

## Worldwide 2010-2012 Catalog

The following additions or changes apply to the 2010-2012 Worldwide volume of the Embry-Riddle Aeronautical University Catalog with the effective date of July 1, 2010 through June 30, 2012.

### New Courses: USMS Series, US Military Science (Effective 2/1/12)

## *US Military Science*

### USMS 101

#### **Basic Military Science I (1,0)**

1 Credit

A study of the defense establishment and the organization and development of the U.S. Army. A study of the roles that active Army forces, Army Reserve forces, and the Army National Guard play in our nation's defense. A study of military courtesy, customs, and traditions of the service. A historical perspective of the role of the different branches of the U.S. Army and the role they have played in the freedom of our nation. An introduction to physical readiness training. Course includes lectures and laboratory. Field training exercises normally include M16-A1 rifle firing, rappelling training, and airmobile helicopter operations.  
Corequisite: USMS 101L.

Training continues the leader development process while remaining introductory in scope and develops basic operations and tactics and land navigation skills acquired in USMS 101 Laboratory. Practical training exercises continue cadet field orientation with the focus on individual training. Special topics, including stream-crossing techniques, field survival skills, and bivouac techniques, are covered. The Army Physical Fitness Test (APFT) is administered to assess the state of physical development.

### USMS 101L

#### **Basic Military Science Laboratory (0,3)**

0 Credit

Training on basic soldier tasks and skills, such as land navigation, basic rifle marksmanship and movement as a member of a fire team and rifle squad. Practical application of field craft and soldier skills in a tactical environment.

### USMS 201

#### **Basic Military Leadership I (2,0)**

2 Credits

A review of the customs and traditions of the service. The fundamentals of leadership development and the importance of understanding the principles that are important to effective leadership. This includes focus on goal setting, communication, problem solving, decision making, and group process. The course requires mandatory physical training and includes lecture and laboratory.  
Corequisite: USMS 201L.

### USMS 102

#### **Basic Military Science II (1,0)**

1 Credit

Continued emphasis on physical readiness training. Course includes lecture and laboratory. Field training exercises normally include M16-A1 rifle firing, rappelling training, and airmobile helicopter operations.  
**Corequisite:** USMS 102L.

### USMS 201L

#### **Basic Military Leadership I Laboratory (0,3)**

0 Credit

Builds on the topics covered in 101L and 102L. Further in-depth training on basic soldier tasks and skills, such as land navigation, basic rifle marksmanship and movement as a member of a fire team and rifle squad. Practical application of field craft and soldier skills in a tactical environment.

### USMS 102L

#### **Basic Military Science II Laboratory (0,3)**

0 Credit

Leadership laboratory with emphasis on military leadership and small unit tactics. Students develop leadership abilities through hands-on practical experiences.

### USMS 202

#### **Basic Military Leadership II (2,0)**

2 Credits

The fundamentals of military geography and their application in the use of navigational aids for the military forces. A study of preventive medicine countermeasures and first-aid techniques that every leader must know. The course requires mandatory physical

training and includes both lecture and leadership laboratory. Two weekend training exercises normally include M16-A1 rifle firing, rappelling training, and airborne helicopter operations.  
Corequisite: USMS202L.

### USMS 202L

#### **Basic Military Leadership II Laboratory (0,3)**

0 Credit

This is a continuation course building on the experience and tactics of USMS 201L.

### USMS 301

#### **Adaptive Tactical Leadership (3,0)**

3 Credits

Cadets are challenged to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Prerequisite: Completed basic military science (or given constructive credit) and be a contracted Army ROTC cadet.  
Corequisite: USMS 301L

### USMS 301L

#### **Adaptive Tactical Leadership Laboratory (0,3)**

0 Credit

Planning, coordination, execution and evaluation of training and activities with basic course students and ROTC program. Students develop and refine leadership skills in position of responsibility.

### USMS 302

#### **Adaptive Tactical Leadership II (3,0)**

3 Credits

Cadets receive increasingly intense situational leadership challenges to build awareness and skills in leading tactical operations. Cadets review aspects of combat, stability, and support operations in preparation for the Leadership Development and Assessment Course.  
Prerequisite: USMS 301.  
Corequisite: USMS 302L.

