

2007-2008

Worldwide Catalog



www.embryriddle.edu/ec



EMBRY-RIDDLE
AERONAUTICAL UNIVERSITY

WORLDWIDE
LEADING THE WORLD IN
AVIATION AND AEROSPACE EDUCATION

WORLDWIDE CAMPUSES AND ONLINE

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In compliance with federal laws and regulations, Embry-Riddle Aeronautical University does not discriminate on the basis of race, color, gender, creed, national and ethnic origin, age, or disability in any of its policies, procedures, or practices. An Equal Opportunity institution, the University does not discriminate in the recruitment and admission of students, in the recruitment and employment of faculty and staff, or in the operations of any programs and activities.

Designed for use during the one-year period stated on the cover, this catalog gives a general description of Embry-Riddle Aeronautical University and provides detailed information regarding the departments within the institution and curricula offered by the University. Supplements to the catalog are available online only. The provisions of the catalog do not constitute a contract between the student and the University. The faculty and trustees of Embry-Riddle Aeronautical University reserve the right to change, without prior notice, any provision, offering, or requirement in the catalog. This includes the right to adjust tuition and fees, as necessary. The University further reserves the right at all times to require a student to withdraw for cause.

Online Catalog: An online version of this catalog, along with catalog supplements, is available at www.erau.edu/ec/catalog. Supplements to the catalog are provided to reflect updated information that includes additions, corrections, and/or changes to the initial publication of the catalog.

ERAU Student Email Accounts: ERAU issues an email account to each Worldwide student upon registration for courses. Email accounts are made available to students via ERNIE (ernie.erau.edu) within two days of registration for the first course. Please check your ERAU email frequently, as the University will use this account as a means of sending official notification on University matters. Although the software used to send some of these communications automatically includes an "unsubscribe" link at the bottom of each message, *do not unsubscribe* since this will hinder the University's ability to provide you with important information. Your ERAU email account will remain active up to two years after your last ERAU course.

This catalog becomes effective July 1, 2007.



AVIATION AND EMBRY-RIDDLE: THE LIFELONG PARTNERSHIP



At the beginning of the last century no flying schools existed, much less an aviation university. It was not until 1903 that the Wright brothers achieved sustained, controlled flight by a powered aircraft and, in so doing, changed life on this planet forever.

It did not take long for aviation to come of age. By 1914, regular passenger service had been inaugurated in Florida between St. Petersburg and Tampa. Later that year, war came to the European skies. The combined effect of military and commercial demands produced a dynamic new industry.

Unlike many other developments at the end of the Industrial Revolution, aviation required a special education — learning how to fly, learning about safety and weather, and learning about engines — from skilled maintenance to the outer limits of performance.

This need for trained pilots and mechanics quickly led to the establishment of a new type of school, one focused totally on aviation. In the beginning, these organizations were often a combination of airplane dealership, airmail service, flight training center, and mechanic school. The original Embry-Riddle operations fit that mold precisely.

On December 17, 1925, exactly 22 years after the historic flight of the Wright Flyer, barnstormer John Paul Riddle and entrepreneur T. Higbee Embry founded the Embry-Riddle Company at Lunken Airport in Cincinnati, Ohio. The following spring the company opened the Embry-Riddle School of Aviation, coinciding with the implementation of the Air Commerce Act of 1926, which required, for the first time, the certification and medical examination of pilots.

Although it was a volatile time for aviation enterprises, the school prospered. Others came and went regularly, but Embry-Riddle was not affected.

Within three years the school had become a subsidiary of AVCO, the parent of American Airlines. The school remained dormant during most of the 1930s, mirroring the casualties of the Great Depression. By the end of the decade, however, World War II erupted in Europe and the demand for skilled aviators and mechanics grew significantly. Embry-Riddle's second life was about to begin.

The Lunken Airport operation had long since disappeared, but in Florida Embry-Riddle opened several flight training centers and quickly became the world's largest aviation school. Allied nations sent thousands of fledgling airmen to the Embry-Riddle centers at Carlstrom, Dorr, and Chapman airfields to become pilots, mechanics, and aviation technicians. Some 25,000 men were trained by Embry-Riddle during the war years.

After the war, under the leadership of John and Isabel McKay, Embry-Riddle expanded its international outreach while strengthening its academic programs.

In 1965, with Jack R. Hunt as president, Embry-Riddle consolidated its flight, ground school, and technical training programs into one location. This move, which proved to be a moment of singular importance, was made possible by Daytona Beach civic leaders who donated time, money, and the use of personal vehicles. The relocation signaled the rebirth of Embry-Riddle and the start of its odyssey to world-class status in aviation

higher education. In June 1970, Embry-Riddle changed its name from “Institute” to “University,” and resident centers were established at U.S. military aviation centers to serve the educational needs of active-duty military personnel. Application for Southern Association of Colleges and Schools accreditation through the Commission on Colleges was initiated in 1970 and received in 1972. The University has participated in the Self-Study process ever since.

Also under President Hunt’s leadership, Embry-Riddle opened a western campus in Prescott, Arizona, on the 511-acre site of a former college. With superb flying weather, expansive grounds, the Prescott campus has been an outstanding companion to the University’s eastern campus in Daytona Beach.

Continuing the legacy left behind by Hunt was Lt. Gen. Kenneth L. Tallman. Tallman was president of Embry-Riddle for five years. He came to the University after a distinguished 35-year military career that included service as superintendent of the U.S. Air Force Academy. Under Tallman’s leadership, a school of graduate studies and the electrical engineering degree program were introduced. He led the University into research with the addition of the engineering physics degree program. He also developed stronger ties between Embry-Riddle and the aviation/aerospace industry.

Dr. Steven M. Sliwa led the University from 1991 through 1998. Sliwa, the University’s third president, is best known for creating an entrepreneurial environment and for developing strategic partnerships with industry. These partnerships included a joint venture with FlightSafety International; a partnership with Cessna Aircraft Company; a technology alliance with IBM; and an exclusive educational partnership with Aircraft Owners and Pilots Association. He also spearheaded a \$100+ million capital expansion program, which included an \$11.5 million congressional line-item appropriation. In addition, new academic and research programs were created at his direction to respond to structural changes in the industry while increasing market share in the University’s core programs.

Embry-Riddle’s fourth president, Dr. George H. Ebbs, led the University from 1998 through 2005. During his tenure, the annual college guide produced by *U.S. News & World Report* consistently ranked Embry-Riddle’s

aerospace engineering program No. 1 in the nation among schools without doctorate programs. Embry-Riddle’s programs in aerospace engineering, aeronautical science, and engineering physics are the largest in the nation.

Under the leadership of Dr. Ebbs, new graduate degree programs in safety science and space science were introduced, as well as new undergraduate degree programs in computer science, global security and intelligence studies, mechanical engineering, software engineering, and space physics. Major construction began on the Aviation Complex at the Daytona Beach Campus and the Academic Complex at the Prescott Campus.

Dr. Ebbs presided over three military contracts worth a total of more than \$57 million. Under those contracts, Embry-Riddle provides aviation-related degree programs to the U.S. military in Europe; trains Air Force pilots at the U.S. Air Force Academy in Colorado Springs, and trains Air Force, Air National Guard, and international flight safety officers at Kirtland Air Force Base in Albuquerque, New Mexico.

Dr. John P. Johnson is the University's fifth president. He previously served as Embry-Riddle's interim president and as provost and chief academic officer. Under his leadership the University has expanded its research activity, has established new degree programs, and is developing a global strategy to take its aviation and aerospace expertise overseas. Before joining Embry-Riddle, Dr. Johnson was the provost and vice president for academic affairs at Texas A&M University, Texarkana, and served as dean at the Medical University of South Carolina and at Northern Kentucky University.

Embry-Riddle is a global institution that holds a prominent position in aviation/aerospace education. The University is the world’s largest independent aeronautical university and boasts a student body of 32,000 who come from all 50 states and more than 100 nations. The University offers more than 30 degree programs, at the bachelor and master level. Embry-Riddle provides flexible educational services to thousands of working adults through the Worldwide Campus. Many students receive their degrees from more than 130 teaching centers in the United States and Europe or through online learning.

MESSAGE FROM THE PRESIDENT



To Our Adult Learners

Embry-Riddle recognizes that working adults need continuing education and professional development when trying to stay current in today's constantly changing workplace environment. Our Worldwide Campus is anywhere you are, in classrooms and online, helping you to compete in the demanding aviation and aerospace world.

Thank you for choosing Embry-Riddle Aeronautical University for one of the most important investments you will make in your own future. With thousands of students enrolled in our programs today, and over 70,000 graduates, you are now a member of a very large family of leaders in companies, corporations, and in our military forces throughout the world.

Our commitment is to provide you with quality programs and faculty, as well as responsive and caring student services. We know that it isn't easy to continue your education while you are working or have family commitments. That's why we designed our programs to be flexible and convenient, with faculty and staff available to advise you on how to complete your program successfully.

Embry-Riddle has an enviable history and reputation that date back almost to the time of the Wright Brothers. We pride ourselves on our position as the world leader in aviation and aerospace education. I welcome you to an exciting and dynamic University, and to the Embry-Riddle experience.

A handwritten signature in cursive script that reads "John P. Johnson".

John P. Johnson, Ph.D.
President

EMBRY-RIDDLE'S STATEMENT OF VALUES

STUDENT SUCCESS

We understand that students are the lifeblood of Embry-Riddle. We focus and commit ourselves and our resources to the success of current, past, and future students. Our success is gauged by the difference we make in our students' lives.

LEARNING ENVIRONMENT

We seek intellectual growth through study, research, questioning, listening, and debate. We value the enlightened interchange of ideas as we challenge one another to do more, to study, to learn, to share, and to grow. We expect members of the student body, faculty, and administration to exercise their academic freedoms and to preserve those of others. We commit ourselves to a lifelong endeavor of learning. We are all teachers and we are all students.

SAFETY

We care deeply about the health and safety of our students and fellow employees. We believe that each one of us, from the administration to the flight instructors, has a responsibility to make our workplaces safer for everyone. We support the open sharing of information on all safety issues and encourage all employees and students to report significant safety hazards or concerns.

INTEGRITY, HONESTY, AND TRUST

Integrity is a valued trait. We believe that honesty is the foundation for interaction in all academic, administrative, and personal matters. The leadership team and each individual bear the responsibility for earning the trust of others.

DIVERSITY

We respect the rights and property of all individuals, regardless of gender, race, ethnicity, national origin, age, physical disability, economic background, sexual orientation, or religious belief. We believe in a community where all members are welcome, and individuals or groups are free from harassment.

COMMUNICATION

We speak candidly and we listen well. We hold that if every involved party has taken part in a decision, then everyone will support the decision. We believe that clear and frequent communication is essential for our safety, our relationships, and our productivity.

PROCESS AND TEAMWORK

We believe that the process of collegial decision-making contributes to the quality of the decisions. We also understand and appreciate that the most successful outcomes occur when organizational units work cooperatively as teams.

CHARACTER

We accept responsibility for our actions. When we see a problem, we do not pass it off, we do not complain, we act. We involve others as appropriate to achieve our goals. We prize dedicated, committed, caring, conscientious, and creative individuals who strive for excellence in the performance of their duties and responsibilities.

CHANGE AND GROWTH

We appreciate that great organizations like Embry-Riddle are constantly changing, adapting to external pressures, and growing. All of our work units are constantly improving quality. We realize that our jobs require us to grow professionally and take on more responsibility. Growth requires calculated risk-taking and we empower one another to take appropriate risks and learn from our mistakes. We believe in a willingness to challenge traditions and constantly seek innovative ways to manage and solve problems.

FISCAL SOUNDNESS AND INVESTMENTS

We understand we must operate efficiently and effectively so that investments can be made in our capabilities and ourselves. We invest in technology as appropriate, principally to increase the quality and frequency of our interactions in support of our mission.

ATTITUDE

We recognize, endorse, and empower leadership at all levels. We understand the joy of living in harmony with one another and strive to maintain an open, productive environment. We prize an upbeat, can-do attitude. We are members of the Embry-Riddle community because we want to be here, and this positive attitude is reflected in our communications with one another and our students.

EMBRY-RIDDLE AERONAUTICAL UNIVERSITY

MISSION STATEMENT

Embry-Riddle Aeronautical University is an independent, nonsectarian, nonprofit, coeducational university with a history dating back to the early days of aviation. The University serves culturally diverse students motivated toward careers in aviation and aerospace. Residential campuses in Daytona Beach, Florida, and Prescott, Arizona, provide education in a traditional setting, while an extensive network of learning centers throughout the United States and abroad serves civilian and military working adults through ERAU-Worldwide.

It is the purpose of Embry-Riddle to provide a comprehensive education to prepare graduates for productive careers and responsible citizenship with special emphasis on the needs of aviation, aerospace, engineering, and related fields. To achieve this purpose, the University is dedicated to the following:

To offer undergraduate and graduate degree programs that prepare students for immediate productivity and career growth while providing a broad-based education, with emphasis on communication and analytical skills.

To emphasize academic excellence in the teaching of all courses and programs; to recruit and develop excellent faculty and staff; and to pursue research and creative activities that maintain and extend knowledge in aviation, aerospace and related disciplines.

To develop mature, responsible graduates capable of examining, evaluating, and appreciating the economic, political, cultural, moral, and technological aspects of humankind and society, and to foster a better understanding of the workings of the free enterprise system and its social and economic benefits, and of the profit motive, as vital forces to the potential of individuals and groups.

To promote ethical and responsible behavior among its students and graduates in the local, national, and international aviation and aerospace communities and in the community at large.

To develop and effectively deliver educational programs for the adult student and professional at the undergraduate and graduate levels, including off-campus

degree programs, short courses, distance learning, non-credit programs, seminars, workshops and conferences.

To support each student's personal development by encouraging participation in programs and services that offer opportunities for enhanced physical, psychological, social, and spiritual growth and, by complementing the academic experience and contributing to the development of a well-rounded individual prepared for personal and professional success.

To engage in research, consulting services, and related activities that addresses the needs of aviation, aerospace, and related industries.



MESSAGE FROM THE CHANCELLOR



I am pleased to present the 2007-2008 catalog of Embry-Riddle Aeronautical University - Worldwide. This volume, beginning with our historical mission statement, continuing through our program and course descriptions, and closing with our policies, procedures, and student resources, presents a university that is both firmly rooted in tradition and poised for an exciting and significant future.

Worldwide has a great history and a proud heritage of accomplishments and successes. We have grown from humble beginnings at Fort Rucker in 1970, with 20 students and a single location, to over 130 campus locations in the United States and Europe, with over 27,000 students and 91,000 enrollments. Today we are at the threshold of further growth on a global basis.

Worldwide embraces three basic principles that guide everything we do:

- Provide an exemplary teaching and learning experience
- Excel in service to our students at every opportunity
- Invest in our people and hire the best

Based on these principles, our vision for the future includes:

- An expanded offering of programs - graduate, undergraduate, and online - which are exceptionally up-to-date and responsive to the aviation, aerospace, and related industries
- An array of academic offerings that are appealing to both U.S. military service members and civilian students
- Flexible delivery of education, both online and in the classroom, that is convenient to working adults of all ages
- Unexcelled student service supported by the best available technology

The students of Worldwide are individuals with careers and often educational pursuits that are already under way. Our students may be completing a first or second undergraduate degree, pursuing a graduate education, or undertaking advanced training in their current field. They may be recent high school graduates with responsibilities or preferences that preclude a residential campus experience, individuals in the work force with little spare time to attend class, or people well established in their career who are looking for a new job direction or up-to-date training.

Whatever your goals for your education and career, we welcome you to share in the great Embry-Riddle tradition. I wish you the best in all you do.

A handwritten signature in black ink, appearing to read "M. Smith". The signature is fluid and cursive, written in a professional style.

Martin A. Smith
Chancellor

WORLDWIDE

MISSION STATEMENT

The mission of Embry-Riddle Aeronautical University – Worldwide is to provide peerless academic degree and certificate programs, corporate training, and professional development services to working professionals and their employers in the aviation, aerospace, and related industries. The Worldwide Organization accomplishes its mission through the development and delivery of degree and non-degree programs. These programs are characterized by their high quality, high demand, and strong relevance to the targeted adult education student market and are delivered in the classroom and online. Worldwide thereby enables professional adult learners to advance their personal and career goals without the constraints of geography and schedules.

WORLDWIDE CAMPUSES

Worldwide degree and nondegree programs are delivered through a worldwide network of more than 130 campuses located throughout the United States, Canada, Europe, and the Middle East. Each campus offers a full range of student services and academic programs. Classroom courses are taught by local and national faculty, with courses scheduled to meet the needs of our students. Students may enroll in classes through Worldwide campuses or online

WORLDWIDE ONLINE - OPPORTUNITY AT YOUR FINGER TIPS

Embry-Riddle's online learning program combines the quality and prestige of an Embry-Riddle education with the flexibility and convenience of web-based learning.

By giving students the opportunity to complete degrees or certificate programs online, Embry-Riddle eliminates a major barrier that keeps many adults from advancing their education - fitting campus-based classes into their busy schedules.

Through online learning, students from all over the world have access to Embry-Riddle's career-enhancing programs. Graduate, undergraduate and certificate programs are taught by dedicated, accessible, and accomplished faculty who bring real-world experience and relevance to the curriculum. Students maintain close contact with faculty and with each other via an array of

tools designed to maximize the online learning environment: a state of the art learning management system with online support groups, discussion forums and email, an online help desk, online bookstore, and online access to the world-renowned Hunt Library. These interactive tools enhance the learning experience and make for an educational environment that is truly without limits.

Worldwide Online students also enjoy the same comprehensive academic counseling and admissions services as any Embry-Riddle student. Financial Aid, Career Services, Veteran Affairs, and Alumni Services are available by telephone or email.

With our commitment to technology and innovative learning opportunities, Worldwide Online helps students realize personal and professional goals from anywhere in the world.

ADVISING, ENROLLMENT, AND RECRUITMENT FOR ONLINE (AERO)

The Advising, Enrollment, and Recruitment Office for Online (AERO), services all online learners who are not affiliated with one of our Worldwide campuses. AERO's expertise is in assisting online learners from the initiation of a request for information through graduation. Online students enrolled through AERO are supported by knowledgeable and professional staff.

AERO takes special pride in providing excellent customer service. Each student is assigned an academic

advisor to personally assist them through each stage of their education from admission through degree completion. Regardless of a student's geographic location, AERO is here to help.

Online learners can pursue Associate, Bachelor, and Master degrees as well as Certificates of Completion with instructor-led, asynchronous academic courses delivered over the internet.

FACULTY

Embry Riddle Aeronautical University - Worldwide recruits highly qualified academicians and practitioners for full-time and part-time faculty positions. Recruitment and selection of faculty is based on an orderly process of screening and evaluation developed by the Worldwide Faculty Senate and prosecuted under the direction of the Chancellor and Vice Chancellor for Academic Affairs. Worldwide gives primary consideration to academic preparation/degrees in the discipline in the faculty selection process. A high priority is also placed on aviation/aerospace professional training and experience. Understanding of today's aviation/aerospace environment and current industry issues is an extremely important factor in faculty selection. An integral portion of Worldwide's mission is that the faculty must provide highly relevant courses that deal with today's aviation and aerospace issues and environment.

ACCREDITATION AND AFFILIATIONS

Embry-Riddle is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools (1866 Southern Lane, Decatur, Georgia 30033-4097, Telephone: 404-679-4500) to award degrees at the associate, bachelor, and master's levels.

Embry-Riddle Aeronautical University - Worldwide has developed creative, mutually beneficial partnerships and working relationships with numerous corporations, organizations, and government entities throughout the world. Relationship models include daily collaboration; sharing of vision, goals and resources; physical co-location arrangements; hiring agreements; cooperative education programs; corporate training programs; research projects; and joint ventures, to name a few. Worldwide develops

corporate and organization-specific relationships to meet the needs of aviation, aerospace, and related industries. For more information about corporate partnerships visit our website at <http://www.erau.edu/ec/wwc/affiliations.html>.

SOUTH CAROLINA COMMISSION ON HIGHER EDUCATION

Licensed by South Carolina Commission on Higher Education (1333 Main Street, Suite 200, Columbia, SC 29201, Telephone: 803-737-2260). Licensure indicates only that minimum standards have been met; it is not equal to or synonymous with accreditation by an accrediting agency recognized by the Department of Education.

WASHINGTON STATE HEC BOARD ADDENDUM

Embry-Riddle Aeronautical University is authorized by the Washington Higher Education Coordinating Board (HECB) and meets the requirements and minimum educational standards established for degree-granting institutions under the Degree Authorization Act. This authorization is valid until April 30, 2009, and authorizes Embry-Riddle Aeronautical University to offer the following degrees: Associate in Science in Aircraft Maintenance; Associate in Science in Professional Aeronautics; Associate in Science in Technical Management; Bachelor of Science in Aviation Maintenance Management; Bachelor of Science in Professional Aeronautics; Bachelor of Science in Technical Management; Master of Aeronautical Science; Master of Science in Management; Master of Science in Technical Management. Any person desiring information about the requirements of the Act or the applicability of those requirements to the institution may contact the HECB office at P.O. Box 43430, Olympia, WA 98504-3430.

TESTIMONIAL



*M*eeeting the ERAU staff is one of the best things that have happened to my military career in aviation. The staff is at the top of their game. Professionalism, courtesy, and genuine consideration provided to others has produced an atmosphere second to that of a family. I have high standards for my education and ERAU has met every goal through steadfast dedication and flexibility towards those who work full-time. I am looking forward to the last classes in my senior year because of the opportunities given by a great university.

- Albert Snipes

RESIDENTIAL LOCATIONS

The year-round clear flying weather and the resort communities surrounding our residential campuses in Daytona Beach, Florida, and Prescott, Arizona, offer students outstanding environments in which to study, fly, and enjoy recreational activities.

Embry-Riddle offers many co-curricular activities that appeal to almost every taste. Students take advantage of the many opportunities for personal growth and development through social and pre-professional fraternities and sororities and cultural and recreational activities. Embry-Riddle's award-winning precision flight demonstration teams offer students the chance to compete nationally in precision air and ground events. Embry-Riddle has one of the largest all-volunteer Air Force ROTC detachments in the country and the fastest-growing Army ROTC detachment. The Naval ROTC and the Naval Aviation Club furnish the U.S. Navy with the second largest number of naval aviation officers, after the U.S. Naval Academy. Embry-Riddle athletes participate in intercollegiate and intramural competitions in many sports, including golf, tennis, baseball, basketball, lacrosse, wrestling, rugby, cross-country, softball, sailing, crew, and volleyball.

DAYTONA BEACH CAMPUS

The Daytona Beach, Fla., campus is located at the edge of Daytona Beach International Airport, approximately 50 miles up the Atlantic coast from Kennedy Space Center. The campus enrolls more than 4,700 undergraduate and graduate students from throughout the United States and the world.

The campus offers technologically advanced equipment and facilities. The College of Aviation Building houses classrooms and specialized laboratories that support the degrees in aeronautical science, air traffic management, applied meteorology, and safety science. A realistic air traffic control laboratory and an actual meteorology center give students realistic experience and training opportunities.

In the Air Traffic Management Research Laboratory, faculty and student investigators use sophisticated equipment simulating elements of the national airspace system to conduct research involving air traffic control, airport operations, and alternative routes.

Flight instruction is provided in a fleet of Cessna 172s and multi-engine Piper Seminole aircraft, plus a full range of single-engine, multi-engine, and turbine flight training devices, including the Canadair Regional Jet.

The Lehman Engineering and Technology Center features laboratories with the latest research and

computer equipment. The building includes subsonic and supersonic wind tunnels and a smoke tunnel, as well as laboratories for research involving structures, materials, aircraft design, and composite materials. A stereolithography unit lets students produce prototypes of aircraft structures and test their designs in a short period of time.

The Gill Robb Wilson Aviation Technology Center houses classrooms, single- and multi-engine simulators, a weather room, and dispatch headquarters.

The Samuel Goldman Aviation Maintenance Technology Center is the home for instruction in the maintenance and repair of fixed-wing and helicopter airframes,



RESIDENTIAL LOCATIONS

powerplants (reciprocating and turbine), and avionics. The FAA-certified Avionics Lab repair stations simulate the avionics environment that graduates will encounter in the workplace. Engine test cells let students test the effectiveness of their repairs. The FAA-certified advanced reciprocating engine lab overhauls the campus' training aircraft.

The John Paul Riddle Student Center offers a full-service cafeteria, bookstore, mailroom, health services, records and registration, parking office, safety communications office, information center, Flight Deck grill, Landing Strip snack bar, student activities offices, and conference rooms. The Student Success Center is designed to help students make the transition from high school to college more easily.

The Jack R. Hunt Memorial Library has a seating capacity of 800 and holds more than 90,000 books, as well as periodicals, documents, newspapers, microfilm, media programs, online services, and a historical aviation collection dating from 1909 to the present.

Additional facilities include a multi-function auditorium and instructional media center, a fieldhouse and several athletic fields, and an interfaith chapel.

PRESCOTT CAMPUS

Embry-Riddle's campus in Prescott, Ariz., is set in a mile-high town nestled between the rugged Bradshaw and Mingus mountain ranges. Known for its western flair and friendly spirit, the mile-high city offers a warm, friendly, and safe environment for students to live and learn.

The campus is located on 539 acres of high desert country, but student life is centered within a half-mile walking radius. Four mild seasons, with nearly 300 days of sunny weather a year, offer students an ideal climate in which to fly, study, or take off for the mountains in search of adventure.

The Prescott campus offers outstanding academic programs with a low student-to-faculty ratio of 17:1. Professors bring to their classes a wealth of academic and professional preparation and industrial experience.

The Prescott campus is undergoing an exciting period of expansion. The new Visitor Center has opened, and the "AXFAB" complex should be complete in Fall 2006. The Aerospace Experimentation and Fabrication Building with its high-bay engineering laboratory will provide an environment in which students can build and test aerospace components.

Another newer building, the Academic Complex, houses lecture halls, computer labs, classrooms and conference areas, faculty offices, and a meteorology suite.

The technologically advanced King Engineering and Technology Center is the hub of the College of Engineering. Students work in laboratories such as the circuitry, power, control, space systems, and senior design labs. The Wind Tunnel Laboratory houses research-quality subsonic and supersonic wind tunnels.

Aeronautical Science students train in modern, well-equipped single- and multi-engine aircraft. The fleet contains Cessna Skyhawks, Piper Seminoles, and fully aerobatic Decathlons. The Robertson Flight Simulation Center features Level-6 training devices, full-motion simulators, Cessna cockpit procedure trainers, and an Airbus A320 flight-training device.

Students learn aviation safety and crash investigation in the Robertson Aviation Safety Center's Crash Lab, a hands-on, outdoor classroom with more than a dozen salvaged aircraft reconfigured for intense study and examination.

The Global Intelligence Monitoring Center allows students who are studying security and global policies to focus on intelligence collection and analysis.

Air Force and Army ROTC programs are offered for those students interested in a military career. Students who graduate from these programs are commissioned as second lieutenants.

Students find professors, librarians, and staff who are eager to support their needs. In the Student Success Center, dedicated academic counselors and tutors help students achieve their goals. Students also are supported by counseling, health, and career services, as well as comprehensive athletic facilities.



ADMISSIONS

The admissions process may be initiated online at www.embryriddle.edu/admissions or by contacting one of the Worldwide campuses, or the Worldwide Online office. International applicants, please see the International Students section of this catalog. Applicants who meet the admission criteria may apply for admission and concurrently enroll while their application for admission is being processed.

UNDERGRADUATE ADMISSIONS

Embry-Riddle acknowledges that sometimes life experiences prevent individuals from attending college as a traditional student. Embry-Riddle Aeronautical University - Worldwide consists of geographically distributed locations and Worldwide Online, that provides access to students who would otherwise be unable to pursue a post-secondary degree at a traditional residential campus. The primary mission of Worldwide is to offer educational opportunities to adult learners. To be admitted to Worldwide, applicants must possess either a high school diploma or a GED.

NON-TRANSFER APPLICANTS

1. Applicants under the age of 20 who is not a member of the military must submit:
 - a) Official secondary school transcripts that show completion of a high school education or equivalent (GED). Home schooled applicants must show completion of high school or equivalent.
 - b) A minimum grade point average of at least a 3.0. Course Entrance Requirements:
 - 4 years of English
 - 3 years preferred college preparatory mathematics.
 - 2 years of social sciences
 - 2 years of science including a laboratory scienceApplicants with a high school equivalent (GED) have met the course requirements.
 - c) Evidence of at least 1000 on the SAT (combined math and critical reading) or 21 on the ACT - The writing score is not being factored into the minimum required score of 1000 at this time.
 - d) A 300-500 word Personal Essay outlining their career goals and how a degree from ERAU will assist them in acquiring these goals.
 - e) Two Letters of Recommendation from professionals (teacher, guidance counselor, coach, minister etc.) who are aware of the applicant's maturity level and educational and career goals.

2. Applicants age 20 and over who have not earned 12 college credits from an accredited degree-granting institution or from postsecondary education work or training experience such as military credit recommended by the American Council on Education (ACE) must submit:
 - a) Official secondary school transcripts that show completion of high school or equivalent (GED).
 - b) Evidence of work experience since completion of high school.
3. Applicants who have earned credit from an accredited degree-granting post-secondary institution concurrently while attending high school are not transfer students and must submit documents listed in section 1.

TRANSFER STUDENT APPLICANTS

For the purpose of admission, a transfer student is defined as any student who has earned college credit from other post-secondary institutions. Transfer students must arrange to have official transcripts submitted to the University by all institutions attended.

Previous college work must have been successfully completed with a cumulative GPA of at least 2.00 on a 4.00 scale. Waivers to the above will be reviewed on a case by case basis.

UNDERGRADUATE RETURNING STUDENTS

A degree-seeking student whose attendance at the University is interrupted may be required to apply for readmission. In the scenarios described below, a new application for admission must be filed:

1. Enroll at another institution without advance written approval.
2. Failure to enroll in at least one course at Embry-Riddle in any two-calendar-year period.
3. Academic suspension or dismissal from the University. A written petition is required for consideration for readmission.

NONDEGREE UNDERGRADUATE STUDENTS

Embry-Riddle recognizes the need for working adults who are interested in furthering their education through

ADMISSIONS

retraining or enhancement of professional skills. Students who meet admission requirements are permitted to enroll in courses as special students in a nondegree status. Transcripts must be submitted to the University before the student is allowed to enroll in courses. Nondegree students are limited to a total of 24 credit hours. Should a nondegree student subsequently apply for entry into a degree program, additional admission and all degree program requirements must be met.

Nondegree students must meet the same academic standards as degree-seeking students.

GRADUATE ADMISSIONS

For full admission into any graduate degree program, applicants must have earned a baccalaureate degree with a CGPA of 2.5 or higher.

Applicants with an Undergraduate Degree and No Graduate Coursework

If earned in the United States, this degree must be from an appropriately accredited college, university or program. If earned outside the United States, the degree must be from an institution that offers a degree program that is equivalent to one in an appropriately accredited college, university or program in the United States. Such equivalency will be judged on the basis of past admission experience. Applicants educated at foreign schools must obtain an evaluation by submitting official certified documentation of their educational achievements to an international education evaluation organization specified by Embry-Riddle.

Applicants with a Masters degree or graduate credit must have at least a 3.0 CGPA.

Applicants with a Master's Degree

Applicants who have earned a Masters degree from an appropriately accredited college, university or program must submit an official transcript from the institution that conferred the degree. Transcripts from the institution that conferred the undergraduate degree will be required to verify that prerequisites have been met.

Applicants with Undergraduate Degree and Graduate Level Coursework

Applicants to a Masters degree program who have taken graduate coursework at another institution but not earned a Masters degree must provide official transcripts from the institution that conferred their undergraduate

degree, as well as from the institution from which they took graduate coursework.

PROGRAM-SPECIFIC CRITERIA:

Master of Business Administration in Aviation (MBAA)

Applicants for admission to the MBAA program are required meet prerequisite knowledge in the following areas:

- Management
- Quantitative Methods
- Accounting Methods
- Marketing
- Finance
- Economics

The prerequisite knowledge can be validated through one of the following:

- A. Completed an undergraduate or graduate course in each of the specific subject areas and upon validation of the course from an official transcript; OR
- B. Completed a course listed in either the National or ACE Guide for which academic credit in one of the specific subject areas is recommended; OR
- C. Received at least the minimum recommended score on a CLEP, DANTES, PEP, etc. exam in each of the subject areas as required; OR
- D. Received at least the recommended score on the Graduate Management Admission Test (GMAT), see <http://www.mba.com>; OR
- E. Completed the ERAU challenge exam score through Worldwide Student Services Office and receive at least the minimum recommended in each of the subject areas as required; OR
- F. Satisfactorily complete each of the six one-semester-hour business foundation courses (MBAA 503 A through F) and receive at least the minimum recommended in each of the subject areas as required.

Master of Science in Technical Management

Applicants for admission to the Master of Science in Technical Management program are required to have an admission interview.

Master of Science in Management

Applicants for admission to the Master of Science in Management program must have prerequisite knowledge in the areas of :

- Written Communications
- Mathematics
- Communications/Connectivity Skills

CONDITIONAL ADMISSION

1. Students who fail to satisfy the guidelines for full admission, but who are judged to have potential for success in a graduate program, may be granted conditional admission. Students admitted under conditional status must prove their ability to pursue a graduate program by meeting specific performance criteria after matriculation at the University.
2. Students admitted on conditional status will be monitored closely as to scholarly performance. Students who are admitted conditionally will be on conditional status until they have completed 9 hours of graduate work. During this period, students must maintain a B average or better, and receive no more than one grade of C and no grade of F. Students will not be permitted to repeat courses during this period.
3. The conditions of admission will be communicated to applicants in the letter of admission.

GRADUATE RETURNING STUDENTS

A student whose attendance at the University is interrupted may be required to apply for readmission. In the scenarios described below, a new application for admission must be filed.

1. Graduate students are expected to take all coursework with Embry-Riddle, once admitted into a degree program. Therefore, enrollment at another institution will require readmission.
2. Failure to enroll in at least one course at Embry-Riddle in any two-calendar-year period.
3. Academic dismissal from the University. Students who have been academically dismissed are not eligible to reapply for two years from the dismissal date. A written petition for readmission must accompany the application for admission and fees. The dismissing campus renders the decision for readmission.
4. A student does not complete the degree requirements of a graduate program within 7 years of matriculation in the graduate program.
5. A student who has been dismissed from the University for any reason other than academics must first satisfy the conditions for readmission as indicated in the letter of dismissal. The dismissing campus renders the decision for readmission.

NON-DEGREE GRADUATE STUDENTS

Students who meet the general admission criteria may, based on an assessment of their preparedness to take graduate courses, be admitted as nondegree students. An application, including all undergraduate and graduate transcripts from a regionally accredited postsecondary institution, must be submitted to be considered for admission as a nondegree student.

Nondegree students will be limited to a total of 12 hours of graduate credit. Should a nondegree student subsequently apply for entry into a degree program, additional admission and all degree program requirements must be met.

Nondegree students must meet the same academic standards as degree seeking students.

ADMISSION-GRADUATE CERTIFICATES OF COMPLETION

Students who meet the general admission criteria may, based on an assessment of their preparedness to take graduate courses, be admitted to a graduate certificate program.

An application, including all undergraduate and graduate transcripts from a regionally accredited postsecondary institution, must be submitted to be considered for admission to a graduate certificate program.

Graduate certificate program students may only enroll in graduate courses outlined in the certificate programs. Should a certificate program student subsequently apply for entry into a degree program, additional admission and all degree program requirements must be met.

Graduate certificate students must meet the same academic standards as degree-seeking students.

ADMISSIONS

INTERNATIONAL STUDENTS

Undergraduate and Graduate

An international student is defined as any non United States citizen intending to study at Worldwide campuses located outside the United States, students who live outside of the United States enrolled through Worldwide Online, as well as non-residents, non-immigrants planning to study in the United States (typically on a F-1 or a J-1 Visa). For further information, contact the Admissions office at toll free (866) 509-0743.

An application for admission may be initiated online at www.embryriddle.edu/admissions or by contacting one of the Worldwide campuses, or the Worldwide Online Advising Enrollment and Recruitment Office (AERO). International Applicants must submit the application for admission 90 days prior to the term start date. International Applicants must provide the following:

1. An official evaluation in English, which has been certified by a credential evaluating service. A fee is charged for the translation service and must be paid by the applicant. The results of the evaluation must be sent directly to Embry-Riddle by the evaluating service. For undergraduate level applicants, the evaluation must provide a course-by-course report of all courses completed. For graduate level applicants, the evaluation must provide evidence of college graduation equivalent to a baccalaureate degree in the United States. A course-by-course evaluation is not required. The Office of Enrollment Management has approved a list of credential evaluating services which applicants must use:

- a.) American Association of Collegiate Registrars and Admissions Officers (AACRAO)
One DuPont Circle NW Suite 520
Washington, DC 20036
(Tel) 202-293-9161, (Fax) 202-872-8857
www.aacrao.org/credential/
- b.) Educational Credential Evaluators, Inc.
P.O. Box 514070, Milwaukee, WI 53203-3470
(Tel) 414-289-3400, (FAX) 414-289-3411
www.ece.org

- c.) World Education Services (Main Office)
P.O. Box 5087, Bowling Green Station
New York, NY 10274-5087
(Tel) 212-966-6311, 800-937-3895
(FAX) 212-739-6100
www.wes.org

- d.) Academic Credentials Evaluation Institute
P.O. Box 6908, Beverly Hills, CA 90212
(Tel) 310-275-3530, 800-234-1597
(FAX) 310-275-3528
www.aceil.com

- e.) Foreign Credential Evaluations
1425 Market Blvd., NE Suite 330, PMB #305
Roswell, GA 30076
(Tel) 770-642-1108 (FAX) 770-641-8381
www.fceatlanta.com

- f.) Josef Silny & Associates, Inc
International Education Consultants
7101 SW 102 Avenue, Miami, FL 33173
(Tel) 305-273-1616, (FAX) 305-273-1338
(Translations) 305-273-1984
www.jsilny.com

2. Applicants for whom English is not the primary language must:

- a.) Attain a minimum score on the Test of English as a Foreign Language (TOEFL) of 550 (paper based), 213 (computer based), or 79-80 (internet based)
- or -
- b.) Earn transferable credit for a course that is the equivalent of ENGL 123 English Composition at an accredited postsecondary institution.
- c.) TOEFL scores must be sent directly to Embry-Riddle by the testing agency. To obtain a Bulletin of Information, write:
TOEFL Services
Education Testing Service
P.O. Box 6151, Princeton, NJ 08541-6151, USA
(Tel) 609-771-7100, Toll Free 877-863-3546
(Fax) 610-290-8972
www.ets.org

3. For international students intending to study in the U.S. on F-1 student visas; provide a bank letter and an affidavit of financial support, or a scholarship letter,

documentation of immunity to vaccine preventable diseases, and an advanced deposit to cover tuition for three terms. Upon receipt, the University will issue the Certificate of Eligibility (I-20) form upon acceptance for admission.

- Worldwide meets the needs of international students intending to study in the United States, with the assistance of a Principal Designated School Official (PDSO) and two Designated School Officials (DSO). This staff serves as the central point of contact for issues concerning international students at Worldwide campuses. Students are provided with orientation materials with their acceptance letter. International students are eligible to study at the Orlando, Miami, and Ft. Lauderdale centers in Florida. They are also eligible to study at the center in Oakland, California. This staff also assists international students with the processing of forms and documentation of status required by foreign governments, sponsors, the U.S. government, and the University. For further information, contact the office of Student & Technology Services, International Student Advisor at toll-free 866-509-0744.

International students interested in attending any European Worldwide campuses may contact:

Embry-Riddle Aeronautical University
International Regional Office
CMR 429
APO AE 09054-0429
DSN: 483-7811
Civilian: 011-49-631-303-27811
Fax: 011-49-631-303-27810
E-Mail: europa.rdo@erau.edu
Website: www.erau.edu/eu/

Embry-Riddle Aeronautical University
International Regional Office
Europaallee 6
D-67657 Kaiserslautern
Germany

MATRICULATION

Matriculation occurs when a student has been officially accepted for admission and has enrolled in an Embry-Riddle course. The enrollment must occur either concurrent with the submission of the formal application

for admission and fees, or within two years of the date of acceptance.

ERAU Student Email Accounts: ERAU issues an email account to each Worldwide student. Please check your ERAU email frequently, as the University will use this account as a means of sending official notification on University matters. Although the software used to send some of these communications automatically includes an “unsubscribe” link at the bottom of each message, *do not unsubscribe* since this will hinder the process of the University providing you with important information. Email accounts will be available to students via ERNIE (ernie.erau.edu) within two days of registration for their first course. Your ERAU email account will remain active up to two years after your last ERAU course. For your convenience, you may set up your account to forward messages to another email address you already use. For instructions on setting up your email account, see <http://it.erau.edu/Help/webaccess.htm>.



UNDERGRADUATE ACADEMIC PROGRAMS

Associate/Bachelor of Science in Professional Aeronautics

Associate/Bachelor of Science in Technical Management

Bachelor of Science in Technical Management-Engineering Sciences

Bachelor of Science in Technical Management-Logistics

Bachelor of Science in Technical Management-Occupational Safety & Health

Associate in Science in Aircraft Maintenance

Bachelor of Science in Aviation Maintenance Management

Minor Courses of Study

Management

Logistics

Aviation Safety

Airport Management

Occupational Safety & Health

International Relations

Security and Intelligence

Undergraduate Certificates of Completion

Aviation Maintenance Technology Part 65

Aviation Safety

Airport Management

Logistics

Management

Occupational Safety & Health

Pre-Engineering Studies

Security and Intelligence

Space Studies

Supply Chain Management



Embry-Riddle Aeronautical University recognizes the importance of communications and quantitative skills in all areas of aviation. Successful pilots, airport managers, aviation maintenance technicians, and other aviation professionals must possess these skills to perform their jobs effectively.

