Awareness	72	180
3	Science of Flight	108	Life Skills and Career Opportunities	72	180
4	Exploration of Space	108	Principles of Management	72	180

### Typical Elective Credit Curriculum Plan

Year	Aerospace Science	Hrs	Leadership Education	Hrs	Wellness Education	Hrs	Total Hours
1	A Journey into Aviation History	72	Citizenship, Character, and Air Force Tradition	72	Wellness Education	36	180
2	Global and Cultural Studies	72	Communication on Awareness	72	Wellness Education	36	180
3	Science of Flight	72	Life Skills and Career Opportunities	72	Wellness Education	36	180
4	Exploration of Space	72	Principles of Management	72	Wellness Education	36	180

**Extracurricular Activities.** Extracurricular activities and opportunities are important parts of AFJROTC. Cadets can participate in summer leadership camps, drill meets, orienteering, debates, aerospace and technology honors camps, and discussion forums.

### **Thomas N. Barnes Center for Enlisted Education**

*Internet Address*

<http://www.maxwell.af.mil/au/cepme>

**Mission.** *Provide the continuum of education necessary to inspire and develop enlisted leaders with the moral framework of integrity, service, and excellence.*

The College for Enlisted Professional Military Education (CEPME) was activated 15 December 1993. On 11 July 2008, CEPME was re-designated the Thomas N. Barnes Center for Enlisted Education. The center is responsible for the instructional programs and faculty development for the Airmen Leadership Schools (ALS), Noncommissioned Officer Academies (NCOA), the Air Force Senior Noncommissioned Officer Academy (AFSNCOA), and the Chief Master Sergeant Leadership Course (CLC). These schools graduate nearly 30,000 students annually. The center conducts studies of enlisted professional military educa-

tion (EPME) issues and advises Air Force leadership on enlisted professional military education (PME) matters.

The AFSNCOA, all eight continental US (CONUS) NCOAs, and all ALSs are affiliated through the Barnes Center to CCAF, which is accredited through Air University by the Commission on Colleges of the Southern Association of Colleges and Schools (SACS). All graduates of the resident courses receive semester hour credit in the undergraduate category. CCAF is automatically notified of class graduations for update of CCAF records and transcripts.

**Focus.** The main objective is to develop Airmen with a warrior ethos and a passion for leading in the cause of freedom. The Barnes Center implements its mission and focus through its resident and distance learning programs. The major components of the Barnes Center are the Educational Programs Cadre, the Chief Master Sergeant Leadership Course, the AFSNCOA, eight NCOAs located in the CONUS, the ALSs, the USAF First Sergeant Academy, and the Air Force Enlisted Heritage Research Institute (AFEHRI).

## **Educational Programs Cadre**

*Internet Address*

<http://www.maxwell.af.mil/au/cepme/epc>

The Educational Programs Cadre (EPC) was formed in 1993 as the sole organization responsible for the development and standardization of enlisted professional military education. Responsibilities include resident and distance learning programs for all levels of enlisted leadership development, as well as faculty and staff development for personnel assigned to all EPME programs.

**Faculty Development.** Prior to assuming instructor responsibilities, each faculty member must attend and be certified through the EPME Instructor Course.

**MESCO03 Enlisted Professional Military Education Instructor Course.** This course prepares graduates to instruct in the field of Enlisted Professional Military Education (EPME). It is a rigorous, comprehensive, fast-paced, and experiential course that requires extensive reading, writing, and moderate research. Its major curricular areas are learning theory, communication skills, instructional design, teaching methods, and evaluation. The course provides maximum participation in learning. A majority of class time is devoted to small group activity. Students write level of learning objectives and lesson plans, present lessons, and develop rating scales and test items. They must demonstrate the ability to write and present lessons using interactive methods and master selected academic content areas. The methods include informal lecture, guided discussion, case study, experiential, teaching interview, and demonstration-performance. Students are encouraged to develop the critical-thinking skills involved in teaching interactive lessons and managing classroom dynamics.

### **Chief Master Sergeant Leadership**

**Mission.** *Provide newly selected chief master sergeants with a strategic perspective of the Air Force and its mission.*

In January 2004 the Air Force chief of staff announced the stand up of new, top-level enlisted professional military education for personnel selected for promotion to chief. This course provides new chief master sergeants with foundational strategic-level leadership knowledge that is invaluable to the employment of air and space forces in support of national security. In August 2004 the inaugural Chief Master Sergeant Leadership Course (CLC) completed a successful test run and entered full production in February 2005. This capstone of enlisted PME is conducted at the Air Force Senior NCO Academy at Maxwell AFB/Gunter Annex, Alabama.

**Learning Outcomes.** Provide chief master sergeants with a strategic-level perspective of the Air Force and its mission.

**Duration.** The AFSNCOA, located at Maxwell AFB/Gunter Annex, conducts three, eight-day resident CLC classes each year with from 150 to 250 students in each class.

**Eligibility and Selection.** Active duty chief master sergeant-selects with at least six months' retainability may attend. Chiefs selected for promotion are not required to complete CLC before pin-on, and with few exceptions, will attend within the year selected. Selected AFRES and ANG personnel also attend on a limited basis. The Air Force Senior Leaders Management Office Chiefs Group (AFSLMO/CG) is the lead agent for CLC seat allocation management and student selection.

## **Curriculum**

The course consists of 69.5 academic hours spread over eight days. The primary instructional methodologies are formal lecture, informal lecture, guided discussions, question and answer sessions, panel discussions, and guided activity. These methodologies are used to facilitate the achievement of refined learning objectives, and all instruction is tied back to one or more of the core curriculum areas.

### **Curriculum Summary**

<b>Instructional Area</b>	<b>Academic Hours</b>
The Developing CMSgt	14.50
The Expeditionary CMSgt	17.25
Senior Enlisted Leader/Manager	28.25
Collateral Curriculum	9.50
<b>TOTAL</b>	<b>69.50</b>

## **Course Description**

This course provides the newest chief master sergeants with foundational strategic-level leadership knowledge that is invaluable to the employment of air and space forces in support of national security. The CLC curriculum was developed at the direction of the CSAF to provide a strategic perspective of the



Air Force as an organization and its mission to newly selected chief master sergeants.

The primary instructional methodologies are the formal lecture, informal lecture, guided discussions, question and answer sessions, panel discussions, and guided activity used to facilitate the achievement of the course objectives. The course is taught three times each year.

## **Air Force Senior Noncommissioned Officer Academy**

*Internet Address*

<http://www.maxwell.af.mil/au/cepme/sncoa>

**Mission.** *Prepare senior noncommissioned officers to lead the enlisted force in the employment of air, space, and cyberspace power in support of US national security objectives.*

The Air Force established the Air Force Senior NCO Academy (AFSNCOA) in 1972 to fill a void in the professional military education for Air Force senior NCOs. In January 1973 the academy began its first class with 120 senior NCOs and a curriculum divided into two major areas: military environment and military management. Presently, the academy has an annual enrollment of over 1,800 senior NCOs, chief petty officers, and international senior NCOs. The academy offers instruction in three major areas.

In 2003 the secretary and chief of staff of the Air Force approved the testing of an initiative designed to improve interaction between officers and enlisted members in the PME environment. The initiative called for students attending the Air and Space Basic Course (ASBC) and AFSNCOA to merge together in teams for instruction with the goal of increasing understanding and appreciation of the talents officers and enlisted Airmen bring in projecting airpower.

The instruction provided by the AFSNCOA makes a positive impact on the careers of its graduates. Several academy graduates

have served as the chief master sergeant of the Air Force; most command chief master sergeants are also academy alumni.

**Learning Outcomes:**

- Prepare Senior NCOs to lead the enlisted force
- Prepare to effectively communicate rank-appropriate tasks
- Model and develop professional military attributes

**Duration.** The AFSNCOA conducts five, 33-day resident classes each year with from 300 to 600 students in each class.

**Eligibility and Selection.** Air Force and selected AFRES and ANG senior NCOs attend the academy in residence. Selected Army, Navy, Coast Guard, and international military personnel also attend on a limited basis. Active duty Air Force personnel must have at least one-year retainability following graduation, and this course must be completed before they can be promoted to chief master sergeant. The Air Force Military Personnel Center identifies and notifies active duty students for attendance. Air Force students must meet all Air Force standards. Students from other services must meet their service's standards. Complete eligibility and selection criteria can be found in AFI 36-2301, *Professional Military Education*, and online at the Air Force Education and Training Course Announcements Web site, <http://etca.randolph.af.mil>.

## **Curriculum**

The academy's philosophy is that senior enlisted leaders have the need and desire for advanced PME to assist them in fulfilling their expanding leadership and management roles. The senior EPME program is based on sound educational principles with high academic standards. It strives to satisfy student needs with individualized instruction, where possible.

## Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	80.0
Communication Skills	30.0
Leadership and Management	65.0
Collateral Curriculum	39.0
Commandant's Time	10.0
<b>TOTAL</b>	<b>224.0</b>

## Course Description

This course provides an advanced professional military education program for selected senior NCOs to better prepare them for leadership responsibilities by expanding their leadership and managerial capabilities and their perspective of the military profession. The curriculum, designed to meet senior NCO needs, consists of lectures and small group work seminars. The primary instructional methodology is the 12-to-14 member guided discussions. In this forum, students share ideas and experiences and work collectively to achieve various educational objectives. Members of the academy's faculty and speakers from AU, Headquarters USAF, other commands, and civilian agencies lecture at the academy. The academy's curriculum is based on the belief that the senior NCOs attending the course bring with them some understanding and competence in all areas of the curriculum.

## Noncommissioned Officer Academies

**Mission.** *Prepare technical sergeants to be professional, war-fighting Airmen who can manage and lead Air Force units in the employment of air, space, and cyberspace power.*

In October 1993 a Headquarters USAF program action directive ordered the transfer of the eight CONUS NCO academies from Air Force major commands (MAJCOM) to Air Education and Training Command (AETC). In November 1993 AETC assigned these academies to the newly formed CEPME. Currently, eight NCO academies aligned under CEPME operate in CONUS at Goodfellow, Maxwell/Gunter, Keesler, Kirtland, Lackland, Peterson, Robins, and

Tyndall Air Force bases. An NCO academy, located at McGhee Tyson Air National Guard (ANG) Base, Knoxville, Tennessee, is under the functional control of the ANG. Air Force major commands overseas operate their own academies. Pacific Air Forces has three academies located at Elmendorf AFB, Alaska; Kadena AB, Okinawa, Japan; and Hickam AFB, Hawaii. US Air Forces, Europe, has one academy at Kapaun Air Station, Germany.

**Learning Outcomes:**

- Prepare NCOs to lead and manage units
- Prepare to effectively communicate rank-appropriate tasks
- Model professional military attributes

**Duration.** The NCOA is conducted at 13 locations worldwide, and most NCOAs operate seven classes per year. This is a 28-day course, and quotas are distributed by each MAJCOM annually.

**Eligibility and Selection.** Students are technical sergeants and technical sergeants-select with six months of retainability upon completion of the NCOA. Students must complete the NCOA before they assume the grade of master sergeant. They are selected based on the eligibility criteria outlined in the ETCA and AFI 36-2301, *Professional Military Education*. Local military personnel facilities manage this process for each base.

## Curriculum

The NCO Academy’s 223-hour curriculum consists of three academic areas—profession of arms, communication skills, and leadership. The principal method of instruction used at this level of EPME is the guided discussion.

### Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	49.0
Communication Skills	56.0
Leadership and Management	78.0
Collateral Curriculum	26.0
Commandant’s Time	14.0
<b>TOTAL</b>	<b>223.0</b>

## Course Description

This professional military education course prepares non-commissioned officers to be professional, war-fighting Airmen who can lead and manage Air Force units in the employment of air and space power. The principal methods of instruction are guided discussions and case studies. Formative exercises are integral to NCOA curriculum and serve as feedback tools for the student and instructor. Summative objective and performance evaluations determine whether established educational requirements outlined in the course are met. Students must satisfactorily accomplish all lesson objectives, including those pertaining to fit-to-fight, drill, and ceremonies using the criteria outlined in the course curriculum.

## Airman Leadership School

**Mission.** *Prepare senior Airmen to be professional, war-fighting Airmen who can supervise and lead Air Force work teams to support the employment of air, space, and cyberspace power.*

In April 1991 the Air Force directed that Headquarters AU establish the Airman Leadership School (ALS) program. On 1 October 1991 a new and standardized program came online to teach senior Airmen PME. The stand up of the new ALS discontinued the Noncommissioned Officer Preparatory course and the Noncommissioned Officer Leadership School programs. ALS became the first of three PME programs that enlisted professionals attend during their Air Force careers. Functional responsibility for each ALS rests with the local mission support squadron.

### Learning Outcomes:

- Prepare senior Airmen to supervise and lead work teams,
- Prepare to effectively communicate rank-appropriate tasks, and
- Exhibit a variety of professional military attributes.

**Duration.** The ALS is conducted at 69 active duty Air Force bases worldwide and three ANG bases located in the CONUS. This is a

24-day course, and most ALSs operate eight classes each year. Quotas are locally assigned based on the eligible population.

**Eligibility and Selection.** Students are senior Airmen or staff sergeants-select with 48 months' time in service and six months' retainability in the Air Force upon graduation. ALS completion is required before attaining the rank of staff sergeant. Students are selected based on the eligibility criteria outlined in the ETCA and AFI 36-2301, *Professional Military Education*. Once selected, attendance is mandatory. Local MPFs work directly with each ALS to ensure eligible students are selected.

## Curriculum

The ALS consists of 192 curriculum hours conducted over 24 academic days at 72 locations worldwide. The primary instructional methodology is the guided discussion. Instruction covers three broad academic areas, including profession of arms, communication skills, and leadership; flight chief's time, and collateral curriculum.