### USMS 302L

#### **Adaptive Tactical Leadership II Laboratory (0,3)**

0 Credit

Practice and refinement of leadership skills. Different roles assigned for students at different levels in the program. Planning, coordination, execution and evaluation of training and activities with basic course students and ROTC program.

### USMS 401

#### **Developing Adaptive Leaders (3,0)**

3 Credits

A course to develop proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing performance feedback to subordinates. Cadets assess risk, make ethical decisions, and lead fellow cadets.

Prerequisites: USMS 301, USMS301L, USMS 302, USMS 302L. Corequisite: USMS 401L

### USMS 401L

#### **Developing Adaptive Leaders Laboratory (0,3)**

0 Credit

Different roles assigned for students at different levels in the program. Practice and refinement of leadership skills. Planning coordination, execution and evaluation of training and activities with basic course students and ROTC program.

### USMS 402

#### **Leadership in a Complex World (3,0)**

3 Credits

A course in exploring the dynamics of leading in the complex situations of current military operations, examining customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism.

Prerequisite: USMS 401 and USMS 401L.

Corequisite: USMS 402L.

### USMS 402L

#### **Leadership in a Complex World Laboratory (0,3)**

0 Credit

Different roles assigned for students at different levels in the program. Practice and refinement of leadership skills. Planning, coordination, execution and evaluation of training and activities with basic course students and ROTC program.

*New Course: MGMT 203 (Effective 1/1/12)*

MGMT 203

Management for Aeronautical Science

3 Credits

An introductory course in aeronautics to provide students an orientation in aviation and other aerospace related topics appropriate to management degree programs. Subjects include: aviation careers; the science of flight; aviation safety managerial responsibilities; passenger and cargo security issues; safety and human factors issues; aircraft airworthiness certifications; aviation resources; the aviation environment; and meteorology.

*New Courses: SFTY 570, 580, 691 (Effective 1/1/12)*

SFTY 570

Fire Safety Management

3 Credits

This course is designed to teach the essentials of fire protection in the context of safety, health and environmental management. The course will provide an introduction to fire behavior and combustion to include fire chemistry, fire dynamics and concepts related to the development and spread of fire. The course will also address fire prevention methods, fire detection systems and fire protection including control systems, fire suppression and extinguishment. Lastly, the development of fire safety programs will be addressed, along with emergency action plans and response.

SFTY 580

Environmental Protection for the Safety, Health and Environmental Manager

3 Credits

This course is designed to equip students with the knowledge, skills and techniques used by the safety, health and environmental manager to protect workers, the community and the environment from environmental hazards; to facilitate a strategic approach to environmental conservation and sustainable business practices; and, to comply with EPA, OSHA and state and local regulations. Prevention and mitigation of environmental problems will be paramount in the course, but management techniques and programs focused on containment and clean-up of spills and releases will also be addressed.

SFTY 691

Graduate Capstone Course

3 Credits

The Master of Science in Occupational Safety Management Graduate Capstone Course is the culminating effort of the student's entire learning experience. The student will complete a project or comprehensive examination that provides significant evidence of experience in occupational safety management studies. Students will work with designated faculty to formulate, develop, and complete the occupational safety management project or examination. The completion of the Capstone Course is designed to document significant evidence that Program Outcomes have been met, and provides the student evidence of experience to show to current and prospective employers. The Capstone Course will be taken at the end of the student's degree program.

*New Courses: RSCH 665 and 670 (Effective 1/1/12)*

RSCH 665

Statistical Analysis

3 Credits

The review, design, planning, analysis and statistical interpretation of data to support research studies and industrial applications. Students will build on statistical theory and learn advanced techniques that can be applied to problem solving, research analysis and numerical interpretation of data. Students will learn to identify parametric and non parametric statistics, develop correlation methods for linear and non linear data, and statistical significance testing

between samples and within samples. Students will undertake projects using computer programs for data that is derived or given. Statistical results will be presented in tabular, graphical and numerical ways in accordance with the American Psychological Association format.

#### RSCH 670

##### Research Methods

3 Credits

This course is designed to equip students with the theoretical techniques and skills to identify and apply for solving qualitative and quantitative research problems. The course introduces the need for non numerical data analysis and how part of a methodology can allow for in depth analysis of complex issues and relationships. Sampling and data gathering in systematic manners are incorporated into research methodologies. The use of numerical analysis on qualitative data is covered to result in significance solutions and recommendations.