INTRODUCTION

Recognizing its general and special missions in education, Embry-Riddle Aeronautical University embraces a general education program. This course of study ensures that students possess the attributes expected of all university graduates. Encouraging intellectual self-reliance and ability, the general education program enables students, regardless of their degree program, to understand the significance of acquiring a broad range of knowledge.

Throughout the general education program, students gain and enhance competence in written and oral communication. They practice reasoning and critical thinking skills and demonstrate computer proficiency. As students engage in this course of study, they familiarize themselves with and investigate ideas and methodologies from several disciplines. These include the arts and humanities, the social sciences, and the natural sciences and mathematics. The program also helps students recognize interrelationships among the disciplines.

Promoting the appreciation of varied perspectives, the general education program provides intellectual stimulation, ensuring that students are broadly educated. This course of study empowers students to make informed value judgments, to expand their knowledge and understanding of themselves, and to lead meaningful, responsible, and satisfying lives as individuals, professionals, and concerned members of their society and the world.

REQUIREMENTS

Embry-Riddle Aeronautical University's general education program encourages effective learning and provides a coherent base for students to pursue their academic specializations. In specific support of the goals of general education, candidates for bachelor degrees must complete course work or demonstrate competency in the following areas.

- I. **Communication Theory and Skills, 9 hours**
In order to lead meaningful and responsible lives in complex societies, students produce, evaluate, articulate, and interpret information and meanings in oral and written communications. ENGL 123 will be a requirement for any student coming into the program who has not successfully completed or received credit for an English composition course.
 - II. **Mathematics, 6 hours**
In order to develop quantitative reasoning skills and to use and understand the language of science and technology, students must demonstrate mathematical proficiency for three of these hours by placement, examination, or course completion. One course must have college algebra as a prerequisite.
 - III. **Computer Science/Information Technology, 3 hours**
In order to use computers and to understand and evaluate their significance in the solution of problems, students study the concepts, techniques, and tools of computing.
 - IV. **Physical and Life Sciences, 6 hours**
In order to appreciate current understandings of the natural world, students study the concepts and methods of the physical and life sciences, applying the techniques of scientific inquiry to problem solving.
 - V. **Humanities, 3-6 hours lower-level**
**3 hours 300-400 level*
In order to participate in the complexity of human experiences that arise in a framework of historical and social contexts, students are exposed to the Humanities. Areas of study may include cultural, aesthetic, philosophical, and spiritual dimensions of the human condition.
 - VI. **Social Sciences, 3-6 hours lower-level**
**3 hours 300-400 level*
In order to understand interrelationships between the individual and society and connections between historical memory and the future, students examine the social sciences, including history, economics, psychology, or sociology.
- * In order to experience advanced studies in either the Humanities or Social Sciences, students must choose at least one upper-level elective in the Humanities or Social Sciences.*

UNDERGRADUATE ACADEMIC PROGRAMS

PROFESSIONAL AERONAUTICS

Bachelor of Science or Associate in Science

If you have a passion for aviation and aeronautics and want to turn your enthusiasm into a career, then Embry-Riddle Aeronautical University's Professional Aeronautics program could be just what you're looking for--a ticket to the personal satisfaction and career opportunities that only a college degree can provide. Both the Bachelor of Science and Associate in Science degree programs in Professional Aeronautics are extremely popular with adult learners who have experience or hope to pursue careers in aviation or aerospace related professions. The Professional Aeronautics programs offer a comprehensive curriculum that includes general education courses such as communications, humanities, social science, computer science, mathematics, and physical science. As part of the curriculum, students may also choose a minor in Management, Logistics, Safety, or Occupational Safety and Health.

These technical aviation degrees provide a foundation of knowledge, understanding and experience that will allow you to apply for jobs with the airlines, aircraft manufacturers, aviation/aerospace related companies, airports, corporate aviation, the Federal Aviation Administration (FAA) or National Transportation Safety Board. Members of military aviation organizations find that completion of these programs enhances promotion potential and eases the transition to civilian aviation upon retirement. One of the most attractive benefits of the Professional Aeronautics program is that students can gain credits toward a degree for certifications, skills and knowledge gained through previous experience in aviation or aerospace related fields. Plus, students currently employed in the aviation industry can improve their opportunities to advance into positions of greater responsibility.

AVIATION AREA OF CONCENTRATION

The Aviation Area of Concentration is the degree area where credit for prior aviation learning is housed or where students can take courses to learn about aviation.

Minimum and maximum amounts of credit are established for the Associate and Bachelor degrees:

Associate Degree:

Minimum	12 semester hours
Maximum	18 semester hours

Bachelor Degree:

Minimum	18 semester hours
Maximum	36 semester hours

Many students bring in all or part of this credit based on prior aviation training or experience. However, shortages in the minimum credit required can be made up by taking courses in the following aviation-related disciplines: Aeronautical Science, Aviation Maintenance, Air Traffic Control, Safety, and Aviation History.

Sources of prior learning credit include the following:

1. Transfer credit earned at regionally accredited degree-granting colleges and universities.
2. The recommendations published by the American Council on Education for U.S. Military training and experience as well as training conducted by other government agencies and private organizations.
3. Prior-learning credit established by the University for certain aviation licenses and ratings as they relate to this degree.
4. Portfolio Assessment.

DUPLICATE CREDIT

Many Embry-Riddle courses are designed to teach the same skills and knowledge that Professional Aeronautics students have acquired through experience and training. Students who complete courses in the same aviation specialty for which they were granted Aviation Area of Concentration credit would be duplicating coverage of the same subject matter. Credit for completion of such courses will not be applied to degree requirements.

DEGREE REQUIREMENTS

AVIATION AREA OF CONCENTRATION	A.S. 12-18	B.S. 18-36
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Make up shortages with HIST 130 (History of Aviation in America) and nonduplicating courses from the following disciplines: Aeronautical Science, Aviation Maintenance, Air Traffic Control, Safety.

Communication Theory and Skills:

ENGL 123 English Composition Speech/English	3 6	3 6
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Humanities/Social Sciences*:

Humanities lower or upper-level elective	3	3
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Social Science lower or upper-level elective-History/Government/ Social Science/Psychology	3	3
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*(For BS-one course must be an upper level
Humanities or Social Science elective)

Physical and Life Science lower-level elective:

Physics/Biology/Meteorology	3	6
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Mathematics:

MATH 120 & MATH 220, -OR- MATH 111 & MATH 112, -OR- MATH 140 & MATH 142, MATH 320*	3	6
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*MATH 320 may be substituted as the second
course in the series.

Computer Science:

CSCI 109 Introduction to Computers and Application	3	3
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Economics: (AS - ECON 210 or 211)

ECON 210 Microeconomics	3	3
ECON 211 Macroeconomics	0	3

Total Credits	27	36
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PROGRAM SUPPORT:

Course	Title	A.S. Credits	B.S. Credits
MATH 211	Statistics with Aviation Applications		
-OR-			
MATH 222	Business Statistics	3	3
MGMT 201	Principles of Management	3	3
MGMT 210	Financial Accounting	0	3
MGMT 221	Advanced Computer Based Systems	0	3
ASCI 254	Aviation Legislation	3	3
ASCI 405	Aviation Law	0	3
Total Credits		9	18

PROFESSIONAL DEVELOPMENT

ELECTIVES	0	18
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Select from the list of upper-level courses in Aeronautical
Science, Air Traffic Control, Management, Economics, and
Safety.

UPPER-DIVISION ELECTIVES	0	12
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OPEN ELECTIVES	6-12	0-18
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TOTAL DEGREE REQUIREMENTS	60	120
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UNDERGRADUATE ACADEMIC PROGRAMS

TECHNICAL MANAGEMENT

Bachelor of Science or Associate in Science

Many working adults who have a background in a technical specialty are looking for opportunities to move into management or supervisory positions as a way of advancing in their careers. For these individuals, Embry-Riddle Aeronautical University's Bachelor of Science or Associate of Science in Technical Management programs could be the key to gaining the experience and knowledge to make such a jump. One exciting benefit of these programs is that students can receive credits toward their degrees (up to 15) for prior experience or training including: CLEP, DANTES or certain military or industrial education programs. While Technical Management degrees are naturally attractive to students with an aviation and/or technical background, individuals without aviation experience find these programs to be excellent stepping-stones for entering the fields of aviation or aerospace. Regardless of background, Technical Management students gain valuable skills, learning how to organize, plan, staff and coordinate the resources of any organization toward its goals and objectives. Within the Bachelor of Science program, students may also choose an area of specialization in Logistics or Occupational Safety and Health. Depending on the specialization, graduates often go on to careers in fields such as military logistics, public or private transportation.

DEGREE REQUIREMENTS

	A.S.	B.S.
Technical Specialty	9	15

GENERAL EDUCATION:

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

Communication Theory and Skills:

ENGL 123 English Composition	3	3
Speech/English	6	6

Humanities/Social Sciences*:

Humanities lower or upper-level elective	3	3
Social Science lower or upper-level elective-History/Government/Social Science/Psychology	3	3

*(For BS-one course must be an upper level Humanities or Social Science elective)

Physical and Life Science lower-level elective:

Physics/Biology/Meteorology	6	6
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Mathematics:

MATH 120 & MATH 220, or MATH 111 & MATH 112, or MATH 140 & MATH 142, MATH 320*	3	6
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*MATH 320 may be substituted as the second course in the series.

Computer Science:

CSCI 109 Introduction to Computers and Application	3	3
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Economics:

ECON 210 Microeconomics	3	3
ECON 211 Macroeconomics	3	3

Total Credits	33	36
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PROGRAM SUPPORT:

Course	Title	Credits	
MATH 211	Statistics with Aviation Applications		
-OR-			
MATH 222	Business Statistics	3	3
MGMT 201	Principles of Management	3	3
MGMT 210	Financial Accounting	3	3
MGMT 221	Advanced Computer Based Systems	3	3
Total Credits		12	12

BUSINESS CORE:

Course	Title	Credits	
MGMT 311	Marketing	0	3
MGMT 312	Managerial Accounting	0	3
MGMT 314	Human Resource Management	0	3
MGMT 317	Organizational Behavior	0	3
MGMT 320	Business Information Systems	0	3
MGMT 325	Social Responsibility and Ethics in Management	0	3
MGMT 335	International Business	0	3
MGMT 390	Business Law	0	3
MGMT 436	Strategic Management	0	3
Total Credits		0	27

MANAGEMENT ELECTIVES:

300-400 upper-level Management courses.	0	12
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OPEN ELECTIVES (Upper-Level):

300-400 Level Courses	0	9
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OPEN ELECTIVES (Lower-Level):

	6	9
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TOTAL DEGREE REQUIREMENTS	60	120
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TECHNICAL MANAGEMENT ENGINEERING SCIENCES SPECIALTY

Bachelor of Science

To earn the Technical Management degree, with an Engineering Sciences Specialty, a degree-seeking student must complete the Program Support, Business Core, and Engineering Support courses without substitution, and the Management Electives. The Engineering Sciences Specialty requirements must be satisfied by completing courses from the following list as noted. Successful completion of this program of study will also result in award of the Pre-Engineering Studies Certificate of Completion.

ENGINEERING SCIENCE COURSES:

Course	Title	Credits
(Choose three of the following courses):		
CESC 220	Digital Circuit Design	3
CSCI 210	Scientific Programming	3
ESCI 201	Statics	3
ESCI 202	Solid Mechanics	3
ESCI 204	Dynamics	3
ESCI 206	Fluid Mechanics	3

(All of the following courses):

PHYS 150	Physics I for Engineers	3
PHYS 160	Physics II for Engineers	3
PHYS 250	Physics III for Engineers	3

ENGINEERING SCIENCES SPECIALTY 18

GENERAL EDUCATION:

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified. Because of the mathematics concentration required for this Specialty, MATH 142 (or equivalents) may be needed to satisfy prerequisite requirements; they are not part of the degree requirements for the Engineering Sciences Specialty.

Communication Theory & Skills	6
ENGL 123 English Composition	3
Mathematics (MATH 140 is required)	3
Computer Science	3
Humanities - Lower-level course	6
Social Sciences - Lower-level course	3
ECON 210 Microeconomics	3
Humanities/Social Sciences - Upper-level	6
Total Credits	33

PROGRAM SUPPORT:

ECON 211	Macroeconomics	3
MATH 211	Statistics with Aviation Applications	
	- OR -	
MATH 222	Business Statistics	3
Total Credits		6

BUSINESS CORE:

MGMT 201	Principles of Management	3
MGMT 210	Financial Accounting	3
MGMT 221	Advanced Computer Based Systems	3
MGMT 311	Marketing	3
MGMT 312	Managerial Accounting	3
MGMT 314	Human Resource Management	3
MGMT 317	Organizational Behavior	3
MGMT 320	Business Information Systems	3
MGMT 325	Social Responsibility and Ethics	
	in Management	3
MGMT 335	International Business	3
MGMT 390	Business Law	3
Total Credits		33

ENGINEERING SUPPORT:

ENGR 120	Graphical Communications	2
MATH 250	Calculus and Analytic Geometry I	3
MATH 251	Calculus and Analytic Geometry II	3
MATH 252	Calculus and Analytic Geometry III	3
MATH 253	Calculus and Analytic Geometry IV	3
MATH 345	Differential Equations and Matrix Methods	4
Total Credits		18

MANAGEMENT ELECTIVES:	12
300-400 Level Courses	

TOTAL DEGREE REQUIREMENTS	120
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UNDERGRADUATE ACADEMIC PROGRAMS

TECHNICAL MANAGEMENT LOGISTICS SPECIALTY

Bachelor of Science

As businesses become more complex and increasingly global, the need for logistics specialists increases as well. Embry-Riddle Aeronautical University's Logistics Specialty program is specifically designed to prepare students for a career in this burgeoning field. In conjunction with the Technical Management degree curriculum, this program gives students a foundation for supervising or managing the procurement, maintenance and transportation of material, personnel, equipment and facilities. To earn the Technical Management degree with the Logistics Specialization, degree-seeking students must complete the management electives, as listed in the catalog, and satisfy the Logistics Technical Specialty and upper-level open elective requirements as listed below. Graduates of this program find new opportunities in diverse fields such as public administration, aviation/aerospace, military logistics and public or private transportation.

Course	Title	Credits
ECON 315	Managerial Economics	3
ECON 420	Economics of Air Transportation	3
MGMT 308	Public Administration	3
MGMT 321	Aviation/Aerospace Systems Analysis Methods	3
MGMT 331	Transportation Principles	3
MGMT 332	Corporate Finance I	3
MGMT 410	Management of Air Cargo	3
MGMT 411	Logistics Management for Aviation/Aerospace	3
MGMT 422	Life Cycle Analysis for Systems and Programs in Aviation/Aerospace	3
MGMT 440	Advanced Professional Logistics	3
MGMT 444	Principles of Supply Chain Management	3
MGMT 449	Strategic Marketing Management	3

LOGISTICS TECHNICAL SPECIALTY **15**
(Choose five courses from the above list)

GENERAL EDUCATION:

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

Communication Theory and Skills:

ENGL 123 English Composition	3
Speech/English	6

Humanities/Social Sciences*:
Humanities lower or upper-level elective 3
Social Science lower or upper-level
elective-History/Government/
Social Science/Psychology 3

*(One course must be an upper level
Humanities or Social Science elective)

Physical and Life Science lower-level elective:

Physics/Biology/Meteorology 6

Mathematics:

MATH 120 & MATH 220, or
MATH 111 & MATH 112, or
MATH 140 & MATH 142, MATH 320* 6

*MATH 320 may be substituted as the second
course in the series.

Computer Science:

CSCI 109 Introduction to Computers and Application 3

Economics:

ECON 210 Microeconomics 3

ECON 211 Macroeconomics 3

Total Credits **36**

PROGRAM SUPPORT:

MATH 211 Statistics with Aviation Applications
-OR-

MATH 222 Business Statistics 3

MGMT 201 Principles of Management 3

MGMT 210 Financial Accounting 3

MGMT 221 Advanced Computer Based Systems 3

Total Credits **12**

BUSINESS CORE:

MGMT 311 Marketing 3

MGMT 312 Managerial Accounting 3

MGMT 314 Human Resource Management 3

MGMT 317 Organizational Behavior 3

MGMT 320 Business Information Systems 3

MGMT 325 Social Responsibility and Ethics
in Management 3

MGMT 335 International Business 3

MGMT 390 Business Law 3

MGMT 436 Strategic Management 3

Total Credits **27**

MANAGEMENT ELECTIVES: **12**

300-400 Upper-Level Courses

OPEN ELECTIVES (Upper-Level): **9**

300-400 Level Courses

OPEN ELECTIVES (Lower-Level): **9**

TOTAL DEGREE REQUIREMENTS **120**

TECHNICAL MANAGEMENT OCCUPATIONAL SAFETY AND HEALTH SPECIALTY

Bachelor of Science

Creating and maintaining a safe work environment and protecting workers from hazards have become a critical issue in nearly every industry. The Occupational Safety and Health Specialty was developed to prepare students for supervisory or management positions relating to occupational safety and health in environmental compliance, ergonomics, industrial hygiene and toxicology, construction, fire protection and systems design. This program is geared toward students who are seeking new opportunities in the public or private sector such as service or manufacturing industries, local, state, or federal agencies, and the military. To earn the Technical Management degree with an Occupational Safety and Health Specialization, degree-seeking students must complete the program support, business core and management electives, as listed in the catalog, as well as the specified upper-level open elective requirements for this specialization.

SAFETY COURSES:

Course	Title	Credits
SFTY 311	Fundamentals of Occupational Safety and Health	3
SFTY 315	Environmental Compliance and Safety	3
SFTY 321	Ergonomics	3
SFTY 355	Industrial Hygiene & Toxicology	3
SFTY 360	Construction Safety	3
SFTY 365	Fire Protection	3
SFTY 410	Design of Engineering Hazard Controls - OR -	3
SFTY 420	Systems Design for Fire and Life Safety	3
SFTY 470	Advanced Occupational Safety and Health Technology	3

OCCUPATIONAL SAFETY AND HEALTH SPECIALTY 15

GENERAL EDUCATION:

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

Communication Theory & Skills:

ENGL 123 English Composition	3
Speech/English	6

Humanities/Social Sciences*:

Humanities lower or upper-level elective	3
Social Science lower or upper-level elective- History/Government/ Social Science/Psychology	3
*(One course must be an upper level Humanities or Social Science elective)	

Physical and Life Science lower-level elective:

Physics/Biology/Meterology	6
Mathematics:	
MATH 120 & MATH 220, or MATH 111 & MATH 112, or MATH 140 & MATH 142, MATH 320*	6
*MATH 320 may be substituted as the second course in the series.	

Computer Science:

CSCI 109 Introduction to Computers and Application	3
Economics:	
ECON 210 Microeconomics	3
ECON 211 Macroeconomics	3
Total Credits	36

PROGRAM SUPPORT:

MATH 211	Statistics with Aviation Applications -OR-	
MATH 222	Business Statistics	3
MGMT 201	Principles of Management	3
MGMT 210	Financial Accounting	3
MGMT 221	Advanced Computer Based Systems	3
Total Credits		12

BUSINESS CORE:

MGMT 311	Marketing	3
MGMT 312	Managerial Accounting	3
MGMT 314	Human Resource Management	3
MGMT 317	Organizational Behavior	3
MGMT 320	Business Information Systems	3
MGMT 325	Social Responsibility and Ethics in Management	3
MGMT 335	International Business	3
MGMT 390	Business Law	3
MGMT 436	Strategic Management	3
Total Credits		27

MANAGEMENT ELECTIVES:

300-400 Upper-Level Courses	12
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OPEN ELECTIVES (Upper-Level):

300-400 Level Courses	9
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OPEN ELECTIVES (Lower-Level):

9

TOTAL DEGREE REQUIREMENTS

120

UNDERGRADUATE ACADEMIC PROGRAMS

AIRCRAFT MAINTENANCE

Associate in Science

The Associate in Science in Aircraft Maintenance (ASAM) program offers experienced maintenance technicians an opportunity to broaden their knowledge of aviation maintenance while gaining a solid foundation in the principles of management and communication. This curriculum will assist the student in preparing for the FAA Airframe and Powerplant Certificate examination. And for students who have already earned the FAA A&P Certificate, 30 credit hours can be awarded toward the degree. Students may also apply ASAM credits toward an Embry-Riddle Bachelors Degree in Aviation Maintenance Management, or toward any of the other related degrees.

DEGREE REQUIREMENTS:

Core Courses:

Course	Title	Credits
AMNT 240	General Aeronautics and Applications	3
AMNT 260	Aircraft Electrical Systems Theory	3
AMNT 270	Airframe Structures and Applications	4
AMNT 271	Airframe Systems Structures and Applications	3
AMNT 280	Powerplant Theory and Applications	4
AMNT 281	Aircraft Propulsion Systems and Applications	4



Electives: Aviation Maintenance, Aeronautical Science, Avionics Technology, Management, Computer Science, Electrical Engineering Technology, 9
Total Credits 30

-AND-

33 designated credits as follows:

Communication Theory and Skills	6
ENGL 123 English Composition	3
Lower-level Humanities	3
Lower-level Social Sciences	6

Course	Title	Credits
MGMT 120	Introduction to Computer Based Systems	
	- OR -	
CSCI 109	Introduction to Computers and Applications	3
MGMT 201	Principles of Management	3
MATH 111	College Mathematics for Aviation I	
	- OR -	
MATH 120	Quantitative Methods I	
	- OR -	
MATH 140	College Algebra	3
MATH 112	College Mathematics for Aviation II	
	- OR -	
MATH 211	Statistics with Aviation Applications	
	- OR -	
MATH 222	Business Statistics	3
PHYS 102	Explorations in Physics	3
Total Credits:		33

TOTAL DEGREE REQUIREMENTS 63

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

COMMUNICATION THEORY AND SKILLS:

ENGL 123, SPCH 219, ENGL 221, ENGL 222 or equivalent.

HUMANITIES: Lower-Level:

HUMN 140, HUMN 141, HUMN 142, ENGL 143.

SOCIAL SCIENCES: Lower-Level:

PSYC 220, HIST 110, HIST 130, SOCI 210

**AVIATION MAINTENANCE
MANAGEMENT**

Bachelor of Science

The Bachelor of Science in Aviation Maintenance Management (BSAMM) program offers experienced maintenance technicians an opportunity to broaden their knowledge of aviation maintenance while gaining a solid foundation in the principles of management and communication. This curriculum will assist the student in preparing for the FAA Airframe and Powerplant Certificate examination. And for students who have already earned the FAA A&P Certificate, 36 credit hours can be awarded toward the degree. Students will gain a comprehensive business foundation that complements the FAA certification. They gain the management skills needed to effectively manage aviation maintenance. Although the program is geared toward aviation and aerospace, its curriculum prepares graduates for success with companies in any industry. The total degree requirements are 126 credit hours.

DEGREE REQUIREMENTS:

Core Courses:

Course	Title	Credits
FAA Airframe & Powerplant Maintenance Certificate		36
- OR -		
Part 65 Aviation Maintenance Technology Course Work		
AMNT 240	General Aeronautics and Applications	3
AMNT 260	Aircraft Electrical Systems Theory	3
AMNT 270	Airframe Structures and Applications	4
AMNT 271	Airframe Systems Structures and Applications	3
AMNT 280	Powerplant Theory and Applications	4
AMNT 281	Aircraft Propulsion Systems and Applications	4
ELECTIVES: Aviation Maintenance, Aeronautical Science, Avionics Technology, Management, Computer Science, Electrical Engineering Technology.		15
Total Credits		36

GENERAL EDUCATION:

Embry-Riddle courses in the general education categories of Communication Theory and Skills, and Humanities and Social Sciences may be chosen from those listed below, assuming prerequisite requirements are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

Communication Theory and Skills	6
ENGL 123 English Composition	3
Mathematics	6
Computer Science	3
Physical and Life Sciences	6
Humanities Lower-level course	3
Social Sciences Lower-level courses; (one course must include economics)	6
Humanities/Social Sciences Upper-level course	3
Total Credits	36

PROGRAM SUPPORT:

MATH 211	Statistics with Aviation Applications	
- OR -		
MATH 222	Business Statistics	3
MATH 320	Decision Math	3
Total Credits		6

BUSINESS CORE:

ASCI 419	Aviation Maintenance Management	3
ECON 315	Managerial Economics	3
MGMT 201	Principles of Management	3
MGMT 210	Financial Accounting	3
MGMT 212	Advanced Financial Accounting	3
MGMT 221	Advanced Computer Based Systems	3
MGMT 311	Marketing	3
MGMT 312	Managerial Accounting	3
MGMT 314	Human Resource Management	
- OR -		
MGMT 317	Organizational Behavior	3
MGMT 320	Business Information Systems	3
MGMT 324	Aviation Labor Relations	3
MGMT 325	Social Responsibility and Ethics in Management	3
MGMT 332	Corporate Finance I	3
MGMT 390	Business Law	3
MGMT 420	Management of Production and Operations	3
MGMT 422	Life Cycle Analysis for Systems and Programs in Aviation / Aerospace	3
Total Credits		48

TOTAL DEGREE REQUIREMENTS 126

MINOR COURSES OF STUDY

Minor courses of study are academic programs designed to satisfy students' personal interest and to meet their professional needs. Students explore, in some depth, the offerings in a field of study. A minor course of study provides the student with significant experience in a discipline organized around skills, methodology, and subject matter. To gain the greatest value from their academic experience, students are encouraged to select minors that complement their degree program and/or other minors that they are pursuing.

The student becomes subject to the requirements of the minor as stated in the catalog in effect at the time the minor is declared. The department/program chair responsible for a particular minor determines how students fulfill deficits in credits for a minor and certifies that students are qualified to receive the minor.

MINOR IN MANAGEMENT

Not open to students in the BS Technical Management or BS in Aviation Maintenance Management Programs.

Course	Title	Credits
ECON 210	Microeconomics	3
MGMT 201	Principles of Management	3
MGMT 210	Financial Accounting	3
MGMT 311	Marketing	3

SPECIFIED ELECTIVES IN MANAGEMENT	6
Choose any two Upper-level MGMT courses.	
Total Credits	18

MINOR IN LOGISTICS

Not open to students in the BS Technical Management Logistics Specialty Program.

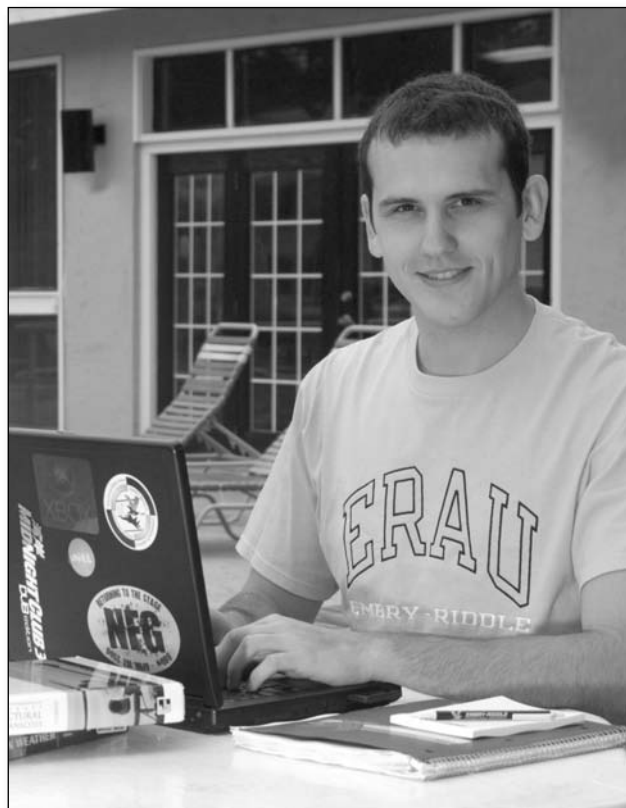
Course	Title	Credits
MGMT 331	Transportation Principles	3
MGMT 410	Management of Air Cargo	3
MGMT 411	Logistics Management for Aviation/Aerospace	3
MGMT 422	Life Cycle Analysis for Systems & Programs in Aviation/Aerospace	3
(Choose any two of the following courses):		
MGMT 321, ASCI 419, MGMT 420, or MGMT 444		6
Total Credits		18

MINOR IN AVIATION SAFETY

Course	Title	Credits
SFTY 320	Human Factors in Aviation Safety	3
SFTY 330	Aircraft Accident Investigation	3
SFTY 409	Aviation Safety	3

Nine additional credit hours must be completed from the following:

SFTY 335	Mechanical and Structural Factors in Aviation Safety	3
SFTY 345	Aviation Safety Program Management	3
SFTY 350	Aircraft Crash & Emergency Management	3
SFTY 355	Industrial Hygiene & Toxicology	3
SFTY 365	Fire Protection	3
SFTY 375	Propulsion Plant Investigation	3
SFTY 435	Aircraft Crash Survival Analysis and Design	3
SFTY 440	System Safety Management	3
SFTY 462	Health, Safety, and Aviation Law	3
Total Credits		18



MINOR COURSES OF STUDY

MINOR IN AIRPORT MANAGEMENT

Course	Title	Credits
ASCI 254	Aviation Legislation	3
MGMT 408	Airport Management	3
MGMT 412	Airport Planning and Design Standards	3

Take two of the following courses:

ASCI 320	Commuter Aviation	3
SFTY 345	Aviation Safety Management Program	3
SFTY 350	Aircraft Crash and Emergency Management	3
SFTY 409	Aviation Safety	3
ASCI 401	Airport Development and Operations	3
ASCI 405	Aviation Law	3
ASCI 412	Corporate and Business Aviation	3
MGMT 324	Aviation Labor Relations	3
MGMT 331	Transportation Principles	3
MGMT 406	Strategic Management of Technical Operations	3
MGMT 410	Management of Air Cargo	3
MGMT 418	Airport Administration and Finance	3
MGMT 425	Trends and Current Problems in Air Transportation	3
MGMT 426	International Aviation Management	3
MGMT 499	Special Topics in Management	3
SCTY 400	Airport Security	3
SCTY 488	National Security Issues and Terrorism	3
Total Credits		15

MINOR IN OCCUPATIONAL SAFETY AND HEALTH

Not open to students in the BS Technical Management Occupational Safety and Health Specialty.

Course	Title	Credits
SFTY 311	Fundamentals of Occupational Safety and Health	3
SFTY 321	Ergonomics	3
SFTY 355	Industrial Hygiene & Toxicology	3

Nine additional credit hours must be completed from the following:

SFTY 315	Environmental Compliance and Safety	3
SFTY 341	Occupational Safety and Health Program Management	3
SFTY 365	Fire Protection	3
SFTY 360	Construction Safety	3

SFTY 410	Design of Engineering Hazard Controls	3
SFTY 420	Systems Design for Fire and Life Safety	3
SFTY 440	System Safety Management	3
SFTY 450	Loss Control and Insurance	3
SFTY 470	Advanced Occupational Safety and Health Technology	3
Total Credits		18

MINOR IN INTERNATIONAL RELATIONS

Course	Title	Credits
GOVT 331	Current Issues In America	3

Three semester hours must be completed from the following:

ECON 211	Macroeconomics	3
HIST 130	History of Aviation in America	3

Nine semester hours must be completed from the following:

GOVT 325	International Studies	3
GOVT 340	American Foreign Policy	3
GOVT 363	Inter-American Relations	3
MGMT 335	International Business	3
Total Credits		15

MINOR IN SECURITY AND INTELLIGENCE

Course	Title	Credits
GOVT 340	American Foreign Policy	3
SCTY 312	Global Crime and Criminal Justice Systems	3
SCTY 315	Studies in Intelligence I	3
SCTY 385	Intelligence Analysis-Writing and Briefing	3
SCTY 415	Studies in Intelligence II	3
SCTY 485	Corporate Security	3
SCTY 488	National Security Issues and Terrorism	3
Total Credits		21

UNDERGRADUATE CERTIFICATES OF COMPLETION

Undergraduate Certificates of Completion are focused academic programs in which students complete a series of courses in Aviation Maintenance Technology Part 65, Aviation Safety, Airport Management, Logistics, Management, Occupational Safety and Health, Pre-Engineering Studies, Security and Intelligence, Space Studies, or Supply Chain Management.

Certificates are available to both degree seeking and non-degree seeking students. To be eligible for the award of any undergraduate certificate, a student must achieve a cumulative GPA of 2.0 or higher for the courses included in the program. The cumulative GPA for the series of courses is specific to each certificate of completion, ranging from 2.0 to 2.8 on a 4.0 scale.

AVIATION MAINTENANCE TECHNOLOGY PART 65

Certificate of Completion

The Aviation Maintenance Technology Certificate provides broad knowledge of general aeronautics, airframe systems, and powerplant systems. The curriculum consists of six courses, taken in-residence or online.

Courses taken in this Certificate of Completion can be used to prepare for the A & P testing process. For those individuals who meet the experience requirements established by the FAA, these courses help prepare the applicant for the written, oral, and practical examinations. Experience requirements can be found in Part 65 of the Federal Aviation Regulations.

REQUIRED COURSES:

Course	Title	Credits
AMNT 240	General Aeronautics and Applications	3
AMNT 260	Aircraft Electrical Systems Theory	3
AMNT 270	Airframe Structures and Applications	4
AMNT 271	Airframe Systems Structures and Applications	3
AMNT 280	Powerplant Theory and Applications	4
AMNT 281	Aircraft Propulsion Systems and Applications	4
Total Credits:		21

AVIATION SAFETY

Certificate of Completion

Aviation is an integral part of our society and there is a growing need for qualified Aviation Safety personnel. There is a growing interest for a program that provides a comprehensive understanding of the theories and concepts of Aviation Safety.

The objectives of the Aviation Safety Certificate of Completion are to provide degree and nondegree seeking students an opportunity to complement their practical experience in the field of Aviation Safety with a thorough study of the theories and concepts in the discipline.

The University has approved a Certificate of Completion in Aviation Safety for those students who complete a specified series of Aviation Safety courses with a cumulative GPA of 2.8. The required courses are as follows:

REQUIRED COURSES:

Take the following six courses:

Course	Title	Credits
SFTY 320	Human Factors in Aviation Safety	3
SFTY 330	Aircraft Accident Investigation	3
SFTY 345	Aviation Safety Program Management	3
SFTY 335	Mechanical and Structural Factors in Aviation Safety	
-OR-		
SFTY 435	Aircraft Crash Survival Analysis & Design	3
SFTY 409	Aviation Safety	3
SFTY 440	System Safety Management	3

Take two of the following courses:

Course	Title	Credits
SFTY 350	Aircraft Crash & Emergency Management	
-OR-		
ASCI 350	Aircraft Crash & Emergency Management	3
SFTY 355	Industrial Hygiene & Toxicology	3
SFTY 365	Fire Protection	3
SFTY 375	Propulsion Plant Investigation	3
SFTY 462	Health, Safety, and Aviation Law	3
Total Credits:		24

CERTIFICATES OF COMPLETION

AIRPORT MANAGEMENT

Certificate of Completion

The aviation industry has become more complex, and experts expect the growth to continue at a rapid pace. As the number of airports increases, so will the demand for aviation professionals with management skills. An Airport Management Certificate of Completion will help you reach the top. This dynamic program offers the core courses you need, with the flexibility of electives, so you can choose which area you want to focus on.

Embry-Riddle Worldwide's curriculum involves four core courses covering legislation, development and operations, management, and planning and design, providing you with a comprehensive base of knowledge. Plus, with a wide array of electives available, you can choose two courses from subjects such as national security, labor relations and crash and emergency management.

REQUIRED COURSES:

Course	Title	Credits
ASCI 254	Aviation Legislation	3
ASCI 401	Airport Development and Operations	3
MGMT 408	Airport Management	3
MGMT 412	Airport Planning and Design Standards	3

Take two of the following courses:

ASCI 320	Commuter Aviation	3
SFTY 345	Aviation Safety Management Program	3
SFTY 350	Aircraft Crash and Emergency Management	3
SFTY 409	Aviation Safety	3
ASCI 405	Aviation Law	3
ASCI 412	Corporate and Business Aviation	3
MGMT 324	Aviation Labor Relations	3
MGMT 331	Transportation Principles	3
MGMT 406	Strategic Management of Technical Operations	3
MGMT 410	Management of Air cargo	3
MGMT 418	Airport Administration and Finance	3
MGMT 425	Trends and Current Problems in Air Transportation	3
MGMT 426	International Aviation Management	3
MGMT 499	Special Topics in Management	3
SCTY 400	Airport Security	3
SCTY 488	National Security Issues and Terrorism	3
Total Credits:		18



UNDERGRADUATE CERTIFICATES OF COMPLETION

LOGISTICS

Certificate of Completion

Logistics, the science and management of procuring, maintaining, and transporting personnel and materials, is one of today's fastest-growing business specialties. Logistics has become critical to the success of organizations. Logistics professionals are increasingly in demand in the aviation and aerospace industries. Employment opportunities for logisticians include positions as transportation analysts, logistics analysts, and transportation supervisors.

Embry-Riddle Aeronautical University offers a logistic certificate program that gives non-degree-seeking students an opportunity to complement their practical experience in logistics with a thorough study of the theories and methods of the discipline. In addition, the program's courses cover much of the material used in the Certified Professional Logician (CPL) examination administered by the Society of Logistical Engineers.

The University awards a Certificate of Completion in Logistics to those who complete the following courses with a cumulative grade point average of at least 2.8.

REQUIRED COURSES:

Course	Title	Credits
ASCI 419	Aviation Maintenance Management	3
MGMT 321	Aviation/Aerospace Systems Analysis and Methods	3
MGMT 331	Transportation Principles	3
MGMT 410	Management of Air Cargo	3
MGMT 411	Logistics Management for Aviation/Aerospace	3
MGMT 420	Management of Production and Operations	3
MGMT 422	Life Cycle Analysis for Systems and Programs in Aviation/Aerospace	3
MGMT 440	Advanced Professional Logistics	
	-OR-	
MGMT 444	Principles of Supply Chain Management	3
	-OR-	
MGMT 499	Special Topics in Management	3
Total Credits:		24

MANAGEMENT

Certificate of Completion

Management is a key component of any industry, especially in today's complex, highly integrated, global environment. There is a growing need for a focused program in which students will gain a comprehensive understanding of the theories, concepts, and practical applications of management techniques. The objectives of the Management Certificate are to provide degree and non-degree seeking students an opportunity to complement their practical experience with the skills necessary to succeed in roles of leadership and management.

The University awards a Certificate of Completion in Management to those students who complete the following courses with an overall combined CGPA of 2.75.

Course	Title	Credits
REQUIRED CORE COURSES:		
MGMT 201	Principles of Management	3
MGMT 314	Human Resources Management	
	-OR-	
MGMT 317	Organizational Behavior	3
MGMT 424	Project Management in Aviation Operations	3
MGMT 436	Strategic Management	3



CERTIFICATES OF COMPLETION

Choose any 2 of the following Electives:	6
MGMT 324 Aviation Labor Relations	3
MGMT 325 Social Responsibility and Ethics in Management	3
MGMT 411 Logistics Management for Aviation/Aerospace	3
MGMT 419 Aviation Maintenance Management	3
MGMT 420 Management of Production and Operations	3
MGMT 427 Management of the Multicultural Workforce	3
SFTY 341 Occupational Safety and Health Program Management	3
SFTY 345 Aviation Safety Program Management	3
Total Credits:	18

OCCUPATIONAL SAFETY AND HEALTH

Certificate of Completion

The safety professional brings technical knowledge, skill, and expertise along with management abilities developed through education and practical experience to protect the workforce and the general public from injury and illness. The safety professional has the responsibility for studying materials, structures, codes, and operations in order to find the best way to use resources to control hazards.

There is a growing interest for a program that will provide a comprehensive understanding of the theories and concepts of Occupational Safety and Health.

The objectives of the Occupational Safety and Health Certificate program are to provide degree and non-degree-seeking students an opportunity to complement their practical experience in the field of Occupational Safety and Health with a thorough study of the theories and concepts in the discipline.

The University has approved a Certificate of Completion in Occupational Safety and Health for those students who complete a specified series of Occupational Safety and Health courses with a cumulative GPA of 2.8.

REQUIRED COURSES:

Course	Title	Credits
SFTY 311	Fundamentals of Occupational Safety and Health	3
SFTY 315	Environmental Compliance and Safety	3
SFTY 321	Ergonomics	3
SFTY 341	Occupational Safety and Health Program Management	3
SFTY 355	Industrial Hygiene & Toxicology	3
SFTY 410	Design of Engineering Hazard Controls	3
	-OR-	
SFTY 440	System Safety Management	3
SFTY 420	Systems Design for Fire and Life Safety	3
	-OR-	
SFTY 450	Loss Control and Insurance	3
SFTY 470	Advanced Occupational Safety and Health Technology	3
Total Credits:		24



UNDERGRADUATE CERTIFICATES OF COMPLETION

PRE-ENGINEERING STUDIES

Certificate of Completion

This nine-course, 31-hour Pre-Engineering Certificate of Completion provides an entry-level pre-engineering studies curriculum for working adults interested in (1) gaining a solid engineering foundation for job applications; (2) pursuing an undergraduate engineering degree; or (3) qualifying for graduate engineering programs that require a sound engineering foundation. This entry-level engineering certificate was specifically designed, in accordance with engineering industry certification standards, as a foundation for a wide variety of undergraduate engineering degrees, such as Aerospace, Electrical, Computer, Civil, Engineering Physics, Software, etc. Every regionally accredited engineering school requires the student to obtain a sound foundation in mathematics and physics during the first two years of college. Successful completion of this certificate will qualify students for aviation/aerospace industry positions requiring an engineering foundation and the pursuit of undergraduate and graduate engineering programs.