### Curriculum Summary

Instructional Area	Academic Hours
Profession of Arms	49.0
Communication Skills	56.0
Leadership and Management	72.0
Collateral Curriculum	10.0
Flight Chief's Time	5.0
<b>TOTAL</b>	<b>192.0</b>

## Course Description

The ALS is an Air Force education program implemented at the base level that prepares senior Airmen for positions of greater responsibility. The course teaches leadership skills required of supervisors and reporting officials throughout the Air Force. ALS enhances the development of senior Airmen by strengthening their ability to lead, follow, and manage while they gain a broader understanding of the military profession. The principal

instructional method is the guided discussion. In this forum, students share ideas and experiences and work together to achieve various educational objectives. Formative evaluations are an integral part of the ALS curriculum and serve as feedback tools for the student and instructor. Summative objective and performance evaluations are used to determine whether the educational requirements outlined in the course are met. Students must satisfactorily accomplish all lesson objectives, including those pertaining to fit-to-fight, drill, and ceremonies using the criteria outlined in the course curriculum.

## **Distance Learning**

The Thomas N. Barnes Center for Enlisted Education provides distance or distributed-learning opportunities to the Air Force enlisted corps. Eligibility criteria, course responsibilities, and academic credit are outlined in the online Directorate of Education Logistics and Communication *A4/6 Catalog* at <http://www.maxwell.af.mil/au/afiadl/curriculum/catalog/html/contents04-01.htm>.

## **USAF First Sergeant Academy**

*Internet Address*

<https://www.mil.maxwell.af.mil/au/cpd/fsa/index.htm>

**Mission.** *Educate, train, and prepare the Air Force's premier senior non-commissioned officers to fulfill the key leadership role of the first sergeant in leading tomorrow's enlisted force.*

The importance of the position of first sergeant has long been recognized in American military ranks. In 1778 at Valley Forge, Baron von Steuben wrote in the *Regulation for the Order and Discipline of the Troops of the United States*, "The soldier having acquired that degree of confidence of his officers as to be appointed first sergeant of the company, should consider the importance of his officers; that the discipline of the company, the conduct of the men, their exactness in obeying orders and the regularity of their manners, will in great measure depend

on his vigilance. The first sergeant . . . is to be always in camp or quarters, to answer any call that may be made.”

Through the years, Airmen selected for first sergeant duty primarily trained themselves in their duties and responsibilities, taking over where their predecessors left off. With increases in technology, advances in the complexity of administrative and legal procedures, and the need for improved human relations, the USAF saw that first sergeants needed to receive formal training.

The First Sergeant course was established at Keesler AFB, Mississippi, in October 1973 and was renamed the USAF First Sergeant Academy in 1982. The academy remained at Keesler until July 1993, when it was moved to Maxwell AFB.

### **Learning Outcomes:**

- Prepare first sergeants to lead, advise, and mentor the enlisted force,
- Provide tools for first sergeants to advise and assist commanders with all matters affecting health, welfare, morale, well-being, and discipline of the enlisted force, and
- Encourage cross talk and networking to reduce or eliminate barriers between each of the three components.

**Curriculum.** In 2006 the in residence curriculum was revised to reflect the background of its students and produce first sergeants capable of meeting the needs of the Air Force as well as their assigned components. The curriculum is divided into five major areas: unit administration, human resources preventive intervention, quality force management, military justice, and deployment issues. Approximately 80 percent of the course time is in a total-force environment, while the remaining time is spent learning component-specific personnel management policies and procedures.

**Duration.** The USAF First Sergeant Academy (FSA) course is comprised of total-force senior NCOs from the active duty, Air National Guard, and Air Force Reserve Command. The course length is 15 academic days, and the facility can support up to



88 students per class. In residence courses are offered eight times in each fiscal year.

**Eligibility.** Refer to AFI 36-2113, *The First Sergeant*, for the application and selection process for first sergeant duty in each of the three components.

### Curriculum Summary

Course Title	Academic Hours
USAF First Sergeant Academy	120.0
Air National Guard First Sergeant Academy	120.0
Air Force Reserve Command First Sergeant Academy	120.0
Additional Duty First Sergeant Seminar	40.0
ANG Additional Duty First Sergeant Seminar	40.0
AFRC Additional Duty First Sergeant Seminar	24.0

### Course Description

For more information regarding FSA courses, visit <https://www.mil.maxwell.af.mil/au/cpd/fsa/index.htm>.

## Air Force Enlisted Heritage Research Institute

*Internet Address*

<http://AFEHRI.maxwell.af.mil>

**Mission.** *Support the Thomas N. Barnes Center for Enlisted Education by educating and motivating enlisted leaders on our enlisted heritage and history.*

The Air Force Enlisted Heritage Research Institute (AFEHRI) was established 23 May 1997. It is comprised of a director, a noncommissioned officer in charge of the research and heritage center, a client support administrator, and a curator. The AFEHRI provides curriculum and student support to all facets of the Barnes Center and Airman Leadership Schools. It also provides secondary student support to the USAF First Sergeant Academy and USAF Historian Development Course. It captures,

preserves, and archives enlisted history and heritage and assists in developing the *Air Force Promotion Fitness Examination Study Guide*.

**Focus.** The institute is comprised of two elements. The research and archives element consists of a research center, archives storage, and a student computer lab. The heritage center element consists of the Enlisted Heritage Hall, with many student-teaching exhibits. It is also a city and state tourist attraction and serves as a military museum to civilian visitors. The AFEHRI preserves the rich and dramatic heritage and tradition of the enlisted corps of the USAF and its antecedents, Aeronautical Division, Army Air Service; Army Air Corps; and Army Air Forces in the development of airpower to defend the United States. AFEHRI achieves its mission by featuring artifacts, art collections, pictorial exhibits, written and oral documentation, audiovisuals, equipment, and selected aircraft parts. Additionally, students use the in-house and online research capabilities to enhance learning and complete enlisted heritage research projects. A significant archival holding is also available, and efforts are systematically made to ensure its growth and availability to researchers and the public.



## **Directorate of Education Logistics and Communication**

*Internet Address*

<http://www.maxwell.af.mil/au/afiadl>

**Mission.** *To develop, deliver, and manage distance learning for US air and cyberspace forces.*

Air University, through its Directorate of Education Logistics and Communication (A4/6), provides educational oversight, administrative services, and academic support for career-related specialties and selected technical programs delivered at a distance. The A 4/6 directorate is responsible for the instructional development, management, delivery, and evaluation of Air Force Career Development Courses, Specialized Courses (SCs), and select PME courses. It also produces and distributes study materials for the Air Force Weighted Airman Promotion System (WAPS) and provides administrative support services for AU's nonresident PME and PCE courses. The A4/6 is a comprehensive distance learning organization accredited by the Distance Education and Training Council since 1975.

The origins of the Air Force extension course program date back to the beginning of the Air Force itself. Air University has served the distance learning needs of the Air Force since 1947. The program became one of AU's professional specialized schools in 1950 and was named the Extension Course Institute (ECI). ECI's mission was to provide voluntary, nonresident study courses for Air Force active duty and reserve forces. For many years ECI was the largest correspondence school in the United States. In 2000 ECI became part of the Air Force Institute for Advanced Distributed Learning (AFIADL). In 2008 AFIADL merged with Air University Information Technology and became the Directorate of Education, Logistics, and Communication A4/6 to ensure AU schools are supported with the right information and communication services to meet learning objectives. Each year this directorate administers approximately 350 courses, 90,000 WAPS packages, and 200,000 examinations, while serving more than 170,000 students.

The traditional paper-based distance learning courses are developed using state-of-the-art publishing software, and examinations are printed using print-on-demand technology. A growing number of courses incorporate a blend of text and multimedia via CD-ROM, and some are available on the *Air University Online* site. E-exams, developed by A4/6 instructional specialists, are available in electronic format at remote test control facilities, enabling students to have instant access to feedback and test scores. Student support is accomplished via the electronic *E-Campus Support Center*, providing technical, course, and student support services through electronic incident submissions and frequently asked questions. All A4/6 personnel facilitate the printing program, mailroom operations, and warehouse contract for AU; maintain a database of registered students (shared with the AU Student Services); track student progress; administer surveys; and provide analytical reports on student performance and satisfaction to the schools and functional communities. Instructional systems specialists and advisors are available to teach subject-matter experts and support organizations in the field, utilizing the various media to develop sound instructional strategies. The A4/6 produces handbooks and guides for course authors, preparing agencies, base education offices, test-control facilities, and field units.

**Curriculum.** A full description of A4/6's 350 distance learning courses is available in the A4/6 catalog (formerly the *AFIADL Catalog*) at <http://www.maxwell.af.mil/au/afiadl>. The Web site also provides information about enrollment, counseling, testing procedures, test-control facilities, methods for obtaining assistance with student inquiries, and links to DL resources and guides.

## **Professional Continuing Education**

Resident and distance learning professional continuing education (PCE) remain important parts of the careers of Air Force officer, enlisted, and civilian personnel. Air University (AU) offers short courses of continuing education in different Air Force specialty areas through the Air Force Institute of Technology; the LeMay Center; and the Ira C. Eaker College for Professional Development. Each AU school assumes responsibility for faculty education and training. Those schools conducting PME instructor courses report those courses in the appropriate school section of this catalog.



## **Ira C. Eaker College for Professional Development**

*Internet Address*

<http://www.maxwell.af.mil/au/cpd>

**Mission.** *Provide the highest quality, multi-disciplined professional continuing education and technical training to Air Force, DOD, and international students.*

The Air University (AU) Center for Professional Development was activated on 1 August 1986. In October 1993 the center was redesignated the Ira C. Eaker College for Professional Development (ECPD) to honor General Eaker's significant contributions to the advancement of aviation, the Air Force, and the continuing professional development of its members.

The ECPD umbrella spans five schools. ECPD schools include Commanders Professional Development School, Air Force Human Resource Management School, Defense Financial Management and Comptroller School, USAF Chaplain Service Institute, and USAF Historian Development School.

### **Faculty Development**

**MCPO01 Eaker College Academic Instructor Course.** This course prepares newly assigned faculty to instruct at Eaker College. This rigorous, comprehensive, and fast-paced course requires extensive reading, writing, and moderate research. Major curricula areas are learning theory, communication skills, instructional design, teaching methods, and evaluation. This course is organized to provide maximum participation in learning. A majority of class time is devoted to small group activity. Students write level of learning objectives and lesson plans, present lessons, and develop rating scales and test items. Students must demonstrate the ability to write and present teaching lessons and master selected academic content areas. The following methods are taught: informal lecture, guided discussion, case study, experiential, teaching interview, and demonstration-performance.



## **Commanders' Professional Development School**

*Internet Address*

<http://commandersschool.maxwell.af.mil>

**Mission.** *Prepare Air Force members for duty as wing and group commanders and directors and emergency operations center directors; develop, schedule, and conduct tailored courses that help attendees deal with critical leadership and management challenges.*

The seven courses conducted by the Commanders' Professional Development School includes the USAF Wing Commanders' Seminar, the USAF Mission Support Group Commanders' Course, the USAF Group Commanders' Course, the USAF Medical Group Commanders' Course, the USAF Operations Group Commanders' Course, the USAF Materiel Group Commanders' Course, and the USAF Incident Management Course.

**Learning Outcomes.** Upon completion of these courses, students will be able to

- illustrate updates on critical issues affecting themselves, their people, their mission, and their individual roles and responsibilities;
- summarize pertinent information on leadership and ethical considerations in the decision-making process; and
- give examples of practical skills that may be used to enhance their immediate effectiveness as new commanders.

**Prerequisites.** The Air Force Colonels Group determines attendance at the Wing Commanders' Seminar and Group Commanders' courses.

Attendance at the Air Force Incident Management Course is mandatory for all USAF personnel designated as emergency operations center (EOC) directors and senior installation fire officials. The course is optional for security forces commanders, operations officers, flight chiefs, command inspector general team chiefs, and installation exercise evaluation team chiefs.

**Duration.** The Wing Commanders' Seminar is one week in duration and convenes five times each year with 20 to 25 attendees. The Group Commanders' Courses are two weeks in duration and convene five times each year with 10 to 25 attendees. During the first week, the courses are combined, and students receive a core curriculum that applies to all group commanders; during the second week, the courses are divided into discipline-specific seminars. The Air Force Incident Management Course is offered 15 times a year at Maxwell AFB and 15 times each year at other selected locations.

### Curriculum Summary

Course Title	Academic Hours
USAF Wing Commanders' Seminar	42.0
USAF Mission Support Group Commanders' Course	71.5
USAF Materiel Group Commanders' Course	70.0
USAF Medical Group Commanders' Course	*79.0
USAF Operations Group Commanders' Course	51.0
USAF Systems and Sustainment Group Commanders' Course	**68.5
USAF Incident Management Course	32.0

\*The Office of the Surgeon General, US Air Force, designates the educational activity entitled Medical Group Commanders' course, is awarded 34.24 contact hours of *AMA PRA Category 1 Credits*.<sup>TM</sup> This course has received the American Medical Association Physician's Recognition Award. Activity Approval Code #8021 states that "This activity has been jointly planned and implemented in accordance with the essential areas and ancillary policies of the Accreditation Council for Continuing Medical Education (ACCME) by the Office of the Surgeon General, US Air Forces, and the Ira C. Eaker College for Professional Development. The Office of the Surgeon General, US Air Force, is accredited by the ACCME to provide continuing medical education for physicians and takes responsibility for the content, quality, and scientific integrity of this program." This continuing nursing education activity was approved by the Nurse Utilization and Education Branch, Medical Services Officer Management Division, HQ AFPC, an accredited approver for the American Nurses Credentialing Center's Commission on Accreditation. The source is Activity Approval Code #8-008, and the number of contact hours is 35.1.

\*\*SAF/AQXD awards 40 continuous learning points towards on-going acquisition professional development for the educational activity entitled USAF Systems and Sustainment Group Commanders' Course.

## Course Descriptions

For all CPDS course descriptions and other information, refer to the Web site at Air Force Portal, Organizational A-Z Index, select "I" and Ira C. Eaker College, select ECPD Schools, and then select the Commanders School.

### Air Force Human Resource Management School

*Internet Address*

<http://www.maxwell.af.mil/au/cpd/hr>

**Mission.** *Provide world-class continuing education for the development and competence of Air Force personnel.*

The Air Force Human Resource Management School (AFHRMS) was established at Maxwell AFB in 1965 as the Air Force Professional Personnel Management School. In July 1977 the AFHRMS absorbed the former Civilian Personnel School, located at what was then Gunter AFB. The Civilian Personnel School, originally established in 1948 at Kelly AFB, Texas, was moved to Gunter in 1957. The AFHRMS is one of only two training facilities devoted to teaching personnel-management philosophies, policies, practices, and techniques.