*New/Replacement Course: ASCI 202 replaces AMGT 202, Ref Page 82 (Effective 1/1/12)*

*The following course ASCI 202 has been implemented to replace AMGT 202 Aeronautical Science for Management.*

#### ASCI 202

##### Introduction to Aeronautical Science

3 Credits

An introductory course in aeronautical sciences that provides students an orientation in aviation topics appropriate to Aeronautical Science degree programs. Subjects include: the aviation profession, the science of flight, safety, security and human factors; aviation resources; the aviation environment; and meteorology.

*New/Replacement Course: SFTY 619 replaces SFTY 520 (Effective 1/1/12)*

*The following course SFTY 619 has been implemented to replace SFTY 520 Human Factors and Ergonomics, changing the course from a 500 to 600 level course.*

#### SFTY 619

##### Human Factors and Ergonomics

3 Credits

This course emphasizes the role of human factors in workplace and work task design with emphasis on complex technical industries. Topics include traditional material such as anthropometry, control/display design, visual and auditory acuity and their importance in work design, circadian rhythms and their implications for work design and shift work, psychomotor skills, and learning and memory. Also included are concepts of physiological aspects in ergonomics and the anthropometric principles in workspace and equipment design.

*New/Replacement Course: SFTY 590 replaces SFTY 670 (Effective 1/1/12)*

*The following course SFTY 590 has been implemented to replace SFTY 670 Hazard Control Methods in Occupational Safety and Health.*

#### SFTY 590

##### Hazard Control Methods in Occupational Safety and Health.

3 Credits

This course focuses on the application of scientific, engineering and technical principles and methods used to identify, evaluate and control workplace safety and health hazards. Hazard elimination and engineering controls are emphasized in the course. General industry topics, such as the following, are addressed: job safety analysis; inspections and audits; facility design, layout and maintenance; machine safeguarding; walking and working surfaces; materials handling; production operations; and, occupational health hazards and controls.

Revised Courses: SFTY 530, 540, 600, 630, course title & description update (Effective 1/1/12)

SFTY 530

Safety, Health and Environmental Legislation, Litigation & Compliance  
3 Credits

This course is a survey of the complex regulatory and legal settings surrounding occupational safety, health and environmental management. Occupational safety, health and environmental regulations, and how they affect industry, legal responsibility, and accountability; ethical considerations in and external to the organization; and the international environment and how it may affect projects are all examined.

SFTY 540

Disaster Preparedness and Emergency Response  
3 Credits

This course is designed to increase the student's knowledge of disaster preparedness and emergency response procedures, safety and health hazards and controls, and enforcement issues. Topics include elements of an emergency response plan, training requirements, the incident command system, medical surveillance, and post-emergency recovery. Major elements involved in disasters and emergencies, systems use, and attention to essential human services are covered.

SFTY 600

Occupational Safety and Health Management  
3 Credits

This course provides a broad overview of occupational safety. It begins with an exploration of the history of the subject, moves through the OSH Act, workers' compensation, safety program development and management, and finally addresses hazards and controls. The application of safety and health management principles to the management of complex technical industries is covered.

SFTY 630

System Safety Programs  
3 Credits

This course emphasizes the specialized integration of systems engineering and sound management practices into all phases of a system's life cycle, to achieve acceptable risk, given the confines of operational effectiveness and fiscal responsibility. Hazard recognition, assessment and risk mitigation strategies and resources are applied to systems from conception and design phases to operational and disposal phases, as a means to minimize legal risk and maximize safety and health.

Revised Course: BIOL 107, description update, Ref. Page 90 (Effective 1/1/12)

BIOL 107

Elements of Biological Science  
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. Topics discussed include biology and biochemistry, viruses bacteria and protista; aerobic respiration and photosynthesis, mitosis and meiosis; genetics and inheritance, hereditary disorders in humans, human tissues, organs and organ systems and infectious disease and immunity.

Revised Courses: ECON 210, 211, 315, description update, Ref. Page 90 (Effective 1/1/12)

ECON 210

Microeconomics  
3 Credits

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

ECON 211

Macroeconomics

3 Credits

This course is an introductory analysis of employment, inflation, recession, GDP economic growth, national income/output and 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 Credits

This course presents an analytical approach to the manager's role in understanding pricing, costing, production and forecasting. This course emphasizes the quantitative and qualitative applications of economic principles to business analysis. Aviation related topics commonly discussed include airport privatization and employee ownership of airlines, forecasting passenger demand, airline production and cost analysis, optimal pricing and production decisions, sensitivity analysis, and capital budgeting. Prerequisites: ECON 210, MATH 211 or MATH 222, & Junior Standing.