REQUIRED COURSES:

Course	Title	Credits
Choose 2 of the following 6 CESC/CSCI/ECSE courses:		
		6
CESC 220	Digital Circuit Design	3
CSCI 210	Scientific Programming	3
ECSE 201	Statics	3
ECSE 202	Solid Mechanics	3
ECSE 204	Dynamics	3
ECSE 206	Fluid Mechanics	3
Complete the following 5 MATH courses:		
		16
MATH 250	Calculus and Analytic Geometry I	3
MATH 251	Calculus and Analytic Geometry II	3
MATH 252	Calculus and Analytic Geometry III	3
MATH 253	Calculus and Analytic Geometry IV	3
MATH 345	Differential Equations and Matrix Methods	4
Complete the following 3 PHYS courses:		
		9
PHYS 150	Physics I for Engineers	3
PHYS 160	Physics II for Engineers	3
PHYS 250	Physics III for Engineers	3
Total Credits:		31

SECURITY AND INTELLIGENCE

Certificate of Completion

The Security and Intelligence Certificate of Completion provides non-degree seeking students an opportunity to complement their practical experience in the field of security and intelligence with a thorough study of the theories and concepts in the discipline. The Security and Intelligence Certificate of Completion complements the Security and Intelligence Minor for the Professional Aeronautics and Technical Management degree programs.

The University awards a Certificate of Completion in Security and Intelligence to those who complete the following specified series of courses with a cumulative GPA of at least 2.8.

REQUIRED COURSES:

Course	Title	Credits
Take the following 3 courses:		
SCTY 312	Global Crime and Criminal Justice Systems	3
SCTY 315	Studies in Intelligence I	3
SCTY 385	Intelligence Analysis-Writing and Briefing	3
Choose 2 of the following courses:		
GOVT 340	American Foreign Policy	3
GOVT 401	American Constitutional Law	3
GOVT 402	International Politics	3
Choose 3 of the following courses:		
SCTY 400	Airport Security	3
SCTY 415	Studies in Intelligence II	3
SCTY 485	Corporate Security	3
SCTY 488	National Security Issues and Terrorism	3
Total Credits:		24

SPACE STUDIES

Certificate of Completion

The Space Studies Certificate of Completion provides an initial space studies curriculum for working adults interested in joining the growing field of space-related companies and applications. This entry-level, seven-course program is offered to parallel both military and space industry current space programs and anticipated expansion in space sector programs and operations. Whether to pursue additional education involving matriculation into a degree program, or to fulfill a job or personal need to acquire space industry knowledge, this certificate is designed with both in mind. It was designed specifically for junior airmen at space-related bases, civilian contractor personnel serving DOD installations, and other military and civilian aviation and aerospace industry personnel desiring further education and employment opportunities in the aerospace and space industries.

REQUIRED COURSES:

Course	Title	Credits
ASCI 110	Introduction to Space Flight	3
ASCI 210	Space Transportation Systems	3
ASCI 215	Space Stations Systems and Operations	3
ASCI 220	Life Support Systems	3
ASCI 300	Satellite and Spacecraft Systems	3
ASCI 400	Introduction to Space Navigation	3
ASCI 425	Selected Topics in Space and Aerospace	3
Total Credits:		21

SUPPLY CHAIN MANAGEMENT

Certificate of Completion

The Supply Chain Management Certificate prepares students who are supply/logistics professionals to take the American Production and Inventory Control Society (APICS) Certification in Production and Inventory Management (CPIM) exam.

Courses taken for this certificate are geared around the Society of Logistics Engineers (SOLE) certification. SOLE certification requires a minimum of 10 years of experience unless the applicant has significant education. The APICS certification requires only two years of experience.

REQUIRED COURSES:

Course	Title	Credits
ASCI 419	Aviation Maintenance Management	3
MGMT 411	Logistics Management for Aviation/Aerospace	3
MGMT 420	Management of Production and Operations	3
MGMT 424	Project Management in Aviation Operations	3
MGMT 444	Principles of Supply Chain Management	3
Total Credits:		15



TESTIMONIAL



After completing my BSPA degree at the Orlando Metro Campus, I know I will receive the same professional attention from the staff and faculty while pursuing my Master's in Aeronautical Science. The Orlando team has shown their genuine commitment in assisting me with achieving my life's goals in the aerospace community. The staff and faculty at the Orlando Metro Campus understand that today's working students require flexibility, which they certainly provide. The staff's dedication and professionalism give the student a winning combination towards successful completion of their goals and aspirations.

- Bob Harsch

Master of Aeronautical Science

Master of Business Administration in Aviation

Master of Science in Management

Master of Science in Project Management

Master of Science in Technical Management

Graduate Certificates of Completion

Air Transportation Management

Aviation/Aerospace Industrial Management

Aviation/Aerospace Safety

Aviation Enterprises in the Global Environment

Integrated Logistics Management

Instructional System Design

Project Management



GRADUATE ACADEMIC PROGRAMS

MASTER OF AERONAUTICAL SCIENCE

In today's global workplace, a graduate-level education is becoming more and more critical in order to reach the upper levels of management. The Master of Aeronautical Science Degree from Embry-Riddle Aeronautical University can help you broaden your knowledge, diversify your talents and give you an edge on the competitive playing field of aviation. Historically, this degree program has been one of the most popular at Embry-Riddle, with an enrollment of more than three times that of any other graduate program.

Upon completion of this multi-disciplinary program, students will have learned to master the application of concepts, methods and tools used in the development, manufacture and operation of aircraft and spacecraft as well as the infrastructure that supports them. The Master of Aeronautical Science curriculum combines a solid core with eight areas of specialization that take students deeper into their areas of interest, including Aeronautics, Education Technology, Aerospace Management, Operations, Safety Systems, Human Factors in Aviation Systems, Space Studies, and Space Operations Management. These areas of specialization give air traffic control personnel, aviation educators, flight crewmembers, flight operations specialists, space operations managers and aviation/aerospace industry technical representatives an unparalleled opportunity to enhance their knowledge. The structure of the degree provides additional academic opportunities for individuals in diverse fields related to aviation or aerospace. Students can focus their academic efforts on areas directly related to their current positions or future opportunities. While one area of specialization is required for completion of the degree, many students choose to further broaden their academic credentials by pursuing multiple specializations.

Ultimately, MAS graduates have gone on to positions in all areas of aviation/aerospace including aircraft/spacecraft manufacturing, airport and airline management, airline and air cargo operations, federal state and county aeronautical organizations and military and commercial space operations.

DEGREE REQUIREMENTS:

Course	Title	Credits
ASCI 602	The Air Transportation System	3
ASCI 603	Aircraft and Spacecraft Development	3
ASCI 604	Human Factors in the Aviation/ Aerospace Industry	3
GCPP 605	Methods and Procedures for the Graduate Capstone Project	3
Core Credits		12

AREAS OF SPECIALIZATION* 12

Choose at least one 12-credit-hour specialization. MAS students may complete courses leading to multiple specializations. Students wishing to complete multiple specializations must have 12 unduplicated credits in each of the specializations. Students must submit an evaluation request form to declare the desired specializations.

ELECTIVES/GCP

ASCI 690	Graduate Capstone Project	3
ASCI/MGMT	Electives (500-600 level)	9
Total Credits:		12

TOTAL DEGREE REQUIREMENTS* 36-39

* For Specialization 1 – 7, the degree requirements are 36 semester hours. For Dual Specialization or Specialization 8, the degree requirements are 39 semester hours.

SPECIALIZATIONS:

Specialization 1

AERONAUTICS

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 509	Advanced Aerodynamics	3
ASCI 510	Advanced Aircraft Performance	3
ASCI 515	Aviation/Aerospace Simulation System	3
ASCI 516	Applications in Crew Resource Management	3
ASCI 517	Advanced Meteorology	3
ASCI 560	Rotorcraft Operations	3
ASCI 607	Advanced Aircraft/Spacecraft Systems	3

Specialization 2

AVIATION/AEROSPACE EDUCATION TECHNOLOGY

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 514	Computer-Based Instruction	3
ASCI 515	Aviation/Aerospace Simulation Systems	3
ASCI 550	Aviation Education Foundations	3
ASCI 614	Advanced Aviation/Aerospace Curriculum Development	3
ASCI 652	Continuing Education's Role in Aviation	3
ASCI 654	Adult Teaching and Learning Techniques	3
ASCI 663	Memory and Cognition	3

Specialization 3

AVIATION/AEROSPACE MANAGEMENT

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 609	Aircraft Maintenance Management	3
ASCI 612	Aviation/Aerospace Industrial Safety Management	3
ASCI 641	Production and Procurement Management in the Aviation/Aerospace Industry	3
ASCI 642	International Aviation Policy	3
ASCI 643	Management of Research & Development for the Aviation/Aerospace Industry	3
ASCI 644	Integrated Logistics in Aviation Management	3
ASCI 645	Airport Operations and Management	3
ASCI 646	Airline Operations and Management	3

Specialization 4

AVIATION/AEROSPACE OPERATIONS

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 515	Aviation/Aerospace Simulation Systems	3
ASCI 518	Aviation/Aerospace Operations Research	3
ASCI 560	Rotorcraft Operations	3
ASCI 606	Aviation/Aerospace Communication/Control Systems	3
ASCI 620	Air Carrier Operations	3
ASCI 622	Corporate Aviation Operations	3

Specialization 5

AVIATION/AEROSPACE SAFETY SYSTEMS

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 611	Aviation/Aerospace System Safety	3
ASCI 612	Aviation/Aerospace Industrial Safety Management	3
ASCI 615	Aviation/Aerospace Accident Investigation and Analysis	3
ASCI 616	Transportation Security	3
ASCI 617	Airport Safety and Certification	3
ASCI 618	Aviation/Aerospace Safety Program Management	3
ASCI 634	Aviation/Aerospace Psychology	3

Specialization 6

HUMAN FACTORS IN AVIATION SYSTEMS

Students must complete 12 credit hours from the following list of courses:

Course	Title	Credits
ASCI 634	Aviation/Aerospace Psychology	3
ASCI 660	Sensation and Perception	3
ASCI 661	Human-Computer Interaction	3
ASCI 663	Memory and Cognition	3
ASCI 665	Applied Experimental Design	3



GRADUATE ACADEMIC PROGRAMS

Specialization 7

SPACE STUDIES

Students must complete the following four courses:

Course	Title	Credits
ASCI 511	Earth Observation and Remote Sensing	3
ASCI 512	Space Mission and Launch Operations	3
ASCI 513	Space Habitation and Life Support Systems	3
ASCI 601	Applications in Space: Commerce, Defense, and Exploration	3

Specialization 8

SPACE OPERATIONS MANAGEMENT

Students must complete the following eight courses:

Course	Title	Credits
ASCI 511	Earth Observation and Remote Sensing	3
ASCI 512	Space Mission and Launch Operations	3
ASCI 513	Space Habitation and Life Support Systems	3
ASCI 518	Aviation/Aerospace Operations Research	3
ASCI 521	Aviation/Aerospace Information Management	3
ASCI 601	Applications in Space: Commerce, Defense, and Exploration	3
ASCI 636	Advanced Aviation/Aerospace Planning Systems	3
ASCI 641	Production and Procurement Management in the Aviation/Aerospace Industry	3

MASTER OF BUSINESS ADMINISTRATION IN AVIATION

The Master of Business Administration in Aviation degree program is designed to emphasize the application of modern management concepts, methods, and tools to the challenges of aviation and business. The special intricacies of aviation are woven into a strong, traditional business foundation by combining a specific core of distinct business competencies with a strong aviation foundation.

The demand for skilled professionals continues to grow in response to the increasing need for leaders who can manage the efficient and effective use of scarce resources; operate in an atmosphere of heightened national and international competition; and respond to the call to preserve our world's fragile eco-system – and the MBAA curriculum is oriented toward the needs of aviation leaders and decision-makers who can operate in this environment.

Specific prerequisites for each graduate course in the MBAA are contained in the Course Description section of this catalog. Students must assume responsibility to see that all prerequisites are satisfied. However, students who cannot demonstrate prerequisite knowledge in one of the following areas, may be required to register for one or all of the modules contained in MGMT 503 (A through F): management, quantitative methods, marketing, accounting, economics, and/or finance.

The prerequisite subject knowledge for a specific graduate course must be satisfied before enrollment in that specific course is permitted. Students may enroll in other graduate level courses as they meet any specific prerequisite knowledge required.

DEGREE REQUIREMENTS

AVIATION BUSINESS CORE

Course	Title	Credits
MBAA 511	Operations Research	3
MBAA 514	Strategic Marketing Management in Aviation	3
MBAA 517	Accounting for Decision Making	3
MBAA 518	Managerial Finance	3
MBAA 523	Advanced Aviation Economics	3
MBAA 635	Business Policy and Decision Making	3
Total Core Credits		18

AVIATION BUSINESS SPECIALIZATION

Complete a total of 12 credit hours from the courses listed below. The primary business specified electives for



MANAGEMENT

all Worldwide campuses are MBAA 520, MBAA 521, MBAA 604 and MBAA 607. Any course substitution must be approved by the MBAA Program Chair.

Course	Title	Credits
MBAA 520	Organizational Behavior, Theory and Applications in Aviation	3
MBAA 521	Global Information and Technology Management	3
MBAA 604	International Management and Aviation Policy	3
MBAA 607	Human Resource Development	3
MGMT 533	Legal, Ethical, and Regulatory Bases of Management Practices	3
MGMT 535	Theory and Application of Managerial Communications	3
MGMT 641	Airport Management	3
MGMT 642	Air Carrier, Passenger, and Cargo Management	3
MGMT 643	Labor Issues in Air Transportation	3
MGMT 651	Production and Procurement in Aviation and Aerospace Industries	3
MGMT 652	Concepts and Practices of Project Management	3
MGMT 671	Entrepreneurship and Leadership	3
MGMT 685	Global Logistics and Supply Chain Management	3
MBAA 696	Graduate Internship in Aviation Business Administration	1-3
MBAA 699	Special Topics in Business Administration	1-3
Total Aviation Business Specialization Credits		12

GRADUATE MANAGEMENT CAPSTON PROJECT

Course	Title	Credits
MBAA 522	Business Research Methods	3
MBAA 690	Graduate Management Capstone Project	3
Total Graduate Management Capstone Project Credits		6

TOTAL DEGREE REQUIREMENTS 36

MBAA Program Notes:

1. The MBAA 700 Thesis is available to international programs or specialty developed programs by contract or articulation agreement. The MBAA 700 Thesis is not available to Worldwide Campuses.
2. Additional courses or specializations that are in the Worldwide catalog may be approved by the MBAA Program Chair to form a specialization in the MBAA.
3. This program is available at selected ERAU Worldwide Campuses and/or through partnerships as determined by specific articulation or contract agreement. The MBAA is not available through Worldwide Online.

MASTER OF SCIENCE IN MANAGEMENT

In the field of aviation, exciting opportunities abound for those who have the unique combination of technical knowledge and managerial skill. The Master of Science in Management provides students with an opportunity to expand their knowledge and understanding in the interdisciplinary field of management. With a greater emphasis on operations than a traditional MBA, the MSM from Embry-Riddle Aeronautical University gives students the practical knowledge to help them move ahead of their peers. The core courses of this program provide exposure to a broad spectrum of subjects that will enhance performance and knowledge of management and decision-making in any endeavor. This degree also provides an opportunity to select a specialization of particular interest including: Integrated Logistics Management, Air Transportation Management, Aviation/Aerospace Industrial Management and Aviation Enterprises in the Global Environment. All MSM students gain quantitative analytic skills, quality management know-how, knowledge of ethical and regulatory requirements, an understanding of organizational structure, a grasp of the theory and practice of good communication skills, familiarity with formulating and managing budgets and research and problem-solving skills. As a result, MSM graduates are leaders in their organizations, handling day-to-day planning, managing employees and directing important projects. Moreover, this dynamic program provides personal satisfaction and career firepower, helping graduates achieve the financial and creative rewards that accompany a move into management.

Students are required to have prerequisite knowledge in written communications, mathematics and communications/connectivity skills. The prerequisite subject knowledge for a specific graduate course must be satisfied before enrollment in that specific course is permitted.

DEGREE REQUIREMENTS

AREA OF SPECIALIZATION

Choose at least one of the five specializations, which include the Graduate Capstone Project.

- Air Transportation Management
- Aviation/Aerospace Industrial Management
- Aviation Enterprises in the Global Environment
- Management of Integrated Logistics
- General Management Option

Specialization Credits

12

GRADUATE ACADEMIC PROGRAMS

MANAGEMENT CORE:

Course	Title	Credits
GCPP 605	Methods and Procedures for the Graduate Capstone Project	3
MGMT 531	Structure and Application of Analytical Decision Processes I	3
MGMT 532	Philosophy, Principles, and Practices in Management of Quality	3
MGMT 533	Legal, Ethical, and Regulatory Bases of Management Practices	3
MGMT 534	Anatomy of Work Organizations	3
MGMT 535	Theory and Application of Managerial Communications	3
MGMT 631	Structure and Application of Analytical Decision Processes II	3
MGMT 633	Principles and Practices of Financial Accounting and Control for Managers	3
Core Credits		24
TOTAL DEGREE REQUIREMENTS		36

SPECIALIZATIONS:

Specialization 1

AIR TRANSPORTATION MANAGEMENT

Course	Title	Credits
MGMT 641	Airport Management	3
MGMT 642	Air Carrier, Passenger, and Cargo Management	3
MGMT 643	Labor Issues in Air Transportation	3
MGMT 644	Graduate Capstone Project, Air Transportation Management	3



Specialization 2

AVIATION/AEROSPACE INDUSTRIAL MANAGEMENT

Course	Title	Credits
MGMT 651	Production & Procurement in Aviation and Aerospace Industries	3
MGMT 652	Concepts and Practices of Project Management	3
MGMT 653	Labor Issues in an Industrial Environment	3
MGMT 654	Graduate Capstone Project, Aviation/Aerospace Industrial Management	3

Specialization 3

AVIATION ENTERPRISES IN THE GLOBAL ENVIRONMENT

Course	Title	Credits
MGMT 671	Entrepreneurship and Leadership	3
MGMT 672	Planning and Execution of Strategy	3
MGMT 673	Global Economic Analysis	3
MGMT 674	Graduate Capstone Project, Aviation Enterprises in the Global Environment	3

Specialization 4

MANAGEMENT OF INTEGRATED LOGISTICS

Course	Title	Credits
MGMT 682	Concepts of Integrated Logistics	3
MGMT 683	Supply Chain Management	3
MGMT 684	Graduate Capstone Project, Management of Integrated Logistics	3
MGMT 685	Global Logistics and Supply Chain Management	3

Specialization 5

GENERAL MANAGEMENT OPTION

Course	Title	Credits
Choose any 3 courses from Specializations 1 through 5		9
MGMT 690	Management Capstone Project	3

TECHNICAL MANAGEMENT

MASTER OF SCIENCE IN TECHNICAL MANAGEMENT

Developed in cooperation with aviation and aerospace industry representatives, this unique degree has evolved into a technical program relating to industry as a whole. The curriculum emphasizes modern management concepts and methods and gives students a set of well-defined technical tools. It also focuses on building the communication and management skills that are needed in technically oriented enterprises. Because of the cohesive and integrated nature of the program, no more than 6 credits may be transferred from previous graduate work.

Major management disciplines are studied as a foundation for large-scale planning and decision making, and students enhance classroom interaction by sharing perspectives and experiences from their work situations.



DEGREE REQUIREMENTS

Course	Title	Credits
TMGT 501*	Computer Skills for a Technical Environment	3
TMGT 502*	Communication Skills in a Technical Environment	3
TMGT 503*	Quantitative Methods and Statistics	3
TMGT 605	Organization Theory in a Technical Environment	3
TMGT 610	Managing Effective Technical Work Teams	3
TMGT 616	Production Operations Management	3
TMGT 621	Regulations, Ethics, and the Legal System	3
TMGT 625	Marketing in the Technical Environment	3
TMGT 630	Technical Management Information Systems	3
TMGT 635	Financial and Managerial Accounting and Control for Technical Managers	3
TMGT 641	Project Management: Concepts and Practices	3
TMGT 646	Operations Research and Management Science	3
TMGT 651	Quality Management and Quality Control	3
TMGT 660	Project Development Techniques	2
TMGT 660L	Technical Management Capstone Project	1
TOTAL DEGREE REQUIREMENTS		42

* Successful completion of these courses is required to continue in this program.

GRADUATE ACADEMIC PROGRAMS

MASTER OF SCIENCE IN PROJECT MANAGEMENT

The Master of Science in Project Management (MSPM) provides the opportunity for working professionals to gain masters level knowledge and experience in planning and executing complex projects. Working within a variety of organizational settings, from aviation aerospace to non-profit organizations, this program enables graduates to undertake increasing roles in the leadership and management of projects within corporations as well as across corporate, cultural, and international boundaries.

This program incorporates international standards, as set forth by the Guide to the Project Management Body of Knowledge® (Project Management Institute), with practical application and use of project management software tools. The course of study covers all aspects of project management, including: analytical decision processes, integrated planning and scheduling, cost estimation management, risk and quality management, financial accounting, ethics and legal considerations, information technology, organizational structures, and managerial communications.

This comprehensive curriculum will help individuals develop a grasp of essential project management and general management principles. Those who will benefit from this program include project team members, project managers, program managers, consultants, senior and executive management, and individuals who aspire to these positions. Instruction incorporates both theoretical and practical applications, including: projects, case studies, and discussions of actual workplace experience. Earning the Master of Science in Project Management will give graduates the knowledge and confidence to take on project management responsibilities at the highest levels of their industry.

The curriculum for this program was developed entirely by certified Project Management Professionals (PMPs), the recognized global standard for project management knowledge and experience. Professional certification is issued by the Project Management Institute (PMI), the worldwide leader in the development of standards for the evolving profession of Project Management.

Students are required to have prerequisite knowledge in written communications, mathematics, and communications/connectivity skills. The prerequisite

subject knowledge for a specific graduate course must be satisfied before enrollment in that specific course.

Upon completion, graduates are well prepared for the PMI-PMP and the American Society for Quality (ASQ) Certified Manager of Quality/Organizational Excellence (CMQ/OE) examinations.

DEGREE REQUIREMENTS

Course	Title	Credits
MGMT 531	Structure and Applications of Analytical Decision Processes for Managers I	3
MGMT 533	Legal, Ethical, and Regulatory Bases of Management Practices	3
MGMT 532	Philosophy, Principals, and Practices in Management of Quality	3
MGMT 631	Structure and Applications of Analytical Decision Processes for Managers II	3
MGMT 633	Principles and Practices of Financial Accounting and Control for Managers	3
PMGT 501	Fundamentals of Project Management	3
PMGT 502	Effective Communications for Managing Projects	3
PMGT 611	Anatomy of Project Organizations	3
PMGT 612	Leading Projects Across Cultural, Corporate, and International Boundaries	3
PMGT 613	Assessing and Managing Project Risk	3
PMGT 614	Planning, Directing, and Controlling Projects	3
PMGT 690	Project Management Capstone	3
TOTAL DEGREE REQUIREMENTS		36



GRADUATE CERTIFICATES OF COMPLETION

Graduate Certificates of Completion are focused academic programs in which students complete a series of courses in Air Transportation Management, Aviation/Aerospace Industrial Management, Aviation Enterprises in the Global Environment, Integrated Logistics Management, Instructional System Design, Aviation/Aerospace Safety, or Project Management.

Graduate Certificates are available to both degree seeking and non-degree seeking students. To be eligible for the award of any graduate certificate, a student must meet the graduate general admissions criteria and must achieve a cumulative GPA of 3.0 or higher on a 4.0 scale, for the series of courses in the certificate program.

INSTRUCTIONAL SYSTEM DESIGN

Certificate of Completion

The Instructional System Design Certificate of Completion provides aviation/aerospace industry leaders with skills to develop curricula. These graduate-level courses lead to the mastery of these skills in advanced aviation and aerospace education technology.

Required Courses:

Course	Title	Credits
ASCI 514	Computer-Based Instruction	3
ASCI 515	Aviation/Aerospace Simulation Systems	3
ASCI 610	Instructional System Design Project	3
ASCI 614	Advanced Aviation/Aerospace Curriculum Development	3
ASCI 654	Adult Teaching and Learning Techniques	3
Total Credits:		15

AVIATION/AEROSPACE SAFETY

Certificate of Completion

The Aviation/Aerospace Safety Certificate at the graduate level provides the student a background in advanced safety topics application in a variety of aviation, aerospace, and other industrial settings.

Three courses are required, and the students select additional courses for a total of 18 credit hours. The University has approved a Master Certificate of Completion in Aviation/Aerospace Safety for those students who complete a specified series of graduate safety courses with a cumulative GPA of 3.0.

Required Courses:

Course	Title	Credits
ASCI 611	Aviation/Aerospace System Safety	3
ASCI 617	Airport Safety and Certification	3
ASCI 618	Aviation/Aerospace Safety Program Management	3
Select three courses from the following:		
ASCI 612	Aviation/Aerospace Industrial Safety Management	3
ASCI 615	Aviation/Aerospace Accident Investigation and Analysis	3
ASCI 616	Transportation Security	3
ASCI 634	Aviation/Aerospace Psychology	3
Total Credits		18

AIR TRANSPORTATION MANAGEMENT

Certificate of Completion

In order to give yourself options in today's highly competitive workplace, it is essential that you develop leadership and managerial skills. Embry-Riddle Aeronautical University's Air Transportation Management program is the first step in gaining those skills. This hands-on curriculum provides students with general decision analysis and managerial knowledge that will enable them to become effective leaders, managers and supervisors in organizations related to aviation and aerospace. This program provides a thorough background of both the air side-related directly to the movement of aerial vehicles-and the support side, dealing with all the activities necessary for safe, efficient and profitable operations of the entire transportation system. Graduates exit the program prepared to manage such diverse areas as air operations, cargo handling, surface carrier integration, passenger service facilities or any other facet related to the movement of goods and people by air.

Required Courses:

Course	Title	Credits
MGMT 641	Airport Management	3
MGMT 642	Air Carrier, Passenger and Cargo Management	3
MGMT 643	Labor Issues in Air Transportation	3
MGMT 531	Structure and Application of Analytical Decision Processes I	3
MGMT 631	Structure and Application of Analytical Decision Processes II	3
MGMT 652	Concept and Practices of Project Management	3
Total Credits		18

GRADUATE CERTIFICATES OF COMPLETION

AVIATION/AEROSPACE INDUSTRIAL MANAGEMENT

Certificate of Completion

Individuals with the skills to effectively and efficiently manage material, personnel and information have the ability to take control of their careers. The Aviation/Aerospace Industrial Management program gives students experience in those areas as well as production and procurement, quality control, dealing with labor issues and national standards for project management. This advanced course of study also provides students with an enhanced understanding of the diverse aspects related to the management of industrial processes. Decision theory, communications theory and practice, and other managerial topics are also integrated into this broad field of study. For those already involved in production scheduling/control, production management, project management or management of integrated work teams, this program will enhance your understanding and performance. While this program is rooted in the aviation and aerospace industrial environment, the knowledge gained is applicable to all types of industrial organizations.

Required Courses:

Course	Title	Credits
MGMT 531	Structure and Application of Analytical Decision Processes I	3
MGMT 532	Philosophy, Principles, and Practices in Management of Quality	3
MGMT 651	Production and Procurement in Aviation Aerospace Industry	3
MGMT 652	Concept and Practices of Project Management	3
MGMT 653	Labor Issues in an Industrial Environment	3
MGMT 631	Structure and Application of Analytical Decision Processes II	3
Total Credits		18

AVIATION ENTERPRISES IN THE GLOBAL ENVIRONMENT

Certificate of Completion

Embry-Riddle Aeronautical University's Enterprises in Global Management program caters to individuals with an entrepreneurial inclination. This specialized course of study touches on diverse areas such as leadership, strategic planning and detailed economic analyses through projects that are innovative, far-reaching and offer a global perspective. The objective is to give students the knowledge, skills and expertise that will assist them in understanding and competing in the global industrial and business environment. Understanding the global arena, recognizing and capitalizing on unique opportunities, including formulating strategies of success are the hallmarks of this degree. This specialized knowledge is coupled with a broad foundation of managerial studies. Anyone involved in or anticipating involvement in multi-national or global business will benefit greatly from this degree.

Required Courses:

Course	Title	Credits
MGMT 531	Structure and Application of Analytical Decision Processes I	3
MGMT 631	Structure and Application of Analytical Decision Processes II	3
MGMT 652	Concept and Practices of Project Management	3
MGMT 671	Entrepreneurship and Leadership	3
MGMT 672	Planning and Execution of Strategy	3
MGMT 673	Global Economic Analysis	3
Total Credits		18



INTEGRATED LOGISTICS MANAGEMENT

Certificate of Completion

Today, in both the government and private sector, there is a growing need for individuals who understand and can develop, manage and lead the complex integration of goods and services. In order to prepare workers for these challenging and rewarding positions, Embry-Riddle Aeronautical University has developed a specialized program—the certificate of completion in Integrated Logistics. This graduate level curriculum is designed for those involved or interested in the field of logistics and supply chain management, helping students expand and improve their knowledge and performance in this dynamic area. This broad course of study includes classes in numerical decision processes, quality studies and managerial theory to form a knowledge base that prepares graduates for success in a multitude of fields including, but not limited to, aviation and aerospace.

Required Courses:

Course	Title	Credits
MGMT 531	Structure and Application of Analytical Decision Processes I	3
MGMT 631	Structure and Application of Analytical Decision Processes II	3
MGMT 652	Concept and Practices of Project Management	3
MGMT 682	Concepts of Integrated Logistics	3
MGMT 683	Supply Chain Management	3
MGMT 685	Global Logistics and Supply Chain Management	3
Total Credits		18

PROJECT MANAGEMENT

Certificate of Completion

Rapidly changing technology and requirements for new and improved goods and services have created a high demand for project managers who deliver on-time and on-budget.

Complex work must be accomplished quickly and efficiently, and Project Management is the powerful tool that makes it happen. Those who possess a thorough knowledge of the art and science of project management are in demand throughout all organizations, including government, industry, financial services, and the not-for-profit sector.

This program of study provides both practicing project managers and those aspiring to manage or oversee projects the solid foundation on which to build project management success. This program, developed by experienced project managers holding the PMP® designation, will greatly assist those who may desire to take the Project Management Profession (PMP)® examination.

PMP® is a registered trademark of the project Management institute

Required Courses:

Course	Title	Credits
MGMT 531	Structure and Applications of Analytical Decision Processes for Managers I	3
MGMT 631	Structure and Applications of Analytical Decision Processes for Managers II	3
PMGT 501	Fundamentals of Project Management	3
PMGT 502	Effective Communications for Managing Projects	3
PMGT 613	Assessing and Managing Project Risk	3
PMGT 614	Planning, Directing, and Controlling Projects	3
Total Credits		18

PROFESSIONAL EDUCATION PROGRAMS

COURSE OFFERINGS:

CORPORATE AVIATION MANAGEMENT CERTIFICATE PROGRAM (CAMC)

(Web-based)

The Certified Aviation Manager (CAM) credential is the ultimate recognition for business aviation professionals. The National Business Aviation Association (NBAA) developed the CAM Program to recognize excellence in the field of business aviation and raise the quality of management within corporate flight departments. NBAA and the business aviation community recognize this individual as someone who has reached a high level of industry knowledge, and is qualified and prepared for management roles within business aviation. Through certification, an individual will gain recognition and credibility within the industry and show they are professionals committed to the safety, management, security, efficiency and acceptance of business aviation.

Embry-Riddle Aeronautical University (ERAU) is the only institution that delivers a program which covers all the required objectives of the NBAA's CAM Program. Our Corporate Aviation Management Certificate program prepares the individual to sit for the NBAA CAM examination by teaching all five subject areas: leadership, personnel management, operations, technical and facilities services, and business management

BUSINESS MANAGEMENT COURSES (CAMC):

CE 2111 VALUE PROPOSITION ANALYSIS FOR CORPORATE AVIATION

This course is designed for current or prospective flight department employees who will be making strategic decisions about the flight department and are managing the flight department's interactions with passengers, customers and/or the parent company. The course covers different methods used in conducting a travel analysis, evaluating options for lift, justifying the flight department value, proposing various travel options and optimizing the fit of the flight department with corporate goals.

CE 2112 FLIGHT DEPARTMENT FINANCE, BUDGETING AND ACCOUNTING

This course is designed for anyone who desires more knowledge about and/or the ability to manage flight department finances using best practices, accepted

accounting principles and efficient budgeting techniques. The course covers the basics of budgeting, forecasting, financial management, taxation, and cost recovery. It also provides an accounting primer to allow aviation professionals to better understand accounting principles and financial reports. The financial, taxation and insurance considerations of aircraft acquisitions and ownership are presented.

CE 2113 COMMUNITY RELATIONS

This course is designed for flight department personnel who will be involved in or are interested in community relations and public relations issues. Various areas of community interaction with the flight department are presented, including community service opportunities, community concerns, noise abatement, environmental issues, airport administration, and mediation strategies.

LEADERSHIP COURSES (CAMC)

CE-2121 STRATEGIC VISION AND PLANNING

This course is intended for flight department personnel and management who will be involved in or desire to know more about the planning process. Goal setting, value statements, mission statements, vision statements, strategic planning and business planning are presented in a practical manner focused on developing and communicating effective planning processes.

CE-2122 LEADERSHIP AND MOTIVATION

This course is designed for flight department management or prospective management employees. Course participants will learn how to exercise leadership by being a role model, empowering personnel, building effective teams, promoting the exchange of information, and making sound decisions in order to achieve flight department goals and promote corporate objectives.

CE-2123 MANAGERIAL COMMUNICATIONS

This course is designed for flight department personnel who want to disseminate information using effective verbal and non-verbal communication strategies and engage personnel in order to enhance performance and understanding at relevant levels of the corporation. Communication techniques, tools, barriers and technologies are presented in a practical manner to assist in the management of a corporate flight department.

CE-2124 PROFESSIONAL DEVELOPMENT

This course presents the resources and knowledge to

enhance professional knowledge using industry resources (e.g., conferences, publications, local, regional, and national associations and legislation) in order to enhance personal effectiveness as a flight department manager.

CE-2125 HUMAN FACTORS

This course is designed for aviation and transportation specialists who need a solid understanding of human factor issues in their work environment. The course focuses on aviation, specifically business aviation, but the concepts apply anywhere humans are performing complex tasks. Participants will learn how to detect, prevent and manage various human factors issues as part of a system safety culture.

CE-2126 APPLIED HUMAN FACTORS

This course is designed for business aviation specialists who want to optimize human factors in flight, communication, situational awareness, decision making, team effectiveness and safety management. Improved interactions among maintenance, dispatch, flight and other employee functional areas of the department are stressed.

CORPORATE AIRCRAFT OPERATIONS (CAMC)

CE-2131 STANDARD OPERATING PROCEDURES AND PROCESSES

This course is designed for all flight department personnel or aspiring flight department personnel who will work within or initially implement a system of standard operating procedures for flight operations using manufacturer's specifications, pertinent regulations, and accepted industry practices in order to ensure safety and efficiency.

CE-2132 SCHEDULING AND DISPATCH

This course is designed for those flight department employees who will be scheduling and dispatching corporate aircraft or will be establishing scheduling and dispatch procedures using industry resources (e.g., NBAA Management Guide, software packages) in order to conduct safe and efficient flight.

CE-2133 RECORD-KEEPING AND REGULATORY COMPLIANCE

This course is designed for flight department personnel who will establish and/or maintain a record-keeping system using accepted industry practices in order to document regulatory compliance and initiate appropriate action within the department.

HUMAN RESOURCE MANAGEMENT (CAMC)

CE-2141 WORKLOAD MANAGEMENT AND STAFFING

This course is designed for managers who will determine the level of staffing needed for the flight department by assessing workloads in order to make efficient use of corporate assets.

CE-2142 EMPLOYEE TRAINING PROGRAMS

This course is designed for those flight department personnel who will be supporting technical training for all personnel within the flight department using recognized external and internal programs in order to ensure competence in each prescribed discipline, and promoting personal and professional growth through training and education by providing financial support and scheduling flexibility in order to support career development.

CE-2143 STAFFING AND TEAM BUILDING

This course prepares employees to coordinate a team of qualified individuals by identifying internal and external talent in order to acquire the highest level of expertise and achieve department goals. Course participants will be able to fill key positions by identifying potential candidates and providing the necessary training and growth opportunities in order to ensure orderly transitions and minimize operational disruptions. Topics include the job market, training gaps, skills gaps, project management, knowledge management, teambuilding skills and forecasting human resource requirements.

CE-2144 PERFORMANCE REVIEWS AND FEEDBACK SYSTEMS

This course is designed for flight department personnel to supply the skills and knowledge needed in conducting regular performance reviews by establishing appropriate goals for all employees consistent with department objectives and by evaluating progress in order to maximize employee performance.

CE-2145 COMPENSATION AND REWARD PROGRAMS

This course is designed for managerial personnel who will be evaluating compensation for the flight department using benchmarking surveys and considering corporate policy and total compensation packages in order to attract and retain employees. Course participants will also learn how to respond to employee performance by rewarding or disciplining as appropriate in order to maximize the effectiveness of the department.

PROFESSIONAL EDUCATION PROGRAMS

CE-2146 HRM LAWS AND ETHICS

This course is designed for departmental managers who ensure compliance with regulatory requirements and corporate policies concerning human resource matters by providing documentation or access to people with the information in order to maintain company standards within the department.

CORPORATE AVIATION TECHNICAL SERVICES (CAMC)

CE-2151 AVIATION SAFETY PROGRAMS AND EMERGENCY PREPAREDNESS

This course is designed for professionals who want to better understand and ultimately implement safety programs within the department. Concepts covered include emergency preparedness, emergency equipment, safety programs, best practices, and risk management.

CE-2152 AVIATION MAINTENANCE MANAGEMENT

This course is designed for those who will maintain aircraft and installed components in accordance with manufacturer's specifications and pertinent regulations in order to provide safe, secure, and efficient transportation of passengers and products, and maintain aircraft spares, supplies, and other inventories by following appropriate regulations and industry practices in order to minimize downtime and provide for efficient, safe service. Participants will also learn how to standardize technical reviews in the flight department by requiring all staff to adhere to uniform practices and accepted procedures in order to provide quality service.

CE-2153 CUSTOMER SERVICE PROGRAMS

This course is designed for flight department employees who will maintain cabin information systems and passenger service items in accordance with manufacturer's specifications and pertinent regulations in order to ensure reliability, comfort, and effective service. Measuring customer expectations and satisfaction levels is also covered.

CE-2154 AVIATION SECURITY

This course is designed for those who intend to apply rigorous security procedures in accordance with regulations airport requirement, and corporate policies in order to provide a secure environment for passengers, employees, and assets. The concepts presented also include knowledge and skill areas needed to implement procedures using

established company policies in order to safeguard information and physical assets of the corporation.

CE-2155 VENDOR MANAGEMENT

This course is designed for those flight department employees who will be managing and negotiating contracts with qualified vendors and service providers using accepted business practices in order to procure needed services, equipment, and supplies for the department.

PHYSIOLOGY

(Web Based/Self-Guided)

PHG 4001 BODY COMPOSITION ASSESSMENT: ESSENTIAL TOOLS FOR BUILDING HEALTHY BODIES

A three-part comprehensive online self-paced course explains how to assess human body composition by reliable and valid direct and indirect measurement techniques.

PHG 4002 DEVELOPING A STRONG AND FLEXIBLE LOWER BACK

This online self-paced course helps clients understand the major muscles of the lower back and how to strengthen and stretch them in a safe and effective manner so body movements become more efficient and less risk-prone.

PHG 4003 EATING DISORDERS 101: WHAT EVERYONE NEEDS TO KNOW

This online self-paced course presents the latest cutting-edge information about anorexia athletica, anorexia nervosa, bulimia nervosa, and binge eating disorder.

PHG 4004 INTERVAL TRAINING FOR FITNESS AND ENDURANCE PERFORMANCE: THEORY AND PRACTICE

This online self-paced course is designed for personal trainers, allied health professionals, and fitness enthusiasts to build a solid scientific foundation about interval training methods.

PHG 4005 GENDER DIFFERENCES IN ENDURANCE AND PERFORMANCE TRAINING

This online self-paced course presents up-to-date findings on the physiological differences between males and females, how such differences impact physical performance and training methods, and how they

should be dealt with by personal trainers and fitness professionals.

PHG 4006 PHYSIOLOGY OF RESISTANCE TRAINING: PART 1--WHAT EVERYONE NEEDS TO KNOW

This online self-paced course is the first of a three-course ensemble about the physiology of resistance training.

PHG 4007 PLYOMETRICS TO ENHANCE SQS: STRENGTH, QUICKNESS, AND SPEED

This comprehensive online self-paced course is designed to teach clients all they need to know in order to integrate plyometrics into their training programs.

PHG 4008 UNILATERAL TRAINING: SUCCESSFULLY CONQUERING THE TRAINING PLATEAU

Unilateral training is a new and effective way to make your clients' training programs more interesting and effective. This online self-paced course is designed for personal trainers, allied health, fitness professionals and the general public.

PHG 4009 DEVELOPING STRONG ABDOMINALS

In the pursuit of the perfect “six-pack,” exercise enthusiasts and athletes alike engage in a variety of exercises to develop and strengthen their abdominal muscles. However, over-emphasis on training this muscle group may not achieve the desired results and can lead to injury. This is an online self-paced course.

SIX SIGMA COURSES

SIX SIGMA GREEN BELT

Six Sigma methodologies use data and statistical analysis to measure and improve operational performance by identifying and eliminating defects. The student will learn the principals and theories for each of the five steps of the DMAIC process (Define, Measure, Analyze, Improve and Control). The student will also learn to use and apply statistical analysis tools and formulas for each part of the process. The Six Sigma methodologies are not only valuable training for those in manufacturing but also those in service-related processes.

SIX SIGMA BLACK BELT

Six Sigma methodologies use data and statistical analysis to measure and improve operational performance by identifying and eliminating defects. The student will

learn the principals and theories for each of the five steps of the DMAIC process (Define, Measure, Analyze, Improve and Control). The student will also learn to use and apply statistical analysis tools and formulas for each part of the process. Additionally the Black Belt student will be introduced to theories of enterprise-wide deployment of new processes and goals, business process management, project management, lean enterprise and Design for Six Sigma (DFSS).