In 1983 the school was renamed the Air Force Professional Manpower and Personnel Management School to reflect more closely the merger of manpower and personnel functions at Headquarters USAF, the Air Force Manpower and Personnel Center (as it was then designated), and MAJCOMS. In 1988 the school expanded the curriculum to address PCE requirements in the Air Force Family Matters Program. In 1993, recognizing the broad range of human resource activities represented in its curriculum, the school adopted its current name.

**Learning Outcomes.** Upon completion of the program, students will be able to:

- summarize the tools to operate and successfully contribute to organizational effectiveness;

- explain Force Development as a concept and practice; and
- give examples of professional and personal development.

**Prerequisites.** Requirements for participants vary for each course each year, depending on demand. Students can locate the course requirements and schedule on the Air Force Portal by selecting from the Web site AF Organizations, “I” for Ira C Eaker College, and ECPD Schools.

**Duration.** Courses vary in length from four to 14 days and are conducted one to five times each year, depending on demand.

### Resident Curriculum Summary

Title	Academic Hours
Intermediate Position Classification Course	40
Advanced Position Classification Course	40
Principles of Affirmative Employment Course	40
Advanced Affirmative Employment Course	40
Employee Development Specialist Course	40
Employee Development Advanced Course	40
Advanced Employee-Management Relations Course	40
Resource Management Course	36
Competitive Sourcing and Privatization for Personnelist	36
EEO Manager Course	36
Basic Business Objects	32
Advanced Business Objects	28
Basic Mediation Course	32
Advanced Mediation Course	40
Labor-Management Relations Course	68
Sexual Assault Response Coordinator's Course	40
Mission Support Squadron Flight Chief's Course	40
Mission Support Squadron Leadership Course	40
Airman and Family Readiness Qualification Course	40
Airman and Family Readiness Flight Readiness Qualification Course	40
Manpower Staff Officer Course	112
Wing Manpower Officer Course	40

## Nonresident Curriculum Summaries

### Computer-Based Training (CBT) Courses

Title	Academic Hours
Position Classification	40
Affirmative Employment Course (Basic)	40
Labor Management Relations Course	40
Civilian Personnel Management Course	40
USAF Supervisor's Course	40
Military Personnel Management Course	40

### Optional through CBT or in residence

Title	Academic Hours
Employee-Management Relations Course	40

## Course Descriptions

For AFHRMS course descriptions and other information, visit the Web site at the Air Force Portal, Organizational A-Z Index, select "I" and Ira C. Eaker College, select ECPD Schools, and then select the AF Human Resource Management School.

## Defense Financial Management and Comptroller School

*Internet Address*

<http://www.au.af.mil/au/cpd/dfmcs>

**Mission.** *Provide quality joint professional continuing education to DOD financial management personnel.*

In 1966 the assistant secretary of the Air Force (financial management) established a joint service task group to study financial management (FM) education in the Department of Defense (MEDOD). This group issued its report, called the MEDOD study, in March 1967.

In 1968 the Professional Military Comptroller Course (PMCC) was developed in response to the MEDOD study. In 1973 financial managers from the Army, Navy, and other DOD agen-

cies began participating in PMCC, and the Army and Navy began assigning highly qualified officers to the faculty. A Reserve Forces Comptroller Course (RFCC) was added to meet the needs of DOD reserve comptrollers. Then, in 1977, the PMCC became the DOD Professional Military Comptroller School (PMCS).

In 2005, following a review of emerging financial manager education needs, the PMCC was redesigned, refocused, and renamed the Defense Financial Management and Comptroller Course (DFMC). At the same time, the school was renamed the Defense Financial Management and Comptroller School (DFMCS). In 2006 the Defense Decision Support Course (DDSC) was created to provide improved decision support in the DOD by focusing on concepts related to understanding decision support and the transformational roles of financial management personnel.

**Learning Outcomes.** Upon completion of this program, students will be able to

- summarize the process of advising senior leaders in future strategic decision support roles;
- give examples of leadership and interpersonal skills;
- explain the impact of organizational relationships on the DOD mission;
- interpret the diverse financial management disciplines within DOD; and
- illustrate contingency operation concepts and their impact on financial management.

**Prerequisites.** The target grades for the DFMCs are O-4 and above, GS-12 and above, and E-8 and above. Air Force O-3s in the Financial Management Leadership Program and GS-11s are currently authorized to attend by exception.

The target audience for the DDSC includes supervisors of DFMC personnel. Students selected for this course should already possess a broad knowledge of the DOD FM environment, a strategic perspective, and above average critical/creative thinking, and oral and written communication skills.

Students for the RFCC are selected and funded by their respective commands. Attendance is authorized for personnel

outside the comptroller career area when the training requirement is assessed against positions and responsibilities in resource- and associated-fund management. Noncomptroller personnel application packets must include a statement, endorsed by the major command/agency comptroller, highlighting the benefits of attendance.

**Duration.** The DFMC is held five times each year, meeting for 20 class days. The DDSC is a one-week course held five times each year, and it meets for five class days. The RFCC is held once each year and meets for 10 class days. The maximum number of students for each course is 50.

**Education Credit.** The American Council on Education has awarded the Defense Financial Management and Comptroller Course four semester hours in leadership or management at the graduate level.

### Curriculum Summary

Title	Academic Hours
Defense Financial Management Course (DFMC)	160.0
Defense Decision Support Course (DDSC)	35.0
Reserve Forces Comptroller Course (RFCC)	80.0

### Course Descriptions

For DFMC course descriptions and other information, visit the Web site at the Air Force Portal, Organizational A-Z Index, select "I" and Ira C. Eaker College, select ECPD Schools, and then select the DOD Comptroller School.

## USAF Chaplain Service Institute

*Internet Address*  
<http://www.usafhc.af.mil>

**Mission.** *Provide the highest quality professional continuing education, technical training, and resources to enhance the free exercise of religion in the US Air Force.*

On 1 July 1953 the US Air Force Chaplains' course was established at Lackland AFB, Texas, and placed under the Officer Basic Military course. The chaplains' course became part of the Officer Military Schools (OMS) in June 1955. Based on a Department of the Air Force authorization, the USAF Chaplain School was established in June 1960; however, it remained under OMS. From 1958 to 1965, judge advocates also reported to the chaplain school for training. The chaplain school was made a separate unit and placed directly under the commandant, Lackland Military Training Center, in February 1965. On 20 May 1966 the USAF Chaplain School was established at Maxwell AFB and assigned to Headquarters Air University.

The chaplain service has a rich legacy of supplying resources in support of the ministry. The USAF Chaplain Service Resource Board was formed in July 1959. The USAF Chaplain Service Institute (CSI) was activated under the Ira C. Eaker Center for Professional Development on 31 October 1992. Technical training for chaplain assistants was transferred to Maxwell in September 1993 from Keesler AFB, Mississippi, under the *Air Force Year of Training* initiatives. In October 2003 the resource board was realigned as part of the Office of the USAF Chief of Chaplains, assisting in the plans and programs function as an action office for Air Staff. The USAF Chaplain Service Resource Board remains collocated with the Chaplain Service Institute at Maxwell AFB, Alabama.

**Learning Outcomes.** Upon completion of CSI courses, students will be able to

- perform duties and responsibilities commensurate with the roles of chaplain and chaplain assistant;
- summarize how chaplains/chaplain assistants provide for the free exercise of religion;
- explain Expeditionary Air Force requirements and how to provide for ministry in the readiness environment; and
- leverage teamwork to accomplish the Chaplain Service Mission.

**Prerequisites.** Prerequisites for the Basic Chaplain Course and Chaplain Assistant Apprentice Course are selection for



duty as a chaplain or chaplain assistant. Chaplains must also complete Commissioned Officer Training before attending the Basic Chaplain Course. Other courses are pulse-point and just-in-time training to meet the needs of the chaplain service.

**Duration.** CSI conducts two basic chaplain courses, three intermediate chaplain courses, three wing chaplain courses, and three chaplain assistant apprentice courses each year. CSI generally offers four professional continuing education courses each year.

### Curriculum Summary

Title	Academic Hours
Basic Chaplain Course	240.0
Intermediate Chaplain Course	80.0
Wing Chaplain Course	80.0
Chaplain Candidate Course	80.0
Professional Continuing Education (PCE) Courses	24.0
Chaplain Assistant Apprentice Course	238.5

### Nonresident Curriculum

**Prerequisites.** Selection for promotion to staff sergeant and requisite time in training.

**Duration.** Active duty students must complete this ADL course (including an end-of-course exam) within 45 days from the class start date. Air Reserve Component (ARC) students must complete the course within 90 days from the class start date.

### Curriculum Summary

Title	Academic Hours
Chaplain Assistant Craftsman Course	107.0

### Course Descriptions

For CSI course descriptions and other information, visit the course Web site at the Air Force Portal, Organizational A-Z Index,

select “I” and Ira C. Eaker College, select ECPD Schools, and then select the Chaplain Service Institute.

## **USAF Historian Development School**

*Internet Address*

<http://www.maxwell.af.mil/au/cpd>

**Mission.** *The USAF Historian Development School provides historians with the knowledge and skills needed to prepare Air Force historical reports and manage an Air Force history program at home station and in contingency environments.*

The USAF Historian Development School became operational in January 1995. The school is responsible for professional continuing education throughout the historian career field. It conducts two in residence courses—the Historian Basic and the Historian Contingency courses.

The Historian Basic Course is 18 days long and is designed for new historians entering the Air Force history program. The curriculum provides a foundation in the principles and methods of preparing periodic histories and managing a wing history program.

The Historian Contingency Course is 8.5 days long and provides historians with the principles and methods needed to prepare Air Force historical reports and manage the Air Force history program in a deployed environment. Students receive lessons on Air Force doctrine, war planning, Airmen and family readiness, and command and control processes used during contingencies and humanitarian assistance and disaster recovery operations. They also complete a practicum, preparing a classified contingency historical report.

Both of these courses prepare historians to assist today’s commanders in the decision-making process. By capturing and preserving the Air Force’s corporate memory, historians can assist future leaders as they seek to improve the combat capability of the Air Force.

**Learning Outcomes.** Provide historians with a strategic framework for the historian career field. The objectives are to

- develop and present a student-focused curriculum that fulfills Air Force history program requirements;
- represent the historian career field in forums involving education and training issues;
- provide consultation to the Headquarters USAF Office of History (USAF/HO) and other organizations; and
- assist in developing standards for Air Force histories and related materials.

## Curriculum

The school curriculum enables historians to prepare organizational histories more effectively.

**Duration.** The Historian Basic Course is held four times each year for 18 academic days with an average of 12 students in each class. The Historian Contingency Course is held three times each year for eight and one-half days with an average of 10 students in each class.

**Prerequisites.** The prerequisites for student attendance begin with selection for duty as a historian.

### Curriculum Summary

Title	Academic Hours
Historian Basic Course	144.0
Historian Contingency Course	68.0

## Course Descriptions

**Historian Basic Course Prerequisites.** Civilian historians are selected by the Air Force Historian and Museum Program manager, while reservists are scheduled through the Air Force Reserve Command. All attendees must be proficient with computers and word-processing software.

**Historian Contingency Course Prerequisites.** All students selected for this class must have at least an interim secret clearance.

## **Curtis E. LeMay Center for Doctrine Development and Education**

*Internet Address*  
<https://www.doctrine.af.mil>

**Mission.** *Develops, coordinates, and publishes all USAF doctrine for Air Force input to joint doctrine. Performs specialized research; publishes professional journals; advocates, designs, executes, and assesses educational and operational war games; and educates war-fighting Airmen on contingency planning, joint air operations, intelligence, public affairs, and information operations via resident and distance learning courses.*

The Curtis E. LeMay Center for Doctrine Development and Education Center is the result of merging Headquarters Air Force Doctrine Center (AFDC) and the College of Aerospace Doctrine, Research and Education (CADRE) on 2 August 2007. The center continues the traditions of the Air Corps Tactical School (ACTS) where, in the 1930s, future leaders of the USAF were trained and the basic doctrine and concepts of US airpower for World War II were formulated. As much as such ACTS instructors as Generals Harold L. George, Haywood S. Hansell, Jr.; Claire L. Chennault; and George C. Kenney shaped doctrine and strategy in World War II, the center's staff is committed to providing the Air Staff and the major commands (MAJCOM) with original thought and applications of air and cyberspace power in the modern world.

The center develops and advocates Air Force doctrine and educates Air Force and joint communities on war fighting at the operational and strategic levels through research, war gaming, fellowships, and PCE courses, and publications. The center provides

- research, development, production, and dissemination of Air Force basic and operational doctrine, as well as joint and multinational doctrine for the chief of staff, US Air Force;
- education for the Air Force in air and space doctrine and the doctrinal application of air and space power;
- study and analysis of the dynamics of warfare through modeling, simulation, and war gaming; and
- intelligence support to Air University (AU) and its subordinate units.

Also, the center

- conducts research on public affairs and mass media issues;
- assists schools and organizations in developing military news media curricula, conducts research on air and space power topics of interest to senior leaders, research support for all AU schools; and
- publishes the Air Force's professional journal, the *Air and Space Power Journal (ASPJ)*.

The merger of the AFDC and the CADRE into the LeMay Center unites doctrine development with research and concept development, testing, and publication. It gives the Air Force, AETC, and AU a central repository for the development of Air Force doctrine, concepts, and strategy.

The LeMay Center resident curriculum offers eight specialized courses: the Joint Flag Officer War-fighting Course (JFOWC), the Joint Force Air Component Commander Course (JFACC), the Combined Force Air Component Commander Course (CFACC), the Senior Information Warfare Applications Course (SIWAC), the Senior Executive Services (SES) seminar, the Joint Air Operations Planning Course (JAOPC), the Contingency Wartime Planning Course (CWPC), and the Information Operations Fundamentals Applications Course (IOFAC).