*Revised Courses: ENGL 123, 143, 221, 222, 355, description update, Ref. Pages 90-91 (Effective 1/1/12) Supersedes previous updates.*

ENGL 123

English Composition

3 Credits

This course focuses on the principles of using writing for thinking, as well as a tool for expressing ideas. It addresses the composing process, research and documentation, and rhetorical strategies for various audiences and purposes. Students develop their communicative, evaluative, critical thinking, and research writing abilities. Pre-requisite: Qualifying score on the ERAU English Placement Examination or ENGL 106

ENGL 143

Studies in Rhetorical Theory

3 Credits

This course is a broad survey of speculation concerning the nature and techniques of persuasion, this course is a continuation of ENGL 123. This writing-intensive course will focus on enduring issues in the study of rhetoric: the value of such a study, the nature of audiences, the most effective techniques, and the continual re-framing of these issues to meet changing circumstances.

ENGL 221

Technical Report Writing

3 Credits

This course introduces students to the preparation of formal and informal technical reports, abstracts, proposals, instructions, professional correspondence and other forms of technical communication. Major emphasis is placed on the long technical report and the acquisition of advanced writing skills.

ENGL 222

Business Communication

3 Credits

This course is an introduction to effective business communication. Topics in oral, written, non-verbal and intercultural communications are covered. Research methods, effective speaking and the preparation of letters, memoranda and reports are emphasized.

ENGL 355

Creative Writing

3 Credits

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

*Revised Courses: GOVT, 331, 340, 363, 402, description update , Ref. Pages 92-93 (Effective 1/1/12)*

GOVT 331

Current Issues in America

3 Credits

This is a course in selected political-economic issues of national and international importance. It includes extensive use of journals, magazines and newspapers to supplement lectures and discussions.

GOVT 340

American Foreign Policy

3 Credits

A survey of the evolution of present American foreign policy, stressing 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 and implementation. Emphasis is on the period since World War II.

GOVT 363

Inter-American Relations

3 Credits

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

GOVT 402

Globalization and World Politics

3 Credits

This course is a study of the contemporary debate on globalization and new world order. Key topics include but are not limited to problems of definition in globalization; transborder issues and the role of the state; multinational corporations; labor and the terms of international trade; issues of environmental degradation; international organizations and nongovernment organizations in global affairs; terrorism, global crime, and international security human rights, democracy and cultural nationalism; technology and global communication.

*Revised Courses: HUMN 140, 141, 142, 300, 310, 325, 330, description update Ref. Pages 93-94 (Effective 1/1/12)*

HUMN 140

Western Humanities I: Antiquity and the Middle Ages

3 Credits

This course traces the evolution of the Western Humanistic tradition from antiquity to the middle ages using examples from art, architecture, music, philosophy and literature with an emphasis on writing, reading and appreciation skills.

HUMN 141

Western Humanities II: Renaissance to Postmodern

3 Credits

This course traces the evolution of the Western humanistic tradition from the Renaissance to Postmodernism using examples from art, architecture, music, philosophy, literature and film with an emphasis on writing, reading and appreciation skills.

HUMN 142

Studies in Literature

This course emphasizes writing, reading and appreciation skills, reading materials include selected novels, poems and plays.

HUMN 300

World Literature

3 Credits

This course provides a study of the major works and literary trends in world literature. Course content varies by instructor and is listed in the Schedule of Courses.

HUMN 310

American Literature

3 Credits

This course is 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 Credits

This course presents a survey of the art of film and explores the history of the cinema. Topics may 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 Credits

This course focuses on the process of practical ethics as a way of resolving moral conflict and of understanding professional responsibility in a multi-culturally 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 so as to let students find common ground in diversity.

*Revised Courses: MATH 106, 111, 112, 140, 142, 222, 320, 345, 412, description update, Ref. Pages 94-96 (Effective 1/1/12). Supersedes previous updates.*

MATH 106

Basic Algebra and Trigonometry

3 Credits

The course includes a 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. Prerequisite: Qualifying score on the ERAU Mathematics Placement Examination or GNED 103.