SEMINARS, WORKSHOPS, CORPORATE SERVICES

WILDLIFE HAZARD MANAGEMENT PROGRAM (FAA)

The goal of this course is to provide the knowledge, skills, and abilities needed by airport personnel to safely and accurately implement relevant portions of an FAA approved Wildlife Hazard Management Plan

SYSTEM SAFETY FOR NON-ENGINEERS

This course stresses the integration of safety skills and resources into all phases of a system's life cycle. The system safety approach to accident prevention (system engineering combined with safety management) is covered for non-engineering learners.

AVIATION LAW AND INSURANCE SYMPOSIUM

The Aviation Law and Insurance Symposium (ALIS) provides a forum for aviation attorneys, insurance personnel, and other professional involved and interested in aviation law and insurance to discuss relevant issues. The focus is on present conditions, practices, and future trends. The symposium format consists of presentations, panel discussions and plenary sessions that facilitate interaction and communication among all participants.

MANAGING AIRCRAFT ICING FOR FLIGHT OPERATIONS

This training assists pilots in understanding the tools available to them in managing hazards associated with icing. Participants are instructed in evaluating specific aircraft and weather conditions, as well as understanding the differences between ground icing and in-flight icing. Information is presented on how ice forms on an aircraft and why it can become a flight hazard. Federal Aviation Administration icing certification processes are also reviewed.

PROFESSIONAL EDUCATION PROGRAMS

AVIATION ENGLISH

Our Aviation English Curriculum is designed to enable Pilots and aviation professionals around the world to meet the International Civil Aviation Organization (ICAO) level 4 English Language proficiency standard. As of March 2008, ICAO will require commercial pilots and air traffic controllers around the world to demonstrate at least level 4 proficiency in English.

AIRLINE INTERPERSONAL AND INTRA-COMPANY RELATIONS

This course is designed for airline employees who work in a time-limited environment with varying workloads, and who must communicate effectively with employees in other departments. Particular emphasis is placed on the airline scheduling and dispatch functions, and how they relate with flight crews and others in Flight Operations. The course content mixes instructional material with practical application exercises to optimize learning and to create an enjoyable, useful learning environment.

EMPLOYMENT SCREENING AND SELECTION SERVICE

Our screening and selection process is designed to enhance rather than replace your organization's current methods and approaches to employee selection and hiring. We provide a variety of proven tools and methods to guide the hiring process and further enhance the decision making capabilities an organization may already possess. The three areas of concentration are cognitive function, personality and general intelligence.

AVIATION SAFETY AND SECURITY SERIES

AVIATION SAFETY MANAGEMENT WITH SECURITY AND HUMAN ERROR MANAGEMENT

This course is designed to provide the student with the working information of an aviation safety program and how accidents can be prevented. The student will review problems facing today's aviation safety program manager and learn how to deal with basic safety and risk management concepts; analyze program elements typically found in aviation safety programs. Students will participate in classroom exercises based on real world experiences to learn how to use additional tools and techniques to promote safety management in their organization. Some of the topics covered include

Emergency Response Planning, Human Error Management, Aviation Security, Regulatory Safety and Health Programs and Flight Safety Programs.

MISHAP/ACCIDENT INVESTIGATION MANAGEMENT WITH HUMAN ERROR INVESTIGATION

This course is designed to teach the student the fundamentals required to conduct or manage an aircraft mishap/accident investigation. The student will review the investigation sequence from the preplanning stage through the general survey and specific analysis of a mishap/accident, culminating with the determination of contributing factors and probable cause/s. Crash laboratory exercises, from past accidents, and case examples will help the student identify, collect and analyze data in the process of determining probable cause/s. The student will also discover solutions to problems faced during aircraft mishap/accident investigations.

ADVANCED ACCIDENT INVESTIGATION

ASThis course is designed to introduce the student to advanced accident investigation procedures involving design, materials and aircraft performance. This comprehensive course is a follow-on course for the accident investigation course or for the individual that has experience in accident in investigation. You will discuss aircraft crashworthiness and CFR emergency response procedures.

AVIATION GROUND SAFETY

This course will provide the fundamental working knowledge of an aviation Ground Safety program concentrating on how incidents/accidents can be prevented and the expense of avoidable incident/accident in terms of dollars and lives lost. Participants will acquire skills in the design and implementation of a program that includes ground event definition and categorization, OSHA safety audits, the role of the supervisor in safety, operational assessment, and incident/accident investigation. Knowledge gained is applicable in numerous operational environments including airlines, airports, business/corporate flight departments, and FBO's.

OSHA FOR AVIATION SAFETY MANAGERS

The course is designed to provide the participant with the working knowledge of OSHA general industry safety and health standards. The participant will also become familiar with current OSHA violations and issues in the

aviation industry. Participants will engage in a hands-on exercise based on real-world experiences to aid them in the application of principles learned throughout the course.

ACCIDENT INVESTIGATION FROM THE MAINTENANCE PERSPECTIVE

This course is designed to teach the aviation maintenance professional the fundamentals required to participate in an aircraft mishap/accident investigation. Course participants will learn the philosophy of an investigation, their responsibility in an investigation, and how to successfully achieve the investigation's purpose and goals. Solutions to problems faced during aircraft mishap/accident investigations will also be discussed.

RECIP ENGINE INVESTIGATION

This course is designed to provide the aviation professional with a technical course in aircraft reciprocating engine fundamentals and relevant accident investigative procedures. The course covers areas of study to include basic construction and design with emphasis on major sections, components, and their mechanical relationships. Power plant systems and system mishaps are also covered and include fuel, lubrication, ignition and starter systems. A study of propeller basics and investigative techniques is also included.

TURBINE ENGINE INVESTIGATION

This course is designed to provide the aviation professional with a technical course in aircraft turbine engine fundamentals and relevant accident investigative procedures. The course covers areas of study to include basic construction and design with emphasis on major sections, components, and their mechanical relationships. Power plant systems and system mishaps are also covered and include fuel, lubrication, ignition and starter systems.

HUMAN FACTORS IN AVIATION

This course is designed to provide the aviation professional with an examination of the major causative agents in aircraft accidents: the human being. Emphasis is placed on psychologic and physiologic factors that enhance the accident probability. Included, a detailed analysis of ergonomics (human engineering) and the influence ergonomics have in aircraft accidents.

INTERNATIONAL AIR CARGO MANAGEMENT CERTIFICATE (IACMC)

(Web Based)

The International Air Cargo Management Certificate is designed for air cargo professionals who desire to improve their knowledge and skills within their industry. It provides the individual with the tools to meet demands as a manager in this complex and unique environment. Embry-Riddle Aeronautical University have tailored this program in a manner that provides exchange of knowledge in five subject areas: leadership, personnel management, operations, technical and facilities services, and business management.

In addition to award of the IACMC, upon completion of the program individuals will receive Continuing Educational Units (CEU's) for each course successfully completed. Through certification, an individual will gain recognition and credibility within the industry and show they are a professional committed to the safety, management, security, and efficiency of the International Air Cargo industry.

MGM-3111 VALUE PROPOSITION ANALYSIS

This course is designed for current or prospective employees who will be making strategic decisions about air cargo and are managing the department's interactions with customers and/or the parent company. The course covers different methods used in conducting a cargo analysis, evaluating options for lift, justifying the department value, proposing various transportation options and optimizing the fit of the department with corporate goals.

MGM-3112 FINANCE AND BUDGETING

This course is designed for anyone who desires more knowledge about and/or the ability to manage department finances using best practices, accepted accounting principles and efficient budgeting techniques. The course covers the basics of budgeting, forecasting, financial management, taxation, and cost recovery. It also provides an accounting primer to allow aviation professionals to better understand accounting principles and financial reports. The financial, taxation and insurance considerations of aircraft acquisitions and ownership are presented.

MGM-3113 COMMUNITY RELATIONS

This course is designed for aviation personnel who will be involved in or are interested in community relations and public relations issues. Various areas of community

PROFESSIONAL EDUCATION PROGRAMS

interaction with the aviation department are presented, including community service opportunities, community concerns, noise abatement, environmental issues, airport administration, and mediation strategies.

MGM-3121 STRATEGIC VISION AND PLANNING

This course is intended for department personnel and management who will be involved in or desire to know more about the planning process. Goal setting, value statements, mission statements, vision statements, strategic planning and business planning are presented in a practical manner focused on developing and communicating effective planning processes.

MGM 3122 LEADERSHIP AND MOTIVATION

This course is designed for international and domestic air cargo management or prospective air cargo management employees. Course participants will learn how to exercise leadership by being a role model, empowering personnel, building effective teams, promoting the exchange of information, and making sound decisions in order to achieve department goals and promote corporate objectives.

MGM 3123 MANAGERIAL COMMUNICATION

This course is designed for air cargo personnel who want to disseminate information using effective verbal and non-verbal communication strategies and engage personnel in order to enhance performance and understanding at relevant levels of the corporation. Communication techniques, tools, barriers and technologies are presented in a practical manner to assist in the management of an air cargo operation.

MGM-3124 PROFESSIONAL DEVELOPMENT

This course presents the resources and knowledge to enhance professional knowledge using industry resources (e.g., conferences, publications, local, regional, and national associations and legislation) in order to enhance personal effectiveness as an air cargo flight department manager.

MGM 3125 HUMAN FACTORS

This course is designed for aviation and transportation specialists who need a solid understanding of human factor issues in their work environment. The course focuses on aviation, specifically cargo aviation, but the concepts apply anywhere humans are performing complex tasks. Participants will learn how to detect, prevent and manage various human factors issues as part of a system safety culture.

MGM-3126 APPLIED HUMAN FACTORS

This course is designed for air cargo specialists who want to optimize human factors in flight, communication, situational awareness, decision making, team effectiveness and safety management. Improved interactions among maintenance, dispatch, flight and other employee functional areas of the department are stressed.

MGM-3131 STANDARD OPERATING PROCEDURES AND PROCESSES

This course is designed for all air cargo department personnel or air cargo department personnel who will work within or initially implement a system of standard operating procedures for operations using manufacturer's specifications, pertinent regulations, and accepted industry practices in order to ensure safety and efficiency.

MGM-3132 SCHEDULING AND DISPATCH

This course is designed for those air cargo employees who will be scheduling and dispatching aircraft or will be establishing scheduling and dispatch procedures using industry resources (e.g., software packages) in order to conduct safe and efficient flight.

MGM-3133 RECORDKEEPING AND REGULATORY COMPLIANCE

This course is designed for air cargo personnel who will establish and/or maintain a record-keeping system using accepted industry practices in order to document and maintain regulatory compliance and initiate appropriate action within the department.

MGM-3141 WORKLOAD MANAGEMENT AND STAFFING

This course is designed for managers who will determine the level of staffing needed for the flight department by assessing workloads in order to make efficient use of company assets.

MGM 3142 EMPLOYEE TRAINING PROGRAMS

This course is designed for those cargo aviation personnel who will be supporting technical training for all personnel within the operation using recognized external and internal programs in order to ensure competence in each prescribed discipline, and promoting personal and professional growth through training and education by providing financial support and scheduling flexibility in order to support career development.

MGM 3143 STAFFING AND TEAM BUILDING

This course prepares employees to coordinate a team of qualified individuals by identifying internal and external talent in order to acquire the highest level of expertise and achieve department goals. Course participants will be able to fill key positions by identifying potential candidates and providing the necessary training and growth opportunities in order to ensure orderly transitions and minimize operational disruptions. Topics include the job market, training gaps, skills gaps, project management, knowledge management, teambuilding skills and forecasting human resource requirements.

MGM 3144 PERFORMANCE REVIEWS AND FEEDBACK SYSTEMS

This course is designed for air cargo and logistics personnel to supply the skills and knowledge needed in conducting regular performance reviews by establishing appropriate goals for all employees consistent with department objectives and by evaluating progress in order to maximize employee performance.

MGM-3145 COMPENSATION AND REWARD PROGRAMS

This course is designed for managerial personnel who will be evaluating compensation for the air cargo department using benchmarking surveys and considering corporate policy and total compensation packages in order to attract and retain employees. Course participants will also learn how to respond to employee performance by rewarding or disciplining as appropriate in order to maximize the effectiveness of the department.

MGM-3146 HRM LAW AND ETHICS

This course is designed for air cargo and air logistics managers who ensure compliance with regulatory requirements and corporate policies concerning human resource matters by providing documentation or access to people with the information in order to maintain company standards within the department or overall corporation.

MGM-3151 AVIATION SAFETY PROGRAMS AND EMERGENCY PREPAREDNESS

This course is designed for professionals who want to better understand and ultimately implement safety programs within the aviation operation. Concepts covered include emergency preparedness, emergency equipment, safety programs, best practices, and risk management.

MGM-3152 AVIATION MAINTENANCE MANAGEMENT

This course is designed for those air cargo and aviation professionals who will maintain aircraft and installed components in accordance with manufacturer's specifications and pertinent regulations in order to provide safe, secure, and efficient transportation of passengers and products, and maintain aircraft spares, supplies, and other inventories by following appropriate regulations and industry practices in order to minimize downtime and provide for efficient, safe service. Participants will also learn how to standardize technical reviews in the aviation department by requiring all staff to adhere to uniform practices and accepted procedures in order to provide quality service.

MGM-3153 CUSTOMER SERVICE PROGRAMS

This course is designed for air cargo management employees who will maintain information systems and customer service items in accordance with manufacturer's specifications and pertinent regulations in order to ensure reliability, comfort, and effective service. Measuring customer expectations and satisfaction levels is also covered.

MGM-3154 AVIATION SECURITY

This course is designed for those who intend to apply rigorous security procedures in accordance with regulations airport requirement, and corporate policies in order to provide a secure environment for clients, employees, and assets. The concepts presented also include knowledge and skill areas needed to implement procedures using established company policies in order to safeguard information and physical assets of the corporation.

MGM 3155 VENDOR MANAGEMENT

This course is designed for those air cargo operators and their employees who will be managing and negotiating contracts with qualified vendors and service providers using accepted business practices in order to procure needed services, equipment, and supplies for the department.

SPECIAL ACADEMIC PROGRAMS & OPPORTUNITIES

SERVICEMEMBERS OPPORTUNITY COLLEGES (SOC)

Embry-Riddle has been a member of SOC for almost 20 years. Even before becoming a member, the University employed practices reflecting the criteria governing transfer credit, academic residency requirements, credit for prior learning from military training and experience, and credit for extracurricular learning that SOC has established to guide member institutions. Embry-Riddle continues, in practice, to apply SOC criteria to all eligible students.

The University participates in associate and bachelor degree programs in several curriculum networks coordinated by SOC members of the Army, Navy, and Marine Corps. A list of programs and networks follows:

■ Associate Degrees

Army: SOCAD-2

Navy: SOCNV-2

Marines: SOCMAR-2

Coast Guard: SOCCST-2

■ Aviation Maintenance Network

Associate in Science in Aircraft Maintenance

Associate in Science in Professional Aeronautics

■ Technical Management Network

Associate in Science in Technical Management

■ Bachelor Degree

Army: SOCAD-4

Navy: SOCNV-4

Marines: SOCMAR-4

Coast Guard: SOCCST-4

■ Aviation Operations Management Network

Bachelor of Science in Professional Aeronautics

Bachelor of Science in Aviation Maintenance

Management (SOCAD-4 only)

■ Technical Management Network

Bachelor of Science in Technical Management

SOC degree programs provide servicemembers the security of knowing that they will be able to continue pursuing their Embry-Riddle degrees even if they are transferred to another installation where the University is not represented, if they leave the service, or if the University changes or discontinues its participation in SOC. All institutions participating in the curriculum network have agreed to accept specified courses completed at other schools in the same network to satisfy most curriculum requirements. Students are obligated to follow the normal University rules and regulations, to obtain advance approval for taking certain courses, and to provide official transcripts from other schools where they may have earned credit once or twice a year. For more information, contact the ERAU representative, Dr. Douglas Mikutel at (386) 947-5207 or email: Douglas.Mikutel@erau.edu.



COURSE DESCRIPTIONS

Courses numbered 001-099 are basic skills courses and do not apply toward degree requirements. Courses numbered 100-200 are lower-division courses and are generally taken in the freshman and sophomore years. Many lower-division courses serve as prerequisites for other coursework, and students are urged to plan ahead to meet necessary prerequisites. Courses numbered 300-400 are upper-division courses, reflecting advanced levels of technical skills and disciplinary knowledge. Upper-division work is generally taken in the junior and senior years. Graduate courses are numbered at 500 and above.

Numbers in parentheses, immediately following course titles and numbers, indicate lecture and laboratory hours that a class meets each week. For example, (3,3) signifies that the course consists of three lecture hours and three laboratory hours weekly.

The following courses are not necessarily offered every term, nor are they necessarily offered at all locations.

Embry-Riddle Aeronautical University - Worldwide course offerings are listed on the following pages in alphabetical order.

UNDERGRADUATE COURSES

AIR TRAFFIC CONTROL

AT 300 **Air Traffic Management I (3,0)**

3 Credits

AT 300 is the entry-level course in the Air Traffic Management (ATM) degree sequence. It is also the first of the courses required in the FAA's Collegiate Training Initiative (CTI) program the FAA is using to meet ATC staffing requirements. This course provides students with a fundamental knowledge of the U.S. air traffic control system and develops content knowledge in the following areas: (a) the Federal Aviation Administration, its mission, organization, and operation; (b) the air traffic control career; (c) navigational aids, current and future; (d) airspace; (e) communications; (f) federal aviation regulations; (g) ATC procedures; (h) control tower operations; (i) nonradar operations; (j) radar operations; and (k) future air traffic control systems. The course also provides essential information that is useful for pilots and other aviation professionals.

AT 302 **Air Traffic Management II (3,0)** *3 Credits* Air Traffic Management II provides

the student with an introduction to the manuals, procedures, maps, charts, and regulations used by pilots and air traffic controllers in the National Airspace System (NAS). Included is an examination of FAA Orders, the Aeronautical Information Manual (AIM), and Federal Air Regulations (FARs). Students will also acquire basic knowledge about SIDs, STARs, en route IFR charts, and instrument approaches. Search and rescue, special operations, NOTAMS, and teamwork in the ATC environment are also studied in this course.

AT courses are available online only.

AVIATION MAINTENANCE TECHNOLOGY

AMNT courses designated as Part 65 are available at the Extended Campus only.

AMNT 240 **General Aeronautics and Applications (3,0)**

3 Credits

This course is an introduction to general aeronautics. It includes the study of physical mathematics, weight and balance, FAA

regulations, common and special tools and measuring devices, fluid lines, hardware, aircraft servicing, and documentation (Part 65).

AMNT 260 **Aircraft Electrical Systems Theory (3,0)**

3 Credits

Students are given an introduction to aircraft electrical systems. Discussions include a study of the principles and concepts of basic DC and AC electrical theory, magnetism, batteries, generators, motors, voltage regulators, circuit protection, and electrical component installations (Part 65).

AMNT 265 **Aeronautical Electronics for Aviation Maintenance Technicians (3,0)**

3 Credits

Aircraft radio communication and radar systems used on modern aircraft will be studied in this course. Students will become familiarized with radio laws and regulations, radio wave propagation, electrical and electronic principles, radio practice, circuit components, practical circuits, signals and emissions, radar systems and antennas, and power feeder lines.

UNDERGRADUATE COURSES

System knowledge will be applied to the activities of maintenance technicians required to possess the Federal Communications Commission's "General Radiotelephone Operator's License." This course should be limited to those with aviation maintenance/avionics experience or permission of the instructor.

AMNT 270 Airframe Structures and Applications (4,0)

4 Credits

This course focuses on a study of aircraft wood, dope, fabric, sheet metal, welding theory, and methods of fabrication (Part 65).

AMNT 271 Airframe Systems Structures and Applications (3,0)

3 Credits

A study of airframe systems such as aircraft electrical system, fuel systems, cabin atmosphere control systems, instrument systems, communication and navigation systems, ice and rain control systems, fire protection systems, and aircraft inspection. (Part 65).

AMNT 272 Fundamentals of Aircraft Avionics (3,0)

3 Credits

This course is an introduction to aircraft avionics systems. It includes a study of the principles, theories, and concepts of basic solid-state devices, electronic bridges, synchros, bridges, servos, gyros, compass systems, navigation systems, instrument landing systems, autopilot controls and systems, flight management computers, weather, radar, and communications systems. Students taking this course should have significant aviation maintenance experience or permission of the instructor.

AMNT 275 Aircraft Maintenance Practicum (0,0)

8 Credits

Enrolled students who have a minimum of 18 months on-the-job experience subsequent to technical training in an approved aircraft maintenance specialty may receive credit for this course after completion of all required Part 65 AMT coursework. (This course applies only to the Part 65 AMT Program.)

AMNT 280 Powerplant Theory and Applications (4,0)

4 Credits

The goal of this course is to provide an in-depth study of the reciprocating engine. Topics include theory, construction, fuel metering, lubrication, exhaust, engine installation and overhaul, and operational maintenance procedures (Part 65).

AMNT 281 Aircraft Propulsion Systems and Applications (4,0)

4 Credits

Theory, principles of operation, and

controls and systems for propellers and turbine engines are analyzed in this course (Part 65).

AMNT 285 Advanced Aircraft Maintenance Practicum (0,0)

4 Credits

Enrolled students who are qualified for the award of AMNT 275 credit and have a minimum of 30 months on-the-job experience subsequent to technical training in an approved aircraft maintenance specialty may receive credit for this course after completion of all required Part 65 AMT coursework. (This course applies only to the Part 65 AMT Program.)

AERONAUTICAL SCIENCE

ASCI 110 Introduction to Space Flight (3,0)

3 Credits

A survey of the major aspects of space flight. Topics covered include the history of space flight, space shuttle operations, and present and future commercial, industrial, and military applications in space.



ASCI 185

Basic Ground School (3,0)

3 Credits

Upon completion of this course, the student will have been adequately prepared to know and understand the fundamental concepts of theories of basic flight (aerodynamics and aircraft performance), air navigation, weather reports and forecasts, and relevant Federal Aviation Regulations.

ASCI 210

Space Transportation System (3,0)

3 Credits

A survey course of the Space Transportation System (STS) at the introductory physics level.

Included

are manned space flight operations, supporting systems and the space shuttle mission, both present and future. A review of space shuttle flight profiles, guidance and navigation control, proximity operations, and rendezvous and a brief review of hypersonic orbiter aerodynamics are included. Also covered are future STS applications to space station logistical operations, commercial applications, and Department of Defense operations.

ASCI 215

Space Stations Systems and Operation (3,0)

3 Credits

This course is designed to provide a brief study of the space station flight operations, its supporting elements and planned systems. The survey study will include commercial applications, logistical support, maintenance, and servicing design concepts at the introductory level.

ASCI 220

Life Support Systems (3,0)

3 Credits

This course is a survey, at the elementary physics level, of the requirements and design considerations for life support systems in space and on other planets. Included are an introduction to basic human physiology, a description of the space environment and a survey of historical life support systems, and a presentation of spacecraft limitations and requirements.

ASCI 254

Aviation Legislation (3,0)

3 Credits

Aviation Legislation is a study of the evolution of federal civil aviation regulations in the United States. Students will examine the past and present problems prompting regulation of the industry, the resultant safety legislation, airport development funding legislation, and international aviation legislation.

ASCI 300

Satellite and Spacecraft Systems (3,0)

3 Credits

Orbital satellites and spacecraft are discussed according to their application, design, and environment. The power systems, shielding and communication systems are reviewed along with their missions, space environment, and limitations. The course will be taught at the introductory physics level.

ASCI 309

Aerodynamics (3,0)

3 Credits

Students are provided with an opportunity to explore incompressible flow airfoil theory and wing theory. Topics center on calculation of stall speed, drag

and basic performance criteria, configuration changes, high and low speed conditions, special flight conditions, and an introduction to compressible flow. Prerequisites: MATH 112 and PHYS 102.

ASCI 310

Aircraft Performance (3,0)

3 Credits

The nature of aerodynamic performance of aircraft powered by reciprocating, turboprop, or jet turbine engines is explored. Additional topics address stability and control, weight and balance, and operating data. Prerequisite: ASCI 309.

ASCI 320

Commuter Aviation (3,0)

3 Credits

This course acquaints the student with the development, administrative policies, and operational factors peculiar to commuter aviation, especially since passage of the Airline Deregulation Act of 1978. The impact of mergers and acquisitions, profiles of passenger and cargo carrying commuters, and analysis of commuter successes and failures are discussed. Emphasis is placed on the establishment of a new commuter airline, which includes market and financial analysis, the company plan, aircraft selection and acquisition, route structure and timetable, marketing strategy and pertinent regulatory requirements. The course culminates in a formal proposal soliciting for venture capital to start a commuter airline.

ASCI 357

Flight Physiology (3,0)

3 Credits

This course concentrates on aeromedical information. Causes, symptoms, prevention, and treatment of flight environment

UNDERGRADUATE COURSES

disorders are discussed. Altitude effects, spatial disorientation, body heat imbalance, visual anomalies, and psychological factors are included as they relate to pilot performance and survival effectiveness.

ASCI 400 **Introduction to Space Navigation (3,0)**

3 Credits

This course will introduce the student to basic elements of space navigation at the introductory physics level. The consequences of Newton's Law of Gravitation and Central Force Motion, including Kepler's three laws of planetary motion, are explained. The physical characteristics of the solar system and the Earth/Moon system are reviewed. The basic methods and techniques of navigating in near-Earth orbit and the Moon and planets are described.

ASCI 401 **Airport Development and Operations (3,0)**

3 Credits

Managerial problems of small and medium size airports and fixed base operations are examined, with emphasis on federal, state, and local obligations; leases; internal guidelines; and community relations.

ASCI 405 **Aviation Law (3,0)**

3 Credits

Aviation Law explores the chronological development, federal and state regulatory functions, and rights and liabilities of pilots and operators. Students will examine case histories, liens, and security interest in aircraft, as well as international conferences, bilateral and multilateral agreements, and criminal statutes.

ASCI 412 **Corporate and Business Aviation (3,0)**

3 Credits

The course provides an overview of the operation of a corporate flight department. Students will be introduced to topics that include value of management mobility, aircraft and equipment evaluation, maintenance, flight operations, administration, and fiscal considerations.

ASCI 413 **Rotocraft (3,0)**

3 Credits

This course traces the historical development of rotorcraft and introduces the many unique aspects of rotorcraft operations. Rotorcraft operations are examined from the operations, management, and maintenance perspectives. Included are rotorcraft operations and airworthiness regulations, airspace and facilities requirements, and environmental considerations. Uses of rotorcraft to include Military and civilian applications are studied. Rotorcraft design, manufacturing, materials, systems, and the variations in rotor configuration are topics of study.

ASCI 419 **Aviation Maintenance Management (3,0)**

3 Credits

Students will perform a comprehensive examination of organizational maintenance policies, programs, and procedures. Emphasis is on maintenance planning, forecasting and cost control, reliability, safety, and flight schedule performance.

ASCI 425 **Selected Topics in Space and Aerospace (3,0)**

3 Credits

This course introduces students to problems in space operations, space flight, or other space-related topics that can be critically addressed from a knowledge base of elementary calculus, elementary physics, and the subject matter of any two Space Studies courses. The specific topics will be selected by the course monitor and instructor and published in the course schedule.

ASCI 199, 299, 399, 499 **Special Topics in Aeronautical Science**

1-3 Credits

Individual independent or directed studies of selected topics in general aviation. Prerequisites: Consent of instructor and approval of department and program chairs. May be repeated with a change of subject. Special topics courses involving flight training are offered in selected areas for the purpose of gaining proficiency in required pilot operations for various certificates and ratings.

COOPERATIVE EDUCATION

ASCI 396, 397, 398 **Coop Ed Aeronautical Science**

1-6 Credits

The student will gain practical learning experience in full-time or part-time employment that is related to the student's degree program and career goals. Course title and level are based on the work assignment.

ASCI 496, 497, 498 **Coop Ed Aeronautical Science**

1-6 Credits

These courses offer practical

learning experience in full-time or part-time employment that is related to the student's degree program and career goals. Course title and level are based on the work assignment. Continuation of ASCI 396, 397, 398.

LIFE SCIENCE

BIOL 107 Elements of Biological Science (3,0)

3 Credits

This is a physical science course with emphasis on anatomy and physiology of man, including chemical and cellular basis of life, biology of organisms, and ecology.

COMPUTER ENGINEERING

CESC 220 Digital Circuit Design (3,0)

3 Credits

Introduction to logic design and interfacing digital circuits. Boolean algebra, combinatorial logic circuits, digital multiplexers, circuit minimization techniques, flip-flop storage elements, shift registers, counting devices, and sequential logic circuits.

COMPUTER SCIENCE

CSCI 109 Introduction to Computers and Applications (3,0)

3 Credits

Students are given an introduction to computers and PC applications. Computer literacy is presented through lectures on the computer process, the impact of computers on society, emerging technologies, and hardware and software purchasing

decisions. A hands-on overview of the most popular computer applications such as word processing, spreadsheet, database, electronic mail, and Internet is provided.

CSCI 210 Scientific Programming (3,0)

3 Credits

Introduction to problem-solving methods, algorithm development, program design, coding, debugging, testing, use of subprograms and documentation, and programming in a block-structured high-level language covering control structures and simple data structures such as arrays and files. This course emphasizes scientific/engineering programming techniques and applications. Corequisite: MATH 112 or MATH 250.

CSCI 299, 399, 499 Special Topics in Computer Science

1-6 Credits

These are individual independent or directed studies of selected topics in

computer science. Consent of the instructor and the department chair is required.

ECONOMICS

ECON 210 Microeconomics (3,0)

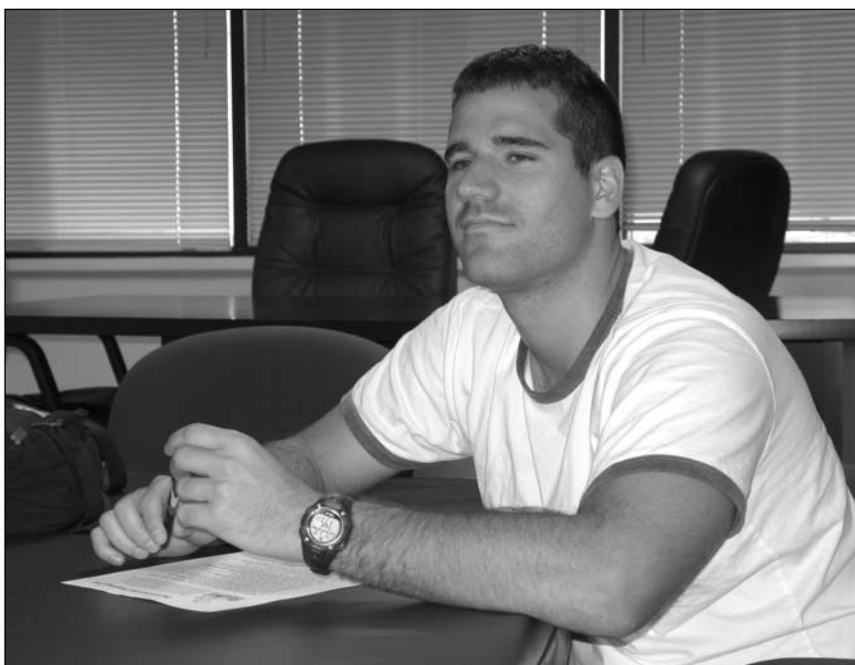
3 Credits

This course offers an introduction to the economic principles of free enterprise supply and demand, private and social implications of profit maximization, market structure, and resource markets. Current microeconomic issues in aviation (such as liability reform, evolution of airline competition, etc.) are discussed. Prerequisites: MATH 111 or equivalent and ENGL 123, 143 or equivalent.

ECON 211 Macroeconomics (3,0)

3 Credits

The goal of this course is to provide an introductory analysis of employment, inflation, recession, GDP economic growth, and



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international trade with an emphasis on practical policy alternatives. Macroeconomic aviation applications such as the counter-cyclical growth of start-up airlines and consideration of ATC privatization are incorporated. Prerequisites: MATH 111 or equivalent and ENGL 123, 143 or equivalent.

ECON 315 Managerial Economics (3,0)

3 Credits

This course presents an analytical approach to the manager's role in understanding pricing, costing, production and forecasting. The course concentrates on simple quantitative models to explain the firm's position in the market and how the manager can react to and control this information. Aviation topics commonly discussed include airport privatization and employee ownership of airlines. Prerequisites: Microeconomics, Business Statistics, and junior standing.

ECON 420 Economics of Air Transportation (3,0)

3 Credits

In this course, students will explore the economic aspects of airline service with consideration given to the impact of federal aid and regulation, types of aircraft, airport problems, consumer interests and competitive practices. Prerequisites: ECON 210, ECON 211.

ECON 399, 499 Special Topics in Economics

1-4 Credits

These courses are individual independent or directed studies of combinations of selected topics in economics. Prerequisite: Consent of instructor and approval of the department chair.

COMMUNICATION THEORY & SKILLS

ENGL 123 English Composition (3,0)

3 Credits

This course focuses on learning to use writing as a tool for thinking as well as a tool for expression of thoughts and ideas. It addresses the composing process, research and documentation, and rhetorical strategies for various audiences and purposes.

ENGL 143 Studies in Rhetorical Theory (3,0)

3 Credits

This course focuses on a broad survey of speculation concerning the nature and techniques of persuasion. This writing-intensive course will focus on enduring issues in the study of rhetoric - its value, the nature of audiences, the most effective techniques - and on how those issues were continually reframed to meet changing circumstances.

ENGL 221 Technical Report Writing (3,0)

3 Credits

In this course, students will focus on the preparation of formal and informal technical reports, proposals, instructions, business correspondence, and other forms of technical communication. The course places a major emphasis on the researched technical report, professional relevance, and the acquisition of advanced writing skills.

ENGL 222 Business Communication (3,0)

3 Credits

An introduction to effective business communication, this course covers

topics in oral, written, nonverbal, and intercultural communication. Research methods, effective speaking, and the preparation of letters, memoranda, and reports are emphasized.

ENGL 355 Creative Writing (3,0)

3 Credits

The course culminates the interpretive and expressive elements of communications classes. The study, practice, and use of a personal style of creative composition, examples of contemporary literature, and submittal of publications are included in this course.

ENGINEERING

ENGR 120 Graphical Communications (2,0)

2 Credits

Free-hand pencil sketching and CAD as tools for graphical communication of engineering designs. Standard forms for design graphics and view layout, orthographic projection, section and auxiliary views, dimensioning, tolerancing, introduction to shop processes. Prerequisite: Enrollment in an engineering program.

ENGINEERING SCIENCE

ESCI 201 Statics (3,0)

3 Credits

A vector treatment of the concepts and characteristics of forces and couples. Distributed forces. Center of mass, centroid. Equilibrium of particles and rigid bodies. Trusses and frames. Internal forces. Shear and moment distribution in beams. Area moments of inertia. Prerequisite: PHYS 150.

ESCI 202
Solid Mechanics (3,0)

3 Credits

The concepts of stress and strain and their tensor properties. Elastic stress strain relations. Analysis of stress and deformation in members subject to axial, torsional, bending and combined loading. Column stability. Prerequisite: ESCI 201.

ESCI 204
Dynamics (3,0)
3 Credits

A vector treatment of the kinematics and kinetics of particles and rigid bodies. Acceleration, work, energy, power, impulse, and momentum. Prerequisite: ESCI 201. Corequisite: MATH 345.

ESCI 206
Fluid Mechanics (3,0)

3 Credits

Physical characteristics of the fluid state. Fluid statics. Kinematics of fluid motion. Flow of an incompressible ideal fluid. The impulse-momentum principles. Similitude and dimensional analysis; fluid measurements. Prerequisite: ESCI 201.

**GENERAL
EDUCATION**

GNED 101
Fundamentals of College Student Success (1,0)

1 Credit

This performance-oriented course is

designed to increase success in college by empowering students to develop the necessary skills, knowledge and habits for learning. Topics include: college life; learning strategies and styles; self-assessment and awareness; setting college and career goals; values clarification; test preparation, test taking, problem solving; campus diversity and wellness. The course will also provide students with a comprehensive introduction to study skills; --critical thinking, reading, listening, speaking, and writing a research paper; computer literacy and library research.

SOCIAL SCIENCES

GOVT 320
American National Government (3,0)

3 Credits

This course covers basic issues of American democracy, constitutional principles, and the executive, legislative, and judicial branches of government.

GOVT 325
International Studies (3,0)

3 Credits

An overview of the land, the people, the culture, and the history of one region of the world, this course emphasizes current events and policies on the global scene. Specific content varies from year to year.

GOVT 331
Current Issues in America (3,0)

3 Credits

Students will become familiarized with selected political-economic issues of national and international importance. Extensive use of journals, magazines, and newspapers will supplement lectures and discussions.



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GOVT 340 **American Foreign Policy (3,0)**

3 Credits

A survey of the evolution of present American foreign policy, this course stresses the factors that affect and shape this policy. Attention is given to present governmental offices, agencies, and departments, and the role each plays in policy formulation. Emphasis is on the period since World War II.

GOVT 363 **Inter-American Relations (3,0)**

3 Credits

An exploration of the development of U.S. political and economic relations with Latin America from their beginnings in the 19th century to the present.

GOVT 401 **American Constitutional Law (3,0)**

3 Credits

This course is a study of the basics of the United States Constitution and the rights of the individual. Included is the study of the First Amendment freedoms of speech, press, assembly, association, and religion; the right to privacy; and Fourteenth Amendment equal protection. Constitutional law pertaining to the rights of the criminally accused and the duties and responsibilities of the officer to protect and respect such rights is also studied.

GOVT 402 **International Politics (3,0)**

3 Credits

This course will provide an introduction to international politics in the context of the ending of the Cold War and the intensification of economic exchange between market economies on a global scale

(‘globalization’). The course will examine a number of theories that try to explain world politics and a number of issues that have taken a prominent place on the world stage. Finally, there will be a particular focus on the events of September 11, 2001 and the consequences of these events in the international community.

HIST 110 **World History (3,0)**

3 Credits

The course is designed primarily as a survey of the development and evolution of Western Civilization from 1500 to the present. Emphasis is placed on the effects of Western influence on the world.

HIST 130 **History of Aviation in America (3,0)**

3 Credits

A survey of the history of America in the 20th century, the course emphasizes the explosive growth of aviation as a major influence upon the economic, military, and societal development of the United States.

HIST 302 **Evolution of Scientific Thought (3,0)**

3 Credits

This course traces the development of science from the earliest times through the modern period, with particular emphasis given to our changing concepts of nature and of science itself. (Also offered as PHYS 302. Students receive either social science elective credit or physical science elective credit, but not both.)

HIST 305 **American Military History (3,0)**

3 Credits

Students are provided an overview of military history in the United States. Emphasis will be on military

policy, organization, and technology as they relate to political, economic, and social developments from 1775 to the present.

HUMANITIES

HUMN 140 **Western Humanities I: Antiquity and the Middle Ages (3,0)**

3 Credits

This course offers an interdisciplinary emphasis. Using examples from art, architecture, music, philosophy, and literature, the course traces the evolution of the Western humanistic tradition from antiquity to the Middle Ages. Emphasized are writing, reading, and appreciation skills.

HUMN 141 **Western Humanities II: Renaissance to Postmodern (3,0)**

3 Credits

This course traces the evolution of the Western humanistic tradition from the Renaissance to the Postmodern, using examples from art, architecture, music, philosophy, and literature. Writing, reading, and appreciation skills are emphasized.

HUMN 142 **Studies in Literature (3,0)**

3 Credits

This course presents a survey of literature. Reading materials include selected novels, poems, and plays. Concentration is on writing, reading, and appreciation skills.

HUMN 300 **World Literature (3,0)**

3 Credits

Major works and literary trends in world literature are examined and discussed. Course content varies by instructor and is listed in the Schedule of Courses.

HUMN 310
American Literature (3,0)

3 Credits

The course provides a survey of intellectual backgrounds, major works, and literary trends in American literature. Course content varies by instructor and is listed in the Schedule of Courses.

HUMN 325
Exploring Film (3,0)

3 Credits

This course presents a survey of the art of the film and explores the history of the cinema. Topics include: basic elements, photography, continuity and rhythm, movement, imaging, music and sound, script writing, directing, editing, acting, great film artists/directors, cinematographers, actors, etc.

HUMN 330
Values and Ethics (3,0)

3 Credits

This course focuses on the process of practical ethics as a way of resolving moral conflict and of understanding professional responsibility in a multiculturally diverse society without devaluing specific viewpoints of ethical or metaphysical theory, ideology, or religion. Students will use proposals, value judgments, observation statements, assumptions, and alternate-world assumptions in arguing contemporary issues of moral importance. With this basic moral logic, students will resolve issues in terms of rights, responsibilities, and the community of rational beings; in terms of consequences and contingencies; and in terms of habituated virtues and character. Free and unrestricted discourse will be encouraged to let students find common ground in diversity.

HUMN, 299, 399, 499
Special Topics in Humanities

1-6 Credits

These courses are individual independent or directed studies of selected topics in the humanities. Prerequisite: Consent of instructor and approval of the department chair.

MATHEMATICS

All students enrolling in ERAU for the first time who do not possess a transfer credit equivalent to MATH 106 or above, or who took the course over 10 years ago, must take the mathematics assessment test or enroll in MATH 106. If the assessment test is taken and the score is unsatisfactory, the student must either enroll in MATH 106 or study individually to improve basic mathematics skills and take another version of the mathematics assessment test within six months. If the score is still unsatisfactory, the student will be required to take MATH 106.

MATH 005
Quantitative Skills (3,0)

3 Credits

Fundamentals and theory of algebra, including exponents, radicals, factoring, linear equations, rational expressions, quadratic equations, polynomial arithmetic, and solutions to applied problems. (Credit not applicable to any degree.) Required of all students who are placed in this course.

MATH 006
Intermediate Algebra (3,0)

3 Credits

This intermediate-level algebra course includes fundamental concepts of algebra; linear equations and inequalities; polynomials; rational expressions; exponents and radicals; quadratic equations; functions and graphing; systems of linear equations and inequalities. Prerequisite: MATH

005 or placement. (Credit not applicable to any degree.)