These resident courses

- provide flag officer attendees the opportunity to participate in joint combat operation exercises;

- provide education and training to active duty captains through colonels of all services for air campaign planning in conjunction with assignment to joint, combined, and air component command staffs;
- provide USAF staff planners from staff sergeant through colonels an understanding of the DOD planning relationships from a joint deployment perspective;
- instruct future war planners in the art and science of contingency planning; and
- apply and value the principles of information warfare to enhance war-fighting capabilities.

## **War-fighting Education Directorate**

*Internet Address*

<https://cadremil.maxwell.af.mil/ws/WS.html>

The War-fighting Education (WE) Directorate conducts eight PCE courses to develop the judgment and skills required to employ air and space power effectively in combat. The courses offered and supported through the resources of the directorate have significantly contributed to the war-fighting capabilities of US military forces.

At the senior-leader level, the directorate conducts the JFOWC, JFACC, and CFACC and the Senior Joint Information Operations Applications Course (SJIOAC) courses for the four services. These premier, executive-level courses prepare officers at the one- and two-star rank from all four services for combat leadership responsibilities in the joint and combined arenas. The directorate also conducts the Air Force Senior Executive Seminar (AFSES) to expose key senior civilian leaders to air and space power concepts and USAF and joint doctrinal issues affecting the conduct of warfare in the twenty-first century. The Flag Officer Division staff develops, plans, and manages PCE courses for senior officers from all branches of the US armed forces and senior civilians from the Department of the Air Force. This select staff has a wide range of expertise to

meet the special requirements of senior flag officers and civilians attendees.

The faculty and staff of WE also conduct courses that contribute significantly to the war-fighting preparedness of US military forces at the intermediate level (E-5 to O-5). These courses include the Contingency Wartime Planning, Joint Air Operations Planning, and Information Warfare Applications courses.

**MAAFNJ 007 Joint Flag Officer War-fighting Course.** Joint Flag Officer War-fighting course (JFOWC) is the senior PCE course in the DOD. The chiefs of staff of all four branches of the US armed forces own and control the course. They delegate course development and implementation to their executive agents: commandant, Army War College; president, Naval War College; president, Marine Corps University; and commander, Air University.

The course prepares two-star officers of all four services for theater-level combat leadership. It is tailored to provide future theater combatant commanders, service component, and joint task force (JTF) commanders with a broad perspective of the strategic and operational levels of war. Instruction for the course comes from senior national-civilian and military representatives, flag officers serving as combatant commanders, and retired, battle-tested officers. Retired war-fighting generals draw from their combatant and component commander experience to lead a campaign-planning exercise focused in various parts of the world, across the continuum of conflict.

Through the study of war fighting, military doctrine, and application of unified, joint, and combined combat forces, the attendees will be better prepared to face crises. JFOWC is a two-week course that is offered twice a year. Each class is limited to 19 general/flag officers and senior executive civilians who represent all military services. The desired attendee mix is six US Air Force, six US Army, four US Navy, two USMC flag officers, and one senior civilian from the Office of the Secretary of Defense.

**MCADRE 004 Joint Force Air Component Commander Course.** The Joint Force Air Component Commander (JFACC) course is a senior officer-level PCE course hosted by the USAF and

sponsored by all four branches of the US military services. The course is designed to prepare potential JFACCs for responsibilities of theater-level combat leadership. The attendees study war fighting, military doctrine, and the application of unified, joint, and combined combat forces, with an emphasis on air and space power employment in theater-level operations.

The one-week course is conducted annually during December. The course is held at Maxwell AFB, Alabama, and when practical, it travels to a major exercise, such as Blue Flag, for the final two days. The course is limited to 18 active duty one-star and two-star attendees; one-star selects are permitted by exception. The desired attendee mix is nine US Air Force, four US Navy, three US Marine, and two US Army flag officers.

**MCADRE 007 Combined Forces Air Component Commander Course.** The Combined Forces Air Component Commander (CFACC) course is hosted by the US Air Force, sponsored by the services, and attended by service chief-selected flag officers and international air force officers. The attendees study operational-level war fighting, military doctrine, and the application of joint and combined combat forces, with particular emphasis on air and space power employment in theater-level operations.

The one-week course is conducted annually in the June–August period. The course is held at Maxwell AFB, and, when practical, it travels to a major exercise, such as Blue Flag, for the final two days. The course is limited to 18 active duty one-star and two-star attendees; one-star selects are permitted by exception. The desired attendee mix is five USAF, two US Navy, two US Marine, one US Army, and eight allied flag officers.

**MCADRE 006 Senior Joint Information Operations Applications Course.** This four-day, twice-a-year course is held at Maxwell AFB. It prepares selected general/flag officers and senior executive civilians of all services and the DOD to develop information operations (IO) into a war-fighting core military competency that enable combatant commanders to target adversary decision making while protecting US initiatives. The course also includes interagency attendees. The course is tailored



to provide senior leaders with a broad perspective of IOs at the joint theater (operational) and national (strategic) levels of war.

Attendees study war fighting and doctrine as they relate to IO concepts and principles. Course objectives provide a common framework for understanding and valuing IO and the necessary law, policies, and procedures that allow planning and integration of IO into the joint fight; to review joint and service doctrine applicable to the planning and execution of IO; to analyze the means to effectively communicate US government capabilities and intentions as an important method of combating the plans of our adversaries; to examine the current and potential role of the interagency and nongovernment organizations; to demonstrate the integration of IO into contingency and crisis plans and evaluate the outcomes and lessons; to describe IO tools, illustrate outcomes of their employment, and explain lessons from their employment; and to illustrate the impact the media has upon operations. Attendance is limited to 18 US flag officers in the grade of brigadier general or major general and equivalent members of the SES.

**Air Force Senior Executive Seminar.** The AFSES is designed to teach flag officer-level Air Force civilians about how their service organizes, equips, plans, and fights at the operational level of war. Additionally, the seminar focuses on the US Air Force's current issues. Finally, the seminar explores leadership at the senior level. The four-day AFSES course is taught twice each year. Enrollment is limited to 18 attendees.

**MCADRE 002 Contingency Wartime Planning Course.** The two-week Contingency Wartime Planning Course (CWPC) educates Airmen in grades E-5 through O-5 in the art and science of contingency war planning. The course provides a macro view of the contingency and crisis-action planning processes from both the joint and USAF perspectives. Other topics covered include unit readiness assessment, mobilization, expeditionary site planning, and command relationships. Nearly 800 students complete 10 programmed courses each year.

### Curriculum Summary

Instructional Area	Academic Hours
Orientation and Testing	11.5
Foundations of Planning	6.5
Systems	4.5
Planning	14.0
Exercises	24.0
<b>TOTAL</b>	<b>60.5</b>

**MCADRE 003 Joint Air Operations Planning Course.** The Joint Air Operations Planning Course (JAOPC) educates personnel from joint, combined, or supporting air component commands to serve on the staff of a JFACC. Participants gain in-depth familiarity with the fundamental concepts, principles, and doctrine required to develop a joint or combined air operations plan. Students focus on the joint air estimate process at the operational level of war. Attendees are normally captains through colonels. Classes are offered 10 times each year, with from 12 to 32 students in each class.

### Curriculum Summary

Instructional Area	Academic Hours
Administration and Testing	2.5
Joint Air Estimate Process Fundamentals	16.4
Case Studies	5.5
Exercises	39.8
<b>TOTAL</b>	<b>64.2</b>

**MCADRE 005 Information Operations Fundamentals Application Course.** The Information Operations Fundamentals Application Course (IOFAC) is a one-week course that educates students on the fundamental principles of information operations in accordance with AFDD 2-5, *Information Operations*.

The course provides students with a broad understanding of information operations doctrine and insight into how information operations are applied across the full spectrum of conflict from peace to war. The course is taught at the college level through lectures, seminars, practical exercises, readings, and computer-based lessons to help students gain a better understanding of how current and emerging technologies affect decision making. Classes are offered eight times each year with an enrollment of 30 to 40 students in each class.

### Curriculum Summary

Instructional Area	Academic Hours
Course Administration	1.0
Fundamentals of IO	27.0
Exercises	12.0
<b>TOTAL</b>	<b>40.0</b>

## War-fighter Planning Course

### *Internet Address*

<https://cadremil.maxwell.af.mil/wpc/main.htm>

The War-fighting Planning Course Online (WPC Online) is the Web-based preparatory course for all students attending the resident CWPC or JAOPC at the center and is available at the Web site listed above. Students attending either CWPC or JAOPC must complete WPC Online before their arrival at Maxwell AFB. WPC Online covers the basics that military planners need to know before beginning an in-depth study of planning. Topics include the development of national-level strategy, the organizations that develop national-level strategy, the organization of joint military forces, and the broad capabilities the services provide to joint force commanders. After arrival, students take one of two tracks: CWPC or JAOPC.

## **Air and Space Power Course**

*Internet Address*

<http://www.apc.maxwell.af.mil/start.htm>

The Air and Space Power Course (ASPC) is an online, self-paced, interactive course for users with high-speed Internet connections. Students develop a broad comprehension of air and space power principles, concepts, and applications. Although the course is primarily designed to help prepare Air Force officers in joint duty assignments to articulate and advocate air and space power principles and beliefs, it can benefit all air and space power enthusiasts. The course traces the history of airpower, lessons learned from past applications, and provides discussions of how air and space power contributes to attaining national security and theater objectives. The student learns Air Force doctrine and how Air Force doctrine has developed, which enables the students to articulate air and space doctrine in the joint community.

## **Air Force Forces Staff Training Course**

*Internet Address*

<https://cadremil.maxwell.af.mil/affor/main.htm>

The Air Force Forces (AFFOR) Staff Training course is an online, self-paced, interactive course for users with high-speed Internet connections. The course provides students an in-depth look at the role of the commander Air Force Forces (COMAFFOR) in organizing and employing air and space forces within joint operations. This role involves service component responsibilities and operational employment considerations. The heart of the course focuses on the various staffs the COMAFFOR uses to accomplish these duties. This course is required for personnel transitioning to duty in a numbered air force staff, an AFFOR staff, or an air operations center (AOC).

## **Doctrine Development Directorate**

*Internet Address*

<https://www.doctrine.af.mil>

The Doctrine Development Directorate researches, develops, produces, and disseminates basic and operational level doctrine for the chief of staff, US Air Force (CSAF). Its mission is to lead the Air Force in operational level service and joint and multinational doctrine development; to advocate Air Force doctrinal equities in joint and multinational publications; and to provide doctrinal advice and solutions to shape Air Force senior leader decisions.

The directorate is comprised of Airmen from various backgrounds and training, embracing a breadth of experience to doctrine development. One third of the directorate is composed of civilian employees, providing depth of doctrinal knowledge. Directorate personnel are chartered by the CSAF to be his doctrinal voice and are directly responsible to the CSAF on all matters of basic and operational level doctrine. This directorate supports the commander, the LeMay Center, in his capacity as the Air Force's executive agent for doctrine. To accomplish these duties, the directorate is comprised of two divisions: Service Doctrine Development (DDS) and Joint Doctrine Development (DDJ).

**Service Doctrine Development Division.** This division is tasked to research, develop, produce, and disseminate Air Force doctrine documents (AFDD) for the service. Service doctrine provides the foundation for what the Air Force takes to the joint doctrine development arena to give the Air Force the best practices to drive joint doctrine. DDS is responsible for producing the service's capstone doctrine publications, AFDD 1, *Air Force Basic Doctrine*, and AFDD 2, *Operations and Organization*. It also develops and produces doctrine in air warfare; space operations; irregular warfare; agile combat support; information operations; air mobility; special operations; command and control; intelligence, surveillance, and reconnaissance; homeland operations; and cyberspace operations.

**Joint Doctrine Development Division.** This division is the Air Force voice in the development of joint doctrine publications for the chair of the Joint Chiefs of Staff and in the development of multinational doctrine publications for the North Atlantic Treaty Organization (NATO). The director for doctrine development is the Air Force chair at the Joint Doctrine Planning Conference. The division chief is the US head of delegation to the NATO Air Operations Working Group, NATO Air Operations Support Working Group, NATO Joint ID Panel, the NATO Joint Unmanned Aerial Vehicles Panel, and the Air and Space Interoperability Council. Personnel are tasked with researching and presenting the consolidated Air Force position for the production of joint publications and for the production of five joint publications for which the Air Force is the lead agent.

**Additional Doctrine Development Directorate Activities.**

In addition to producing service and joint doctrine as executive agent to the CSAF for doctrine, this directorate provides subject-matter experts to present briefings to general officers and SES civilians at courses presented by the LeMay Center/War-fighting Education (WE), along with pre-CAPSTONE courses, sister service war colleges, and other far-reaching courses both within and outside the Air Force. It teaches doctrine development to foreign partners from around the globe and assists sister service doctrine developers with their efforts. It provides doctrinal advice to commanders throughout the service, from numbered Air Force commanders to commanders of Air Force forces in joint task forces.

## **War-fighting Applications Directorate**

*Internet Address*

[http://cadremil.maxwell.af.mil/wg/WG\\_Index.htm](http://cadremil.maxwell.af.mil/wg/WG_Index.htm)

In 1975 the Clements Blue-Ribbon Panel on Excellence in Professional Military Education cited a need for service schools to emphasize war fighting and decision making in combat. In 1976 the Air Force chief of staff's Constant Read-

ness Tasking directed AU to “put more war in the War College.” The concept for the Air Force War-gaming Institute (AFWI) evolved from these two initiatives. The facility opened in 1986 at Maxwell AFB, Alabama. With the stand up of the center, AFWI became the War-fighting Applications (WA) Directorate. WA supports a broad range of war games, electives, and events to meet the needs of the Air Force, DOD, and international sponsors.

**Operations and War-gaming Support.** WA is housed in a special-purpose, 56,000-square-foot facility. It can operate in whole or in part as a secure, classified working area. The building contains 28 such rooms and has two conference rooms—all with audio and video capabilities.

The War-gaming Operations Division (WAO) is responsible for the war-gaming life-cycle process, to include definition, design, development, testing/preplay, preparation, execution, and post-war-game analysis. WAO provides war-game support to a variety of customers worldwide. The professional men and women assigned to WAO provide full-spectrum war gaming to accomplish the director’s mission.