#### MATH 111

College Mathematics for Aviation

3 Credits

This is a pre-calculus course designed for the student aviation. Topics include a review of the fundamentals of algebra; linear equations and inequalities, quadratic equations; variation; polynomial, rational, exponential, logarithmic and trigonometric functions; radian measures; right triangle solutions, vectors and the laws of sines and cosines. Prerequisite: Qualifying score on the ERAU Mathematics Placement Examination or MATH 106

#### MATH 112

College Mathematics for Aviation II

3 Credits

This course presents basic calculus, designed for the student of aviation. Topics include differentiation and integration of algebraic functions; applications to velocity, acceleration, area curve sketching and computation of extreme values. Prerequisite: MATH 111

#### MATH 140

College Algebra

3 Credits

This course focuses on fundamentals of exponents, radicals, linear and quadratic equations, inequalities, functions, graphing techniques, and complex numbers. It includes an introduction to function, curve sketching, elementary theory of equations, sequences and series, matrix algebra and systems of equations, linear, polynomial, logarithmic, exponential, inverse and composite functions, variation, and systems of equations. Prerequisite: Qualifying score on the ERAU Mathematics Placement Examination or MATH 106.

#### MATH 142

Trigonometry

3 Credits

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

Prerequisite: MATH 140

#### MATH 222

Business Statistics

3 Credits

This course is a study of basic descriptive and inferential statistics. Topics include types of data, sampling techniques, measures of central tendency and dispersion, elementary probability, discrete and continuous probability distributions, sampling distributions, hypothesis testing, confidence intervals, and simple linear regression.

Prerequisite: MATH 111 or MATH 140

#### MATH 320

Decision Mathematics

3 Credits

This course is a study of mathematical concepts and applications in mathematical model building and problem solving. Included are mathematical areas which are basic to decision theory. Prerequisite: MATH 211 OR MATH 222

#### MATH 345

Differential Equations and Matrix Methods

4 Credits

This course is a study of the treatment of ordinary differential equations to include principle types of first and second order equations; methods of substitution on simple higher order 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

MATH 412

Probability and Statistics

3 Credits

Finite sample spaces; conditional probability and Bayes' Theorem' discrete and continuous random variables and their functions; expected value, variance and standard deviation; systematic study of the major discrete and continuous distributions; moment generating functions; hypothesis testing and estimation. Prerequisite: MATH 252.

*Revised Courses: PHYS 102, 150, 160, 250, 302, description update, Ref. Page 101 (Effective 1/1/12)*

PHYS 102

Explorations in Physics

3 Credits

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

PHYS 150

Physics I for Engineers

3 Credits

This course explores vectors and scalar quantities, kinematics, Newton's Law of Motion, work, work-energy, conversion of energy, conversion of momentum, center of mass and its motion, torque, equilibrium and orbital motion. Prerequisite: Calculus or MATH 112.

PHYS 160

Physics II for Engineers

3 Credits

This is a calculus-based study of the fundamental principles of classical mechanics and topics include, rotational motion, simple harmonic motion, waves, fluid, heat, kinetic energy, and thermodynamics. Prerequisite: PHYS 150  
Corequisite: MATH 252.

PHYS 250

Physics III for Engineers

3 Credits

This course is a calculus-based study of the fundamental principles of classical mechanics. It is the third course of a three-semester sequence, intended for students of science and engineering and is designed to provide the student with an appropriate background for more advanced physics and engineering course work. Topics of discussion include; electric forces, electric field, Gauss's law, Ohm's law Ampere's law, Faraday's law, Lenz's law, Kirchhoff's' law and Maxwell's equations; electric potential and electrostatic potential energy; capacitance; simple DC circuit theory; magnetic force, magnetic field; inductance; electromagnetic oscillations and wave propagation; Linear accelerators, cyclotrons. Prerequisite: PHYS 160, MATH 252.

PHYS 302

### Evolution of Scientific Thought

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. Students will receive either social science elective credit or physical science elective credit, but not both.