MATH 106
Basic Algebra and Trigonometry (3,0)

3 Credits

The course includes study of the basic laws of numbers, fractions, exponents, complex numbers, and radicals, as well as an understanding of a variety of expressions and equations, including equalities, inequalities, polynomials, and quadratics. The elements of trigonometry will also be reviewed.

MATH 111
College Mathematics for Aviation I (3,0)

3 Credits

This is a pre-calculus course designed for the student of aviation. Topics reviewed will include fundamentals of algebra; linear equations and inequalities; quadratic equations; variation; polynomial, rational, exponential, logarithmic, and trigonometric functions; radian measure; right triangle solutions; vectors; and the laws of sines and cosines. Prerequisite: ERAU assessment test, or MATH 106.

MATH 112
College Mathematics for Aviation II (3,0)

3 Credits

Designed for the student of aviation, this course provides knowledge of basic calculus, including differentiation and integration of algebraic functions with applications to velocity, acceleration, area, curve sketching, and computation of extreme values. Prerequisite: MATH 111.

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MATH 120

Quantitative Methods I (3,0)

3 Credits

This is an algebra methods course with applications to business and economics. Students will learn about operations, relations, functions, modeling, problem solving, and systems of linear equations and inequalities.

Prerequisite: ERAU assessment test, or MATH 106.

MATH 140

College Algebra (3,0)

3 Credits

This course focuses on fundamentals of exponents, radicals, linear, quadratic and absolute value equations, inequalities, and complex numbers. An introduction to functions, curve sketching, elementary theory of equations, sequences and series, matrix algebra, and systems of equations will be provided.

Prerequisite: ERAU assessment test, or MATH 106.

MATH 142

Trigonometry (3,0)

3 Credits

Students will be introduced to trigonometric functions and their graphs; identities; radian measure with applications; compound, half, and double angle identities; and solving elementary trigonometric equations. Other topics include right and oblique triangles; law of sines and cosines; exponential, logarithmic, and inverse trigonometric functions; vectors, and trigonometric form of a complex number.

Prerequisite: MATH 140.

MATH 211

Statistics with Aviation Applications (3,0)

3 Credits

Topics emphasized in this course

include descriptive statistics, populations and samples, measures of central tendency and dispersion, elementary probability, binomial and normal distributions and their interrelationship, and random variables. Students will also examine one and two sample hypothesis testing involving proportions and means for large and small samples, estimation and confidence intervals, Chi-square distribution, correlation coefficient, and least squares line.

Prerequisite: MATH 111.

MATH 220

Quantitative Methods II (3,0)

3 Credits

Students are introduced to the methods and concepts of calculus with applications to business and economics, marginal functions,

graphing, extreme values, and area problems. A brief introduction to descriptive statistics is also provided. Prerequisite: MATH 111 or MATH 120.

MATH 222

Business Statistics (3,0)

3 Credits

Topics to be studied in this course include the following: measures of central tendency and dispersion; histograms; algebra of probability; sample spaces; dependent events; Bayes' Theorem with applications; binomial, Poisson, and normal distributions and their interrelationships; sampling distributions; hypothesis testing; and confidence intervals.

Prerequisite: MATH 111 or MATH 140.



MATH 250
Calculus and Analytic Geometry I (3,0)

3 Credits
 Introduction to vectors and polar coordinates, graphs and functions; limits and continuity; differentiation of algebraic and elementary trigonometric functions; parametric equations; differentials and their applications; applications of first and second derivatives.
 Prerequisite: MATH 140.
 Corequisite: MATH 142

MATH 251
Calculus and Analytic Geometry II (3,0)

3 Credits
 Integration of algebraic and elementary trigonometric functions; application of integrals to the calculation of area, volume and curve length and to selected physical problems; differentiation and Integration of transcendental functions and inverse functions.
 Prerequisite: MATH 250

MATH 252
Calculus and Analytic Geometry III (3,0)

3 Credits
 Techniques of integration; polar coordinates; applications of the definite integral; indeterminate forms and improper integrals; numerical methods of integration; parametric equations; vectors and calculus of vector valued functions.
 Prerequisite: MATH 251.

MATH 253
Calculus and Analytic Geometry IV (3,0)

3 Credits
 Solid analytical geometry; vector functions in three dimensions; elements of infinite series; partial differentiation; directional derivative and gradient; multiple

integrals; geometric and Taylor series. Prerequisite: MATH 252.

MATH 320
Decision Mathematics (3,0)

3 Credits
 The mathematical concepts and applications in mathematical model building and problem solving will be explored. Included are mathematical areas that are basic to decision theory. Prerequisite: MATH 211 or MATH 222.

MATH 345
Differential Equations and Matrix Methods (4,0)

4 Credits
 Treatment of ordinary differential equations to include principal types of first and second order equations; methods of substitution on simple higher order differential equations; linear equations and systems of linear equations with constant coefficients; methods of undetermined coefficients and variation of parameters; Laplace transforms; series solutions; linear algebra and matrix methods of solutions; applications to physics and engineering. Prerequisite: MATH 253.

MANAGEMENT

MGMT 120
Introduction to Computer Based Systems (3,0)

3 Credits
 This course offers an overview of computing in the business environment, and an introduction to the tools, techniques, and strategies of computer-based information system development. The emphasis is on developing computer literacy through the use of computers in the design and presentation of business communications such as plans, proposals, spreadsheets, graphs, and charts.

MGMT 201
Principles of Management (3,0)

3 Credits
 A comprehensive overview of relevant management principles and practices as applied in contemporary organizations, this course focuses on management theories, philosophies, and functions.

MGMT 210
Financial Accounting (3,0)

3 Credits
 This course introduces the student to accounting information systems and financial reports. Included are accounting concepts and analysis and interpretation of financial reports, with an emphasis on the operating activities of aviation-related businesses.

MGMT 212
Advanced Financial Accounting (3,0)

3 Credits
 The goal of this course is to provide an in-depth study of accounting information systems and financial reports used in a management environment, including analysis and interpretation of financial reports. Emphasis will be on the operating, investing, and financing activities of all types of organizations, including airline and aviation related companies.

MGMT 221
Advanced Computer Based Systems (3,0)

3 Credits
 This course is a continuation of MGMT 120. It covers advanced concepts of spreadsheet use, database management systems, and presentation graphics. Students perform macro and command language programming in applications packages. In addition,

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the course provides experience in locating and retrieving graphical and text-based information from the Internet to support management activities.

MGMT 308 **Public Administration (3,0)**

3 Credits

The characteristics of organization and management in government will be discussed in this course. The course will center on the impact of political processes and public pressures on administration action, the role of regulatory agencies, governmental personnel, and budgetary procedures, and the unique qualifications of the public administrator.

MGMT 311 **Marketing (3,0)**

3 Credits

This course centers on marketing theory, marketing management, sales management, and market research. In addition, public and customer relations, advertising, and distribution will be explored.

MGMT 312 **Managerial Accounting (3,0)**

3 Credits

The course emphasizes management's use of cost information in internal decision making. Decision-making processes include cost analysis, control, allocation, and planning. A variety of accounting techniques applicable to aviation/aerospace companies are presented.

MGMT 314 **Human Resource Management (3,0)**

3 Credits

The focus of this course is on the functions to be accomplished in effectively managing human resources. An in-depth study of

the interrelationship of managers, organizational staff, and/or specialists, will assist the student in understanding and applying management theories to real-world human resource planning. Areas of concentration include human resource planning; recruitment and selection; training and development; compensation and benefits; safety and health; and employee and labor relations.

MGMT 317 **Organizational Behavior (3,0)**

3 Credits

This course provides an overview and analysis of various behavioral concepts affecting human behavior in business organizations, with emphasis on research, theory, and practice.

MGMT 320 **Business Information Systems (3,0)**

3 Credits

A management approach to understanding business information systems is introduced in this course. The general characteristics, potential, and limitations of business systems are covered. Major emphasis is on understanding the inputs, processing, and outputs of a variety of business systems; the ways in which business systems are interrelated; and the inherent management problems involved in the implementation and control of such systems.

MGMT 321 **Aviation/Aerospace Systems Analysis Methods (3,0)**

3 Credits

An overview of the system development life cycle is provided in this course. Emphasis is on current system documentation through the use of both classical and structured tools/techniques for describing process flows, data flows, data structures, file designs,

input and output designs, and program specifications.

MGMT 322 **Aviation Insurance (3,0)**

3 Credits

An introduction to the basic principles of insurance and risk with special application to the aviation industry will be presented. The course offers an in-depth review of the aviation insurance industry in the United States, including the market and types of aviation insurers.

MGMT 324 **Aviation Labor Relations (3,0)**

3 Credits

This course focuses on an investigation of labor-management relations in the aviation industry. Examined are the history of unionism, structure of unions, legal environment, and the Railway Labor Act, collective bargaining, public sector relationships, grievance procedures, and conflict resolution.

MGMT 325 **Social Responsibility and Ethics in Management (3,0)**

3 Credits

The course provides a comprehensive inquiry into the major components of social responsibility and a study of moral and ethical issues that relate to problems in business. Focus will be on the economic, legal, political, ethical, and societal issues involving the interaction of business, government, and society.

MGMT 331 **Transportation Principles (3,0)**

3 Credits

The basic principles of the several modes of transportation (air, sea, rail, highway, and pipeline) are analyzed. Topics include problems of competition, the importance of

each in the economy, and future developmental prospects.

MGMT 332
Corporate Finance I (3,0)

3 Credits

Students will learn about the finance function as used by management, including financial analysis and control; financial planning; short, intermediate, and long-term financing; and the theory of cost of capital and leverage in planning financial strategies. Aviation-related businesses are emphasized.

MGMT 333
Personal Financial Planning (3,0)

3 Credits

The nature of the personal financial planning process is examined. Areas of concentration include taxes, investments, purchase of housing/auto, insurance needs and analysis, use of credit, and retirement and estate planning. Students will develop a personal financial plan and will invest in a \$500,000 portfolio of securities.

MGMT 335
International Business (3,0)

3 Credits

This course presents an analysis of economic development and international trade in modern times, with an examination of current U.S. relations with other nations. Attention will be focused on the impact of foreign trade on the aviation industry and the industry's contribution to economic development.

MGMT 340
Principles of Aerospace Business Valuation (3,0)

3 Credits

This course develops the elements

of valuation as they pertain to the determination of the market values of businesses and physical assets used in commerce, including case studies. Introduced is the specialized area of aviation/aerospace valuation applications.

MGMT 390
Business Law (3,0)

3 Credits

A survey of the legal aspects of business transactions is provided. Areas covered include contracts, agency, bailment, negotiable instruments, partnerships, corporations, consumer credit, and the government's influence on business law.

MGMT 405
General Aviation Marketing (3,0)

3 Credits

Marketing and management concepts applicable to FBOs and other general aviation enterprises are studied. Travel analysis is performed to determine the need for a business aircraft.

MGMT 406
Strategic Management of Technical Operations (3,0)

3 Credits

An advanced study of strategic management theory, technical management, and management of technology within a global aviation industry is presented. Detailed coverage of the aviation technical management field is provided, as well as that of the working aviation environment and system integration, where the effective management of research, design, production, technical sales, and services functions are employed.

MGMT 408
Airport Management (3,0)

3 Credits

The focus of this course will be an

examination of the management of airports. Emphasis is on the facilities that comprise an airport system, including airspace, airfield, terminal, and ground access operations.

MGMT 410
Management of Air Cargo (3,0)

3 Credits

This course offers intensive study of the practices and problems of management with respect to air cargo. The importance of air cargo service to the economy, development of the industry, regulation, complexity of the market, carriers, freight forwarders and third party logistics, along with rate and tariff problems, aircraft, terminal facilities, and future prospects are all discussed.

MGMT 411
Logistics Management for Aviation/Aerospace (3,0)

3 Credits

Students are provided with an opportunity to examine ways to optimize the physical flow of goods and materials within a firm from acquisition through production, and movement through channels of distribution. The course focuses on applying logistics theory to aviation management problems in materials handling, managing inventory, planning capacities, and locating distribution centers. Case studies with aviation/aerospace applications using computer models are included.

MGMT 412
Airport Planning and Design Standards (3,0)

3 Credits

The principles of airport master planning and system planning are studied. Fundamental principles of airport layout and design are covered, including geometric design, airport drainage, pavement design,

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passenger and cargo terminal layout, and capacity and delay effects.

MGMT 413

Aviation Machinery and Equipment Valuation (3,0)

3 Credits

Theories of machinery and equipment valuation in industry and how they apply to machinery and equipment used in the aviation/aerospace industry will be addressed in this course.

MGMT 415

Airline Management (3,0)

3 Credits

An introduction to the administrative aspects of airline operation and management is provided in this course. Topics include the annual profit plan, uniform system of accounts and reports, demand analysis, scheduling, the theory of pricing, fleet planning, facilities planning, and airline financing.

MGMT 418

Airport Administration and Finance (3,0)

3 Credits

The student will be presented with an opportunity for advanced study of the organizational, political, and financial administration of public and private civil use airports. Areas of emphasis include public relations management, safety and security issues, employee organizational structures, financial and accounting strategies, revenue and expense sources, economic impacts of airport operations, airport performance measurement standards, and current trends and issues of direct concern to airport administrators.

MGMT 419

Aviation Maintenance Management (3,0)

3 Credits

Students will perform a comprehensive examination of organizational maintenance policies, programs, and procedures. Emphasis is on maintenance planning, forecasting and cost control, reliability, safety, and flight schedule performance.

MGMT 420

Management of Production and Operations (3,0)

3 Credits

An intensive study of management of production and operations in all organizations, both service-oriented and product-oriented, will be conducted. Scheduling, inventory control procurement, quality control, and safety are investigated. Particular attention is given to applications of aviation-oriented activities.

MGMT 421

Small Business Management (3,0)

3 Credits

The student will undertake an analysis of the theoretical and practical knowledge necessary to be successful in conceiving, initiating, organizing, and operating a small business. Special focus will be placed on small businesses in the aviation field.

MGMT 422

Life Cycle Analysis for Systems and Programs in Aviation/Aerospace (3,0)

3 Credits

System theory and its relationship to aviation/aerospace systems management are emphasized. The course explores a brief history of system theory and system life cycle, and presents the major activities in

each phase of a system's life cycle. Also emphasized are specific topics related to system design and support, including reliability, maintainability, availability, testing, quality control, customer support, product-improvement program analysis, and the role of data collection and analysis in the operational phase. Related areas covered are cost-effectiveness analysis and project management. Applications and case studies specific to aviation/aerospace, including military applications and computer simulation models, will be analyzed.

MGMT 423

Aviation Machinery and Equipment Methodology (3,0)

3 Credits

This course develops the theoretical methodologies used in the assessment of the values of business and equipment and provides actual valuation experiences.

MGMT 424

Project Management in Aviation Operations (3,0)

3 Credits

This course introduces the student to the concept of project management in aviation operations. It addresses the three-dimensional goals of every project: the accomplishment of work in accordance with budget, schedule, and performance requirements. The procedures for planning, managing, and developing projects in an aeronautical environment are covered, as well as the aspects of controlling project configuration from inception to completion. Automated tools used to determine cost, schedule, staffing, and resource allocation are covered, as well as the process of determining the effectiveness and technical validity of aviation-related projects.

MGMT 425
Trends and Current Problems in Air Transportation (3,0)

3 Credits
 An analysis of selected contemporary issues, problems, and trends facing management in various segments of the aviation industry, including general aviation and the airlines, will be covered. Students apply previously learned concepts to practical problems to develop increased understanding and demonstrate knowledge of the subject.

MGMT 426
International Aviation Management (3,0)

3 Credits
 The student will perform an investigation of international aviation management and its three elements: the nature of international aviation business; working in a foreign environment; and managing in an international environment.

MGMT 427
Management of the Multicultural Workforce (3,0)

3 Credits
 Students are provided with an opportunity to explore management of the multicultural workforce. The elements of cultural anthropology and international business, communicating across cultures, contrasting cultural values, and managing and maintaining organizational culture are addressed in the context of international aviation management.

MGMT 433
Advanced Topics in Machinery and Equipment Valuation (3,0)

3 Credits
 This course develops applications of valuation theory in complex integration of machinery and equipment used in manufacturing,

production, and operations applications involving various businesses. Development of appraisal reporting and analysis of valuation principles used to conform to requirements of National Uniform Standards of Professional Practice is also addressed. Prerequisites: Successful completion of MGMT 423.

MGMT 436
Strategic Management (3,0)

3 Credits
 Strategic management principles involving strategy, formulation, implementation, evaluation, and organization analysis are studied in this business capstone course. Case analysis and the use of strategic management principles are used to examine and solve organization problems. Total Quality Management concepts are studied for improvement of organizational effectiveness.

MGMT 440
Advanced Professional Logistics (3,0)

3 Credits
 In the advanced professional

logistics course, a heavy emphasis is placed on the analysis of the Systems Engineering, Integrated Logistics Support and other previously learned business logistics theories and concepts so as to determine their appropriate application. A secondary emphasis is placed on the horizontal integration of these theories and concepts in a practical framework, which will serve as professional guidance for the business logistics manager. Prerequisites: MGMT 321, 331, 410, 411, 419, 420, and 422 or the equivalent of each of these courses.

MGMT 443
Applications in Income Property Valuation (3,0)

3 Credits
 In this course, students analyze financial statements, ratio analysis, fair market value, and classification of property used in industrial operations, specifically in the aviation/aerospace industry. Prerequisite: Successful completion of MGMT 433.



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MGMT 444 **Principles of Supply Chain Management (3,0)**

3 Credits

Supply Chain Management is one of the hottest topics in business today. The focus of this course is on understanding the history, principles, and major elements of supply chain management. Specific topics include sourcing and purchasing management; managing supplier relationships; demand forecasting; inventory management; quality management; domestic and international transportation; customer relationship management; enterprise resource planning systems; facility location decision-making; performance management; and future challenges facing supply chain managers.

MGMT 449 **Strategic Marketing Management (3,0)**

3 Credits

This is a capstone marketing course that focuses on strategic analysis and planning by aviation marketing managers. Emphasis will be given to corporate and marketing strategy, market analysis, and targeting, strategic marketing programming, and market control.

MGMT 450 **Airline/Airport Marketing (3,0)**

3 Credits

Students will conduct an investigation of the role of marketing in the aviation/airport industries. Issues covered include consumer segmentation, database management, integrated marketing communications, public relations, vendor relations, and retailing.

MGMT 299, 399, 499 **Special Topics in Management**

1-4 Credits

These are individual independent

or directed studies of selected topics in management. Prerequisite: Consent of instructor and approval of the department chair.

COOPERATIVE EDUCATION

MGMT 396, 397, 398 **Coop Education Management**

1-6 Credits

The student will gain practical learning experience in full-time or part-time employment that is related to the student's degree program and career goals. Course title and level are based on the work assignment.

MGMT 496, 497, 498 **Coop Education Management**

1-6 Credits

The student receives practical learning experience in full-time or part-time employment that is related to the student's degree

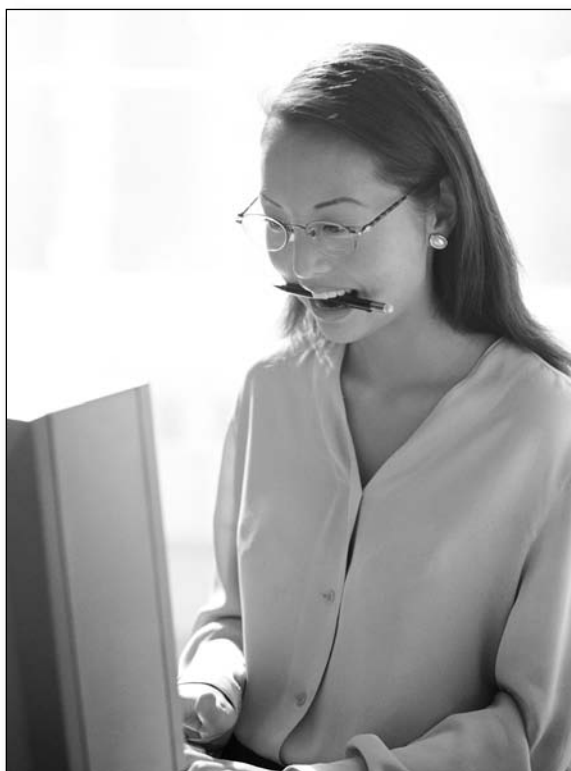
program and career goals. Course title and level are based on the work assignment. Continuation of MGMT 396, 397, 398.

PHYSICAL SCIENCE

PHYS 102 **Explorations in Physics (3,0)**

3 Credits

This is a survey course in elementary physics. Stress will be placed on basic concepts, principles, and history of the development of physics. Presentations will include selected topics in mechanics, heat, light, sound, electricity, magnetism, and modern physics. (This course cannot be used for credit in physics toward degrees in Computer Science, Engineering Physics, Civil, Aerospace or Electrical Engineering, Aircraft Engineering Technology, Aeronautical Science, or Avionics Technology.) Prerequisite: MATH 106, 111 or 140.



PHYS 142
Introduction to Environmental Science (3,0)

3 Credits
This introductory course stresses the interrelations of all aspects of the living and the nonliving world. It introduces the student to key concepts and principles that govern how nature works and the application of these concepts and principles to possible solutions to environmental and resource problems.

PHYS 150
Physics I for Engineers (3,0)

3 Credits
Vectors and scalar quantities, geometrical optics, kinematics, Newton's laws of motion, work, work-energy, conversion of energy, conversion of momentum, center of mass and its motion.
Prerequisite: Calculus I or MATH 112.

PHYS 160
Physics II for Engineers (3,0)

3 Credits
Special theory of relativity, rotational motion, simple harmonic motion, waves, fluid, heat, kinetic energy, thermodynamics.
Prerequisite: PHYS 150.
Corequisite: MATH 252.

PHYS 250
Physics III for Engineers (3,0)

3 Credits
Gravitational fields, electric and magnetic fields, Gauss's law, electric potential, linear accelerators, cyclotrons, capacitors, Ohm's law, Kirchoff's laws, Ampere's law, Faraday's law, Lenz's law, Maxwell's equations, selected topics from modern physics. Prerequisites: PHYS 160, MATH 252

PHYS 301
Astronomy (3,0)

3 Credits
This descriptive course deals with the structure and evolution of the physical universe. Topics include the solar system (Earth, Moon, Sun, and planets), stars, black holes, galaxies, quasars, cosmology, and exobiology. Planetarium trips and night observing sessions are optional.

PHYS 302
Evolution of Scientific Thought (3,0)

3 Credits
The development of science, from the earliest times through the modern period, is traced in this course. Particular emphasis is given to our changing concepts of nature and of science itself. (Also offered as HIST 302. Students receive either social science elective credit or physical science elective credit, but not both.)

PHYS 304
Environmental Science (3,0)

3 Credits
Problems arising from human use and abuse of the environment will be the focus of this survey course. Ecological, economic, sociologic, and technologic principles will be applied to the management control of pollution of the atmosphere and water sources of the earth.

PHYS 199, 299, 399, 499
Special Topics in Physical Science

1-4 Credits
These are individual independent or directed studies of topics in the fields of the physical sciences impinging on aerospace development or practices, and which are of current or anticipated interest. Prerequisite: Consent of instructor and approval of the department chair.

PORTFOLIO PREPARATION

PREP 102
Self-Assessment and Portfolio Preparation (2,0)

1 Credit
This course is required of all adult undergraduate students seeking an assessment of their prior experiential learning by portfolio. Students will assess their prior learning experiences in light of career and educational goals. The distance learning course is designed to assist students in life and career planning, goal clarification, career concerns, portfolio preparation, and the development of college success skills. The focus is on methods of self-assessment of prior learning work/education/training experiences and procedures for assembling a portfolio to document learning experiences. This course is graded Satisfactory/Unsatisfactory and is required for students who seek prior learning portfolio evaluation. Students must register for PREP 102 in their first two terms as a degree-seeking student at ERAU.

SOCIAL SCIENCES

PSYC 220
Introduction to Psychology (3,0)

3 Credits
This course offers a survey of the biopsychosocial continuum and the intrapsychic, interpersonal, and organizational factors affecting human behavior. A primary feature of the course is its focus on the scientific method as the route to psychological knowledge. Students examine the rationalist, empiricist, and experimental foundations of the scientific method and how these foundations can be critiqued. Topics include sensation, perception, learning, memory, personality, psychopathology,

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physiological psychology, and social processes. Emphasis is placed on the application of the basic principles of psychology to engineering, aviation, public policy, and business.

PSYC 320 **Aviation Psychology (3,0)**

3 Credits

Students will explore the complexities of human factors research in aviation. Drawing extensively on such diverse areas as human physiology, basic learning theory, aviation safety, and pilot training, the course surveys the study of human behavior as it relates to the aviator's adaptation to the flight environment.

PSYC 350 **Social Psychology (3,0)**

3 Credits

The interactional forces between groups and the individual in society will be the focus of this course. Since the major emphasis of the course is on social interactions, such diverse topics as group dynamics, interpersonal relationships, prejudice, discrimination, and antisocial behavior will be considered. Special attention is given to the topic of stress in the aviation environment.

PSYC 400 **Introduction to Cognitive Science (3,0)**

3 Credits

An introduction to the science of the mind from the perspective of cognitive psychology, this course is a study of linguistics, neuroscience, philosophy, and artificial intelligence. The focus is on the similarities and differences in the approaches taken by researchers in their study of cognitive mechanisms in these different fields. Issues to be

addressed include: What does it mean to be able to think? What kind of computational architecture(s) is most appropriate to describe cognitive mechanisms? Is the mind an emergent property of the brain? What kind of hardware is required for thinking to occur? Can a computer have a mind?

SECURITY SCIENCE

All the SCTY courses fulfill Technical Operational Specialty requirements in the BSTM degree program.

**These courses will also satisfy Social Sciences requirements.*

SCTY 312 **Global Crime And Criminal Justice Systems (3,0)**

3 Credits

In this course, students will be presented the current status and predicted trends in global crime and criminal justice systems. They will be given descriptions of the three types of terrorism: domestic (U.S.), international (group directed), and state sponsored. Concepts and theories will be applied in discussions on how to best combat the threat.

***SCTY 315** **Studies in Intelligence I (3,0)**

3 Credits

In this course, the student will be provided descriptions of the varied ways strategic intelligence is used by world leaders to shape policy and its effect on world events. Intelligence collection, analysis, and dissemination and counterintelligence will be among the issues examined and discussed. Prerequisites: one psychology course and one government/ history course, or permission of the instructor.

SCTY 385 **Intelligence Analysis-Writing and Briefing (3,0)**

3 Credits

In this course, the student will be given the opportunity to gain practical experience in the intelligence functions of analysis, writing, and briefing. The student will be expected to demonstrate an "intelligence-oriented mind" and ability to work under time pressure. The student will become familiar with analytical methodologies and writing styles that make complex world events explicable to military



decision makers and senior policy makers.

SCTY 400
Airport Security (3,0)

3 Credits

This course will cover specific facets of aviation related security to include physical and procedural controls, regulations of the Department of Homeland Security, the Transportation Security Administration, the Federal Aviation Administration and ICAO, as well as international treaties. The course will also discuss the current threat, counter terrorism measures, new technologies in the field and the importance to the aviation industry, both passenger and cargo to the global economy.

***SCTY 415**
Studies in Intelligence II (3,0)

3 Credits

The course is a simulation of intelligence officers' activities. The student will function as an intelligence desk officer for either a government, global corporation, terrorist group, global criminal organization, or multilateral political organization. Using the simulation, the student will study and practice many components of tactical and strategic intelligence. Some components included will be intelligence collection, evaluation, analysis, production, and dissemination; intelligence oversight; covert and clandestine operations; intelligence bureaucracies; espionage; ethical and moral issues in intelligence; and counterintelligence. The course emphasizes functional interactions.

SCTY 485
Corporate Security (3,0)

3 Credits

The student will be exposed to issues in the field of private/corporate security. Private security

firms work with public law enforcement strengthening the overall security posture of firms, schools, etc. Beginning with a discussion of the differences between public and private police, students will analyze security needs of business and private establishments, in detail, and the threats that might emanate from tapped phones, bugged offices, stolen papers, covert recording, undercover employees, phony repair people, fax intercepts, etc. The substance of the course will include practical and theoretical elements affecting the field.

***SCTY 488**
National Security Issues and Terrorism (3,0)

3 Credits

Although terrorism has been a known phenomenon for centuries, it has become the most frequent form of conflict in the late 20th century. Success in preventing nuclear warfare and in curbing the outbreak of most conventional war has resulted in more forms of low intensity violence, a significant feature of which is overt terrorism. Ideological hardening, ethnic militancy, and religious revivalism have fueled terrorist ambitions. Broadly speaking, there are three types of terrorism, classified on the basis of actors. The course will address all three types: domestic (U.S.), international or group directed, and state sponsored.

SAFETY SCIENCE

SFTY 311
Fundamentals of Occupational Safety and Health (3,0)

3 Credits

The student will be provided an introduction and overview of the Occupational Safety and Health (OSH) Act and how provisions of

the Act are implemented in the workplace. The course is designed for the beginning safety student and is a prerequisite for most of the higher level safety courses. Material presented covers the rights and responsibilities under the OSH Act, the appeals process, recordkeeping, and voluntary protection programs. The course also includes an introduction to OSHA's general industry standards and an overview of the requirements of the more frequently referenced standards.

SFTY 315
Environmental Compliance and Safety (3,0)

3 Credits

The focus of this course is on matters associated with health and safety relating to the environment, including air, water quality, and sanitation. Areas of concentration include hazardous materials, their storage, handling, and transportation. Additional study includes waste management and cleanup as well as a detailed study of environmental laws, regulations, and protection of workers involved in activities associated with hazardous materials.

SFTY 320
Human Factors in Aviation Safety (3,0)

3 Credits

This course focuses on the major causative agent in aircraft accidents: the human being. Emphasis is placed on psychological and physiological factors that enhance the accident probability. Included is a detailed analysis of ergonomics (human engineering) and its influence in aviation design.

SFTY 321
Ergonomics (3,0)

3 Credits

The concepts and physiological aspects of ergonomics will be

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examined in this course. Material presented covers anthropometric principles in workspace and equipment design, workspace design, human-machine systems, analysis and design of displays and controls, and environmental factors affecting work environment.

SFTY 330 Aircraft Accident Investigation (3,0)

3 Credits

This course is a detailed evaluation of methods and procedures involved in aircraft accident investigation. The organization, duties, and procedures of the Aircraft Accident Board are analyzed. The student explores procedures for determining accident causes through analysis of such elements as the function and techniques employed by the trained accident investigator and the role of the specialized laboratory. Analysis is also made of reporting procedures and the all-important follow-up work designed to avoid similar or related aircraft accidents.

SFTY 335 Mechanical and Structural Factors in Aviation Safety (3,0)

3 Credits

Students will conduct a thorough examination of design, manufacturing, metallurgy, and maintenance to determine the influence each has on aircraft accidents. A detailed analysis of the failure process will be conducted. Additional topics include stress and design loading, fatigue, corrosion, and the envelope of operation.

SFTY 341 Occupational Safety and Health Program Management (3,0)

3 Credits

Students will learn about the principles of the development

and management of materials, techniques, and procedures used in the implementation of occupational safety and health programs and their application in a variety of occupational settings. Examined will be the management techniques, governmental regulations, and safety and health programs developed for industry. The course will focus on the history of the safety and health movement; government regulations; safety and health program organization; hazard information and analysis process; and implementation of an occupational safety and health program.

SFTY 345 Aviation Safety Program Management (3,0)

3 Credits

The principles of the development and management of an effective aviation safety program will be studied in this course. The philosophy and historical development of major concepts are examined with particular emphasis

on areas of special concern in organizational accident prevention. Students analyze the influence of morale, education, and training, the role of the supervisor, and other substantial program elements of value to the aviation safety manager.

SFTY 350 Aircraft Crash and Emergency Management (3,0)

3 Credits

Theory, practices, and techniques used in the response phase of aircraft crashes and emergencies are examined. This course is designed as a real-world introduction to the field of emergency response at the CFR agency level, the airport response and administration levels, and the related and associated entities involved in aircraft mishaps.

SFTY 355 Industrial Hygiene & Toxicology (3,0)

3 Credits

An evaluation of principles associated with industrial hygiene is the focus of this course. Topics



include recognition, evaluation, and control of hazards related to noise, vibration, ionizing and nonionizing radiation, thermal conditions, pressure, chemicals, airborne contaminants, and biological substances. These subjects will be discussed in relation to all regulatory requirements using both engineering and non-engineering controls. Prerequisites: PHYS 102, SFTY 311.

**SFTY 360
Construction Safety (3,0)**

3 Credits
The student is provided with an opportunity for an in-depth study of construction safety and the importance of safety and health in the construction industry. The Code of Federal Regulations (29 CFR 1926) governing the construction industry will be examined. The focus is the management and application of the regulations in the workplace, typically through safety inspections, job safety planning, organizing and conducting health and safety training, investigating and maintaining records of construction accidents, incidents, and injuries and illnesses.

**SFTY 365
Fire Protection (3,0)**

3 Credits
This course introduces the basics of fire and fire protection. Students will study the physics, chemistry, characteristics, and behavior of fire, fire hazards of material, fire suppression systems, extinguishing agents, and detection and alarm systems. Transportation and industrial related fire hazards and the prevailing regulatory requirements will be covered. Prerequisites: PHYS 102, SFTY 311.

**SFTY 375
Propulsion Plant Investigation (3,0)**

3 Credits
This is a technical course in aircraft reciprocating and turbine engine fundamentals and relevant accident investigative procedures. Areas of study include basic construction and design, with emphasis on major sections, components, and their mechanical relationships. Power plant systems and system mishap investigation is also covered and includes fuel, lubrication, ignition, and start systems. A study of propeller basics and investigative techniques is also included.

**SFTY 409
Aviation Safety (3,0)**

3 Credits
This course is aviation safety for nonflying students. Major problem areas in aviation safety, safety program evaluation, and impact of accidents on industry are covered. The focus is on human factors, basic accident prevention programs, and the roles of various government and industry organizations in preventing accidents.

**SFTY 410
Design of Engineering Hazard Controls (3,0)**

3 Credits
This course addresses the application of scientific and engineering principles and methods to achieve optimum safety and health through the analysis and design of processes, equipment, products, facilities, operations, and environments. Subjects will include product design, plant layout, construction maintenance, pressure vessels, and transportation vehicles and systems. These subjects will be discussed in relation to all regulatory requirements. Prerequisites: PHYS 102, SFTY 311.

**SFTY 420
Systems Design for Fire and Life Safety (3,0)**

3 Credits
This course centers on design principles involved in building construction standards and building codes to ensure maximum life and property safety from fires, explosions, and natural disaster. Egress design specifications, occupancy and construction classifications, and fire protection requirements for buildings will be covered. Prerequisites: PHYS 102, SFTY 311.

**SFTY 435
Aircraft Crash Survival Analysis and Design (3,0)**

3 Credits
The student will conduct an in-depth analysis of the accident environment, with particular emphasis on the protection of the occupants, in this course. The injury mechanisms and causes will be analyzed, as will the physics and kinematics of the impact sequence. The intent of the course is to familiarize the student with what can be done to minimize the effects of an accident on the human occupants. Prerequisite: MATH 106.

**SFTY 440
System Safety Management (3,0)**

3 Credits
The development and implementation of the system safety discipline in technical industries, including aviation, is reviewed in this course. System safety entails specialized integration of skills and resources in all phases of the life cycle of a given system in furtherance of accident prevention. Its heritage is systems engineering and management theory, but amplified to include modern safety practices derived from numerous disciplines. Students will acquire an

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understanding of how accident prevention is designed into equipment, processes, and facilities under development, evaluated and enhanced during testing, and assured or otherwise controlled during operational use. Prerequisite: MATH 106.

SFTY 450

Loss Control and Insurance (3,0)

3 Credits

The principles of loss control, insurance, and financial risk management, as they apply to the SHE professional, are studied in this course. The basic concepts of financial risk management, legal principles, property and liability insurance, life and health insurance, employee benefits, social insurance, and functional and financial operations of insurers will be examined. Primary emphasis is placed on consumer considerations, coverage of personal risk management, and financial planning. Prerequisite: SFTY 341.

SFTY 462

Health, Safety, and Aviation Law (3,0)

3 Credits

This course introduces the student to the legal issues and concerns confronting the health and safety industry. Included is an overview of the historical legal precedence established for the aviation industry as well as a comprehensive examination of the laws, regulations, and legislation that governs the actions and authority of the health and safety professional. This course also provides an introduction to the governing bodies and associations tasked with setting the legal standards by which the industry must operate.

SFTY 470

Advanced Occupational Safety and Health Technology (3,0)

3 Credits

In the advanced occupational safety and health technology course, a heavy emphasis is placed on the analysis of previously learned occupational safety and health theories and concepts so as to determine their appropriate application. A secondary emphasis is placed on the horizontal integration of these theories and concepts in a practical framework, which will serve as professional guidance for the practicing occupational health and safety technologist.

Prerequisites: SFTY 311, SFTY 341, and SFTY 355.

SFTY 299, 399, 499

Special Topics in Safety

1-3 Credits

These courses consist of individual independent or directed studies of selected topics in safety.

Prerequisites: Consent of instructor, approval of department and program chairs, and 12 hours of SFTY courses.

SOCIAL SCIENCES

SOCI 210

Introduction to Sociology (3,0)

3 Credits

Students are provided an integrated survey of the fundamental concepts of culture, forms of collective behavior, community and social organization, social interaction and social change. The social effects of aviation and the impact of science on the social order living in an airage will also be investigated.

SOCI 300

Marriage and Family (3,0)

3 Credits

This course analyzes the

sociological, physical, psychological, legal and economic aspects of the American family. Demographic trends and interpersonal behavior in family and marriage are discussed, including childbearing and divorce, theories of mate selection, preparation for marriage, marital interaction, sexuality, parenthood and marital adjustment. Contemporary controversial issues, such as the relationship of unmarried couples, alternative marriage forms, abortion, and violence are also addressed as they relate to the family.

SOCI 310

Personality Development (3,0)

3 Credits

Students will become acquainted with the environmental factors that affect personality development, emotional stability, and interpersonal relationships in our society. Through an understanding of these factors, individuals will discover new modes of adjustment, both in their own lives and in their family/occupational settings.

SOCI 299, 399, 499

Special Topics in the Social Sciences

1-6 Credits

These are individual independent or directed studies of selected topics in the areas of history, sociology, psychology, and human culture in general. Prerequisite: Consent of instructor and approval of the department chair.

SPEECH

SPCH 219

Speech (3,0)

3 Credits

This course is a continuation of the study of communication and communication theory. Emphasis is on overcoming communication



apprehension, developing listening skills, mastering oral performance, and writing about communication. Individual sections may focus on public speaking, group discussion, oral interpretation, or interpersonal communication. Section emphasis varies by instructor: Please refer to the Schedule of Courses.

AIR FORCE AEROSPACE STUDIES

USAF 101

The Air Force Today (General Military Course) (1, 0)

1 Credit

A survey course designed to introduce students to the United States Air Force and Air Force Reserve Officer Training Corps. Featured topics include: mission and organization of the Air Force, officership and professionalism, military customs and courtesies, Air Force officer opportunities, group leadership problems, and an introduction to communication skills. Leadership Laboratory is mandatory for Air Force ROTC cadets, and complements this course by providing cadets with followership experiences.

USAF 102

The Air Force Today) (1, 0)

1 Credit

Continuation of USAF 101. A weekly Leadership Laboratory is mandatory.

USAF 101L/USAF 102L Leadership Laboratory (0,2)

0 Credit

Consists of Air Force customs, courtesies, health, physical fitness, field training orientation, drill and ceremonies. These courses are graded Pass/Fail.

USAF 201

The Air Force Way (General Military Course) (1,0)

1 Credit

The USAF 201 course is designed to examine the general aspects of air and space power through a historical perspective. Utilizing this perspective, the course covers a time period from the first balloons and dirigibles to the spaceage global positioning systems of the Persian Gulf War. Historical examples are provided to extrapolate the development of Air Force capabilities (competencies), and missions (functions) to demonstrate the evolution of what has become today's USAF air and space power. Furthermore, the course examines several fundamental truths associated with war in the third dimension: e.g. Principles of War and Tenets of Air and Space Power. As a whole, this course provides the cadets with a knowledge level understanding for the general element and employment of air and space power, from an institutional, doctrinal and historical perspective. In addition, the students will continue to discuss the

importance of the Air Force Core Values, through the use of operational examples and historical Air Force leaders, and will continue to develop their communication skills. Leadership Laboratory is mandatory for AFROTC cadets and complements this course by providing cadets with followership experiences.

USAF 202

The Development of Air Power (General Military Course)

(1, 0)

1 Credit

Continuation of USAF 201. A weekly Leadership Laboratory is mandatory.

USAF 201L/USAF 202L

Leadership Laboratory (0,2)

0 Credit

Consists of Air Force customs, courtesies, Air Force environment, drill, ceremonies, and field training orientation. These courses are graded Pass/Fail.

USAF 301

Air Force Leadership and Management (Professional Officer Course) (3, 0)

3 Credits

A study of leadership, management fundamentals, professional knowledge, Air Force personnel evaluation systems, leadership ethics, and the communication skills required of an Air Force junior officer. Case studies are used to examine Air Force leadership and management situations as a means of demonstrating and exercising practical applications of the concepts being studied. A mandatory Leadership Laboratory complements this course by providing advanced leadership experience in officer-type activities, giving students the opportunity to apply the leadership and management principles of this course.

USAF 302
Air Force Leadership and Management (Professional Officer Course) (3, 0)

3 Credits

Continuation of USAF 301. A weekly Leadership Laboratory is mandatory.

USAF 301L/USAF 302L
Leadership Laboratory (0,2)

0 Credit

Provides advanced leadership experience in officer-type activities, giving students the opportunity to apply leadership and management principles. These courses are graded Pass/Fail. Prerequisites: Completion of the General Military Course or Two-Year Program selection and/or approval of the Professor of Aerospace Studies.