The division also maintains the communications-computer infrastructure supporting war-gaming operations and the rest of the center. WAO designed and implemented state-of-the-art local area networks (LAN)—unclassified and classified—that can be modified to accommodate a wide spectrum of war-gaming scenarios. The division maintains these LANs and evaluates emerging technologies to ensure that WA’s computing environment remains on the cutting edge.

**War Games and Simulation Exercises.** In a typical year, WA plans, develops, and conducts some 30 war games and exercises for more than 8,500 participants. WA provides a “laboratory environment” in which current and future commanders and staffs study warfare to identify problems before they face them in combat.

**Joint Air and Space Exercise.** Joint Air and Space Exercise (JAEX) is the ACSC capstone war game. It helps ACSC students to understand and appreciate the complex and time-critical op-

erational control processes that occur within the Combined/Joint Air Operations Center (C/JAOC) and between the air component and other functional components during execution of air and space operations. JAEX demonstrates what air and space power, forces, and concepts bring to the fight at the operational level of war. It emphasizes the complexities of warfare through simulated, combined, and joint forces; air component commander activities; and air tasking order execution. Students apply basic concepts of air campaign planning and execution in a simulated air operations center environment and continually assess the effectiveness of their joint air operations plans.

**Blue Thunder III.** The Air and Space Basic Course (ASBC) is the first level of professional military education (PME) instruction for commissioned officers. ASBC inspires new USAF officers to comprehend their roles as Airmen who understand and live by USAF core values and articulate and demonstrate USAF distinctive capabilities and core competencies. Blue Thunder III (BT III), the pinnacle of the six-week course, challenges officers to demonstrate lessons learned about basic air operational and tactical warfare. Blue Thunder focuses on the employment of air forces at the operational and tactical levels of war. The officers apply basic concepts in planning the air portion of a campaign plan in a dynamic educational environment. They continually assess the effectiveness of their plan and make changes, as required.

In September 2005 BT III replaced BT II as the ASBC capstone war game. BT III expands the officers' look at the employment of air and space power by more fully simulating functions of major sections of the AOC, to include the ops floor. BT III also includes a real-time flyout as part of the war game.

**Exercise in National Budget Priorities.** The Exercise in National Budget Priorities (XNBP) supports the Professional Military Comptroller School. It is an unclassified, stand-alone, computerized executive-planning exercise, addressing national budget priorities as impacted by presidential and cabinet-level decisions. This strategic level exercise utilizes the "bottom line" model, which analyzes presidential, economic, political, and



military budget decisions and their impact on the nation by combining the allocations of 17 key areas of a proposed budget with such accepted economic analytical tools as the Phillip's Curve and Okun's Law. The resulting model projects the effect of a presidential administration's policies upon the state of the nation. Its product, a Projected State of the Nation Report, is a compilation of social and economic indices, including voter support, unemployment, gross national product, war risk, and inflation. XNBP stimulates participants to actively test their understanding of budgetary and economic relationships in a realistic and enjoyable environment. It reinforces the relationships between foreign and domestic policy decisions and how the allocation of scarce resources to support those decisions affects the state of the nation.

**Joint Land, Aerospace, and Sea Simulation.** Joint Land, Aerospace, and Sea Simulation (JLASS) is a joint-sponsored war game by the following US military senior-level colleges: Air War College, Naval War College, Army War College, Marine War College, and Industrial College of the Armed Forces. The war game focuses on joint and combined warfare at the operational and strategic levels to enhance joint PME by examining potential US military responses to regional crises.

**Joint Warrior and Cold Roof.** Joint Warrior and Cold Roof are theater-level seminar war games conducted in conjunction with the Joint Flag Officer War-fighting Course. They focus on issues associated with joint and coalition warfare from the perspective of the theater combatant commander and component commanders. Joint Warrior involves senior Air Force, Army, Marine, and Navy officers in deliberate planning; Cold Roof is a crisis-action planning exercise.

**Granite Sentry: SOS's Follow-on to Operation Atlantis.** This game will become Squadron Officer School's (SOS) capstone war game. The exercise reinforces the teachings of the principles of war, fundamentals of military force application, and basic concepts of tactical air operations. Students assume roles of duty officers in sections of the Joint Guidance, Apportionment and Targeting Cell, the Master Air Attack Plan

Cell in an air operations center, and on the battle staff of a deployed composite wing staff. Students also conduct battle staff planning and problem solving for air operations at these various levels.

**Pegasus-Australia.** Pegasus-Australia is a computer-assisted theater-level war game used by the Australian Defense Forces Command and Staff College. The exercise models a war between two fictional alliances. Participants assume the roles of the combined command staffs of two opposing alliances.

**Pegasus-UK.** Pegasus-UK is a computer-assisted theater war game for the United Kingdom's Joint Services Command and Staff College. The exercise models a war between two fictional alliances. Participants assume the roles of the staffs of the opposing alliances.

**Pegasus-Netherlands.** Pegasus-ND is a computer-assisted theater war game for the Netherlands Defense College. The exercise models a war between two fictional alliances. The participants assume the roles of the staffs of the opposing alliances.

**Solo Challenge.** Solo Challenge (SC) is the capstone war game of the AWC academic year and includes the themes of leadership, doctrine, strategy, political/military affairs, joint/combined warfare, air and space power, and technology. It provides AWC students the opportunity to translate national-level decisions into operational-level action. During SC participants manage ongoing global crises and a homeland security scenario, while confronting limited force structure and overseas basing.

**Theater Campaign Warfare.** Theater Campaign Warfare (TCW) is the capstone war game for the SAASS. This seminar-based educational war game provides students an opportunity to synthesize concepts about the nature and employment of military forces they have developed during the school year. The TCW game consists of six parallel but independent seminars and includes planning, execution, and analysis phases, lasting five days. Educational objectives are facilitated by game moves cov-

ering periods varying from a few days to several weeks. Students from the Army's School of Advanced Military Studies at Fort Leavenworth, Kansas; Naval Operational Planning course at Newport, Rhode Island; and the USMC's School of Advanced War Fighting at Quantico, Virginia, augment the game.

**War-gaming Technology Division.** The War-gaming Technology Division (WAT) plans, develops, integrates, and maintains Web-based, client-server, and stand-alone software on several hardware and software platforms in support of war-gaming events and other organizational needs. The division provides the center's commander with expertise, advice, courses of action, and recommendations on all technical issues relating to software development support and vision. It also supplies a contact with the Air Force Modeling and Simulation (M and S) community.

The Analysis and Standards Branch (WATA) manages the acquisition and maintenance of the WA suite of tools. This includes every phase of the software life cycle from cradle to grave. Branch analysts evaluate the latest M and S technologies and concepts to develop new center war-gaming initiatives for future models. The Air Force Educational War-gaming Toolset Vision document defines the WA strategic plan for developing future war-gaming models to support customer requirements using leading-edge technologies. Branch computer specialists manage the software engineering process (SEP), including defining and analyzing software requirements, test design, testing, implementation, and maintenance. The Analysis and Standards Branch also investigates the functional and operational capabilities of war-game models and verifies and validates the logic and mathematical representations of air and space power in these models to insure doctrinally sound outcomes for WA-hosted war games. Another important product of the SEP is compliance. Division computer specialists guarantee compliance through configuration management, quality assurance, and contractor surveillance.

The Software Development and Operations Branch (WATD) develops, maintains, integrates, and operates computer models, simulations, and visualization tools to support the adjudication of war games. As a software development activity (SDA),

the division maintains in-house models. SimWar XXI is used to support the ACSC capstone war game (JAEX), the ASBC capstone war game (Blue Thunder III), and war games for our international customers. WebForces Mobility is a theater logistics model that generates time-phased force deployment (TPFD) and is used in several war games. The Web Forces visualization tool supports nearly all WA war-gaming events to display the order of battle. In sum, the Eaker College of Professional Development (ECPD) Professional Military Comptroller Course uses the “bottom line” model to conduct the XNBP, which simulates the impact of national budget decisions made by the president of the United States.

Other branch responsibilities include the development, maintenance, and administration of the center’s public, private, and war game-only Web sites, site content, and Web-based applications.

The WA suite of tools includes the following:

1. Rapid Scenario Generator (RSG)—a scenario building tool capable of rapidly building real-terrain and infrastructure-based scenarios for use in the Air Force Command Exercise System (ACES) model.
2. WebForces Mobility—a theater-mobility model used to generate TPFD for war games.
3. Bottom Line—a tool that simulates the impact of national budget decisions on the state of the nation.
4. Accelerated Combat Timeline—an operational level graphical user interface to the SimWar XXI model.
5. SimWar XXI—a joint, theater campaign level, combat-simulation model. This tool allows students to simulate the air operations center’s (AOC) planning process by outlining the next day’s air tasking order (ATO), while simultaneously flying out the current ATO.
6. WebForces—an automated map display tool that allows one to view and move forces. This tool is capable of interfacing with ACT, SimWar XXI, and WebForces Mobility and working autonomously for manual war games.

7. Air Web Planner (AWP)—a Web-based planning tool that allows the players to input the air campaign plan.
8. War game Interactive Support System Online (WISSO)—a multipurpose tool that facilitates collaboration, reference libraries, requests for information, posting documents, channeling communication, and electronic surveys.
9. Web Reports—a Web-based reporting tool that provides results to the players on the previous day's adjudication.

## **Intelligence Directorate**

### *Internet Address*

<https://cadremil.maxwell.af.mil/in/IN.html>

The Directorate of Intelligence (IN) delivers intelligence, surveillance, and reconnaissance (ISR) education throughout the AU continuum. The goal is to educate AU resident and distance learning students and develop faculty on the core tenets of ISR operations in the air, space, and cyberspace domains, thereby preparing them to create innovative solutions to operational and strategic issues. IN personnel focus on ISR doctrine, policy, programs, strategy, employment, and vision for current and future ISR operations and issues essential to leaders' understanding of the operational environment. The Intelligence Directorate develops ISR curriculum guidance for AU schools, centers, and educational organizations. The IN is the Air University ISR curriculum chair responsible for overseeing intelligence and ISR language in key guidance documents and ensuring the appropriate issues are taught at all levels of AU. IN coordinates the research and release of publishable materials on key ISR issues facing the Air Force, joint war fighter, and nation. As the AU senior intelligence officer, the IN supports the AU commander and AU colleges and schools by providing ISR expertise, guidance, and coordinating guest speakers throughout the year. The senior intelligence officer maintains regular liaison with the Air Force A2 and other senior members of the national intelligence community. The IN coordinates ISR issues

with senior leaders and students assigned to AU. IN conducts the following educational activities:

- teaches ISR electives at AWC and ACSC, emphasizing the full integration of ISR functions into military operations;
- instructs ISR research seminars at ACSC, allowing students to investigate ISR issues in depth;
- provides lectures on ISR doctrine and operations at the Spaatz Center, the Holm Center, and the LeMay Center's War-fighting Education courses;
- provides lectures on ISR doctrine and operations within AU Distance Learning curricula; and
- leads the AU intelligence mentoring and cross-talk program consisting of more than 100 ISR professionals assigned to AU.

The LeMay Center/INS (Intelligence Security) is the AU Special Security Office (SSO). The SSO controls, safeguards, and ensures proper use of sensitive compartmented information (SCI), manages more than 1,300 SCI billets, and provides physical security for four temporary secure working areas and three accredited SCI facilities. The SSO also operates AU's SCI communications center, maintaining the Joint Worldwide Intelligence Communications System for users at Maxwell/Gunter AFB.

## **International Officer School**

*Internet Address*

<http://www.au.af.mil/au/cpd/ios/ios.htm>

The International Officer School (IOS) was established in 1954 as the Allied Officer Preparatory School. Since then, more than 10,000 international military students from 136 countries have completed the program. The preparatory courses improve student abilities to express ideas clearly (in both speaking and writing) and to read and comprehend written and spoken materials used in AU classes. A program of planned classroom activities, field studies trips, and a civilian sponsorship program (called Alabama

Goodwill Ambassadors) introduces students to the political, military, and socioeconomic aspects of American culture. This orientation enables students to adjust more readily to the USAF and civilian communities. Academic requirements for each course are geared specifically to the PME school the students will attend.

The IOS Operations Division functions as the International Student Military Office and provides administrative support to all international students attending any AU school.

**Mission.** *Prepare international officers for in residence professional military education (PME); support international students attending Air University (AU) courses; and manage AU's International Affairs program.*

**Learning Outcomes.** Expand the capacity of international officers to participate more effectively in military education and duty assignments. The three IOS preparatory courses develop an

- appreciation of American society, institutions, and ideals;
- awareness of the mission and organization of US military forces and US military terminology;
- ability to speak and understand American English;
- awareness of the organizational structure, curriculum content, and instructional methods employed in AU schools; and
- ability to participate in physical training activities.

**Prerequisites.** IOS/SOS and IOS/ACSC require an English comprehension-level (ECL) test score of 70, while IOS/AWC requires an ECL test score of 80. Students are also expected to meet certain physical standards outlined in the Air Force Education and Training Course Announcements.

## **Curriculum**

The school's curriculum consists of preparatory courses that have three basic functions. First, they provide curriculum orientation to follow-on school topics and methodologies. Second, they serve as periods of cultural adjustment for international

officers and their families. Third, they accomplish the administrative requirements and Field Studies Program objectives outlined in international military training management directives. Attendance at IOS is a prerequisite for international officers attending SOS, ACSC, and AWC. International students coming to AU to attend ACSC and AWC should review the *Air University Catalog* for the relevant master's degree, accreditation, degree-granting authority, and eligibility requirements spelled out in the descriptions of each school in this catalog.

### Squadron Officer School Courses

Title	Academic Hours
Student Administration	16.50
Field Studies Program	67.00
Communications Development	70.00
Military Studies	14.00
Leadership	30.00
<b>TOTAL</b>	<b>197.50</b>

### Air Command and Staff College Courses

Title	Academic Hours
Student Administration	21.50
Field Studies Program	66.00
Communications Development	78.00
Military Studies	22.50
Leadership	3.00
<b>TOTAL</b>	<b>191.00</b>

### Air War College Courses

Title	Academic Hours
Student Administration	25.50
Field Studies Program	71.00
Communications Development	47.75
Military Studies	41.00
Leadership	7.00
<b>TOTAL</b>	<b>192.25</b>



## **Course Descriptions**

(Each course includes the following areas.)