*Revised Courses: PSYC 220, 320, 350, 400 , description update, Ref. Page 102 (Effective 1/1/12)*

### PSYC 220

Introduction to Psychology

3 Credits

This course will introduce the student to the field of psychology, and is a survey of the bio-psychosocial continuum and the intra-psychic, 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, motivation, emotion, memory, personality, psychopathology, 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 Credits

A study of 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 Credits

This course is intended to provide students with an introduction to the interactional forces between groups and the individual in society. Topics include the following: introduction to social psychology, group influence, the self in a social world, prejudice-disliking others, social beliefs and judgments, attraction and intimacy, genes, culture and gender, altruism-helping others, conformity, and persuasion..

### PSYC 400

Introduction to Cognitive Science

3 Credits

This course is 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?

*Revised Courses: SOCI 210, 310, description update Ref. Page 107 (Effective 1/1/12)*

### SOCI 210

Introduction to Sociology

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 air age will also be investigated.

SOCI 310  
Personality Development  
3 Credits

This course is a survey of selected theories of human nature and functioning from the beginnings of modern Psychology to present developments, including psychodynamic, cognitive, behavioral, biological, humanistic and other types. Various concepts of personality and the associated methodologies for gathering validating knowledge are explored. Theories are applied to normal issues in personal, professional and relational life, and theory-related skills are taught for self-awareness, problem-solving, habit change, and emotional and interpersonal competence.

*Revised Course: SPCH 219, description update , Ref. Pages 107 (Effective 1/1/12)*

SPCH 219  
Speech  
3 Credits

This course is a continuation of the study of communication and communication theory, with an emphasis 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.

*Deleted Course: MGMT 120, Ref. Page 96 (Effective 1/1/12)*  
*The following course has been deleted from the Worldwide catalog.*  
MGMT 120 Introduction to Computer-Based Systems

*Deleted Course: MGMT 590, Ref. Page 124 (Effective 1/1/12)*  
*The following course has been deleted from the Worldwide catalog.*  
MGMT 590 Graduate Seminar

*Revised Course: MGMT 633 (Supports MSM Revised Program), Ref. page 125 (Effective 8/1/11)*  
*This update supersedes previous updates to this course.*

MGMT 633  
Managerial Accounting and Control for Managers  
3 Credits

The purpose of this course is to familiarize managers with a variety of managerial accounting techniques that will be both informative and useful when making financial related decisions. The course content includes such topics as financial statement analysis which involves horizontal and vertical analysis as well as the use of financial ratios. Capital budgeting techniques including Net Present Value. Developing and interpreting the schedules necessary to complete a cash budget, as well as the associated "pro forma" income statement and balance sheet. Preparing and interpreting income statements using both absorption as well as variable costing. Understanding the use of a Schedule of Cost of Goods Manufactured and Sold; perform cost, profit, volume analysis; determine mixed costs; apply variable and fixed costs; understand the basic accounting equation; and develop a familiarization with a variety of managerial accounting cost terms, concepts, and ethics.

*New Courses: MSLD Series, Leadership (Effective 8/1/11)*  
*(New courses for Master of Science in Leadership (MSL) Degree program)*

MSLD 500  
Leadership Foundations in Research

3 Credits

Students are introduced to the art and science of solving 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. Students are also introduced to the requirements for the Graduate Capstone Portfolio.

MSLD 510

Aviation and Aerospace Leadership

3 Credits

This course is designed for students to explore leadership in aviation and/or aerospace organizations. The course provides students with knowledge and a review of organizational leadership theory and research. It also examines the effects of internal and external organizational factors on aviation and/or aerospace leadership outcomes. Topics covered are the approaches and models of leadership, to include the nature of leadership, effective leadership behavior, strategic leadership by executives, leadership and organization change, group and team leadership strategies, and the associated ethical, gender based, cross-cultural and diversity oriented aspects of leadership.

MSLD 511

Organizational Leadership

3 Credits

This course is designed for students to explore leadership in organizations. The course provides students with knowledge and a review of organizational leadership theory and research. It also examines the effects of internal and external organizational factors on leadership outcomes. Topics covered are the approaches and models of leadership, to include the nature of leadership, effective leadership behavior, strategic leadership by executives, leadership and organization change, group and team leadership strategies, and the associated ethical, gender based, cross-cultural and diversity oriented aspects of leadership.

MSLD 520

Management Skills for Leaders

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.

MSLD 521

Leadership Communication

3 Credits

This course is designed to explore the role of communication in leading 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 leaders

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.