USAF 401
Preparation for Active Duty (Professional Officer Course) (3, 0)

3 Credits

Examines the national security

process, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics of interest focus on the military as a profession, officership, military justice, civilian control of the military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis is given to the refinement of communication skills. An additional Leadership Laboratory complements this course by providing advanced leadership management principles.

USAF 402
Preparation for Active Duty (Professional Officer Course) (3, 0)

3 Credits

Continuation of USAF 401. A weekly Leadership Laboratory is mandatory.

USAF 401L/USAF 402L
Leadership Laboratory (0,2)

0 Credit

Provides advanced leadership

experiences in officer-type activities. These courses are graded Pass/Fail. Prerequisites: Completion of the General Military Course or Two-Year Program selection and/or approval of the Professor of Aerospace Studies.

METEOROLOGY

WEAX 201
Meteorology I (3,0)

3 Credits

This is a survey course in atmospheric science that includes applications to flight. Included is a systematic development of the following: thermal patterns, atmospheric moisture, horizontal and vertical pressure patterns, clouds, atmospheric circulation, local winds, stability, air masses, fronts, fog, icing, thunderstorms, jet streams and turbulence. Students will study and make use of surface weather observations, surface maps, and constant pressure maps.

WEAX 352
Meteorology II (3,0)

3 Credits

An expansion of Meteorology I, this course includes the following theoretical concepts: hydrostatic instability, baroclinic instability, thermal wind, and kinematic fields. These will be integrated into real-time weather analysis of synoptic patterns involving mid-latitude cyclones, frontal systems, and jet streams. The anatomy of severe thunderstorms, particularly as applied to aviation hazards, will be treated in detail through analysis of recent synoptic data. Practical application will be achieved in current weather discussions, which will be given by teams of students. In addition, study of weather radar, solar aspects, and satellite meteorology will be accomplished. Prerequisite: WEAX 201.



GRADUATE COURSES

AERONAUTICAL SCIENCE

ASCI 509 **Advanced Aerodynamics**

3 Credits

In this course, students will examine current flight applications and problems. Specifically, this includes transonic, supersonic, and hypersonic aerodynamics, principles of aircraft stability and control, and operational strength considerations. Emphasis is placed on the applications of the rapidly changing technological innovations in aerodynamics and the solutions to the problems created by these advances.

ASCI 510 **Advanced Aircraft Performance**

3 Credits

In this course the student explores performance characteristics for transonic, supersonic, and near space air vehicles powered by jet or rocket engines. Problems related to high speed and high altitude flight such as aero elastic effects, compressibility drag, Reynolds Number effects, ram pressure rise, and aerodynamic-heating are explored. Discussions will center on current developments and problems associated with these advancements.

ASCI 511 **Earth Observation and Remote Sensing**

3 Credits

U.S. and international solar system exploration programs are reviewed and related to the current and proposed Earth-research projects. Examination of these research programs will be structured toward defining problems related to environmental changes and resource exploration. Formatted research data from Earth-resource satellites and EOS sources will be

used for demonstrating specific research techniques, exploration methods, and economic and social elements of exploration.

ASCI 512 **Space Mission and Launch Operations**

3 Credits

This course introduces the student to launch, mission operations, and facilities for manned and unmanned missions at U.S. and foreign sites. Satellite and spacecraft launch facility system discussion covers safety, meteorology, communications, and tracking, as well as navigation and control systems. Examples of mission control, operations, and systems include spacecraft project descriptions and control site operations. Computer-based simulation instruction provides mission and site specific operation detail.

ASCI 513 **Space Habitation and Life Support Systems**

3 Credits

This course addresses the problems related to space-flight induced changes in the major body systems that need to be solved in this decade, to develop countermeasures for maintaining the health of crewmembers on long duration space operations. Physiological elements of zero gravity environment, radiation hazards, and protection measures are explored, along with physical and chemical closed-loop life support systems for long duration space missions. More elaborate life support systems for larger manned missions and colonies are outlined for further student development.

ASCI 514 **Computer-Based Instruction**

3 Credits

This course addresses the design,

development, and evaluation of instructional software as it applies to the aviation/aerospace industry. Students are offered practice in the systematic design of computer-based instruction, with emphasis in tutorials, drill and practice, and simulation. CBI lessons are developed using available authoring systems.

ASCI 515 **Aviation/Aerospace Simulation Systems**

3 Credits

The course focus is on simulation in modern aviation/aerospace, including history, state-of-the-art, and current research and development. Discussions focus on the extent and impact of simulator application throughout the industry and the effects on training costs and safety. Topics range from the flight crew being checked out, updated, evaluated, or retrained in aircraft and systems simulators to the simulation models used in management, flight operations, scheduling, or air traffic control.

ASCI 516 **Applications in Crew Resource Management**

3 Credits

In this course, students examine the common concepts of crew resource management (CRM) as developed by major air carriers and explore the theoretical basis of such training. Topics such as supervision of crewmembers, counseling, manner and style, accountability, and role management will be studied. Each student has the opportunity to become knowledgeable in a specific area of CRM by assisting in the development of a CRM research document as part of the course. Additionally, each student uses simulators and computer-based

GRADUATE COURSES

instruction to supplement academic instruction.

ASCI 517 Advanced Meteorology

3 Credits

Course topics include the derivation and application of the hydrostatic equation, atmospheric kinematics, derivation of the equation of continuity, development of thermal wind, fundamental weather analysis, high altitude and radar meteorology, air pollution, and solar impact on weather. The student practices current weather analysis and short range weather forecasting using much of the latest equipment available in aviation.

ASCI 518 Aviation/Aerospace Operations Research

3 Credits

This is a survey course in the use of the most common operational methodologies used in managerial decision-making. Emphasis will be on the use of these methods in aviation, and aviation-related industries. Topics include: Linear programming, probabilistic dynamic programming, game theory, forecasting, queuing theory, transportation, decision making under uncertainty, network models, and Markov Chains. The goal is to make students knowledgeable consumers of the methodologies and their results.

ASCI 521 Aviation/Aerospace Information Management

3 Credits

This course aims to develop knowledgeable and effective users of information technology in aviation/aerospace management occupations. A combination of technical and managerial material is presented.

The material presented is necessary to achieve an understanding of the operations and strategic uses of management information systems in the aviation/aerospace industry. Emphasis is placed on the use of computers as an information processor, decision tool, and as a means of linking management more closely to the organization. Topics relating to the identification and management of information resources are presented.

ASCI 550 Aviation Education Foundations

3 Credits

This course assists in developing contexts and concepts in which educational problems and issues may be understood, particularly the role of aviation in education. Emphasis is placed on aviation education and its historical and philosophical foundations.

ASCI 560 Rotorcraft Operations

3 Credits

The course introduces the complexities of rotary wing flight systems and the advancements made to overcome them. The unique problems facing an organization involved in rotorcraft operations are studied, from the initial inception of a program to the government rules and regulations, environmental and noise considerations, special landing and take-off facilities, flight and maintenance ratings, and techniques of control. Special consideration is given to the unique problems and issues facing such rotorcraft operations as police, medical evacuation, forestry service, and corporate aviation.

ASCI 590 Graduate Seminar

1-3 Credits

This course consists of completing a study of the most current advancements in a particular field as determined by the instructor of the course. This course has a different topic each term depending on the varied interests of the student, the graduate faculty, or the research requirements of the Aeronautical Science department.

ASCI 601 Applications in Space: Commerce, Defense, and Exploration

3 Credits

The scientific, military, and commercial interests in international and domestic space programs are examined throughout the history of space flight. The needs of commercial space endeavors and methods of expanding space technology into manufacturing are contrasted to the importance of scientific exploration, and the requirements of military space operations. The justification, development, and costs of scientific exploration programs, defense-related projects, and commercial endeavors are used to study the evolution of space missions and the development of future programs.

ASCI 602 The Air Transportation System

3 Credits

A study of air transportation as part of a global, multimodal transportation system, the course reviews the evolution of the technological, social, environmental, and political aspects of this system since its inception at the beginning of the previous century. The long-term and short-term effects of U.S. economic deregulation, energy shortages, governmental restraints, national

and international issues, and international terrorism are examined. Passenger and cargo transportation, as well as military and private aircraft modes, is studied in relation to ever-changing transportation requirements.

ASCI 603 Aircraft and Spacecraft Development

3 Credits

This course is an overview of aircraft and spacecraft development. Included are vehicle mission, the requirements directed by economic, military, and defense considerations, and research and developmental processes needed to meet vehicle requirements. Aviation and aerospace manufacturing organizations and techniques are addressed, including planning, scheduling, production, procurement, supply, and distribution systems. Aviation and aerospace maintenance systems from the built-in test equipment to the latest product support activities are explored.

ASCI 604 Human Factors in the Aviation/Aerospace Industry

3 Credits

This course presents an overview of the importance of the human role in all aspects of the aviation and aerospace industries. Emphasis is on issues, problems, and solutions of unsafe acts, attitudes, errors, and deliberate actions attributed to human behavior and the roles supervisors and management personnel play in these actions. Students examine the human limitations in the light of human engineering, human reliability, stress, medical standards, drug abuse, and human physiology. Discussions include human behavior as it relates to the aviator's adaptation to the flight

environment, as well as the entire aviation/aerospace industry's role in meeting the aviator's unique needs.

ASCI 606 Aviation/Aerospace Communications/Control Systems

3 Credits

A detailed analysis of current and future developments and trends in the control of air traffic is conducted. Topics addressed include the evolution of current national policies, plans, and objectives. The most recent planned improvements for each major component of ATC systems are examined individually and as part of the system as a whole.

ASCI 607 Advanced Aircraft/Spacecraft Systems

3 Credits

State-of-the-art aircraft/spacecraft systems and projections of research trends for future air vehicle requirements and applications are examined. Topics include the development, capabilities, and limitations of current aircraft/spacecraft propulsion, electrical, environmental, control, hydraulic systems, and sub-systems. The total aircraft design and the interdependence of aircraft system design constraints are emphasized, as well as current problems and solutions.

ASCI 609 Aircraft Maintenance Management

3 Credits

This course provides a detailed analysis of commercial air carrier and general aviation aircraft maintenance that includes regulation, organization and structure, capabilities and limitations, maintenance levels, inspection and

reporting requirements, and prevention and correction inspections. Case studies of typical and unique maintenance scenarios are used. A major course objective is to heighten awareness of the critical interface of maintenance with flight, supply, and training activities.

ASCI 610 Instructional System Design Project

3 Credits

This course addresses the analysis, design, development, implementation, and evaluation of instructional programs and materials in aviation/aerospace industry settings. The major components of instructional design models, along with their respective functions, will be presented. The course is an applications course, which provides both introductory information and practice in the application of skills and techniques necessary to produce sound instructional products.

ASCI 611 Aviation/Aerospace System Safety

3 Credits

This course emphasizes the specialized integration of safety skills and resources into all phases of a system's life cycle. Accident prevention, beginning with systems engineering together with sound management, are combined in this course to enable students to fully comprehend their vital roles in preventing accidents. The total program, from basic design concepts through testing, maintenance/systems management, and operational employment, is fully examined and evaluated.

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ASCI 612

Aviation/Aerospace Industrial Safety Management

3 Credits

The course focus is on the modern work setting from an aviation and aerospace safety and health point of view. An analysis of the history of industrial safety leads the student to an understanding of why and how aviation/aerospace industrial safety management evolved into an advanced discipline. The roles of and interactions between government, corporation, safety management and the worker, in the dynamic, economy-driven environments of aviation and aerospace, are central themes.

ASCI 614

Advanced Aviation/Aerospace Curriculum Development

3 Credits

This course investigates the traditional manner of curriculum development, with a concentration on preparing an instructional framework for a variety of aviation and aerospace instructional programs.

ASCI 615

Aviation/Aerospace Accident Investigation and Analysis

3 Credits

This course covers all aspects of the aircraft accident investigation process starting with preparation for investigation through report writing. Particular emphasis is placed on the study of human factors connected with flight and support crews activities in aviation operations. The course provides students with knowledge of the process of investigating accidents and incidents in an aviation organization. A critical analysis of selected aircraft accidents and an evaluation of casual factors are covered.

ASCI 616

Transportation Security

3 Credits

This course will focus on Transportation Security Administration regulations covering aviation, railroad, highway, marine, and pipeline transportation. Requirements for all modes of transportation will be covered, with emphasis on aviation security. Personnel and the technology needed to provide a safe and secure environment for airports and airlines will be discussed. Advanced security technology and its use to significantly increase the level of security in transportation will be covered.

ASCI 617

Airport Safety and Certification

3 Credits

This course provides a review and analysis of all Federal regulations applicable to safe conduct of airport operations. The requirements for airport certification are covered as well as airport environmental protection and occupational safety compliance. Day-to-day safe operations are emphasized.

ASCI 618

Aviation/Aerospace Safety Program Management

3 Credits

This course covers the essential skills and methodology needed to plan and manage an effective aviation safety program. Emphasis is placed on understanding the principles of risk management, and the principles, tools, and techniques used in a Safety Management System. Methods to achieve enhanced safety, moving beyond mere compliance with regulatory requirements are studied.

ASCI 620

Air Carrier Operations

3 Credits

This course addresses air carrier flight operation systems from the viewpoints of the ground-based dispatcher, operation specialists, managers, and the cockpit flight crew. Topics include advanced flight planning, aircraft performance and loading considerations, impact of weather conditions, and routing priorities.

ASCI 622

Corporate Aviation Operations

3 Credits

The establishment and operations of a corporate flight department are examined along with the procedures and techniques generally accepted as standards by professional corporate flight operations. Included is a practical view of the corporate aviation mission of management mobility and use of the resources available to accomplish it.

ASCI 634

Aviation/Aerospace Psychology

3 Credits

This course demonstrates the complexities of human factors research in aviation, ranging in areas such as human physiology, basic learning theory, aviation safety, and pilot training. A survey of the study of human behavior as it relates to the aviator's adaptation to the flight environment and attempts to design an occupant-friendly flight deck module is included.

ASCI 636

Advanced Aviation/Aerospace Planning Systems

3 Credits

Planning and decision-making techniques and strategies used in the aviation industry are emphasized in this course. The types and sources of

data needed for decisions about route development and expansion, fleet modernization, and new markets are examined. The methods of collecting, analyzing, and applying the data through computer applications, modeling, heuristic, value theory, and payoff tables are studied. Discussions include the limitations and problems associated with strategic planning.

ASCI 641 **Production and Procurement Management in the Aviation/Aerospace Industry**

3 Credits

The evolution of an air carrier aircraft from design concept to delivery is examined from the perspectives of the purchaser, manufacturer, component manufacturers, operators, and regulators. The process begins with demand analysis and continues through purchase contracting, manufacturing, marketing, certification, pre-delivery activities, and introduction into service.

ASCI 642 **International Aviation Policy**

3 Credits

This course addresses international management and aviation policy through the examination of major trends and issues challenging the aviation manager. Cross-cultural situations are evaluated from the perspective of interpersonal relationships in a diverse domestic and foreign environment, and in the context of evolving global trends. Strategic planning and negotiation are examined by defining the major tasks involved in organizing for international aviation, such as designing the organization and staffing. Managing workforce diversity is examined from culture-based and

comparative perspectives, along with the function of control through the examination of effective control systems for overseas operations that ensure environmental interdependence through social responsibility and ethical behavior.

ASCI 643 **Management of Research and Development for the Aviation/Aerospace Industry**

3 Credits

The types and sources of aviation/aerospace research and development are analyzed, with a focus on the structure and interrelationship of the industry, educational institutions, and other organizations. Sources and methods of funding, specification determination, the relationship of research and development to procurement and production, and the regulatory factors affecting progress from the initial development to production of the aircraft and components are examined. Concepts of motivation and management as applied to research scientists and engineers will be studied as well as procedures for promoting optimum creativity concurrently with efficient operations.

ASCI 644 **Integrated Logistics in Aviation Management**

3 Credits

This course centers on elements of a modern integrated logistics system. The organizational structure, inventory management, principles of warehousing, traffic management, international logistics, and quality management principles as they apply to logistics are key elements. The impact of just-in-time systems and quality management principles on physical

distribution and their relationship with integrated package and cargo carriers, advancements in intermodal transportation, and the deregulation of the transportation industry are probed. The characteristics of system design to meet requirements of reliability, maintainability, and supportability are examined, as is the economic feasibility of a logistics system, including a Life-Cycle Cost Analysis. The explosion of computer technology and its effect on electronic data interchange capability as they influence logistics policies and practices are explored. Introduced is the use of computer software to solve logistics problems.

ASCI 645 **Airport Operations and Management**

3 Credits

This course focuses on management and operation of public use airports. Topics covered include traffic forecasting, sources of revenues and expenses, management of passenger and cargo terminal buildings, ground handling of passengers and baggage, ground access systems, and the U.S. Federal Aviation Administration Regulations dealing with airport operations. Current problems with environmental impact, land-use planning and control, airport capacity and delay, public relations, airport finance, airport privatization, liability, and economic impact are discussed.

ASCI 646 **Airline Operations and Management**

3 Credits

This course centers on airline operations and functions. Domestic and international regulation of air carriers and the industry's changing structure due to alliances and

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globalization are addressed. Airline economics, airline marketing and pricing, computer reservation and revenue management systems, fleet planning and scheduling, aircraft maintenance, aircraft finance, labor relations, organizational structure, and strategic planning are studied.

ASCI 652

Continuing Education's Role in Aviation

3 Credits

This course is designed to assess community needs relative to developing programs in continuing education for the adult learner. Topics include evaluation of existing programs and the processes used in developing curricula for an adult continuing education program related to aviation.

ASCI 654

Adult Teaching and Learning Techniques

3 Credits

The major instructional strategies used in education with particular emphasis on higher education and adult learning are the core of this course. Multiple approaches as they relate to academic disciplines and grade levels are studied. The unique “cockpit classroom” environment will be discussed and evaluated.

ASCI 660

Sensation and Perception

3 Credits

This course examines how the human senses transform stimulus patterns of physical energy into the neural codes that become our perceptions of the world. Topics include vision, audition, smell, taste, touch, balance and phenomena common to all sensory modalities, such as feature enhancement, inhibition, adaptation, and stages of neural coding.

ASCI 661

Human-Computer Interaction

3 Credits

In this course, discussions of the importance of good interfaces and the relationship of user interface design to human-computer interaction (HCI) are emphasized. Topics include interface quality and methods of evaluation such as interface design examples, dimensions of interface variability, dialogue genre, dialogue tools and techniques, user-centered design and task analysis, prototyping and the iterative design cycle, user interface implementation, prototyping tools and environments, I/O devices, basic computer graphics, and color and sound.

ASCI 663

Memory and Cognition

3 Credits

In this course, students examine recent advances in memory and cognition research to obtain an understanding of how these theoretical and empirical advances have been, or might be, applied to problems of human/machine interactions and system design. Topics include the total range of memory and cognitive processes and their potential application to systems design—sensation perception, pattern recognition, attention, language, memory, concept formation, thinking, decision making, problem solving, time sharing, reaction time, action, manual control, and the impact of automation.

ASCI 665

Applied Experimental Design

3 Credits

The design, conduct, statistical analysis, and interpretation of common behavioral science research designs are covered in the context of aviation science topics.

Students learn to differentiate research designs along dimensions of experimental/non-experimental approaches, questions of group differences and questions of relationships between variables, adequacy of statistical power, “statistical significance,” and practical importance. Student projects include conducting statistical analysis and writing research results sections based on standard American Psychological Association format.

ASCI 690

Graduate Capstone Project

3 Credits

This course provides the student with an opportunity to conduct an investigation into a problem related to an aviation/aerospace topic, thus demonstrating the student’s expertise in problem definition, analysis, and solution processes and requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the MAS curriculum to provide the student with the opportunity to pursue a project of special interest. This is a required course for the degree. Under special circumstances approved by the Program Chair a student may be authorized to pursue a thesis. Prerequisite: GCPP 605.

ASCI 696

Graduate Internship in Aeronautical Science

1-3 Credits

Temporary professional or industrial work appointments are made available to students enrolled in graduate programs at the University. An internship provides graduate students with an opportunity to extend their academic endeavors through the application of the theories and

philosophies studied in the classroom to specific professional activities common to the work place. They are academic/professional activities coordinated by the University between offering organizations and a graduate student.

ASCI 699 **Special Topics in** **Aeronautical Science**

1-3 Credits

Students may elect to perform a special, directed analysis and/or independent study in an area of particular interest. A detailed proposal of the desired project must be developed and presented to the Director of Academics or department chair for faculty review and recommendation at least three weeks prior to the end of registration for a term.

ASCI 700 **Thesis**

6 Credits

A written document on an aviation/aerospace topic, supervised throughout its preparation by the student's Thesis Committee, will be submitted. The document should demonstrate the student's mastery of the topic and be of satisfactory quality for publication. Prerequisite: GCPP 605.

GRADUATE **CAPSTONE PROJECT** **PREPARATION**

GCPP 605

Methods and Procedures for **the Graduate Capstone Project** *3 Credits*

This course encompasses an explanation of the requirements for a graduate Capstone Project and the acceptable methods for

carrying out the project. Included in the course is the study of current aviation and industry related research and problem solving methods, including techniques of problem identification, hypothesis formulation, design and use of data-gathering instruments, data collection, and methods of data analysis and presentation. Research and technical reports appearing in professional publications and archives are examined as exemplars of the use of statistical terminology, computations and reporting methods. A formal capstone project proposal, designed to address a problem in the student's area of study will be developed and presented by each student as a basic course requirement. Prerequisites: Demonstrated knowledge of college level mathematics including introductory statistics, and basic computer operations and completion of at least 15 credit hours of the degree requirements.

BUSINESS **ADMINISTRATION**

MBAA 511 **Operations Research** *3 Credits*

This course is an advanced study in the use of mathematical and scientific tools and techniques in managerial decision-making. Operations Research seeks to determine how best to design and operate a system, usually under conditions requiring the allocation of scarce resources. Emphasis will be on the applications of these methods in aviation, and aviation related industries. Topics include: linear programming, probabilistic modeling, game theory,

forecasting, inventory modeling, queuing theory, transportation, decision theory, network models, simulation models, and Markov Chains. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 514 **Strategic Marketing Management** **in Aviation** *3 Credits*

The traditional role of marketing management is enlarged to include the development, implementation, and control of marketing strategies in the dynamic aviation/aerospace organization. Emphasis is on the application of the strategic marketing process in the turbulent global aviation business environment. Strategic marketing decisions, analysis, and issues are integrated with the goal of achieving customer satisfaction to gain a sustainable competitive advantage within the aviation industry. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 517 **Accounting for Decision Making** *3 Credits*

Financial control procedures for a systems approach to program management are presented. Cost elements in manufacturing, research and development, logistic and support services are explored. Included will be the introduction of fixed and variable costs; computing and using overhead; process and job order costing methods; preparation of income statements in the contribution format; ratio analysis; profit planning and its relationship to cost; budget and overhead analysis; pricing, capital budgeting and investment decisions.

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Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 518 **Managerial Finance** *3 Credits*

This course focuses on the theoretical and practical approaches to effective financial management. Planning, analyzing and controlling investment and short and long term financing are examined for decision making purposes. Emphasis is placed on the application of these methods in business settings. Topics include capital budgeting, risk and diversification, asset and liability management, financial derivatives and financial engineering, swaps, options and financial futures, and international finance. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 520 **Organizational Behavior, Theory, and Applications in Aviation** *3 Credits*

This course focuses on current theoretical and practical organizational issues which have a direct impact on management in the aviation industry. The emphasis is on human development and the development of effective work elements, as well as the personnel concerns which must be resolved for successful leadership. Topics provide insights to behavior, structure, authority, motivation, leadership, organizational development, and social responsibility. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 521 **Global Information and Technology Management** *3 Credits*

This course aims to develop

knowledgeable and effective users of information technology in aviation and aerospace management occupations. A combination of technical and managerial material is presented. The material presented is necessary to achieve an understanding of the operations and strategic uses of management information systems within the aviation industry. Emphasis is placed on the use of computers as an information processor, decision tool, and as a means of linking management more closely to the organization. In addition, topics relating to the management of information resources are presented. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 522 **Business Research Methods** *3 Credits*

Students are introduced to the art and science of solving aviation business research problems and becoming better users of research. Topics include research design, the scientific method and other research methodologies, problem formulation, operational definition, measurement and its impact on error and design, classification and modeling. The application of statistics, sampling surveys, decision analysis, management science techniques, and the use of statistical/operations research computer software are studied. An introduction of a style manual for the preparation of a research proposal is covered. Weekly lab sessions are required. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 523 **Advanced Aviation Economics** *3 Credits*

This course pursues an economic

analysis of the global airline industry. Topics include the history and economic rationale of government regulation and the effects of worldwide liberalization, demand for air transportation and modeling, pricing and revenue management, supply and route architecture, cost structure and methods of control, and fleet selection and financing. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 604 **International Management and Aviation Policy** *3 Credits*

This course addresses international management and aviation policy through the examination of major trends and issues challenging the international manager. Cross-cultural situations are evaluated from the perspective of interpersonal relationships in a diverse domestic and foreign environment, and in the context of evolving global trends. Strategic planning and negotiation are examined by defining the major tasks involved in organizing for international aviation operations, such as designing and staffing the organization. Managing workforce diversity is examined from culture-based and comparative perspectives, along with the function of control through the examination of effective control systems for overseas operations that ensure environmental interdependence through social responsibility and ethical behavior. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 607 **Human Resource Development** *3 Credits*

This course emphasizes the integration of the individual into the

organization by studying the current and fundamental issues in organization theory and organizational behavior as they relate to the individual. The effectiveness of the individual in the organization is examined in terms of personal traits such as communicative abilities, leadership style and potential, and beliefs about organizational ethics and social responsibility. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 635
Business Policy and Decision Making
3 Credits

This is a capstone course in the MBAA program that expands on the skills, knowledge, and abilities the students have achieved in their core courses. Students examine applications of long-term planning and management tools in aviation related industries, and formulate the strategic vision and policies to achieve such a perspective. Emphasis is on the extant corpus of research and scholarship in the field of Strategic Management. Applications of the concepts are applied to the domestic and international activities of airlines, airports, manufacturing and government to sustain a competitive advantage. Prerequisites: Completion of all MBAA core courses.

MBAA 690
Graduate Capstone Project
3 Credits

A written document on an aviation/aerospace or business management topic which exposes the student to the technical aspects of writing to including problem definition, analysis, and solution process utilizing statistical methods

of evaluation. This course is included in the MBAA curriculum to provide the student with the opportunity to pursue a project of special interest, but not to the level of a thesis. Prerequisite: MBAA 522.

MBAA 696
Graduate Internship in Aviation Business Administration

1-3 Credits
Temporary professional or industrial work appointments made available to students enrolled in graduate programs at the University. An internship provides graduate students with an opportunity to extend their academic endeavors through the application of the theories and philosophies studied in the classroom to specific professional activities common to the work place. They are academic/professional activities coordinated by the University between offering organizations and graduate student. Prior approval of the Graduate Program Chair is required.

MBAA 699
Special Topics in Business Administration

1-3 Credits
In this course, students elect to perform a special, directed analysis and/or independent study in an area of particular interest. Candidates selecting this elective must prepare a detailed proposal for the desired project and present the proposal to the graduate program chair or department chair for faculty review. Proposals must be submitted at least four weeks prior to the start of the term in which the elective is being taken. Prerequisites: Satisfactory completion of Business Foundation courses, and/or permission of the Graduate Program Chair.

MBAA 700
Thesis Research
3-9 Credits

A written document on an aviation/aerospace management topic supervised throughout its preparation by the student's Thesis Committee, which demonstrates the student's mastery of the topic and is of satisfactory quality for publication. This course is available by articulation agreement as an International Program Option and is not available to Worldwide Campuses. MBAA 522 may be incorporated by articulation agreement.

MANAGEMENT

MGMT 503
Business Foundations
(503A, 503B, 503C, 503D, 503E, 503F)

1 Credit Each
This course examines in-depth the major competencies which have been identified as essential prerequisite knowledge for a graduate student enrolled in the MSM or MBAA program to successfully complete the course work. The course is broken down into six stand-alone modules: management, quantitative methods, marketing, accounting, economics, and finance. Each student will only take those modules which have been identified through advisement as being required. Emphasis is placed on understanding the core knowledge and skills in each of the disciplines. Credit for this course is not applicable to the requirements of any Embry-Riddle degree.

MGMT 514
Strategic Marketing Management in Aviation

3 Credits
The traditional role of marketing management is enlarged to

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include the development, implementation, and control of marketing strategies in the dynamic aviation/aerospace organization. Emphasis is on the application of the strategic marketing process in the turbulent global aviation business environment. Strategic marketing decisions, analysis, and issues are integrated with the goal of achieving customer satisfaction to gain a sustainable competitive advantage in the aviation industry.

MGMT 517 **Accounting for Decision Making**

3 Credits

This course demonstrates management's use of accounting information to make decisions related to planning, controlling, and evaluating the organization's operations. Using electronic spreadsheets, the budgeting function and use of performance reports is demonstrated. The behavior and management of costs, as well as techniques used to evaluate and control results of operations, are discussed. Topics include cost-volume-profit analysis, activity-based costing in production and service companies, decentralized operations, and differential analysis techniques. Through the use of case studies, current readings, and course projects, emphasis is placed on aviation and aviation-related industries.

MGMT 518 **Managerial Finance**

3 Credits

This course focuses on the theoretical and practical approaches to effective financial management. Planning, analyzing, and controlling investment and short and long term financing are examined for decision making purposes. Emphasis is placed on the application of these methods in the

aviation and aviation-related industries. Topics include capital budgeting, risk and diversification, asset liability management, airport financing, aircraft financing, financial derivatives and financial engineering, swaps, options, and financial future, and international finance.

MGMT 520 **Organizational Behavior, Theory, and Applications in Aviation**

3 Credits

This course focuses on current organizational issues that have a direct impact on management in the aviation industry. The emphasis is on human development and the development of effective work elements, as well as the personnel concerns that must be resolved for successful leadership. Topics provide insights into behavior, structure, authority, motivation, leadership, organizational development, and social responsibility.

MGMT 522 **Business Research Methods**

3 Credits

Students are introduced to the art and science of solving aviation business research problems and becoming better users of research. Topics include research design, the scientific method and other research methodologies, problem formulation, operational definition, measurement and its impact on error and design, classification and modeling. The application of statistics, sampling surveys, decision analysis, management science techniques, and the use of statistical/operations research computer software are studied. An introduction of a style manual for the preparation of a research proposal is covered. Weekly lab sessions are required. Prerequisites: Satisfactory completion of Business Foundation

courses and/or permission of Graduate Program Chair.

MGMT 523 **Advanced Aviation Economics**

3 Credits

This course explores economic applications to the aviation and aerospace industry. Students will examine the evolution of market forces in the industry, with particular emphasis on airlines, airports, and manufacturing. Concepts of yield management, air passenger demand forecasting, price and cost study, airport economics, air and land space optimization strategies, government's role in aviation, international implications of competition and government regulation, economic analysis of safety, and other relevant industry issues are examined. Emphasis is placed on an increasingly international air transportation environment.

MGMT 531 **Structure and Application of Analytical Decision Processes for Managers I**

3 Credits

In this course the student has the opportunity to gain knowledge of the structure and application of management science processes used in management decision making. Processes included in this study are quantitative forecasting models, inventory models, models of transportation, product mix, and other applications using linear programming, decision making with uncertainty and risk, and queuing theory. Successful completion of college-level algebra and statistics is a prerequisite for this course.

MGMT 532 **Philosophy, Principles, and Practices in Management of Quality**

3 Credits

The content of this course incorporates multiple aspects of the

management of quality and the integration of quality considerations into all other management decision processes. The primary thrust of the course is an in-depth analysis of quality management concepts, methods, and techniques from a systems perspective. Areas of emphasis are leadership, strategy development and deployment, quality management tools, customer focus, supplier performance, management communications, projects, and training and development. The course encompasses the body of knowledge required in the Certified Quality Manager® certification.

MGMT 533

Legal, Ethical, and Regulatory Bases of Management Practices

3 Credits

The emphasis in this course is on managerial decision-making and sound management practice based on knowledge of legal, ethical, and regulatory fundamentals. Liability, contract, and labor law constraints as well as cultural and ethical foundations of management practice are included in the topics addressed. Regulatory controls and constraints on managerial decision making in areas such as occupational and environmental safety and discrimination in the workplace are included, as are other safety and security issues of which the manager should have knowledge.

MGMT 534

Anatomy of Work Organizations

3 Credits

In this course the student has the opportunity to gain and expand knowledge concerning how organizations carry out work. Included in the course are elements of organizational theory, organizational structure, and organizational planning. Topics address advantages and

disadvantages of structural types, locus of power and locus of authority issues, and formal and informal networks. Also included are issues such as conflict resolution, change management, formal and informal work relationships.

MGMT 535

Theory and Application of Managerial Communications

3 Credits

This course is designed to explore the role of communication in managing contemporary organizations and to provide a broad survey of the theoretical, organizational, behavioral, and technical aspects of communications. An emphasis is placed on the application of theory to practice, which is intended to develop students' managerial and strategic communication skills so that they may grasp not only how, but also what, why, when, and by what means managers effectively communicate. Students will have the opportunity to gain an understanding of why good communication skills are important in business, how communication today is affected by technology, why effective communication can be difficult, how communication is used in teams, and what issues exist in overcoming intercultural communication barriers.

MGMT 590

Graduate Seminar

1-3 Credits

In this course students explore the most current advancements in a particular field of study as determined by the instructor. The course has a different topic each term depending on the varied interests of the students, the graduate faculty, or the research requirements of the Aviation Business Administration department.

MGMT 603

Aerospace Production and Operations Management

3 Credits

This course addresses production and operations management as it relates to the planning, coordinating, and executing all activities that create goods and services in a global aeronautic/aerospace environment. Special quantitative and qualitative emphasis is placed on the blending of the concepts of industrial engineering, cost accounting, reliability and availability, and general management in the context of core production and control decision activities, such as capacity planning, product design, layout of facilities, selecting of locations for facilities, quality assurance, fleet planning, scheduling, inventory management, and project management. Special emphasis is placed on the examination of recent trends in global competition, increased reliance of quality for competitive technology transfer into production systems, and the increased value added by worker involvement in problem solving and decision making

MGMT 607

Human Resource Development

3 Credits

This course emphasizes the integration of the individual into the organization by studying the current and fundamental issues in organization theory and organizational behavior as they relate to the individual. The effectiveness of the individual in the organization is examined in terms of personal traits such as communicative abilities, leadership style and potential, and beliefs about organizational ethics and social responsibility.

MGMT 625

Airline Marketing

3 Credits

This course addresses the functions and basic concepts of marketing air

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transportation services. Discussion includes passenger and cargo markets, determinants of travel demand, growth factors, seasonality, and cargo traffic categories characteristics. Product and service elements, roles of advertising and travel agents, marketing unit structure, pricing and cost environment, and schedule planning are also among the topics examined.

MGMT 631 **Structure and Application** **of Analytical Decision Processes** **for Managers II**

3 Credits

This course expands the knowledge of the previous course by adding probabilistic modeling and simulation, network models such as PERT and CPM, and will incorporate additional methodologies of decision analysis, including statistical methodologies. Prerequisite MGMT 531.

MGMT 632 **Seminar in Aviation** **Labor Relations**

3 Credits

Included in this course for discussion are topics such as union movement, labor legislation, representation elections, the collective bargaining process, contract administration, and conflict resolution. The focus of the course is on current issues in labor relations and the evolution of private and public sector bargaining practices in the aviation industry. The impact on human resource management is analyzed.

MGMT 633 **Principles and Practices of** **Financial Accounting And** **Control of Managers**

3 Credits

This course offers the student

experience in a practical study that links accounting and financial control principles and practices in a systems approach to management of complex business operations. In this course the generation and effective use of accounting information to optimize the financial goals of a business in a competitive business environment requiring timely decisions about product development, production, marketing and capital budgeting are emphasized. Course topics include standard accounting methods, financial reports and ratios, real-time financial control methods, cash flow, critical resource management, and the impact of variability on uncertainty and risk. Methods for financial control include cost accounting approaches, pricing, job-order and flow cost measurements, and the use of modern computer systems for accounting and production management. Presented in this course is a working understanding of the complex accounting methods and reports required for regulatory purposes. The student will also gain knowledge of the principles and practices employed in financial planning and control at the managerial level.

MGMT 635 **Business Policy and** **Decision Making**

3 Credits

This is a capstone course in the MBAA/MSM program that expands on the skills, knowledge, and abilities the students have achieved in their core courses. Students examine applications of long-term planning and management tools in aviation-related industries, and will be able to formulate the strategic vision and policies to achieve such a perspective. Concepts of strategic management, total quality

management, continuous quality improvement, reengineering, customer-driven management, and other evolving management methodologies are explored. Applications of the concepts are applied to the domestic and international activities of airlines, airports, manufacturing, and government to sustain a long-term competitive advantage.

MGMT 641 **Airport Management**

3 Credits

In this course students have the opportunity to gain significant knowledge of the broad aspects of managing airports. Topics include air carrier relationships, governing body relationships, regulatory compliance, physical plant management, vendor relationships, zoning and land-use issues, and more.

MGMT 642 **Air Carrier, Passenger,** **and Cargo Management**

3 Credits

The course provides students with a broad perspective of passenger and cargo air carrier management. Topics include the role of air transportation in global economic development, alternative strategic approaches to route structure and product design, fleet selection, finance, and revenue management. Distribution systems including the role of travel agencies, freight forwarders, global distribution systems, and Internet portals are explored. The regulatory foundation of international aviation, the effects of liberalization and privatization, and emerging global alliances receive attention. The course concludes with a review of the evolving role of governments, airports, and air carriers in protecting the security of passengers and cargo.

MGMT 643 **Labor Issues in Air Transportation**

3 Credits

Current labor issues specific to air transportation and the historical and regulatory aspects of these issues are the theme of this course. Topics include the union movement in aviation, including public policy decisions, judicial rulings, early collective bargaining, and labor legislation. Additional topics emphasized are representation elections, the collective bargaining process, contract administration, and conflict resolution (grievance procedures). The primary focus of the course will be on current issues in labor relations and the effect private and public sector labor/management practices have, and have had, on the aviation industry. The impact of labor/management relations on human resource management will be analyzed.

MGMT 644 **Graduate Capstone Project, Air Transportation Management**

3 Credits

This course provides the student with an opportunity to conduct an investigation into a problem related to an air transportation management topic, thus demonstrating the student's expertise in problem definition and in analysis and solution processes. The course requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the curriculum to provide the student with the opportunity to pursue a project of special interest and to demonstrate problem analysis, knowledge, and skills in their area of study. Prerequisite: GCPP 605 and successful completion of not less than two of the three courses in the Air Transportation Management specialization.

MGMT 651 **Production & Procurement in Aviation Aerospace Industry**

3 Credits

In this course the student explores the aspects of production/operations management and the procurement processes necessary to maximize efficiency and effectiveness. This includes an in-depth analysis of production/operations concepts, methods, and techniques from a systems perspective. Areas of emphasis are quality management, MRP II, scheduling, inventory management, purchasing, material management, JIT, and manufacturing strategy. Also discussed are issues such as layout, storage and warehousing decisions, produce-procure decision-making, application of learning curves, and maintenance and reliability issues.

MGMT 652 **Concepts and Practices of Project Management**

3 Credits

In this course the student has the opportunity to learn the techniques and principles related to project management, following the national standards for project management. The content of this course includes and extends the body of knowledge elements required for completion of the Project Management Professional (PMP®) certification by the project Management Institute.

MGMT 653 **Labor Issues in an Industrial Environment**

3 Credits

In this course, the student conducts a comprehensive study of labor issues that are germane to both the industrial and the aviation environment. The course

concentration includes the current issues affecting contemporary labor relations, the evolution of private and public sector bargaining practices, and the contract negotiation process. Specific areas analyzed include the historical evolution of the American union movement, union structure and government, congressional legislation and executive orders, the representative election process, contract administration, grievance procedures, mediation and arbitration, and conflict resolution. The strategic impact the labor movement has had on American industry is analyzed from both the employer and the employee perspective.

MGMT 654 **Graduate Capstone Project, Aviation/Aerospace Industrial Management**

3 Credits

This course provides the student with an opportunity to conduct an investigation into a problem related to an aviation/aerospace industrial management topic, thus demonstrating the student's expertise in problem definition, analysis, and solution processes, and requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the curriculum to provide the student with the opportunity to pursue a project of special interest and demonstrate problem analysis, knowledge, and skills in their area of study. Prerequisite: GCPP 605 and successful completion of not less than two of the three courses in the Aviation/Aerospace Industrial Management specialization.

MGMT 655 **Aviation Law and Insurance**

3 Credits

In this course, students examine the governmental regulatory functions

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affecting statutory and administrative law pertaining to aviation. The national and international impact of these laws on aviation policies and operations are studied. Legal aspects of business contracts, negotiable instruments, and commercial codes as they relate to aviation are analyzed. The course concludes with an overview of the principles of insurance and risk applied to aviation.

MGMT 661 Physical Security

3 Credits

This course encompasses a study of the physical security of aviation related physical assets and locations, including airports, staging/warehousing facilities, manufacturing facilities, command and control facilities, and related transmission sites.

MGMT 662 Information and Systems Security

3 Credits

In this course, students deal with issues related to security of information. Areas emphasized include command and control networks, information and databases, and networks related to aviation, manufacturing, and transportation-related endeavors.

MGMT 663 Current Issues in Aviation/Aerospace Security

3 Credits

In this course, the student addresses the body of knowledge that includes intelligence sources and sharing; legal and ethical constraints; political constraints; profiling, inter- and intra-agency cooperation; control; integration with daily operations; and labor and personnel regulations. The emphasis is on current information, tools and techniques.