**Student Administration.** During this course phase, international officers in-process and receive tours and briefings about Maxwell AFB and Montgomery. They receive orientations in various aspects of the individual International Officer School courses. This includes welcome and graduation ceremonies, curriculum and schedule briefings, and a tour of the Muir S. Fairchild Research Information Center. Students participate in formal, structured feedback conferences with instructors; informal conferences take place throughout the courses as needed.

**Field Studies Program.** The Field Studies Program provides an opportunity for students to gain a better understanding of US institutions, ideals, and culture. Some of the topics include the American way of life, education in the United States, US government institutions, and the US news media. A significant portion of this program is devoted to human rights and related training in keeping with State and Defense Departments objectives for security assistance training. Field trips and tours are conducted in the Montgomery area, southeast region, and Washington, DC.

**Communications Development.** Communications development constitutes a significant part of the instruction at IOS. It includes English best-practices instruction, designed to increase the student's ability to speak and understand American English and communicate ideas both orally and in writing. In addition, basic writing and briefing instruction, with application exercises, is provided based on the PME follow-on school's communication techniques. This area also includes computer instruction with hands-on training in applications appropriate to the specific follow-on PME school.

**Military Studies.** The Military Studies area introduces students to the mission, organization, policies, concepts, and terminology of the US military.

**Leadership.** Students are provided an introduction to various leadership theories, concepts, and models. Again, instruction is geared at a level appropriate to the follow-on PME school. This area also introduces physical training requirements of the follow-on PME school, with emphasis on field leadership and team-building, particularly important areas for students preparing to attend SOS.

## **Other Programs**

IOS conducts several non-academic programs to enhance the cultural experience and academic education of international officers and their families.

**Alabama Goodwill Ambassadors (AGA).** Alabama Goodwill Ambassadors is the AU official sponsorship program for international students and their families. This program assists with helping international students and their families to feel welcome. It also acquaints them with aspects of American culture that they may not otherwise gain exposure through their formal AU courses and activities.

**International Family Loan Program (IFLP).** This program lends international students and their families (for a nominal fee) such essential household items as dishes and utensils. This service relieves students of the need to spend large sums of money on items they would discard before leaving AU.

**International Family Orientation Program (IFOP).** This two-week family orientation course is conducted each summer for spouses and dependents of the international officers who will attend ACSC and AWC. The course provides an orientation to American culture and to the Montgomery public school system. When possible, basic English language instruction is provided. Recreational activities are also conducted for the children.

**Air University International Honor Roll (IHR).** This honor roll recognizes international graduates of AU PME courses who have become heads of service, ministers of defense, heads of state, or other high-level officials within their own countries.

**International Dependents English Course (IDEC).** This six-week course, conducted each fall, provides conversational English skills that spouses and adult children of international officer students will need in their daily activities. The course is taught entirely by volunteers from Maxwell and the local community.

## **Air Force Research Institute**

*Internet Address*

<http://www.au.af.mil/au/research>

The Air Force Research Institute (AFRI) advances the theory and application of air, space, and cyber power through research, analysis, publication, and outreach. The institute focuses on a single, overriding objective by contributing as warrior-scholars to an improved combat capability for the USAF. In support of that objective, AFRI performs a number of missions and comprises five divisions.

**Research Division.** The Research Division (RIR) generates and publishes original studies, research pamphlets, monographs, and papers on topics of interest to AF leadership and those related to current and future air, space, or cyber operations.

**Research Support Division.** The Research Support Division (RIS [formerly ARS]) is caretaker of the Air University (AU) Research Boards processes and facilitates the research of students and faculty throughout the AU school system via the annual AU Call for Topics and the AU Research Information System (AURIMS) database. ARS also publishes the annual *AU Research Bulletin* and electronically posts graduate-level student and faculty research papers on the Internet.

**Professional Journals Division.** The Professional Journals Division (RIJQ and RIJ) develops and publishes the Air Force's professional journals under two titles: the *Strategic Studies Quarterly* (SSQ) and the *Air and Space Power Journal* (ASPJ). The latter is published in six languages, to include electronic

only *Chronicles Online Journal* forums for exchanging ideas about operational level air, space, and cyber power matters. The SSQ focuses on high-level topics of interest to US Air Force and national leaders through the critical examination of and debate about warfare, strategy, national and international security, and defense policy.

**Air University Press.** The AU Press (RIL) Division serves as the professional publishing arm of AU. Press publications promote creative thought on, and appreciation for, the value of air, space, and cyber power. The Air University Publication Review Board, composed of senior faculty from AU's officer PME schools, assists the press in acquiring manuscripts and advising on the academic and research value of potential manuscripts. The press is a leading not-for-profit publisher on air, space, and cyber power doctrine and national security. Information on press publications is available through the *Air University Press Publications* catalog—in hard copy and electronically at <http://aupress.maxwell.af.mil> and on the Air Force Portal.

**Outreach Division.** AFRI is also standing up a fifth division, the Outreach Division, that will develop the capacity for hosting and co-hosting conferences in concert with prestigious universities, think tanks, or interagency research centers to promote the expansion and development of concepts, issues, and topics of interest to Air Force leaders and policy makers through related technology demonstrations, strategy making, and timely discussions on a myriad of topics of interest to air, space, and cyber operations.



## **Citizenship and Emergency Education Services**

Besides its professional military and continuing education, Air University supports the nationwide Civil Air Patrol which provides emergency service to the nation.



## **Civil Air Patrol–US Air Force**

The Civil Air Patrol–US Air Force (CAP–USAF) is the active duty Air Force organization that provides advice, assistance, liaison, and oversight to the Civil Air Patrol (CAP), a federally supported nonprofit corporation that serves as the volunteer auxiliary of the Air Force. CAP–USAF, headquarters at Maxwell AFB, Alabama, with eight CAP–USAF regional commands, provides training, policy guidance, and assistance to almost 56,000 CAP members throughout the United States, Puerto Rico, and on several overseas Air Force installations. About 100 CAP–USAF active duty military and government civilian personnel, as well as about 250 Air Force reservists who participate in the CAP Reserve Assistance Program (CAPRAP), play a key role in helping CAP meet its congressionally chartered missions.

## **Civil Air Patrol**

*Internet Address*

<http://www.cap.gov>

The Civil Air Patrol was created on 1 December 1941 as a part of the Office of Civilian Defense. During World War II CAP was an integral part of North American defense, patrolling the 1,200 miles of coastline from Halifax, Nova Scotia, to the Florida Keys searching for enemy submarines and other signs of similar activity. In 1943 CAP transferred to the Army Air Forces. In 1946 CAP was chartered by a congressional act as a nonprofit, benevolent organization devoted to humanitarian activities. By another act of Congress in 1948, CAP became the official auxiliary of the US Air Force. Congress again fundamentally modified the organization in 2000. With the *Floyd D. Spence National Defense Authorization Act* of 2001, Congress clarified auxiliary status as a conditional state dependent on CAP performing actual services for a federal department or agency while reaffirming strong federal budgetary support to the organization. More significantly, Congress created the CAP Board of Governors (BOG) to serve as the principal governing body of the organization. This 11-member board is made up



of members appointed by the secretary of the Air Force, senior CAP volunteers, and representatives of industry having an interest in general aviation and/or the CAP mission. The BOG provides much-needed strategic direction and guidance to CAP, while delegating many day-to-day operations of CAP to the CAP national commander.

CAP's congressional charter mandates the organization to

- provide an organization to encourage and aid US citizens in contributing their efforts, services, and resources in developing aviation and in maintaining air supremacy;
- provide aviation education and training, especially to its adult and cadet members;
- encourage and develop private citizens, by example, to voluntarily contribute to the public welfare;
- encourage and foster civil aviation in local communities;
- provide an organization of private citizens with adequate facilities to assist in meeting local, state, and national emergencies; and
- assist the Department of the Air Force in fulfilling its non-combat programs and missions.

Through its varied programs, CAP provides Americans with emergency services, aerospace education, and the CAP cadet program. CAP furnishes trained volunteers who support noncombat Air Force programs and missions throughout the United States.

CAP conducts nearly 90 percent of the inland search and rescue missions authorized by the Air Force Rescue Coordination Center at Tyndall AFB, Florida. Additionally, CAP flies a wide range of other operations daily, including aerial reconnaissance missions for the Drug Enforcement Administration and the US Forestry Service supporting counterdrug operations, aerial target missions to maintain combat readiness of Air Defense assets, special-use airspace surveys, and orientation flights for AFROTC cadets.

CAP is playing an increasingly important role in domestic homeland security (HLS) operations and maintains an exten-

sive, survivable radio network, providing emergency communications when disasters strike.

CAP provides aerospace education for its members and the nation at large through its comprehensive outreach programs, including the annual National Conference of Aviation and Space Education. This aerospace education program reaches the classrooms of more than 19,000 students and 400 educators each year, encouraging an interest in aviation and the sciences.

The CAP cadet program fosters personal discipline, patriotism, and leadership in young people across the nation and on Air Force installations worldwide.

Today's CAP has more than 33,000 adult members and almost 23,000 cadets in 1,650 units, with an organizational pattern and rank structure similar to that of Air Force units. CAP has eight geographical regions composed of 52 wings—one for each state, plus Puerto Rico and the District of Columbia. Wings are divided into groups, squadrons, and flights. The CAP national headquarters is collocated with the CAP-USAF headquarters at Maxwell AFB, Alabama.

CAP has adopted several initiatives to furnish better service to the public. These efforts include an ongoing recruiting drive to attract new members, modernizing and improving its aircraft fleet and equipment, and a screening program of all adult members associated with the cadet program.

## **Emergency Services**

CAP has several services designed specifically to cover the gamut of emergencies. They are listed below.

**Search and Rescue/Disaster Relief.** CAP's primary operational emergency services missions include air and ground search and rescue (SAR) and disaster relief (DR)—whether in response to man-made events or natural disasters. Through a cooperative agreement, the Air Force provides CAP with a fleet of 550 general aviation light aircraft, plus vast amounts of vehicles, ground-rescue equipment, and radios. CAP operates national, regional, and local high frequency (HF) and very high frequency (VHF) radio networks with more than 12,000 radios, including a robust VHF-FM repeater system. These networks

provide valuable connectivity during national, state, or local emergencies or disasters.

SAR operations are carried out primarily under USAF authority at the request of the Air Force Rescue Coordination Center and other DOD joint-rescue coordination centers. DR operations during peacetime are coordinated by federal, state, or local emergency management authorities and authorized by the First, Eleventh, or Thirteenth Air Force. In FY07 CAP aircrews flew 108,208 flying hours.

**Homeland Security.** Since the 11 September 2001 terrorist attacks, CAP has played an increasingly important role in HLS operations. This role was formalized on 1 October 2004, when CAP signed a memorandum of understanding (MOU) with CAP-USA and the First Air Force. The CAP/CAP-USA/First Air Force MOU establishes the command relationship necessary for CAP to perform HLS missions under the tactical control of the First Air Force commander. CAP is now fully incorporated into the US Northern Command's Air Force North air tasking order process.

CAP aircraft play an important role supporting the training of active military air defense forces by flying target aircraft to simulate terrorist activities and train US military forces to detect, monitor, and intercept suspicious aircraft.

**Counterdrug Operations.** Since the mid-1980s, CAP has been an integral player in counterdrug operations. Such federal agencies as the Drug Enforcement Administration, US Customs and Border Protection, US Forest Service, and numerous state and local law enforcement agencies routinely call on CAP for aerial reconnaissance and communications support for their counterdrug missions. Additionally, CAP provides "low and slow" intercept training and radar monitoring support to the Department of Defense.

**Advanced Technology Support.** In 2002 Congress appropriated \$6 million for CAP to acquire hyperspectral-imaging (HSI) technology and training. CAP successfully completed testing the HSI equipment in 2004, and 16 complete systems are now

operational. The HSI system is being used nationwide to assist with SAR, DR, and HLS missions.

## **Cadet Programs**

The CAP cadet program is open to young men and women between the ages of 12 and 21. CAP cadets are involved in a leadership training program based on activity and achievement. The cadet program includes 16 achievements in four phases with five milestones. Accomplishments in each phase and achievement lead to progression in rank from cadet basic to cadet colonel. Cadets may also take part in other activities such as the International Air Cadet Exchange program. CAP offers the cadets opportunities to receive training in gliders and powered aircraft, radio communications, and various emergency service specialties. The cadet program also provides study and involvement in five program elements— aerospace education, leadership, character development, physical fitness, and air and space-related activities.

**Aerospace Education.** This portion of the cadet curriculum orients the cadets to the diversity of the air and space community. It develops an understanding of flight; aircraft and space-vehicle power plants and navigation; weather; air traffic control; and the social, political, and economic impact of air and space endeavors. Career exploration is inherent in all aspects of the aerospace education element of the cadet program.

**Leadership.** This service helps cadets learn and practice basic leadership, administration, and management techniques. Cadets are trained in leadership theories and concepts as well as practical hands-on applications.

**Character Development.** This portion of the cadet curriculum furnishes cadets with a forum to discuss contemporary issues under the leadership of chaplains and specially trained adult leaders—called character development officers—and the local clergy. The purpose is not to espouse any specific religious doc-

trine or teachings but to draw cadets into moral and ethical discussions based on various case studies.

**Physical Fitness.** Scaled to the cadet's age group, gender, and capabilities, the physical fitness program is tied directly to the President's Council on Physical Fitness and Sports, which provides an exposure to physical fitness as a lifetime requirement for good health.

**Activities.** Cadets may complete air and space-related activities at all levels of CAP: local, wing, regional, and national. These activities are grouped into three categories: flying related, career exploratory, and professional development. Examples of these activities include Cadet Officer School, National Cadet Competition, Engineering and Technology Academies, glider- and powered-flight training, and eight USAF career-field familiarization courses.

CAP fosters international goodwill and cultural awareness as a full participating member of the US Department of State's interagency working group on US government-sponsored international exchanges and training.