MGMT 664 Graduate Capstone Project, Aviation/Aerospace Security Management

3 credits

This course provides the student with an opportunity to conduct an investigation into a problem related to an aviation/aerospace industrial management topic, thus demonstrating the student's expertise in problem definition, analysis and solution processes, and requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the curriculum to provide the student with the opportunity to pursue a project of special interest and demonstrate problem analysis, knowledge, and skills in their area of study. Prerequisite: GCPP 605 and successful completion of not less than two of the three courses in the Aviation/Aerospace Security Management specialization.

MGMT 671 Entrepreneurship and Leadership

3 Credits

In this course, students explore the roles and interrelationships of leadership and entrepreneurship in successful enterprises in a global environment. The primary focus is on analyzing the leadership skills and entrepreneurship that enhance organizational success. Topics to be explored are the approaches and models of leadership, entrepreneurship, organization change, implementing an entrepreneurial strategy inside existing organizations, product innovation and technology, and developing new ventures. In addition, students gain insight to the important elements required for a supportive environment needed to sustain the corporate entrepreneurship process. Lastly, the entrepreneurship orientation of

organizations for the future is discussed.

MGMT 672 Planning and Execution of Strategy

3 Credits

In this course, the student addresses the integration of all management aspects of business with the cultural, ethical, and regulatory environments to form comprehensive, workable strategies for success. Multinational and international factors and differences related to enterprise success are emphasized.

MGMT 673 Global Economic Analysis

3 Credits

In this course, students examine the application of economic theory to various contemporary international economic and aviation issues. The course begins with a brief review of basic concepts and progresses to an analytical understanding of the origins of demand and profit. The origins of profit are explored in the cost leadership and the differentiated product models, with the abuses shown in oligopoly and monopoly models. Included in the course is a study of money supply and monetary and fiscal policies. Finally, the course progresses to international trade theory and issues, such as comparative advantage, international airline deregulation, open-skies programs, national protectionism, and international finance theory and problems, such as the forces behind foreign exchange markets and the U.S. trade deficit.

MGMT 674 Graduate Capstone Project, Aviation Enterprises in the Global Environment

3 Credits

This course provides the student with an opportunity to conduct an

investigation into a problem related to an aviation enterprise in the global environment topic, thus demonstrating the student's expertise in problem definition, analysis and solution processes, and requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the curriculum to provide the student with the opportunity to pursue a project of special interest and demonstrate problem analysis, knowledge, and skills in their area of study. Prerequisite: GCPP 605 and successful completion of not less than two of the three courses in the Aviation Enterprises in the Global Environment specialization.

MGMT 682 **Concepts of Integrated Logistics**

3 Credits

This course details the importance of integrating logistics into all functions of a business from initial conceptualization of the enterprise through its ultimate demise. Students learn the best business practices needed to fully integrate logistics and understand the significant financial advantages that can result from effective integration efforts.

MGMT 683 **Supply Chain Management**

3 Credits

This course covers the implementation of supply chain management practices into the modern business and explains the processes required to form an effective and efficient channel of distribution. This class explains how finished products and information should seamlessly move to, from, and between various businesses that have formally or informally agreed to be members of a supply chain. Students will learn best business practices to include the introduction of new members and elimination of

nonperforming members. The need for establishment of a planned chain is presented and compared to the most common business practice of creating a channel as the need arises or environmental factors change. This is a required course for all students seeking a Master of Science in Management degree with an Area of Specialization in Management of Integrated Logistics. Prerequisite: MGMT 682.

MGMT 684 **Graduate Capstone Project, Management of Integrated Logistics**

3 Credits

This course provides the student with an opportunity to conduct an investigation into a problem related to management of integrated logistics, thus demonstrating the student's expertise in problem definition and analysis and solution processes, and requires the student to demonstrate expertise in the technical aspects of writing. This course is included in the curriculum to provide the student with the opportunity to pursue a project of special interest and demonstrate problem analysis, knowledge, and skills in their area of study.

Prerequisite: GCPP 605 and successful completion of not less than two of the three courses in the Management of Integrated Logistics specialization.

MGMT 685 **Global Logistics and Supply Chain Management**

3 Credits

Today, globalization is affecting almost every aspect of the world's economy. The focus of this course is on understanding the role of logistics and supply chain management in meeting the needs of the transnational enterprise, from

the sourcing of raw materials, to manufacturing, to delivery to the final customer and back when necessary. Successful students will understand the scope of logistics in the global economy; the role of the government in controlling international trade and its impact on logistics; the impact of regional trading blocs on logistics and supply chain management; strategies for designing global supply chain networks; strategies for supporting different market entry alternatives; the impact of different transportation modes on global supply chain management; the role of freight forwarders, export management companies, and other intermediaries; the use of free trade zones; the use of international commerce terms and international contracts; the impact of the choice of currency on the enterprise; documentation associated with international logistics and supply chain operations; and supply chain security. A number of case studies are also analyzed throughout the course to highlight important principles and best practices in global logistics and supply chain management. Prerequisites: MGMT 682 and MGMT 683.

MGMT 690 **Graduate Capstone Project**

3 Credits

In this course, students are required to write a document on an aviation/aerospace topic that will expose the student to the technical aspects of writing. This course is included in the MBAA/MSM curriculum to provide the student with the opportunity to pursue a project of special interest, but not to the level of a thesis. This is an elective course for those students who may wish the opportunity to research in-depth a topic in consultation with a Project Advisor.

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Prerequisite: MGMT 522
or GCPP 605.

MGMT 696 **Graduate Internship in Aviation Business Administration**

1-3 Credits

Temporary professional or industrial work appointments are made available to students enrolled in graduate programs at the University. An internship provides graduate students with an opportunity to extend their academic endeavors through the application of the theories and philosophies studied in the classroom to specific professional activities common to the workplace. They are academic/professional activities coordinated by the University between offering organizations and graduate student. Prior approval of the Graduate Program Coordinator is required.

MGMT 699 **Special Topics in Business Administration**

1-3 Credits

In this course, students elect to perform a special, directed analysis and/or independent study in an area of particular interest. Candidates selecting this elective must prepare a detailed proposal for the desired project and present the proposal to the graduate program chair or department chair for faculty review. Proposals must be submitted at least four weeks prior to the start of the term in which the elective is being taken.

MGMT 700 **Thesis Research**

6 Credits

A written document on an aviation/aerospace topic is supervised throughout its preparation by the student's Thesis Committee. If the document demonstrates the student's mastery of the topic and is of

satisfactory quality for publication, it will be submitted.

PROJECT MANAGEMENT

PMGT 501 **Fundamentals of Project Management**

3 Credits

In this course provides the student with fundamental techniques and principles related to project management, following the national standards for project management. The content of this course includes and extends the body of knowledge elements required for completion of the Project Management Professional (PMP®) certification by the project Management Institute. This course encompasses the study of project management, paying particular attention to the nine knowledge areas: Scope, Time, Cost, Risk, Quality, Procurement, Human Resources, Communication and Integration, as they relate to the process areas of Initiation, Planning, Execution, Control, and Closure of projects. Examples and student initiated projects and project simulations are utilized to emphasize the integrated relationships. Project management software is utilized throughout the course, particularly to demonstrate the usefulness of automated calculations, record keeping, and reporting as related to planning and controlling projects. Throughout, the merger of technical skills, general management skills, and project management skills for successful project completion is emphasized. Where applicable, the information delivered in this course is compliant with ISO 9,000, 10,000 series standards and the Project Management Institute generated

Project Management Body of Knowledge. Prerequisite: MGMT 631.

PMGT 502 **Effective Communications for Managing Projects**

3 Credits

This course is designed to explore the role of communication in managing projects and to provide a broad survey of the theoretical, organizational, behavioral, and technical aspects of communications. An emphasis is placed on the application of theory to practice, which is intended to develop students' managerial and strategic communication skills so that they may grasp not only how, but also what, why, when, and by what means managers effectively communicate. Students will have the opportunity to gain an understanding of why good communication skills are important in business, how communication today is affected by technology, why effective communication can be difficult, how communication is used in teams, and what issues exist in overcoming intercultural communication barriers. Special attention is devoted to development and use of project communications plans, Project Management Information Systems (PMIS), and appropriate archival of project information. Prerequisite: PMGT 501

PMGT 611 **Anatomy of Project Organizations**

3 Credits

In this course the student has the opportunity to gain and expand knowledge concerning how organizations carry out work. Included in the course are elements of organizational theory, organizational structure, and organizational planning as applicable to projects. Topics address

advantages and disadvantages of organizational structure (functional, matrix, or projectized), locus of power and locus of authority issues, and formal and informal networks. Also included are issues such as conflict resolution, change management, formal and informal work relationships. Prerequisite: PMGT 501

PMGT 612

Leading Projects Across Cultural, Corporate, and International Boundaries

3 Credits

Emerging and evolving economies, world circumstances, and global competition require that project managers be able to lead and manage project in this challenging arena. Project Managers must operate within environments that contain diverse cultures and projects including multiple corporations crossing international boundaries. Additionally, topics include project portfolio management, Project Management Office, and software tool use involving multiple projects. Sensitive issues surrounding multinational and multicultural environments will be addressed and discussed. Prerequisite: PMGT 501

PMGT 613

Assessing and Managing Project Risk

3 Credits

More difficult economic conditions, increasing competition, and exponentially expanding technology greater uncertainty and risk in projects. With these complex challenges come complex opportunities. Uncertainty and associated risks and opportunities become more complex as project span organizational, national, and cultural bounds. In this course the student will investigate the sources or risk, the pervasiveness of risk, analysis of risk, and the planning

and control of risk events.

Prerequisite: PMGT 501

PMGT 614

Planning, Directing, and Controlling Projects

3 Credits

In this course the student will gain increased knowledge and experience in the art and science project management. Increased emphasis will be placed on planning, directing, and controlling projects. Practical exercises using project management software will be used to challenge the student to develop higher levels of project management ability. Exercises will require critical thinking and problem solving techniques required in complex projects. Exercises that require critical thinking, problem solving, and techniques of using project management software. This course also includes the preparation for the Project Management Capstone, PMGT 690. Prerequisite: PMGT 613

PMGT 690

Project Management Capstone

3 Credits

This course is designed to provide the student the opportunity to apply knowledge gained throughout the degree program to a project management related problem. Demonstration of project scope planning, project scheduling, project cost planning, project quality planning, risk assessment planning, and project communications planning are among the skills and knowledge demonstrated. A capstone project may alternatively address a current problem in the student's work place. Prerequisite: PMGT 501, PMGT 502, PMGT 613, PMGT 614.

TECHNICAL MANAGEMENT

TMGT 501

Computer Skills for a Technical Environment

3 Credits

Graduate-level skills in computers are developed through application to current business-related problems. Computer techniques are used to solve problems and enhance technical communications. Computer techniques are practiced as an efficient method to achieve higher-level analytical and communicative skills. Emphasis is placed on supporting and enhancing technical communications with computer technology. Learning theory and psychology of color and motion are combined with computer presentation graphics to develop and augment high impact presentations. Successful completion is necessary to proceed in the MSTM program.

TMGT 502

Communication Skills in a Technical Environment

3 Credits

Graduate-level skills in technical communications are learned by developing solutions applied to a series of interconnected management science problems. Emphasis is placed on communicating conclusions in concise and persuasive writing and speaking. Written assignments involve reports, business letters, memoranda, and resumes. Successful completion is necessary to proceed in the MSTM program.

TMGT 503

Quantitative Methods and Statistics

3 Credits

The integration of graduate-level skills in quantitative management methods is achieved through the development of solutions applied

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to a series of interconnected management science problems. Computer techniques are also used to solve problems and to communicate the results in a clear and understandable fashion. Emphasis is placed on understanding analytical methodologies, interpreting quantitative results, and communicating conclusions. Mathematical and descriptive and inferential statistical applications will be explored. Successful completion is necessary to proceed in the MSTM program.

TMGT 605 **Organizational Theory in a Technical Environment**

3 Credits

In this course, students learn how to effectively use an organization to build a technical management team. Topics emphasized include leadership versus management, conflict between functional management, matrix versus hierarchical organizations, organizational alternatives, and human response in the organization. Additionally, influence and authority in the technical setting, participation, sensitivity to cultural and minority differences, managing technical change and innovation in a large organization, communication in a technical organization, organization culture and tradition, government perspective, and industry perspective are reviewed.

TMGT 610 **Managing Effective Technical Work Teams**

3 Credits

In this course, students learn how to manage work teams in the technical environment. Specific topics include two-way communication and feedback,

participative management techniques pertaining to motivation, small-group processes and group decision support systems, attraction and retention of quality personnel, skills in writing employee evaluations, responsibility, authority, accountability, conflict resolution, initiative, creativity, horizontal and vertical communication, personality/temperament, logic versus heuristic/detail versus holistic, management strategies, motivation, recognition, and reward.

TMGT 616 **Production Operations Management**

3 Credits

This course examines Operations Management from a systems perspective, and demonstrates how dynamic interchanges between the constituent parts of the system affect the operations. This course relates to the management of product and process design, operations, and supply chains. A great deal of focus is on efficiency and effectiveness of processes, and this course includes substantial measurement and analysis of internal processes. This course demonstrates that the products or services in an organization, as well as their management, drive how Operations Management is carried out in an organization.

TMGT 621 **Regulations, Ethics, and the Legal System**

3 Credits

This course emphasizes understanding the complex regulatory and legal setting surrounding management. The federal acquisition regulations and how they affect all projects, such as legal responsibility and accountability, ethical considerations within and

external to the organization, the internal environment and how it may affect projects are discussed.

TMGT 625 **Marketing in the Technical Environment**

3 Credits

This course explores effective use of communication to describe and/or market projects, programs, or products to a hostile or friendly audience. Topics include understanding products and the marketplace, collecting data to accurately reflect the situation, the use of accurate, clear, and meaningful presentations, highlighting the positive, reporting the negative, internal versus external presentations, dealing with the media, video and computer techniques, analyzing your audience, communication level, and public relations. Students are required to develop a marketing plan and, working as a team, conduct a marketing research project based on the needs of their organization.

TMGT 630 **Technical Management Information Systems**

3 Credits

This course provides an “end-user” orientation to Management Information Systems with both managerial and technical components. The course centers on developing managerial skills in using information systems to conduct daily operations, to plan business strategies, and to solve business problems. A systems approach to planning, scheduling, and controlling provides the student with effective decision making resources. In addition, the course provides hands-on experience with laptop computer exercises in computerized MIS to develop the information management

proficiency required by the corporate environment. The emphasis of this course is on data resource management, electronic commerce, enterprise collaboration systems, telecommunications (internet, intranet, extranet and client/server systems), decision support systems, executive support systems, and security, control, and ethical issues.

TMGT 635 **Financial and Managerial Accounting and Control for Technical Managers**

3 Credits

This course focuses on financial control procedures for a systems approach to program management. Cost elements in manufacturing, research, and development and in logistic and support services are explored. Included is the introduction of fixed and variable costs, computing and using overhead, process and job order costing methods, preparation of income statements in the contribution format, ratio analysis, profit planning and its relationship to cost, using spreadsheets for budget and overhead analysis, pricing, capital budgeting and investment decisions.

TMGT 641 **Project Management: Concepts and Practices**

3 Credits

This course encompasses the study of project management, paying particular attention to the nine knowledge areas of scope, time, cost, risk, quality, procurement, human resources, communication, and integration as they relate to the process areas of initiation, planning, execution, control, and closure of projects. Examples and student-initiated projects and project simulations are used to emphasize the integrated relationships. Project management

software is used throughout the course, particularly to demonstrate the usefulness of automated calculations, record keeping, and reporting as related to planning and controlling projects. Throughout, the merger of technical skills, general management skills, and project management skills for the successful project is emphasized. Where applicable, the information delivered in this course is compliant with ISO 9,000, 10,000 series standards and the Project Management Institute's Project Management Body of Knowledge.

TMGT 646 **Operations Research and Management Science**

3 Credits

In this course, students explore quantitative analysis techniques for program management. Techniques include decision theory, queuing theory, forecasting models, inventory theory, linear and integer programming, transportation and assignment models, and network models. The integration of graduate level skills in quantitative management methods is achieved through the development of solutions applied to a series of interconnected management science problems. Computer techniques are used to solve problems and to communicate the results in a clear and understandable fashion. Emphasis is placed on understanding analytical methodologies, interpreting quantitative results, and communicating conclusions.

TMGT 651 **Quality Management and Quality Control**

3 Credits

This course centers on instilling quality concepts in a project. Topics include continuous improvement, quality management, designing for and cost of quality, organizing for QM, alternative

approaches to quality, understanding the corporate culture, developing the quality plan, implementing QM, introducing the concept, work meetings and project teams, informing, motivating, recording, using technology, key approaches and when to use them, reward and recognition, follow-up, evaluation, and feedback.

TMGT 660 **Project Development Techniques**

2 Credits

A study of current scientific research methods that includes techniques of problem identification, hypothesis formulation, literature search strategies of libraries and online databases, design and use of data-gathering instruments, formulation of a research model and plan, and appropriate statistical data analysis. The GCP/TMCP Guidelines format and American Psychological Association style will be introduced and followed. A formal Technical Management Capstone Project proposal will be developed and presented by each student as a basic course requirement. Prerequisite: TMGT 646.

TMGT 660L **Technical Management Capstone Project**

1 Credit

This course produces a written document on a technical management topic that exposes the graduate student to the technical aspects of writing. This course is included in the MSTM curriculum to provide the graduate student with the opportunity to pursue a project of special interest, but not to the level of a thesis. Prerequisite: TMGT 660.

STUDENT SERVICES

Our mission is to provide comprehensive student services that are coordinated and personalized for financial, academic and career needs. These resources are geared toward addressing specific academic needs and contribute to the quality of each student's overall university experience. We strive for continuous improvement that extends through a culture of caring with the highest educational practices and professional standards. We are here to serve you.

ACADEMIC AFFAIRS

ACADEMIC ADVISEMENT

The Academic Advisor is responsible for orientation, which includes advising students of the University regulations and procedures. These regulations and procedures include:

- Choosing an academic program that meets students' educational goals
- Credit transfer arrangements for incoming students
- Prior learning assessment
- Course prerequisite requirements
- Enrollment, textbooks, financial assistance, and payment requirements
- Class attendance
- General student support and services

Students are informed in their letters of acceptance that it is their responsibility to know the rules and regulations by reading the Worldwide catalog, which is available in hard copy form or electronically.

While the Director of Academic Support bears primary responsibility for academic advisement at Worldwide campuses, the Director of Academics is also available during scheduled office hours to assist with students' academic needs. The Worldwide Online Advising Enrollment and Recruitment Office (AERO) assigns advisors for students pursuing their degree online. Servicemembers Opportunity Colleges (SOC) students no longer located at a Worldwide campus should contact the Office of Enrollment Management at 1.866.393.9046.

STUDENT RESPONSIBILITIES

All Embry-Riddle Aeronautical University students are responsible for knowing all academic regulations and procedures required for continued attendance at the University. Academic regulations and procedures are presented in University publications. A student who requires clarification of any policy or regulation should seek help from his/her academic advisor or the office of Enrollment Management. University regulations will not be waived because a student pleads ignorance of established policies and procedures. The University reserves the right to change curricula and academic regulations and procedures without notice or obligation.

ERAU Student Email Accounts: ERAU issues an email account to each Worldwide student upon registration for courses. Email accounts are made available to students via ERNIE (ernie.erau.edu) within two days of registration for the first course. Please check your ERAU email frequently, as the University will use this account as a means of sending official notification on University matters. Although the software used to send some of these communications automatically includes an "unsubscribe" link at the bottom of each message, do not unsubscribe since this will hinder the process of the. Your ERAU email account will remain active up to 2 years after your last ERAU course. For your convenience, you may set up your account to forward messages to another email address you already use. For instructions on setting up your email account, see <http://it.erau.edu/Help/webaccess.htm>.

REGISTRATION

Students are required to register for each term of enrollment. At all center locations, students are also allowed to register online if the student meets the required criteria. Registration must be completed and

payment of all tuition deposits and fees must be made according to instructions published by the office of Enrollment Management. Students are not officially enrolled until they complete all phases of registration, including financial requirements. Enrollment may be restricted for students who have outstanding incompletes or a history of incompletes by the Director of Academic Support, the Director of Worldwide Online Advising Enrollment and Recruitment Office (AERO), or the Director of Enrollment Management. ERAU undergraduate students who are within two courses of completing their bachelor's degree may enroll in graduate courses.

ATTENDANCE AT OTHER INSTITUTIONS

Undergraduate

Once admitted to the University as degree candidates, students are expected to complete all work to be applied toward their degrees with the University unless advance written authorization is granted.

Students applying prior academic work toward their Embry-Riddle degree program requirements must submit appropriate documents for such credit as part of the admission process.

Previous academic credit is evaluated on a course-by-course basis. Acceptable transfer work will be recorded on the Embry-Riddle transcript. If courses are not applicable to the student's degree program at Embry-Riddle, they will be considered as electives in excess of minimum degree requirements. The level of credit (upper or lower division) is determined by evaluation of the course at Embry-Riddle.

The student must arrange to have official transcripts sent to Embry-Riddle Aeronautical University. Transcripts that have been in the possession of a student are not considered official. Transfer credit may be granted under the following conditions.

- a.) Appropriate coursework completed with a grade of A, B, C, Pass, Satisfactory or equivalent will be accepted.
- b.) Both the grade point average of all courses taken at Embry-Riddle and the grade point average of all courses transferred from other institutions and applied to degree requirements will be taken into consideration when determining graduation honors.

- c.) Credits earned at institutions listed as degree granting institutions in the Accredited Institutions of Postsecondary Education (AIPE) as published by the Council for Higher Education Accreditation (CHEA) will be considered for transfer credit. Academic credit is accepted without regard to the date the course was completed. It is left to the discretion of the student, in consultation with the student's academic advisor, to determine whether to retake courses when placement testing indicates a deficiency. Embry-Riddle has sole discretion in determining which and how many transfer credit hours will be accepted toward degree requirements.

Embry-Riddle may, at its discretion, require an evaluation examination for any course submitted for transfer credit if there is doubt concerning the equivalency of the transfer course with a similar course offered at Embry-Riddle. Embry-Riddle cannot guarantee that courses are transferable unless otherwise established by any contract or memorandum of understanding/agreement currently in effect. Courses are accepted at the discretion of the University.

The transfer student's records (transcripts, etc.) will be evaluated according to the rules and regulations as described in the catalog, and in accordance with University policies in effect at the time of the student's admission to a degree program. After evaluation, the student will be sent a course-by-course outline of all transfer credit accepted by the University.

Advanced Standing Credit

Advanced standing credit may be awarded for prior learning for postsecondary education, work and/or training experience, or from programs completed before enrollment at Embry-Riddle. It is the student's responsibility to ensure that all documentation of previous coursework, military learning experiences, credit by examination, and all FAA certificates is submitted for evaluation along with the formal application for admission as a degree-seeking student. Just as official transcripts are required to transfer credit from one university to another, documentation of prior learning through professional training and experience must be official.

1. Embry-Riddle will accept the minimum scores recommended by the American Council on Education (ACE) on all exams offered by CLEP, DANTES, and Excelsior College Examinations-ECE (formerly REC or ACT-PEP) for the award of undergraduate

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academic credit. In addition, the amount of academic credit and the academic level (upper or lower-level) recommended by ACE for a passing score on each of the exams will be accepted by the University. Credit for exams taken after admission to the University will not be awarded unless advanced written authorization is granted from the Director of Academics, Director of Academic Support, or the Director of Worldwide Online Advising Enrollment and Recruitment Office (AERO), for Worldwide Online students.

2. Embry-Riddle will generally follow the recommendations of the American Council on Education (ACE) for courses listed in the National Guide to Educational Credit for Training Programs and the Guide to the Evaluation of Educational Experiences in the Armed Forces.
3. Credit may be granted on the basis of certain FAA licenses with appropriate rating.
4. In addition to course-equivalency exams, students who believe that their knowledge and prior learning experience qualify them for credit for a given Embry-Riddle course may compile a portfolio for evaluation after completing PREP 102: Self-Assessment and Portfolio Preparation. (See Course Description section of the catalog.) The learning experience must have taken place following high school graduation and must have academic relevance to an Embry-Riddle course as described in the current catalog. There must be adequate documentation to support the authenticity and appropriateness of the learning experience for college-level credit. The student must demonstrate college-level writing skills. Portfolios must be submitted to the Portfolio Assessment Manager at the office of Enrollment Management within six months from the term start date of the PREP 102 course. Contact the Portfolio Assessment Manager at 877-362-7970 or email: ecinfo@erau.edu.

Graduate

Credits earned at institutions listed as degree granting institutions in the Accredited Institutions of Postsecondary Education (AIPE) as published by the Council for Higher Education Accreditation (CHEA) will be considered. Credit may be received for certain graduate courses taken as nondegree graduate work or as part of another (completed or noncompleted) Embry-Riddle graduate degree program. When transferring from one Embry-Riddle graduate program to another this credit may include prior work on a Graduate Capstone Project (GCP). The combined total credit

applied to an Embry-Riddle graduate degree for most programs is 12 credit hours. A maximum of 6 credit hours may be applied to the Master of Science in Technical Management Program. In order to satisfy a graduate degree program requirement, the academic work for which such credit is sought must be determined to be specifically relevant to the applicant's graduate degree program at Embry-Riddle. The content of the applicable course or other program should be used to determine the nature of the credit to be applied to the student's degree requirement. The appropriate department chair and program chair will make these determinations.

Credit will be granted only if the student demonstrates performance expected of a graduate student at Embry-Riddle. This means that the course was completed with a B or better (3.0 on a 4.0 system). Credit for academic work used to satisfy the requirements of an undergraduate degree will not be accepted toward the requirements for a graduate degree. Credit will only be considered for course work that is not more than seven years old at the time the admissions application is received. This includes previously earned ERAU graduate credit that is over seven years old at the point of readmission. The seven-year time limit will not be applied to advanced standing credit for academic work at eligible senior military service schools if the service member is on active duty when accepted for admission. The seven-year limit for such applicants commences on the date the service member separates from active military service.

VETERAN'S TRANSFER CREDIT

Prior academic work and courses taken at other institutions by Veteran students and/or eligible students receiving Veteran's Education Benefits will be evaluated and credit granted as appropriate and reported to the U.S. Department of Veterans' Affairs (DVA) as required by law.

TRANSCRIBING TRANSFER AND ADVANCED STANDING CREDIT

Students are eligible for an Embry-Riddle transcript of the transfer and advanced standing credit awarded toward the degree program after matriculation.

Matriculation occurs when a student has been officially accepted for admission and has enrolled in an Embry-Riddle course. The enrollment must occur either concurrent with the submission of the formal application for admission and fees, or within two years of the date of acceptance.

MILITARY DEGREE COMPLETION PROGRAM FOR ACTIVE-DUTY PERSONNEL

Undergraduate

All branches of the U.S. armed forces offer opportunities (sometimes referred to as “bootstrap”) to accelerate completion of degree programs by qualified members. Completed applications must be submitted to the Worldwide Office of Enrollment Management at least 60 days before the first day of the term/semester in which the student desires to begin the program.

DEGREE COMPLETION TIME LIMIT

Graduate

All requirements for an Embry-Riddle master’s degree must be completed within seven years from the date of enrollment. If a student must reapply for admission the seven years commences from the new enrollment date rather than the initial enrollment date.

ARTICULATIONS

An Articulation Agreement is a cooperative agreement that facilitates the transfer of students from other institutions to Embry-Riddle Aeronautical University. Courses from the other institution are carefully reviewed and evaluated to ensure that their content and course objectives are the equivalent of those at the University.

The primary benefit of an Articulation Agreement is that a student is assured that the courses completed at the other institution will transfer to the University and will satisfy specified degree requirements. An important feature of the program is that the student becomes subject to the requirements of the curriculum specified in the catalog at the time of enrollment. As long as the student has signed the Articulation Agreement, he/she is assured that the courses taken will still apply even though the curriculum for that major may have undergone a significant change before the student has actually made the transfer to the University.

Refer to our website at
<http://www.erau.edu/ec/wwc/articulations.html> for active Articulations.

UNDERGRADUATE ENROLLMENT IN GRADUATE COURSES

During their senior year, Embry-Riddle undergraduate students may elect to take selected Embry-Riddle graduate courses, normally 500 level, for credit toward their graduate degree. Worldwide students must be within two courses of completing the requirements for the bachelor’s degree.

UNIT OF CREDIT

Semester credits are used throughout the University system. Transferred quarter hours will be converted to semester credit hours on the following basis: A quarter hour equals two-thirds of a semester hour.

COURSE LOAD

Students enrolled in Worldwide courses are given either part-time or full-time status term by term.

A part-time student is defined as any student taking less than 6 credit hours per term. A full-time student is defined as any student taking at least 6 credit hours per term.

Students are allowed to take no more than 12 credit hours in any term. Overlapping terms are included in the 12 credit hour rule.

A student who’s cumulative GPA is 3.00 or higher may enroll for an overload of 3 credit hours with advance approval from the Director of Academics or the Director of Worldwide Online Advising Enrollment and Recruitment Office (AERO), for Worldwide Online students. Requests for overloads in excess of 3 credits must be approved by the Vice Chancellor of Academic Affairs.

A student’s enrollment may be restricted when deemed in the best interest of the student.

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CLASSIFICATION OF STUDENTS

Students are classified at the end of each term based on the number of credit hours earned in accordance with the following schedule:

Freshman	fewer than 28 hours
Sophomore	28-57 hours
Junior	58-87 hours
Senior	88 hours or more

REPEATING A COURSE

Undergraduate

A student may repeat any University course. The grade for each attempt will appear on the student's academic transcript. In determining the student's CGPA, the grade for subsequent attempts at a course replaces the previous grade a maximum of two times.

Graduate

Students may petition to repeat one course in which a grade of less than a B was earned for the purpose of improving their grade point average. Both grades earned appear on the transcript, but only the replacement grade is included in the calculation of the grade point average.

DROPPING A COURSE

Students may drop a course, with no notation of course enrollment on their transcripts, during the drop period only. Due to the compressed term schedules at Worldwide locations, the drop period extends through the first week of each term.

WITHDRAWAL FROM A COURSE (W)

The authorized withdrawal period extends to the middle of the term, unless otherwise established by any contract or memorandum of understanding/agreement currently in effect. Students may withdraw and receive a "W" grade up to the middle of the term. Students attempting to withdraw from a course after the middle of the term must provide a written petition along with third-party documentation explaining their extenuating circumstances, such as military assignment, medical emergency, etc. If a student fails to complete the formal withdrawal process during the allowed withdrawal period, a grade of "F" will be assigned for the course. Students are not permitted to drop or withdraw from a course while a charge of academic dishonesty is pending.

AUDITING A COURSE (AU)

Because students audit a course solely to enhance their knowledge, academic credit is not granted toward degree requirements for audited courses. Students may change their registration from audit to credit during the add period only. They may change from credit to audit until the last day of the withdrawal period. When a student auditing a course fails to maintain satisfactory attendance, as determined by the instructor, a grade of "W" will be assigned.

INCOMPLETE GRADES (I)

Students who are unable to complete course requirements due to extenuating circumstances beyond their control may complete and submit a written request for an incomplete grade. An incomplete grade must be made up no later than three months after the end of the term in which the course was taken. The instructor may require a student to complete the course requirements earlier than three months following the end of the term. If the student fails to complete the course and government tuition assistance (TA) funding was used, the government will determine if the funds expended must be repaid by the student. If Department of Veterans' Affairs (DVA) funds were used, similar restitution of Veterans Educational Benefits may have to be made to the Department of Veterans' Affairs (DVA) if a course is not completed. Students not completing their courses within the prescribed time limit will receive a failing grade (F) in the course. Remember, it is the student's responsibility to request an incomplete grade.

GRADE POINT AVERAGES (GPA, CGPA)

Undergraduate

A term grade point average (GPA) and cumulative grade point average (CGPA) are computed for each student after every term. The GPA is calculated by dividing the number of grade points earned during the term by the number of hours attempted in that period. The CGPA is determined by dividing the total number of grade points by the total number of hours attempted at the University. Grade points and hours attempted are accrued in courses graded A, B, C, D, and F only for undergraduate students.

Graduate

A term grade point average (GPA) and cumulative grade point average (CGPA) are computed for each

student after every term. The GPA is calculated by dividing the number of grade points earned during the term by the number of hours attempted in that period. The CGPA is determined by dividing the total number of grade points by the total number of hours attempted at the University. Grade points and hours attempted are accrued in courses graded A, B, C, F, and WF only.

For graduate students, the following grades are issued by the graduate faculty: A, B, C, F, and Incomplete. The GPA is computed each semester on the 4 point scale: A = 4.0, B=3.0, etc. The Graduate Capstone Project (GCP), is graded on a pass/fail basis and is not calculated into the GPA, unless the student receives a failing grade for the course. A graduate student must maintain a 3.0 GPA to graduate. See current catalog for full details.

COURSE EQUIVALENCY CHALLENGE EXAMS

Students who believe they possess sufficient knowledge of an Embry-Riddle course and who have not previously failed, taken, or are currently enrolled in the particular course may apply to take the course equivalency examination for a maximum of 15 semester credit hours. Students may request to take a course equivalency challenge exam at anytime during their Embry-Riddle career. Only undergraduate students who have matriculated are eligible for challenge examinations. Refer to our website at: www.erau.edu/ec/wvc/portfolio.html .

A nonrefundable fee is charged for administering each equivalency exam. Because students may take a course equivalency exam only once for each course, those failing a course equivalency examination must enroll in and complete the course to receive credit.

DEAN'S LIST AND HONOR ROLL

Students who demonstrate academic excellence are recognized by being named to the Dean's List or Honor Roll and are notified in writing by the office of Student Services. Students who earn an overall cumulative GPA of 3.50-4.0 after a minimum of 12 consecutive credit hours of coursework will be named to the Dean's List. Students who earn a cumulative GPA of 3.20-3.49 after a minimum of 12 consecutive credit hours of coursework will be named to the Honor Roll. Grades for courses attempted during terms involved in defining each 12 consecutive

credit-hour block are used in calculating the cumulative GPA. A student receiving a D or F grade in the 12 credit-hour period will not be eligible for the Dean's List or Honor Roll regardless of the cumulative GPA. Once on the Dean's List or Honor Roll, students must complete a minimum additional block of 12 Embry-Riddle credit hours before they are again eligible for recognition.

ACADEMIC WARNING, PROBATION, SUSPENSION, AND DISMISSAL

Undergraduate

An Extended Campus student whose cumulative GPA falls below 2.0 for 12 consecutive credit hours of coursework will be placed on academic warning. If the cumulative GPA remains below 2.0 after an additional 12 credit hours of academic work, the student will be placed on academic probation. A student whose cumulative GPA remains below 2.0 for a third consecutive period of 12 credit hours, or whose cumulative GPA falls below 1.0 for any consecutive 12 credit hours of coursework, will be suspended from the University unless the student maintains a term GPA greater than 2.0.

When a change of grade or the conversion of the grade "I" changes a student's academic status, the previous academic status of warning, probation, or suspension is removed and does not become part of the student's permanent record.

For students who have been academically suspended or dismissed from the University, a written petition for readmission must accompany the application for admission and fees. Suspended students are eligible to reapply for admission after 12 calendar months, following the suspension, or after completing a minimum of 15 semester hours of academic credit with a CGPA of 2.50 on a 4.0 scale or higher from an accredited institution. The dismissing campus renders the decision for readmission.

ACADEMIC WARNING AND DISMISSAL

Graduate

Warning – Students on full-status whose cumulative grade point average (CGPA) falls below 3.0 are placed on academic warning. Students on academic warning must raise their cumulative grade point average (CGPA) to 3.0 within the next 12 hours of graduate work.

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Dismissal – Students will be dismissed from their graduate program whenever any of the following conditions occur:

1) Student is on conditional status and fails to satisfy the conditions of his/her admission; 2) Student earns less than a B in three graduate courses; 3) Student earns an F in any two graduate courses; 4) Student is on academic warning and fails to earn a 3.0 CGPA within the next 12 hours of graduate work; 5) Student earns less than a 2.5 cumulative grade point average.

Students may appeal their first academic dismissal from the University by submitting a petition in writing detailing the existence of any exceptional mitigating circumstances to the office of Student Services within 30 days of the receipt of the dismissal notice.

Students whose academic dismissal is final will not be readmitted to the University for two years. A written petition for readmission must accompany the application for admission and fees. The dismissing campus renders the decision for readmission. Unless readmitted to the University, such students will not be permitted to take any further graduate courses with the University.

ACADEMIC INTEGRITY

Embry-Riddle is committed to maintaining and upholding intellectual integrity. All students, faculty, and staff have obligations to prevent violations of academic integrity and take corrective action when they occur. The adjudication process will include the sanction imposed on students who commit the following academic violations, which may include a failing grade on the assignment, a failing grade for the course, suspension, or dismissal from the University:

1. Plagiarism: Presenting as one's own the ideas, words, or products of another. Plagiarism includes use of any source to complete academic assignments without proper acknowledgement of the source.
2. Cheating is a broad term that includes the following:
 - a. Giving or receiving help from unauthorized persons or materials during examinations.
 - b. The unauthorized communication of examination questions prior to, during, or following administration of the examination.
 - c. Collaboration on examinations or assignments expected to be individual work.

- d. Fraud and deceit, that include knowingly furnishing false or misleading information or failing to furnish appropriate information when requested, such as when applying for admission to the University.

SUSPENSION AND DISMISSAL FOR CAUSE

The University reserves the right to suspend or dismiss a student at any time and without further reason, if the student exhibits the following undesirable conduct:

1. Actions that pose a risk to the health, safety, or property of members of the University community, including, but not limited to, other students, faculty, staff, administrative officers, or the student himself/herself.
2. Conduct that disrupts the educational process of the University.
3. Any other just cause.

CHANGE OF DEGREE PROGRAM

Students may apply to change their degree program if they meet academic qualifications. When a student elects to change degree program, area of concentration, or major within a degree program, the requirements of the catalog in effect at the time the request was initiated apply. Students considering such changes should contact their Center Director of Operations, the Distance Learning Enrollment Office, or the office of Student Services to determine how they will be affected.

TRANSFER BETWEEN GRADUATE DEGREE PROGRAMS

Credit may be received for certain graduate courses taken as nondegree graduate work or as part of another (complete or noncompleted) Embry-Riddle graduate program. When transferring from one Embry-Riddle graduate program to another, this credit may include prior work on a GCP or thesis.

In order to satisfy a graduate degree program requirement, the academic work for which such credit is sought must be determined to be specifically relevant to the applicant's graduate degree program at Embry-Riddle. The content of the applicable course or other program should be used to determine the nature of the credit to be applied to the student's degree requirement.

TWO DEGREES OF THE SAME RANK

To earn a second baccalaureate degree, students must complete a minimum of 30 credit hours of coursework over and above that required for the declared primary degree. At least 60 credit hours must be completed in residence at the University and at least 20 of the 30 additional credit hours must be 300-400 level courses. To earn a second associate degree, students must complete at least 15 credit hours of coursework over and above that required for the primary degree. At least 30 credit hours must be completed in residence.

ADDITIONAL GRADUATE DEGREES

A graduate student is allowed to apply up to 12 applicable credit hours from one graduate degree program to meet the requirements of another graduate degree program. In order to be awarded a second graduate degree, the student must satisfy all the requirements of the degree sought.

CONTINUOUS ENROLLMENT

Students remain in continuous student status unless they:

1. Enroll at another institution without advance written approval. Once admitted to the University as degree candidates, students are expected to complete all work to be applied toward their degree with the University unless advance written authorization is granted.
2. Fail to enroll in at least one course at Embry-Riddle in any two-calendar-year period.
3. Have been suspended or dismissed from the University.

Students failing to maintain continuous enrollment for any reason are required to reapply for admission under the catalog in effect at that time.

CATALOG APPLICABILITY

The catalog in effect at the time of a student's initial matriculation remains applicable as long as the student remains in the original degree program, major, or area of concentration.

Students enrolled through an active-duty military degree completion program or Service Members Opportunity College are under the catalog upon which the applicant's evaluation and letter of acceptance were based.

If a student does not maintain continuous enrollment at the University, the student must apply for readmission. The provisions of the catalog in effect at the time of readmission then become applicable to the student. Curricular requirements stated in the applicable catalog will not be affected by subsequently published addenda to that catalog or by later catalogs unless the student elects to graduate under the provisions of a later catalog or addendum. Students electing to graduate under the provisions of a later catalog or addendum must meet all requirements (admission, transfer, graduation, and so on) contained in that catalog or addendum.

TRANSCRIPT REQUESTS

To order an official transcript online, you will need your Colleague ID and PIN once you enter the ERAU Online site. If you have not attended ERAU since 1998, you may not have this information and may access information at <http://www.erau.edu/ec/wwc/ec-forms.html> on how to obtain an official transcript by other means. Transcripts will be released as long as students have met their financial obligations to the University. A signed request for an academic transcript accompanied by a fee may be submitted by the student to:

ERAU, Worldwide
Office of Enrollment Management
600 S. Clyde Morris Blvd.
Daytona Beach, FL 32114

Active students may request transcripts online through ERNIE (ernie.erau.edu) ERAU Online Student Services Portal. To access portal services, you will need a username and password. Inactive students who do not currently have this information may follow the procedures at this site to acquire that information.

PRIVACY OF STUDENT RECORDS

The University respects the rights and privacy of students in accordance with the Family Educational Rights and Privacy Act (FERPA). The University may disclose certain items of directory information without the

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consent of the student, unless the student submits a written nondisclosure request. Students are required to file requests for nondisclosure on an annual basis. Directory information consists of student name, address, email address, telephone number, date and place of birth, major fields of study, dates of attendance, degrees and awards received, most recent previous school attended, and photograph.

The University shall obtain written consent from students before disclosing any personally identifiable information from their education records with the exception of the directory information. The receipt of a written request to release an education record via FAX satisfies this requirement. Such written consent must specify:

- a. The records to be released.
- b. The purpose of the disclosure.
- c. Identify the party or class of parties to whom disclosure may be made and their address.
- d. When transcripts are to be sent by fax, the written request must contain the telephone fax number where the transcript is to be sent. Generally, transcripts should be faxed only if urgency exists. A faxed transcript may be considered official by the recipient, subject to their policies, security measures, and validation procedures. In addition to the faxed transcript, an official validated transcript will be mailed directly to the recipient.
- e. Must be signed and dated by the student or former student.