The cadet program also includes opportunities to travel abroad. Each summer since 1948, CAP cadets and adult-member escorts, with Air Force funding and assistance, have participated overseas as US representatives in the International Air Cadet Exchange—a program that promotes cultural awareness, international understanding, goodwill, and friendship among young people who have a common interest in aviation. The CAP cadets go through a structured curriculum in Washington, DC, before departing for their host countries.

Likewise, an 18-day exchange with the United States allows cadets from other countries to tour air and space industries and museums, visit airports and Air Force installations, take orientation and training flights in gliders and powered aircraft, and visit the homes of host CAP families. The program exchanges approximately 90 people with 12 other nations.

**Drug Demand Reduction.** CAP's Drug Demand Reduction (DDR) program began in 1994 to support the Air Force fam-

ily within 30 miles of active duty Air Force bases, Reserve bases or stations, and Air National Guard bases. The mission of the program is to implement substance abuse prevention through a comprehensive program of education and awareness. One of the highlights of the DDR program is the CAP School Program, which allows CAP participation either during or after school. Schools throughout the United States sponsor the programs.

### **Aerospace Education**

The Air Force supports and partially funds CAP's aerospace education effort for both its membership and with the general public to develop an understanding and appreciation of the importance of air and space power for our country. Internally, cadets and adult members take part in a structured aerospace education program and have access to current air and space events.

The program's purpose is to develop a membership that can provide grassroots understanding and leadership in aerospace education in local communities. Through its external outreach programs, CAP provides aerospace education to American citizens through professional educators. These outreach efforts include teacher workshops, curricular materials, educational liaison, and cooperative programs.

**Teacher Workshops.** CAP co-sponsors aerospace education workshops through partnerships with other organizations, colleges, universities, and associations, reaching over 400 teachers a year. These projects provide teachers and school administrators with a basic understanding of air and space activities and prepare them to include aerospace education in their curricula at all levels.

**Curricular Materials.** CAP produces courses of study, textbooks, instructor guides, audiovisual materials, and other supplementary materials. Many schools (private, public, parochial, and home schools) and other organizations/associations use this material to present air and space education to their students.

**Educational Liaison.** CAP maintains a close liaison with state school officials, college and university administrators, and private, public, and parochial school systems to promote air and space education throughout the country.

**Cooperative Programs.** CAP maintains a close working relationship with other air and space education groups to develop cooperative air and space education programs. These groups include the Federal Aviation Administration, National Aeronautics and Space Administration, National Air and Space Museum, state aeronautical commissions, American Institute of Aeronautics and Astronautics, General Aviation Manufacturers Association, Air Transport Association, Aircraft Owners and Pilots Association, Young Astronaut Council, and the Air Force Association/Air and Space Education Foundation.

### **Chaplain Service**

CAP fields the largest volunteer chaplaincy in the world. Numbering over 650 chaplains and 350 character development officers, the chaplain service mission is dedicated to the free exercise of religion for all CAP members; promoting spiritual care, moral leadership, and character development; and answering as trained crisis responders to such community and military contingencies as disasters, aircraft accidents, or acts of terrorism. The CAP chaplain service regularly supports active duty and reserve components and meets the same educational, ecclesiastical, and professional standards as active duty chaplains. CAP chaplains routinely substitute for deployed active duty chaplains at Air Force bases across the country, currently assisting over 40 military units.

### **CAP Public Affairs**

Civil Air Patrol Public Affairs plans, directs, and coordinates CAP's national public relations, media relations, and communications and marketing programs. The Public Affairs (PA) office has primary responsibility for the organization's national magazine, online news, and annual report to Congress. PA plans and coordinates initiatives designed to brand CAP's name and

image and provides training, mentoring, and resources for the organization's 900-plus public affairs officers, including a two-day Public Affairs Officer Academy, a comprehensive hometown news release program, and an online toolkit. PA also plays a leadership role in planning and coordinating PR aspects of national special events.

### **CAP e-Learning**

CAP provides an extensive online knowledge base and job performance support system to help members perform their CAP jobs and develop professionally. CAP members have access to AF and CAP-specific distance learning courses available from the Directorate of Education Logistics and Communication Extension Course Program (formerly AFIADL). Course descriptions are available in the *AFIADL Catalog*.





## **Academic Support**

Several organizations at Maxwell AFB provide academic, historical, and legal support for the Air University resident and distance learning programs. These organizations enable the university to extend essential mission support to a wide range of Air Force units and commands, including Headquarters Air Force and the Department of Defense.



## **Air University Registrar**

*Internet Address*

<http://www.maxwell.af.mil/au/registrar.asp>

The Air University Registrar oversees four branches: Services and Student Records; Officer Professional Military Education (PME); Student Production, Analysis, and Requirements; and Technology. Through its Services and Student Records Branch, the registrar provides a 30-year archival data trail for AU schools, produces transcripts for graduates of those schools, and serves as admissions officer for Air War College and Air Command and Staff College master's degree programs. The registrar enrolls distance education students and produces their completion certificates and diplomas. The Officer PME Branch functions as the single input source for updating USAF records with PME course completions and supports promotion boards by canvassing graduate records to provide PME graduate data. The Student Production, Analysis, and Requirements Branch manages course requirements, allocations, schedules, and program changes. This branch also supports the Air Force Education Requirements Board (AFERB) through data tracking and analysis for Air Force advanced academic degree programs and professional continuing education requirements. The Technology Branch provides support for the Air University Registrar Education Program Management system.

## **Muir S. Fairchild Research Information Center**

*Internet Address*

<http://au.af.mil/au/aul/lane.htm>

The Muir S. Fairchild Research Information Center (MSFRIC), founded in 1946 as the Air University (AU) Library, is the premier library in the DOD. It houses well-balanced collections especially strong in the fields of war fighting, aeronautics, Air Force and DOD operations, military sciences, international relations, education, leadership, and management. MSFRIC improves Air Force education by providing access to the world of information through quality library services.

The center holds more than 2.6 million items, including 505,000 military documents; 484,000 monographs and bound periodical volumes; 433,000 maps and charts; and 150,000 military regulations and manuals.

MSFRIC sits at the center of Chennault Circle, Maxwell AFB. On 19 January 2007 Air University Library was redesignated the Muir S. Fairchild Research Information Center. The library building, Fairchild Library, is named for the founder and first commander of AU, Gen Muir Stephen "Santy" Fairchild. The Fairchild Research Information Center also operates the Henry "Red" Erwin Library at Maxwell AFB/Gunter Annex. This branch provides tailored information collections and services for the Noncommissioned Officer (NCO) Academy and the Senior NCO Academy.

An active program of bibliographic publications and indexes facilitates access to the center's holdings and information. Special subject bibliographies and curriculum support pages are published throughout the year and posted contemporaneously on the library's Web page. Published since 1949, the *Air University Library Index to Military Periodicals* is searchable in the online catalog, accessed through the center's Web site.

Electronic information technologies are critical to the delivery of library resources and services. A third-generation integrated library system automates identifying, locating, and circulating library-owned materials. A robust Web site provides Internet access to the Special Bibliography Series, other PME curriculum support materials, map and image sites, full-text journals, e-books, newspapers, online databases, and links to key Web sites. Many MSFRIC tools are now available through the Air Force Portal, including links to reference librarians, bringing the personal touch of library service to the entire Air Force community.

## **Air Force Historical Research Agency**

*Internet Address*

<http://www.afhra.maxwell.af.mil>

The Air Force Historical Research Agency (AFHRA) is the primary repository for Air Force historical documents. Begun in Washington, DC, during World War II, the agency's collection

moved to Maxwell AFB, Alabama, in 1949 to support Air University (AU) and is located adjacent to the Muir S. Fairchild Research Information Center. The AFHRA is a field operating agency functioning under the policy guidance of the Air Force historian at Headquarters Air Force (HQ AF).

AFHRA's current holdings exceed 700,000 documents and 70 million pages and represent the world's largest and most valuable organized collection of historical documents on US military aviation. Subjects range from the use of balloons in the Civil War through Air Force activities in World War II, Korea, Southeast Asia, Operation Desert Storm, the air war over Serbia, and Operations Noble Eagle, Enduring Freedom, and Iraqi Freedom. The majority of documents consist of USAF organizational histories from every echelon of the service from major command to squadron level. Except for the classified or restricted documents comprising approximately 25 percent of the holdings, the collection is open to the public. Finding aids include an electronic database and bibliographies for identifying and locating individual documents on specific topics of interest to the researcher.

Complementing the unit histories, the agency houses several special collections, with some dating back to the early 1900s. These collections include historical monographs and studies; more than 2,000 oral history interviews; end-of-tour reports of notable overseas commanders; course materials of the Air Corps Tactical School from the 1930s; and working papers of key Army Air Force staff offices, the British Air Ministry, and the Luftwaffe during World War II. An extensive 2-million-page Persian Gulf War collection and electronic database of nearly 85 gigabytes of information on the air war over Serbia have been added to the agency's holdings in the past decade. The Gulf War holdings include chronologies, working papers, message traffic, oral history transcripts, unit histories, and contingency reports.

The agency also holds the personal paper collections of more than 500 Air Force civilian and military figures, including former secretaries of the Air Force John L. Brown, George C. Kenney, Curtis E. LeMay, John D. Ryan, and Thomas D. White.

The agency receives historical reports and information from Operations Noble Eagle, Enduring Freedom, Iraqi Freedom, and

other Air Force operations. Its historical collection is readily available to AU students, faculty, and staff. In addition, agency staff members provide research and advisory services for AU students to assist them in preparing papers and theses.

Beyond its support to AU, the AFHRA staff answers requests for historical information from Congress, the Joint Chiefs of Staff, the Air Staff, the major commands, and the general public. Other key functions include drafting and updating the official lineage and honors histories and emblems of the Air Force organizations, writing and publishing historical reference works, conducting the Air Force's oral history program, maintaining records showing the status of aircraft, and updating and preserving the official lists of aerial victory credits earned during each war.

AFHRA staff members routinely take part in training new Air Force historians and conduct biennial archival and oral history training courses for professional members of the Air Force History and Museums Program. The agency also deploys individual mobilization augmentees to conduct interviews and capture documentation relating to Air Force operations.

## **US Air Force Public Affairs Center of Excellence**

### *Internet Address*

<https://maxpoint.maxwell.af.mil/sites/au/afddec/afddecnet/PACE/paceweb/default.aspx>

The US Air Force Public Affairs Center of Excellence (PACE) emphasizes the importance of how public affairs doctrine, the global information environment, and strategic communication impact the twenty-first-century battlefield. PACE staff members infuse current events-based military/news media relations education into more than 20 classes across all AU schools and outreach lessons throughout the Air Force. PACE instructors provide realistic news media and information operations play in support of the center and AU war games. PACE instructors taught more than 7,200 students during 2006 and have taught more than 46,000 since its inception in 1998.

PACE offers media and public affairs doctrinal education to the war fighter by

- teaching electives in AWC and ACSC, facilitating and providing lectures and case studies for core curriculum; and conducting hands-on media training during war games Solo Challenge, Theater Campaign Warfare, and Joint Land, Aerospace, Sea Simulation at the AWC, ACSC, and SAASS;
- presenting blocks of instruction at the Ira C. Eaker College for Professional Development, including lectures and on-camera media training at the Wing and Group Commanders' courses, the On-Scene Commanders' course, First Sergeant Academy; and GS-15 Leadership Seminar;
- supporting the College of Enlisted Professional Military Education by providing lesson materials to the Chief Master Sergeant Leadership course, Senior Noncommissioned Officer (NCO) Academy, NCO academies, and Airman Leadership Schools Air Force-wide;
- providing contingency communications, policy, and doctrine instruction to students of the LeMay Center's Information Operations Fundamentals Applications course, Contingency Wartime Planning course, and the Senior Information Warfare Application course;
- infusing media play into war games hosted by the center's War-fighting Applications Directorate, preparing participants to become effective strategic communicators and consider the "information battlespace" and public opinion, and becoming media savvy during the course of a military campaign;
- assisting AU students in conducting research on public affairs and mass communications issues, analyzing case studies, and promulgating information operations and public affairs doctrine throughout the Air Force; and
- maintaining a "Best Practices" database on the Air Force Portal, which provides Air Force public affairs professionals with a centralized source for current, relevant solutions other PA professionals have found especially beneficial in managing communication challenges.



## **Air University Television**

Air University Television (AUTV) is AU's dedicated television facility, the Air Force's southeastern regional television production center, and one of five Air Force distance learning uplink (broadcast) sites. From a full-service, \$3 million physical plant, AUTV provides video production and editing, DVD and CD-ROM production, cable and LAN distribution, Video-On-Demand and Live Streaming for audio/video Internet distribution, satellite uplink and downlink (receive) services, and television engineering consultation to support AU's professional military and continuing education courses locally and Air Force-wide.

As a part of the Air Technology Network, AUTV provides satellite uplink and downlink services. Courses are transmitted from the broadcast studio to downlink sites throughout DOD and the federal government. Downlink signals are distributed through Air University Cable Network (AUCN) using both a copper radio frequency network and live streaming via the base network. AUTV also provides digitized video clips for inclusion in interactive courseware.

Production personnel produce broadcast quality videotape programs for a wide range of applications, from short video supplements to faculty lesson plans, to full-length programs for widespread distribution. Video programming to support daily classroom needs is aired over the AUCN. The AUCN signal is received in all AU classrooms on Maxwell AFB and Gunter Annex. Presentations in each school's main auditorium are distributed live or recorded for delayed playback and entry into the video archive.

Engineering personnel provide the technical services required to maintain and repair the more than 1,400 pieces of video equipment in the AUTV facility and its subsystems throughout the Maxwell/Gunter community. AUTV engineers provide the technical expertise required to maintain and repair multimedia auditoriums and classrooms throughout all Maxwell/Gunter academic institutions. AUTV engineers also provide consultations to customers planning new requirements or modifications of existing multimedia presentation systems.