The law authorizes students and former students the right to inspect and review information contained in their education records. The student must submit a written request to the Enrollment Management office. The Enrollment Management office must make the records available for inspection and review within 45 days from the request. FERPA allows disclosure of educational records or components thereof under certain conditions. Students desiring additional information regarding FERPA may contact the Enrollment Management office.

GRADING SYSTEM

Undergraduate

The following indicators, used on grade reports and transcripts.

Letter Grade	Student Performance	Grade Points Credit Hour
A	Superior	4
B	Above Average	3
C	Average	2
D	Below Average	1
F	Failure	0
WF	Withdrawal from the University-Failing	0
W	Withdrawal from a course	N/A
AU	Audit	N/A
I	Passing but incomplete	N/A
P	Passing grade (credit)	N/A
S	Satisfactory (noncredit)	N/A
T	Transfer credit	N/A
N	No grade submitted by instructor	N/A
X	Credit by means other than course-equivalency exam	N/A
XP	Credit by course-equivalency exam	N/A

Graduate

The following indicators are used on grade reports and transcripts.

Letter Grade	Student Performance	Grade Points Credit Hour
A	Excellent	4
B	Satisfactory	3
C	Passing	2
F	Failure	0
WF	Withdrawal from the University-Failing	0
W	Withdrawal from a course	N/A
AU	Audit	N/A
I	Passing but incomplete	N/A
N	No grade submitted by instructor	N/A
P	Passing grade (credit)	N/A
IP	In Progress	N/A
S	Satisfactory (noncredit)	N/A
T	Transfer credit	N/A

GRADUATE CAPSTONE PROJECT GRADING

A final grade of P or F is awarded upon completion of the Graduate Capstone Project. If a student is making

progress, a grade of IP is awarded at the end of each term. If the student has not made progress, a grade of F will be issued and will result in a change of IP to F for the original three hours, and from IP to N for all remaining credits. Students who do not complete their Graduate Capstone Project within the number of credit hours required by their degree program are normally required to register for one credit hour for every subsequent term.

GRADE REPORTS

Final grades are issued at the end of each term. Students have the capability of accessing their grades immediately after they are posted, via ERAU Online Services.

The University is prohibited from releasing grade information without the express written authorization of the student. Such authorization must be granted each term because blanket authorizations are prohibited by law.

GRADE APPEALS

Students who wish to appeal the final course grade must first communicate with the instructor to discuss and attempt to resolve the issue. The meeting must be arranged as soon as possible after the final course grades have been issued. The grounds for appeal may include suspected mathematical errors in computing the final grade or interpretation of the weighing of course performance elements. Except for the most unusual circumstances, appeals challenging the academic judgment of the faculty are not acceptable.

If the dispute cannot be resolved between the student and instructor, the student has eight weeks after the final grades have been issued to initiate a written appeal to the Director of Academics for students taking courses at Worldwide campuses or the Director of Worldwide Online Advising Enrollment and Recruitment Office (AERO), for Worldwide Online students. The Director of Academics will then follow procedures outlined in Worldwide Academic Administrative Procedure EC-A-12.

GRADUATION REQUIREMENTS

For undergraduate degree completion, at least 25 percent of semester credit hours must be earned through ERAU instruction.

Graduate students are required to complete all graduate course work with ERAU with a maximum of 12 credit hours of transfer work in all programs except the Master

of Science in Technical Management. A maximum of 6 credit hours may be applied to the Master of Science in Technical Management program.

Students pursuing any undergraduate degree must earn a minimum cumulative grade point average (CGPA) of 2.00 for all work completed within the degree program at the University. Students pursuing any graduate degree must earn a minimum cumulative grade point average (CGPA) of 3.00 for all work completed within the degree program at the University.

Students must complete the general graduation requirements as prescribed by the University, as well as all degree requirements specified in the degree being pursued. Students must initiate an application for graduation through the Worldwide campuses, Worldwide Online Advising Enrollment and Recruitment Office (AERO), or the Enrollment Management Office.

GRADUATION HONORS

Undergraduate

Graduation honors are awarded only to students completing a baccalaureate program and recognize excellent performance throughout the student's academic career. The level of graduation honors will be based on the cumulative grade point average for all courses taken at Embry-Riddle and those courses transferred from other institutions that are directly applicable to the student's degree program. The honors level will appear on the student's academic transcript with the degree information.

Graduation honors (baccalaureate only) will be awarded in accordance with the following criteria:

Honors Level	CGPA
Summa Cum Laude	3.90-4.00
Magna Cum Laude	3.70-3.89
Cum Laude	3.50-3.69

Graduate

Students who have completed a graduate degree program and who have excelled academically throughout their graduate careers are recognized through the publication of graduation honors. To be eligible, graduate students must have completed their degree program with a cumulative grade point average of 4.0 based on grades received in all courses that apply to specific degree requirements.

DIPLOMAS

Diplomas are issued upon successful completion of all academic and financial requirements. Diplomas will be

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mailed to the student at the address specified on the graduation application. Diplomas will not be forwarded if the address is incorrect but will be returned to the office of Enrollment Management.

GRADUATION CEREMONY

Any eligible student may participate in the Worldwide graduation ceremony held in Daytona Beach, Florida annually. Additionally, many Worldwide campuses conduct local graduation ceremonies. Worldwide and other University officials are often guests at local graduation festivities. Ask your Director of Academic Support about the graduation custom at your campus. Eligible students may also choose to attend the formal graduation ceremony held at the Prescott, Arizona residential campus.

If a student wishes to participate in the annual graduation ceremony at Daytona Beach, FL or Prescott, AZ, this information must be indicated on the application for graduation. A nonrefundable graduation fee, which includes the cost of regalia, must be paid during the submission of your application for graduation. Graduation ceremony deadline dates are:

<i>Ceremony</i>	<i>Location</i>	<i>Deadline</i>
Spring	Worldwide @ Daytona Beach	February 1
Spring	Prescott	February 1

COOPERATIVE EDUCATION

Cooperative education offers qualified undergraduate students an opportunity to gain valuable experience, explore career options, develop contacts in the industry, and earn college credit. Requirements and benefits vary by degree program and by employer. Students should contact the Office of Enrollment Management toll-free at 877-362-7970. Additional information including current openings and requirements is available from the Career Services Office and on the Career Services website at www.erau.edu/career.

CAREER SERVICES

The Career Services Office provides career development assistance to all students and alumni of Embry-Riddle Aeronautical University. The Career Services website offers students and alumni a virtual library of job search aids, including interview tips, sample resumes and cover letters, links to company websites, co-op/internship

opportunities and current job listings through our web-based resume referral system.

Industry/Career Expos are held in the fall at both the Daytona Beach, Florida and Prescott, Arizona campuses. More than 100 companies visit these campuses to recruit students from both full-time and cooperative education/internship positions, and to provide information on industry.

The Career Services Office employs a staff of Program Managers to provide one-on-one career advisement, mock interviews, and resume/cover letter critiquing. Students are encouraged to contact the Career Services Office early in their education to explore career options and develop a successful job search strategy.

For more information contact:

Career Services
Embry-Riddle Aeronautical University
600 S. Clyde Morris Blvd.
Daytona Beach, FL 32114-3900
Telephone: (386) 226-7991
eccareer@erau.edu

Or visit our web site at www.erau.edu/career/.

CLASS SCHEDULES

Term dates vary at each Worldwide location. The start date of the term is used in accordance with the following schedule for entry on the official transcript. Consult the Director of Academic Support for the class schedules at your Worldwide campus location, or the Worldwide Online Advising Enrollment and Recruitment Office (AERO) for online term information. The University reserves the right to make necessary and appropriate adjustments to the published schedule to include cancellation or rescheduling of any class.

- (S1) January-Spring 1
- (S2) February-Spring 2
- (S3) March-Spring 3
- (U1) April-Summer 1
- (U2) May-Summer 2
- (U3) June-Summer 3
- (F1) July-Fall 1
- (F2) August-Fall 2
- (F3) September-Fall 3
- (W1) October-Winter 1
- (W2) November-Winter 2
- (W3) December-Winter 3

CLASSROOM FACILITIES

Classes are held in a variety of locations on and near the installations hosting Embry-Riddle centers. You might find that classes meet in the education center, on the flight line, in squadron meeting rooms, in chapels, at local airports, in business offices, etc. Be sure to ask your Director of Academic Support where your class meets. The classroom location will also be on your class syllabus, which you should receive at the time of registration.

CLASS ATTENDANCE

Because regular attendance and punctuality are expected in all courses, attendance may be included in the grading criteria of an individual class.

FLEXIBLE CLASSROOM INSTRUCTION

Class times vary according to local students' needs. At many teaching locations, classes meet once a week in the evenings; however, other scheduling arrangements, such as meeting weekends or twice a week, are not uncommon. Check your course registration form for class meeting times.

To enhance learning in the regular classroom, some courses are offered through a blend of classroom and online course delivery. While the majority of the instruction occurs in the classroom, a portion of the course



takes place online through activities such as guided discussion, group projects, and online assignments. Students have expressed high praise for the flexibility, reflection, and interaction that blended instruction affords. Blended courses will be indicated as such on the syllabus.

CLASSROOM RULES

For classes held on a military installation and at most corporate locations, the general rules are no eating, drinking, or tobacco use in the classroom. Please abide by posted rules in the classroom facilities.

CLASSROOM SECURITY

Classroom security is an important issue. Because classroom security conditions vary from location to location, students should be aware of their surroundings at all times. Please check with your local Director of Academic Support, who will be able to inform you of any known security issues in the area. All security or safety issues and/or incidents should be reported to your Director of Academic Support. Your security and education are very important to Embry-Riddle.

TEXTBOOK PURCHASE

At many centers, textbooks are purchased at the time of registration. Several centers use a telephone-ordering system with a national book service. Please consult your Director of Academic Support or Worldwide Online Advising Enrollment and Recruitment Office (AERO) advisor for details.

Students may sell their used books to other students who will be taking the same class if the same text is used. The center does not participate in this resale; it is a student-to-student transaction. There is a web site for used texts at www.ec.erau.edu/apps/booksales/index.cfm.

IDENTIFICATION CARDS

Student identification cards are available through the website at www.erau.edu/db/eaglecard/index.html. These identification cards may be required to use the library facilities of other universities and might be used for student discounts wherever a student identification card is honored.

STUDENT AFFAIRS

The Student Affairs department is composed of the following units: International Students Services, Student Life, Orientation, Ombudsman, Counseling Support and Disability Support Services.

The department oversees all non-academic disciplinary matters and maintains disciplinary records.

STUDENT LIFE

The Student Life unit provides worldwide students with the opportunity to enhance their academic learning experiences through development of, exposure to, and participation in social, cultural and intellectual program.

Alpha Sigma Lambda the Undergraduate Honor Society
Study Abroad Programs
Student Communities

Online Orientation

The Orientation Program aids students in understanding the nature and purpose of the campus, their membership in the academic community and their relationship to the intellectual, social and cultural climate of the campus.

The online Orientation is delivered to worldwide students during their first term of attendance with the campus. Its purpose is to:

- a) Facilitate in the transition of new students into the campus taking into consideration their status as either First Year, Transfer or Graduate students
- b) Inform new students of academic policies and procedures
- c) Initiate new students into the intellectual and cultural climate of the campus
- d) Prepare new students for the campuses educational opportunities and support services

Health Insurance

A campus group policy is available. Rates are determined annually. Information on benefits, premiums, enrollment, and claims is available by visiting <http://www.studentresources.com> or by calling, toll free, (800) 237-0903.

International students should contact the International Student Counselor regarding their specific health insurance requirements.

INTERNATIONAL STUDENT SERVICES

The Worldwide International Student Services Counselor serves as the central point of contact for issues concerning international students. The counselor provides services that include advising students on immigration regulations, financial and personal matters. International students receive an orientation that familiarizes them with University policies and procedures.

The office also assists international students with the processing of forms and documentation of status required by foreign governments, sponsors, the US government and the University. International students attending the Oakland campus should contact the Oakland campus directly at: 510.636.2424 or by email Oakland.Center@erau.edu.

International students at all other campuses should contact the International Counselor at 866.509.0744 or by email asumaal@erau.edu.

DISABILITY SUPPORT SERVICES

Embry-Riddle Aeronautical University recognizes its responsibility under the mandates of Section 504 of the Rehabilitation Act of 1973 and Title III of the Americans with Disabilities Act of 1990, to provide equal access to its programs and services for students with a documented disability. To assure nondiscrimination, the University is prepared to make reasonable accommodations to promote students' effective participation in their academic and co-curricular objectives.

The University does not provide diagnostic testing but will make referrals for evaluation by area specialists. Costs associated with testing referrals are the responsibility of the individual student .

Services for Worldwide students are coordinated through the Worldwide Student Affairs department and needs are addressed on an individual basis. The Student Affairs provider will collaborate with the University Director of Disability Support Services to identify resources, examine and clarify academic issues and strategize approaches that deliver optimum student service.

Prospective students considering a program of study are encouraged to visit the Disability Support Services website:www.erau.edu/db/studentlife/disabilitysup/ind ex.html or contact the Student Affairs department 386-

226-6944 for information on eligibility concerns or campus-specific services.

STUDENT GRIEVANCE

Students who may have a personal grievance are first encouraged to address issues with the appropriate faculty/staff member. If unresolved put issue/grievance in writing and forward it to the appropriate department chair, director or dean.

Students may contact the Student Ombudsman to gain advice and specific direction in seeking a resolution to his/her grievance.

In the event a student going through the above mentioned remedies is still not satisfied with the outcome of his/her grievance, he/she may make a final appeal in writing to the Vice Chancellor (or his designee) for academic issues, the Director of Student Affairs for student affairs issues and ultimately to the Chancellor for either.

STUDENT OMBUDSMAN

The Ombudsman is available to listen to concerns, clarify issues and resolve conflicts by referring students to the appropriate services within the Worldwide campus and is a source of information and assistance to students concerning University policy and procedures.

Issues related to grades, differences of opinion with instructors or academic matters should first be brought to the attention of the faculty member or the appropriate campus staff. If the problem is not resolved at this level then the Program Chair or Regional Dean office should be included in the discussion.

The Ombudsman will bring a complaint or issue to the attention of the appropriate University official if the issue has not already been heard and seek to resolve the matter.

The Ombudsman may also make recommendations to the appropriate authorities about changes to University policy and procedures.

How the Ombudsman can help you

- By listening carefully to concerns and complaints.
- By helping analyze the situation.
- By looking into a concern, including talking with

involved parties, and reviewing pertinent documents and policies.

- By identifying and explaining relevant University policies, procedures, and problem-solving channels.
- By mediating discussions between individuals in a dispute or problem situation.
- By helping define options.
- By following up to make sure a concern is resolved.
- By recommending changes in University policies or procedures.

When the Ombudsman does not get involved

- When you want legal advice or legal representation. The Ombudsman can advise you of your rights within the University, but will not provide legal advice or represent you in a legal matter.
- When you have a non-University-related disagreement or problem.
- When you want someone to represent you in a University grievance procedure. The Ombudsman will discuss the process and clarify the options available before and after the proceedings.

STUDENT CONDUCT

If an enrolled or continuing student is found responsible for an infraction of any of the following rules or regulations, he/she will be subject to disciplinary action through the University Judicial System. Any student who leaves the University prior to the disposition of an alleged violation(s) will not be allowed to register for future semesters until the matter has been adjudicated through the normal judicial process. Sanctions imposed will depend on the severity of the violation(s) and/or the student's previous disciplinary record. The following is a list of various violations:

Student Conduct Code

1. Abuse/Threatening Behavior: Any conduct that threatens or endangers the health and safety of a member of the University community (including oneself) on University property, or at a University sponsored or supervised activity
 - a. Verbal: Threats, intimidation, harassment, coercion
 - b. Physical: Sexual misconduct, stalking, fighting, false imprisonment, and intimidation
2. Computer Security Violations: (including attempted violations) or misuse of computing facilities, software, hardware, unauthorized use of another individuals computer account, misuse of one's own computer account, or any violation of the policies for using

STUDENT AFFAIRS

computing network resources at Embry-Riddle

3. Disorderly Conduct: Excessively loud, lewd, indecent, obscene or inappropriate conduct for an institution of higher learning

4. Theft: Theft or attempted theft, unauthorized possession, misuse or wrongful appropriation, vandalism or malicious destruction, or sale of property belonging to the University, an organization affiliated with the University, or a member of the University community

5. Unauthorized Entry or Use: Unauthorized attempted entry or use of University facilities and equipment, including unauthorized possession, duplication or use of University keys

6. Weapons possession: or use of a gun, including, but not limited to firearms, BB guns, and air guns, dangerous chemicals, incendiary devices, other explosive substances including fireworks; sling shots; martial arts devices; or other objects classified or used as weapons with potential for danger or harm

7. Criminal Violations: Violation of any State or Federal Criminal Code while on University property or at any University sponsored or controlled event.

Sanctions

Disciplinary Sanctions may be imposed for violations to the Student Conduct Code. All disciplinary sanctions

are noted in the student's non-academic student file and may be kept for a period of three years after they leave the University. Records of suspended or dismissed students are kept indefinitely.

1. Warning – A disciplinary warning is a verbal or written notice given to a student whose behavior is in violation of University policy

2. Probation – University Conduct Probation is an intermediate sanction imposed for a specific period. The probationary period allows a student to demonstrate acceptable behavior in order to continue enrollment at Embry-Riddle. Guidelines for a student's behavior may be included as conditions of the probation. If an offense is committed during the probation period, actions may be instituted that result in suspension or dismissal

3. Suspension – Suspension is an involuntary separation of the student from the University for a specific period.

Readmission to the University may be granted after the suspension period or conditions have been satisfactorily met

4. Dismissal – Dismissal is the involuntary and permanent separation of the student from the University

The Non-Academic Judicial Affairs board convenes to adjudicate and make decisions on students that are facing University suspension or dismissal. The board is



comprised of a representative from Student Affairs, Regional Deans, faculty and staff. Request for appeals should be addressed to the Director of Student and Technology Services.

SERVICES AND OPPORTUNITIES AVAILABLE TO ALUMNI

Alumni Chapters, Clubs and Affinity Groups: Chapters, Clubs and Groups form the grass roots level of support for Embry-Riddle, promoting the welfare and interests of the University and its alumni in local communities across the nation and around the globe. They encourage alumni in their area to become informed about the University, to develop an interest in a University activity, and to become involved in their alma mater through community and professional activities. Their involvement may include career networking opportunities, mentoring students and other alumni, and enjoying social events, all in the name of Embry-Riddle.

Career Networking: Although students once looked to their alma maters for help only in finding their first post-graduation jobs, it has recently become customary for graduates to turn to their universities for job assistance throughout their careers. At Embry-Riddle, graduates may use the Office of Career Services for assistance with resume development, job searches, establishing a job file, and career networking. The Office of Alumni Relations works closely with Career Services to support initiatives and to share information and resources to meet alumni requests.

Communications: The eaglesNEST, the online community for Embry-Riddle alumni, is the primary tool for keeping in touch with the University and other alumni. The Alumni Network Newsletter provides alumni with an up-to-date calendar of University events, athletic team scores and schedules, alumni class notes, and University happenings. LIFT, the alumni magazine, is a biannual magazine that features in-depth stories on alumni, the industry and the University. Communication with the University is also available at Embry-Riddle's Web site: www.erau.edu.

The excellence of any educational institution depends heavily on the quality, interest and participation of its alumni. Embry-Riddle's alumni participate as guest speakers, serve on advisory councils, supply media experts, and are active in many

other activities. They provide role models for current students to emulate, thus continually elevating the status of the University.

For more information, please contact the Office of Alumni Relations at (800) 727-3728.

SURVEYS

Student surveys provide essential information in assessing the effectiveness of Embry-Riddle academic programs and services. Two basic types of student surveys are used: an end-of-course survey and an Alumni Survey. The end-of-course survey is completed at or near the end of each course and the alumni survey is sent on a sampling basis approximately one year after graduation. The survey information you provide is essential for continuous quality improvement and increased institutional effectiveness.



STUDENT FINANCIAL SERVICES

TUITION AND FEES

Payment in full is required at time of registration. Detailed tuition rates are published on the web at <http://www.erau.edu/ec/wvc/payment-cost.html>.

USER FEES

Application fee (nonrefundable)	\$ 50
Late registration fee	\$ 25
Transcript fee (per transcript)	\$ 5
Commencement fee (nonrefundable)	\$ 40
Duplicate diploma	\$ 15
Previously earned diploma	\$ 40
MSTM transfer credit fee (per semester hour)	\$ 50
Worldwide Campus Co-op (per 3 credits)	\$193

UNIVERSITY WITHDRAWAL/REFUND SCHEDULE

First week	100%
After first week	0%

**Unless specified by M.O.U., contract, or state regulations.*

Students who withdraw from a course are responsible for the tuition. Request for refunds due to circumstances clearly beyond the student's control, such as illness, required military service, etc., must be in writing and accompanied by appropriate documentation such as a physician's statement, military orders, etc.

Nonmilitary students enrolled in Georgia, Indiana, Kentucky, Mississippi and North Dakota
Refund tables available at the local centers.



California and Oregon Students Refund Policy

A full-pay student has the right to a full refund of all charges if he/she cancels this agreement prior to or on the first day of instruction. In addition, the student may withdraw from a course after instruction has started and receive a prorated refund for the unused portion of the tuition and other refundable charges if the student has completed 60% or less of the instruction. A student using Military Tuition Assistance is entitled to a full refund during the drop/add period only.

Days Used	Refund Percentage
7 days	100%
14 days	80%
21 days	60%
28 days	40%
35 days	20%
36 days +	No Refund

Department of Education Withdrawal/Refunds Policy

Students receiving financial aid who withdraw will be subject to the return-of-funds policies specified by the U.S. Department of Education. Refunds of federal aid for students who officially withdraw on or before the 60% point of the enrollment period will be determined by calculating the amounts due under the Federal Return of Title IV Funds policy.

Delinquent Accounts

When a student's account is delinquent registration for any subsequent semesters will be denied. A delinquent student account will result in suspension of all academic processing and information on class performance, grades, and transcripts will be withheld. If the delinquent status is not resolved, the University may place the account with a commercial collection agency for further collection and/or litigation action. The student is also subject to the costs of collection (33-50%) and reasonable attorney's fees. Delinquent accounts may be reported to one or all three major credit bureaus.

FINANCIAL AID

FINANCIAL ASSISTANCE

Embry-Riddle participates in a number of federal, state, and University-administered programs that help students and their families meet educational costs.

Embry-Riddle believes the primary responsibility for financing education lies with the student and the student's family. Therefore, the student should apply for financial aid early, save money, look for ways to reduce costs, and become aware of specific program requirements by reading all financial aid publications. Financial aid awards are meant to supplement what the student and family can contribute toward costs and rarely cover all educational expenses. All financial assistance will be limited to Embry-Riddle's established cost of attendance.

A complete description of financial aid assistance and optional financing programs are available to students and their parents. Types of financial assistance are detailed online in the Financial Aid section (www.embryriddle.edu). This includes information about eligibility criteria, application procedures, and deadline dates.

ELGIBILITY REQUIREMENTS

To be considered eligible to apply for most financial programs students must:

1. Be U.S. citizens or eligible noncitizens.
2. Be enrolled or accepted for enrollment as at least a half-time student in a degree program.
3. Be making satisfactory academic progress toward a degree.
4. Be registered with Selective Service, if required to do so.
5. Establish financial need.
6. Not be in default on a loan or owe a repayment on a previous financial aid award received at any institution.

THE APPLICATION PROCESS

After applying for admission to the University, students are encouraged to complete the Free Application for Federal Student Aid (FAFSA) on the web at www.fafsa.ed.gov. The FAFSA must be completed each year. Students should renew their aid application each year through the Internet at www.fafsa.ed.gov. Students attending the Worldwide Campus may request their financial aid material through their campus location, the Financial Aid Office, or through the Internet at www.fafsa.ed.gov.

EXTENDED PAYMENTS

Students who use financial assistance to pay their University charges may have the payment date extended for the amount of their award if their funds are not ready to be disbursed by the date payment is due. This is called a payment extension. Any difference between the total charges and the amount of the extension granted must be paid according to the University's payment procedure. To qualify for a payment extension, students must have applied for financial assistance and must have received final approval of their award.

Deferred Tuition Payments

Those students using Veteran's Education Benefits who wish to defer payment on a portion of their tuition may request to pay only one-third at the time of registration. The remaining balance of two-thirds is due by the end of the term. A tuition payment agreement must be signed by the student. This procedure assures the student that the University will await payment until the student receives the DVA benefit or the end of the term, whichever comes first. Payment for the cost of books, course materials, and shipping fees may *not* be deferred. Students are encouraged to contact the Worldwide campus or Worldwide Online Advising Enrollment and Recruitment Office (AERO) for details regarding costs and payments.

Credit Cards

MasterCard, Visa, Discover, or American Express may be used to pay for tuition, fees, and books.

Programs Available

The major categories of financial assistance programs include grants, scholarships, and loans. Loans from state and federal government sources or from private lenders

FINANCIAL AID

must be repaid; the interest rate, however, is usually low and the repayment period is extended. Grants and scholarships do not have to be repaid. Most of these programs are based on the student's financial need.

Grants

Federal

- Federal Pell Grant

State and Institutional

- Arizona - Leveraging Educational Assistance Partnership (LEAP)
- Arizona - Private Postsecondary Financial Assistance Program (PFAP)
- Florida Student Assistance Grant
- Florida Resident Access Grant
- Florida Bright Futures Scholarship Program
- Grants from other states

Loans

- Federal Stafford Loan
- Federal Parent Loan for Undergraduate Students
- Other private sector educational loans
- Other elective educational loans

Scholarships

- **Leon E. Flancher Endowed Scholarship**
Worldwide students are eligible to apply for the Leon E. Flancher Endowed Scholarship. The Leon E. Flancher Endowed Scholarship Fund provides a limited number of scholarships for Worldwide students. These are awarded primarily on the basis of economic need.



VETERAN'S AFFAIRS

VETERANS' EDUCATION BENEFITS

Embry-Riddle degree programs are approved by the appropriate State Department of Veterans' Affairs (State Approving Agency) for enrollment of persons eligible to receive education benefits from the Department of Veterans' Affairs (DVA).

Students must be pursuing a degree in a specific program to be eligible to receive benefits. Admission procedures for veterans and other eligible persons are the same as those for other students. Students who do not satisfy all requirements for full admission may be certified for two terms; however, they may be required to repay the DVA for some or all benefits received if they do not achieve full admission status during that time.

Title 38, United States Code, sections 3474 and 3524, requires that education assistance to veterans and other eligible persons be discontinued when the student ceases to make satisfactory progress toward completion of the training objective. Accordingly, benefits will be interrupted for undergraduate students who remain on academic probation beyond two consecutive periods of 12 credit hours and for graduate students who are on academic warning and fail to earn a 3.00 CGPA within the next 12 hours of graduate work or are otherwise subject to dismissal. The DVA will be appropriately notified of the unsatisfactory progress. The student must submit a written request to reinstate education benefits. The request must include proof of academic counseling and the conditions for continued enrollment or re-entrance. The DVA will determine eligibility for reinstatement of benefits, based in part on the school's recommendations.

Veterans' progress will be measured according to University standards as published in the catalog, and the rules and regulations of the DVA apply. The criteria used to evaluate progress are subject to change. Application and interpretation of the criteria are solely at the discretion of Embry-Riddle. Students are responsible for notifying the Veterans' Certifying Official of any change in their enrollment or change in personal information affecting their eligibility. Students also must remain in compliance with University and Department of Veterans' Affairs requirements. Students may receive education benefits only for courses that are required for their designated degree program. Students who receive DVA benefits are subject to strict academic regulations and should be aware of how auditing courses, repeating a

course, changing degree programs or enrollment status, and other actions may affect their eligibility to receive benefits.

For further information concerning approved programs and the application process, eligible persons should contact the Veterans' Certifying Official at the Extended Campus center they plan to attend. Students enrolled through the Department of Distance Learning should contact the University Veterans' Affairs Office in Daytona Beach, Florida.

For additional information concerning Veterans Education Benefits administered by the Department of Veterans Affairs contact:

University Veterans Affairs Office
Embry-Riddle Aeronautical University
600 S. Clyde Morris Blvd.
Daytona Beach, FL 32114-3900
Telephone: (386) 226-6350



RESEARCH/LIBRARY SUPPORT

LIBRARY GUIDES AND BROCHURES

The Guide to Library Resources is available from the local center; this guide provides descriptions of the resources and services available through the Hunt Library and from selected local libraries. The Library Guide also maintains a directory of other libraries and educational institutions in the immediate area. The Guide includes information and instruction on the many databases and periodical indexes available from the Hunt Library, along with information on locally available resources. The Library Guide also includes a selection of Hunt Library informational and instructional brochures. Ask your Director of Academic Support for the latest copy of the library guide, or for the individual library brochures.

CURRENT PERIODICALS

A number of current periodical titles are available at your local Worldwide campus or local library; a new online index to these titles is also available. Aviation Tradescan, a monthly index to articles in aviation, transportation, and aerospace is now online through the Hunt Library's Online Databases and Periodical Indexes pages. Sign on to ERNIE to access this service.

AVIATION TRADESCAN ARTICLE SERVICE

Any articles indexed in Aviation Tradescan that are not available locally may be easily ordered from the Hunt Library in Daytona Beach. Send an email to library@erau.edu with your request, or contact your center staff for more information.

RIDDLE AVIATION COLLECTION (RAC)

A Riddle Aviation Collection is a collection of aviation/aerospace reference materials available for student and faculty research. The RAC contains many of the same reference titles as the Hunt Library's collection in Daytona Beach. The Riddle Aviation Collections may be located at the local center or at a local library. Contact center staff to find out where the RAC is located.

VIDEOTAPES

A large collection of videotapes and DVD's are available as course support material through the Hunt Library. Ask your Director of Academic Support for the How to Find Videos Using Voyager brochure, or with assistance accessing the online catalog (Voyager) located at <http://voyager.db.erau.edu/>.

REFERENCE ASSISTANCE

If you need reference assistance, you may call the Hunt Library at 800-678-9428 or 386-226-7656. A Reference Librarian will be available to help you from 8:00 AM – 5:00 PM (Eastern) with voicemail after normal hours, or 24/7 access via email through library@erau.edu. Reference Librarians can provide detailed advice on research strategies, referrals to relevant reference sources, or assistance with literature searches.

INTERNET ACCESS

The Hunt Library is located at amelia.db.erau.edu/; choose the Embry-Riddle Worldwide link. From here you may explore the rest of the Library's web pages, including 24/7 access to the Hunt Library's online catalog, Voyager. The Library's web pages include access instructions for all of the (online) databases and periodical indexes (which include many full-text resources), and instructions on how to access the library using ERNIE. The Hunt Library also maintains a large collection of digitized (full-text) books, documents and reports, as well as maintaining a collection of aviation/aerospace related Internet resources. Online request/order forms are also available, or simply email any query to library@erau.edu requesting library materials.

HOW TO CONTACT THE HUNT LIBRARY'S WORLDWIDE LIBRARY SERVICES

Reference Phone: 800-678-9428 or 386-226-7656

Fax: 386-226-7040

E-mail: library@erau.edu

Internet: <http://amelia.db.erau.edu/ec/>

ERAU-Worldwide Services Librarian: Edward Murphy -
386-226-6947



Working in the aviation industry for the last 15 years, and working for Southwest Airlines for the last six, it only makes sense to go with the top aviation school. Embry-Riddle has helped me advance in the progression of my degree quicker by accepting life time learning in its degree program. I enjoy the instructors' real-world aviation experience, and the discussion of aviation in the learning process.

- Jim Lufrano

CONTACT/INFORMATION SOURCES

WORLDWIDE

General Information

Telephone: (386) 226-6910

Or (800) 522-6787

E-mail: ecinfo@erau.edu

STUDENT SERVICES

ENROLLMENT MANAGEMENT OFFICE

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Admissions: (866) 509-0743

E-mail: ecssc@erau.edu

Financial Aid: (386) 226-6300

-or- (800) 943-6279

Registrar: (866) 393-9046

E-mail: ecregist@erau.edu

Portfolio Assessment: (877) 362-7970

Fax: (386) 226-6984

STUDENT AFFAIRS DEPARTMENT

Disability Support Services

Student Affairs/Student and Technology Services

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: (386) 226-6944

PROFESSIONAL EDUCATION PROGRAMS

Worldwide

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: (386) 323-8669

Fax: (386) 323-8692

Toll free: 1-866-574-9125

STUDENT FINANCIAL SERVICES

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: (386) 226-6280

CAREER SERVICES

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: (386) 226-6054

Email: eccareer@erau.edu

VETERANS AFFAIRS

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: (386) 226-6350

WORLDWIDE ONLINE

ADVISING ENROLLMENT AND RECRUITMENT OFFICE (AERO)

Embry-Riddle Aeronautical University

600 S. Clyde Morris Blvd.

Daytona Beach, FL 32114-3900

Telephone: 800-359-3728

Worldwide: (386) 226-6397

Fax: (386) 226-7627

CONTACT/INFORMATION SOURCES

WORLDWIDE LOCATIONS

(UNITED STATES):

STATE	LOCATION	CAMPUS	TELEPHONE	
Alabama	Enterprise	Fort Rucker	(334) 598-6232	
	*	Mobile, AL-Out of Keesler, MS	(251) 441-6737	
Alaska	Huntsville	Huntsville	(256) 876-9763	
	Anchorage	Anchorage	(907) 753-9367	
	*	Fort Richardson	(907) 333-1311	
	Fairbanks	Fairbanks	(907) 356-7773	
Arizona	*	Eielson AFB	(907) 377-2977	
	Glendale	Luke	(623) 935-4000	
	Mesa	Williams Gateway	(480) 279-1150	
	Phoenix	Sky Harbor	(602) 275-5533	
	Tucson	Tucson	(520) 747-5540	
Arkansas	Little Rock AFB	Little Rock	(501) 983-9300	
California	Fairfield	Travis	(707) 437-5464	
	Fort Irwin	Fort Irwin	(760) 386-7997	
	Lemoore	Lemoore	(559) 998-6026	
	Los Angeles	Los Angeles (Metro)	(562) 627-5870	
	Marysville	Beale	(530) 788-0900	
	NAS Pt. Mugu	Ventura	(805) 271-9691	
	Oakland	Oakland	(510) 636-2424	
	Oceanside	Camp Pendleton	(760) 385-4423	
	Riverside	Inland Empire	(951) 653-4074	
	Palmdale	Palmdale	(661) 947-4025	
	Edwards	Edwards	(661) 258-1264	
	China Lake	China Lake	(760) 939-4557	
	San Diego	San Diego	(858) 576-4375	
	San Diego	North Island	(619) 435-6673	
	Lompoc	Vandenberg	(805) 734-4076	
	Colorado	Fort Carson	Colorado Springs	(719) 576-6858
	Florida	Cocoa Beach	Space Coast	(321) 783-5020
		Fort Walton Beach	Fort Walton Beach	(850) 678-3137
		*	Hurlburt Field	(850) 581-2106
Jacksonville		Jacksonville	(904) 645-0333	
*		NAS Jacksonville	(904) 779-0246	
*		NS Mayport	(904) 249-6700	
Miami		Miami	(305) 871-3855	
Orlando		Orlando (Metro)	(407) 352-7575	
Panama City		Tyndall	(850) 283-4557	
*		Tallahassee	(850) 201-8330	
Pensacola		Pensacola	(850) 458-1098	
*		NAS Whiting Field	(850) 623-7787	
*		US Coast Guard ATC		
Pompano Beach		Ft. Lauderdale	(954) 497-3774	
Tampa		Tampa	(813) 828-3772	
*	St. Petersburg College	(727) 394-6218		

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Georgia	Atlanta	Atlanta (Metro)	(770) 671-9888
	*	NAS Atlanta	(770) 426-9990
	*	Delta Air Lines	(404) 714-3248
	Savannah	Savannah	(912) 355-0644
	Valdosta	Moody	(229) 244-9400
	Warner Robins	Robins	(478) 926-1727
	Fort Benning	Columbus	(706) 685-0105
Hawaii	Honolulu	Honolulu	(808) 422-0835
	Honolulu Airport	Airport Training Center	(808) 838-1435
	MCB Hawaii	Kaneohe	(808) 254-2106
	Schofield Barracks	Schofield Barracks	(808) 624-2334
Idaho	Mountain Home	Mountain Home	(208) 832-2222
Indiana	Indianapolis	Indianapolis	(317) 487-6281
Kansas	Wichita	McConnell	(316) 687-3006
Kentucky	Clarksville	Fort Campbell	(270) 798-2775
	Louisville	Louisville	(502) 964-9204
Louisiana	Shreveport	Barksdale	(318) 747-4508
	*	New Orleans, LA	(504) 361-0335
Maine	Brunswick	Brunswick	(207) 721-0664
Maryland	Andrews AFB	Andrews	(301) 735-6340
	Lexington Park	Patuxent River	(301) 863-8776
Minnesota	Eagan	Minneapolis	(651) 905-9595
Mississippi	Biloxi	Keesler	(228) 432-5312
	*	Mobile, AL-Out of Keesler, MS	(251) 441-6737
Montana	Great Falls	Great Falls	(406) 727-9901
Nebraska	Omaha	Offutt	(402) 292-6655
Nevada	Las Vegas	Las Vegas	(702) 643-0762
	*	Fallon	(775) 423-4018
New Jersey	Trenton	McGuire	(609) 723-1337
New Mexico	Alamagordo	Holloman	(505) 479-6892
	Albuquerque	Albuquerque	(505) 846-8946
	Clovis	Cannon	(505) 784-8763
	Elizabeth City	Elizabeth City	(252) 331-2225
N. Carolina	Fayetteville	Fayetteville	(910) 436-5005
	*	Greensboro	(336) 605-3030
	*	Pope AFB	(910) 436-3188
	Goldsboro	Seymour Johnson	(919) 734-9211
	Grand Forks	Grand Forks	(701) 594-5324
N. Dakota	Minot	Minot	(701) 727-9007
	Cincinnati	Cincinnati	(513) 733-3728
Ohio	Fairborn	Dayton Area	(937) 878-3728
	*	Wright-Patterson	(937) 254-3728
	Altus	Altus	(580) 481-5991
Oklahoma	Enid	Vance	(580) 213-7320
	Oklahoma City	Oklahoma City	(405) 739-0397
Oregon	Portland	Portland	(503) 288-8690
S. Carolina	Charleston	Charleston	(843) 767-8912
	Greenville	Greenville	(864) 233-5288
	MCAS Beaufort	MCAS Beaufort	(843) 228-7585
	Sumter	Shaw	(803) 666-7401
*	McEntire ANGB	(803) 783-5025	

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Tennessee	Memphis Airport	Memphis	(901) 507-9969
Texas	Abilene	Dyess	(325) 692-2007
	Corpus Christi	Corpus Christi	(361) 937-4951
	Dallas/Ft. Worth	Fort Worth	(817) 737-8180
	Houston	Houston	(281) 461-3728
	Randolph AFB	San Antonio	(210) 659-0801
	Sheppard AFB	Sheppard	(940) 851-6458
Utah	Ogden	Northern Utah	(801) 777-0952
Virginia	Hampton	Langley	(757) 764-2662
	Newport News	Fort Eustis	(757) 887-0980
	Norfolk	Norfolk	(757) 440-5078
	*	Oceana	(757) 437-8061
Washington	Oak Harbor	Whidbey Island	(360) 279-0959
	Seattle	Seattle	(425) 226-2484
	Spokane	Spokane	(509) 244-3832
	Tacoma	Tacoma	(253) 589-1728
	Everett	Everett	(425) 514-0220
Wyoming	Cheyenne	Cheyenne	(307) 634-9693

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Luxembourg	Luxembourg City	Luxembourg	011-49-631-303-27811

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England	Lakenheath	Lakenheath/Mildenhall	011-44-1638-522464
Germany	Bamberg	Bamberg	011-49-951-3009279
	Katterbach	Katterbach	011-49-9802-832379
	Ramstein	Ramstein	011-49-6371-47-5755
	Spangdahlem	Spangdahlem	011-49-6565-7297
	*	Geilenkirchen	011-49-2451-63-2246
	*	Incirklik	011-90-322-316-1098
Italy	Aviano	Aviano	011-39-0434-66-0631
	Sigonella	Sigonella	011-39-095-56-4550
	*	Naples	011-39-081-568-4364
Spain	Rota	Rota	011-34-956-822984
	*Portugal	Lajes Field	011-351-295-57-3375
	*	Vicenza	011-39-0444-717570

* *Teaching site*

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Afghanistan	Bagram Airfield	011-49-631-303-27816
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TESTIMONIAL

Where do I begin? Embry-Riddle is more than a University to me. Embry-Riddle put me in the position in life that I enjoy today.

I entered the Professional Aeronautics program in 2002 through the Veterans Administration Vocational Rehab Program. Throughout the program I enjoyed tremendous support of the staff at the Mountain Home AFB Center. Never did I have to worry about the appropriate paperwork being completed so that my education could continue without a glitch. In the classroom I was privileged to absorb the knowledge of two professors that I will be forever grateful to.

So, where did two years of effort in an incredible University get me? Thanks to my degree I am now the Director of Safety and Training at Western Aircraft in Boise, Idaho. Western Aircraft is the largest FAA Certified Repair Station in the North West and is a Dassault Falcon Jet and Raytheon Service Center. In addition, Western is the world leader in the sale and servicing of the Swiss built Pilatus PC-12. Am I challenged? You bet I am! With over 150 employees I am responsible directly to the Chief Executive Officer for Hazard Identification and Risk Management at the facility. I also work with aircraft maintenance technicians in the development of locally generated lesson plans to ensure that our technicians are the most thoroughly trained technicians in the world.

Most people only dream about what they want to do. Embry-Riddle made my dream reality!

- Terry G. Hess



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