## **Air University Faculty**

The academic heart of AU is its faculty, made up of carefully selected civilians and military personnel who teach, conduct research, and consultation, and perform service to the Air Force, AU, and the professional community. As representatives of academic disciplines and the profession of arms, faculty members are responsible for curriculum development, instruction, research, service, and professional development in their areas of competency in support of AU's educational programs. Specific focus and emphasis for faculty members will depend on the educational setting to which they are assigned; however, faculty are encouraged to actively share their expertise throughout the university's educational programs.



## Faculty

### A

Basma S. Abdul-Hamid; Air Command and Staff College (ACSC); BS, MS from Northeastern University.

John T. Ackerman, Lt Col, USAF (Retired); Assistant Professor, ACSC; BS, Florida State University; MA, University of Southern California; PhD, University of Alabama.

Hobart R. Alford, Maj, USAF; ACSC; BS, United States Air Force Academy (USAFA); MS, University of Dayton; Master of Military Operational Art and Science, Air University (AU).

John H. Anderson III, Maj, USAF; ACSC; BA, University of Maryland; MS, Southern Methodist University; MA, George Washington University; Master of Military Operational Art and Science, AU.

Neil P. Arnold, Lt Col, USAF; ACSC; BS, Rensselaer Polytechnic University; MA, Bowie State University; Master of Military Operational Art and Science, AU.

### B

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Mark L. Black, Lt Col, USAF; ACSC; BS, Auburn University; MBA, Southwest Missouri State University.

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Stephen F. Burgess; Deputy Chair, International Security Studies, AWC; BA, Duke University; MSS, The Hague; PhD, Michigan State University.

Stephen L. Burgess, Col, USAF; AWC; MAS, Chapman University; Master of Strategic Studies, AU.

James M. Burlingame, Lt Col, USAF; ACSC; BS, USAFA; MS, Texas Tech University.  
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## **C**

David C. Campassi, Lt Col, USAF; ACSC; BS, USAFA, Master of Military Operational Art and Science, AU.  
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## Acronyms and Abbreviations

A and P	Airframe and Powerplant
AAS	associate in applied science
ACE	American Council on Education
ACES	Air Force Command Exercise System
ACSC	Air Command and Staff College
ACT	Advanced Combat Timeline
ACTS	Air Corps Tactical School
ADAX	Air and Space Doctrine Applications Exercise
ADL	advanced distributed learning
ADR	alternate dispute resolution
AIECP	Airman Education and Commissioning Program
AIEF	Air and Space Expeditionary Forces
AIETC	Air Education and Training Command
AF	Air Force
AFB	Air Force Base
AFC	Air Force Catalog
AFDC	Air Force Doctrine Center
AFDD	Air Force Doctrine Document
AFDLO	Air Force Distance Learning Office
AFDWG	Air Force Doctrine Working Group
AFEHRI	Air Force Enlisted Heritage Research Institute
AFFOR	Air Force forces
AFHRA	Air Force Historical Research Agency
AFHRMS	Air Force Human Resource Management School
AFI	Air Force Instruction
AFIADL	Air Force Institute for Advanced Distributed Learning
AFIT	Air Force Institute of Technology
AFJAG	Air Force Judge Advocate General
AFJROTC	Air Force Junior Reserve Officer Training Corps
AFLC	Air Force Logistics Command
AFM	Air Force manual
AFMS	Air Force Medical Service

AFM and S	Air Force Modeling and Simulation
AFOATS	Air Force Officer Accession and Training Schools
AFOATS/CR	Air Force Officer Accession and Training Schools Curriculum Directorate
AFPC	Air Force Personnel Center
AFPD	Air Force Policy Directive
AFRC	Air Force Reserve Command
AFRES	Air Force Reserve
AFRL	Air Force Research Laboratory
AFROTC	Air Force Reserve Officer Training Corps
AFSC	Air Force specialty code
AFSES	Air Force Senior Executive Seminar
AFSLMO/CG	Air Force Senior Leaders Management Office/Chiefs Group
AFSNCOA	Air Force Senior Noncommissioned Officer Academy
AFWI	Air Force Wargaming Institute
AGA	Alabama Goodwill Ambassadors
AICE	Association of International Credential Evaluators
ALS	Airman Leadership School
AMC	Air Materiel Command
ANG	Air National Guard
ANT	Advanced Navigation Technology
AOC	air operations center
AP	Air and Space Power
ARC	Air Reserve Component
ARCS	Air Reserve Component Seminar
ARDC	Air Research and Development Command
ARI	Airpower Research Institute
ARPS	Aerospace Research Pilot School
ARR	Researchers Division
ARS	Research Support Division
AS	Aerospace Studies
ASBC	Air and Space Basic Course
ASDC	Air and Space Doctrine Center
ASE	aero/servo/elasticity
ASI	Avionics Systems Integrations
ASPC	Air and Space Power Course

<i>ASPJ</i>	<i>Air and Space Power Journal</i>
ASTARS	Airborne Systems Test and Research Support
ATN PMO	Air Technology Network Program Management Office
ATO	air tasking order
AU	Air University
AU-ABC	Air University Associate-to-Baccalaureate Cooperative
AU/CC	Air University Commander
AU/CF	Air University Chief Academic Officer
AU/CFR	Air University Registrar
AU/FM	Air University Financial Management and Personnel
AUI	Air University instruction
AU/RI	Air University Research Institute
AU/RIL	Air University Press
AU/RIMS	Air University Research Information Management System
AU/TV	Air University Television
AWC	Air War College
AWP	Air Web Planner
AY	academic year
BDU	battle-dress uniform
BOG	Board of Governors
BOT	Basic Officer Training
BOV	Board of Visitors
CADRE	College of Aerospace Doctrine, Research and Education
CAO	Chief Academic Officer
CAP	Civil Air Patrol
CAPRAP	CAP Reserve Assistance Program
CAPS	counterproliferation and planning system
CAP-USAF	Civil Air Patrol-US Air Force
CBI	computer-based instruction
CBW	chemical biological warfare
CCAF	Community College of the Air Force
CCDR	combatant commander



CCM	Office of the Command Chief Master Sergeant
CDX	crises decision exercise
CEP	core electives program
CEPME	College for Enlisted Professional Military Education
CESG	Continuum of Education Strategic Guidance
CESS	Civil Engineer and Services School
CFACC	combined forces air component commander
CFC	Canadian Forces College
CFETP	career field education and training plan
CFP	check flight phase
CGO	company grade officer
CHIP	contingency historical information program
C/JAOC	Combined/Joint Air Operations Center
CJCSI	chairman of the Joint Chiefs of Staff Instruction
CLC	Chief Master Sergeant Leadership Course
CLE	continuing legal education
CLX	Combat Leadership Exercise
COA	courses of action
COMAFFOR	commander, Air Force Forces
COMPUSEC	computer security
CONUS	continental United States
COT	Commissioned Officer Training
CP	counterproliferation
CPC	Counterproliferation Center
CPD	(Ira C. Eaker) College for Professional Development
CPI	Continuous Process Improvement
CPSP	commandant's professional studies paper
CSAF	chief of staff of the Air Force
CSAT	Center for Strategy and Technology
CSI	Chaplain Service Institute
CSLS	Center for Strategic Leadership Studies
CS and P	competitive sourcing and privatization
CV	vice commandant
CWPC	Contingency Wartime Planning Course

DEI	Department of International Security Studies
DEL	Department of Leadership and Strategy
DEPSECDEF	Deputy Secretary of Defense
DETC	Distance Education and Training Council
DEW	Department of War Fighting
DEX	Associate Dean of Academic Programs
DDJ	Joint Doctrine Development
DDR	Drug Demand Reduction
DDS	Services Doctrine Development
DDSC	Defense Decision Support Course
DFMC	Defense Financial Management Course
DFMCS	Defense Financial Management and Comptroller School
DL	distance learning
DOD	Department of Defense
DODIP	Department of Defense Informational Program
DOE	design of experiments
DR	disaster relief
DS	Dean of Services
DSN	Defense Switching Network
DTIC	Defense Technical Information Center
ECI	Extension Course Institute
ECL	English comprehension-level
ECP	Extension Course Program
eCSC	electronic Customer Support Center
EEW	experiments, war games
EOC	Emergency Operations Center
EPC	Educational Programs Cadre
EPME	enlisted professional military education
EPMEI	Enlisted Professional Military Education Instructor
ETCA	Education and Training Course Announcements
ETP	Experimental Test Pilot
EWC	Executive Wellness Center
EWI	Education with Industry Program
FCS	flight control system
FLEP	Funded Legal Education Program

FM	financial management
FMS	Foreign Military Sales
FS	Foundations of Strategy
FTE	fight-test engineer
FTN	flight-test navigator
FTT	flight-test technique
FY	fiscal year
GETN	Government Education and Training Network
GMC	General Military Course
GOE	Gathering of Eagles
GPS	global positioning system
GRE	Graduate Record Examination
GS	global security
HAF	Headquarter Air Force
HF	high frequency
HLS	homeland security
HQ AU	Headquarters Air University
HQ AETC	Headquarters Air Education and Training Command
HQ AFDC	Headquarters Air Force Doctrine Center
HQ USAF/AVCS	Headquarters United States Air Force/ Assistant Vice chief of staff
HIS	hyperspectral-imaging
IA	International Affairs
IBN	Interest-Based Negotiations
IDE	Intermediate Developmental Education
IDEC	International Dependents English Course
IEA	International Energy Agency
IFAST	Integration Facility for Avionics System Testing
IFB	Integrated Forecasting Board
IFLP	International Family Loan Program
IFOP	International Family Orientation Program
IHR	International Honor Roll, Air University
IN	intelligence
INS	intelligence security

IO	international officer; information operations; or international organizations
IOFAC	Information Operations Fundamentals Applications Course
IOP	instruments of power
IOS	International Officer School
ISD	instructional systems design; instructional systems development
ISR	intelligence, surveillance, and reconnaissance
ISS	International Security Studies
IW	information warfare
IWAC	Information Warfare Applications Course
JAEX	Joint Air and Space Exercise
JAG	judge advocate general
JAOC	Joint Air Operations Center
JAOPC	Joint Air Operations Planning Course
JDACC	Joint Doctrine Air Campaign Course
JEMM	Joint Educational Mobility Model
JF	Joint Forces
JFACC	joint force air component commander
JFC	joint force commander
JFOWC	Joint Flag Officer War-fighting Course
JLASS	Joint, Land, Aerospace, and Sea Simulation
JMO	Joint Military Operation
JPME	joint professional military education
JROTC	(Air Force) Junior Reserve Officer Training Corps; see also AFJROTC
JSL	Joint Strategic Leadership
JTF	joint task force
L/D	lift over drag ratio
LAN	local area network
LC	Leadership and Command
LDS	Culture Leadership Development Simulation
LLAB	leadership laboratory
LTT	laboratory test technique

MAJCOM	major command
MASINT	measurement and signals intelligence
MEDOD	management education Department of Defense
MOU	memorandum of understanding
M and S	modeling and simulation
MSFRIC	Muir S. Fairchild Research Information Center
NACES	National Association of Credential Evaluation Services
NAF	numbered air force
NATO	National Atlantic Treaty Organization
NAVWARCOL	Naval War College
NCA	National Command Authorities
NCACS	North Central Association of Colleges and Schools
NCE	Negotiation Center of Excellence
NCOA	Noncommissioned Officer Academy
NCOPC	Noncommissioned Officer Preparatory Course
NGO	nongovernmental
NMD	National Missile Defense
NRO	National Reconnaissance Office
NSDM	National Security and Decision Making
NSF	National Security Forum
NSPS	National Security Personnel System
NSSC	National Space Studies Center
OI	operating instruction
OIC	Occupational Instructor Certification
OIF	Operation Iraqi Freedom
OL	operating location
OLMP	Online Masters Degree Program
OMS	Officer Military Schools
OPEC	Organization of the Petroleum Exporting Countries
OPR	Office of Primary Responsibility; or Officer Performance Report
OTS	Officer Training School

PA	public affairs
PACE	Public Affairs Center of Excellence
PCE	Professional Continuing Education
PDT	Professional Development Training
PJO	Planning Joint Operations
PMCC	Professional Military Comptroller Course
PMCS	Professional Military Comptroller School
PME	Professional Military Education
POC	Professional Officer Course
P and S	probability and statistics
PSP	Professional Studies Paper
RCOT	Reserve Commissioned Officer Training
RCS	Regional and Cultural Studies
RFCC	Reserve Forces Comptroller Course
ROTC	Reserve Officer Training Corps
RS	Regional Studies
RSG	Rapid Scenario Generator
SAAS	School of Advanced Airpower Studies
SAASS	School of Advanced Air and Space Studies
SACS	Southern Association of Colleges and Schools
SAO	security assistance officer
SAR	search and rescue
SC	Solo Challenge; specialized course
SCI	sensitive compartmented information
SDA	software development activity
SEP	Software Engineering Process
SES	senior executive service
SIO	senior intelligence officer
SIWAC	Senior Information Warfare Applications Course
SNCOA	Senior Noncommissioned Officer Academy
SOC	Squadron Officer College
SOCHE	Southwestern Ohio Council for Higher Education
SOF	Special Operations Forces
SOS	Squadron Officer School
SSO	Special Security Office

SSS	Senior Service School
SSQ	<i>Strategic Studies Quarterly</i>
SW	Strategy and War
TCW	theater campaign warfare
TDY	temporary duty
T and E	test and evaluation
TMP	Test Management Project
TOEFL	Test of English as a Foreign Language
TOF	total obligation force
TPFD	time-phased force deployment
TPS	Test Pilot School
UAS	Unmanned Aircraft System
UN	United Nations
USAFA	United States Air Force Academy
USSOCOM	United States Special Operations Command
VHF	very high frequency
VISTA	Variable-stability In-Flight Simulator Test Aircraft
WA	War-fighting Applications Directorate
WAO	War-gaming Operations Division
WAPS	Weighted Airman Promotion System
WAT	War-gaming Technology Division
WATA	Analysis and Standards Branch
WATD	Software Development and Operations Branch
WE	War-fighting Education
WISSO	War-game Interactive Support System Online
WMD	weapons of mass destruction
WPC Online	War-fighting Planning Course Online
WSI	Warfare Studies Institute
XNBP	Exercise in National Budget Priorities

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