MSLD 630  
Organizational Change and Development  
3 Credits

In a constantly changing environment, leaders will need to become change architects for their organizations. This course focuses on leadership elements necessary to introduce planned change through an understanding of theories and concepts related to organizational intervention. The student will develop the skills necessary to anticipate the need for change; champion change agendas; diagnose organizational issues; develop change action plans, strategies, and techniques; and assess, monitor, and stabilize changed organizations.

MSLD 631  
Leading High Performance Teams  
3 Credits

High Performance Teams are an essential component of successful 21st Century organizations. This course focuses on the development, implementation, and leadership of High Performance Teams in the global environment. Throughout the course, the student will develop methods and models for assessing current organizational climate, resolving interpersonal issues, and developing strategies for planned organizational change through the use of high performance systems. Prerequisite: MSLD 630

MSLD 632  
Decision Making for Leaders  
3 Credits

The leaders in an organization often set the tone and establish benchmarks for success. In this course the focus is on developing a successful leadership style so as to facilitate team-building, collaboration and a corporate culture that promotes success. Decision-making techniques will be explored in the context of successful leadership styles. Students learn frameworks for approaching decisions and for representing real-world problems using models that can be analyzed to gain insight and understanding.

MSLD 633  
Strategic Leadership  
3 Credits

In constantly changing environments, leaders routinely create and revise strategies. This course explores the role of leaders in developing unity, focus, credibility, and direction within organizations. Students will be exposed to several strategic frameworks and develop an understanding of which models might be useful in certain situations. Students also learn how to scan the environment; develop and deploy coalitions; identify critical success factors and barriers to implementation, and create viable actions plans.

MSLD 634  
Leadership Ethics and Corporate Social Responsibility  
3 Credits

Several high visibility failures in contemporary leadership have highlighted the need for higher standards of ethical and moral conduct. In this course, students explore a variety of ethical models and case studies within the context of their own leadership philosophies and values. Students learn about the critical role of corporate social responsibility in shaping corporate strategies and behaviors. Students also explore the positive relationship between corporate social responsibility and enhanced organizational performance.

MSLD 690  
Graduate Leadership Capstone  
3 Credits

In the Graduate Leadership Capstone course, the student reviews and assimilates the materials and lessons from the Master of Leadership Program. The capstone course has the following outcomes:

- A reflective paper that develops significant themes, frameworks, and program outcomes within the context of the student's leadership learning.
- A leadership action plan to propel and guide the student into future phases of personal mastery and growth as a leader.
- A leadership portfolio of significant program artifacts. The portfolio will demonstrate the student's mastery of program outcomes and provide significant documentation to provide current or prospective employers.

Prerequisite: Completion of all Leadership Program Courses.

*New Courses: MGMT 391, MGMT 461, MGMT 462 (Effective 7/1/11)*  
*(New courses for BS in Technical Management-Project Management Specialty Degree program)*

MGMT 391  
Introduction to Project Management  
3 Credits

This course is designed to provide a general yet concise introduction to Project Management. The course offers up-to-date information (based on the PMBOK Guide) on how good project, program, and portfolio management can help achieve organizational success. Learners are introduced to a chronological approach to project management, with detailed explanations and examples for initiating, planning, executing, monitoring and controlling, and closing projects.

MGMT 461  
Global Project Management  
3 Credits

This course is designed to assist learner gain an understanding of the increasingly challenging task of working within global corporations and with distant and diverse work teams. The course describes how project managers can help organization and your projects adapt to thrive in this Global Project Management environment. The learner is introduced to collaborative tools, best practices on cross-cultural team management and global communication, and recommended organizational changes and project structures for the global environment.

MGMT 462  
Project Management Advanced Concepts  
3 Credits

This course is designed to assist learners gain an understanding of a wide range of topics that relate to project management. Knowledge of these topics is essential to successful project management. Some of these topics include human factors, technical factors, and organizational factors.

*New Course: TMGT 555 (Effective 7/1/11)*

TMGT 555

Applied Regression Analysis  
3 Credits

Students are challenged in the application of regression analysis-diagnosing practical problems, deciding upon the appropriate regression model and knowing which inferential technique will answer the practical question. Topics covered include Multiple Regression Models, Model Building, Variable Screening Methods, Regression Pitfalls, Residual Analysis and Special Topics in Regression.

*Revised Course: GOVT 402, Course title change, Ref. page 93 (Effective 7/1/11)*

GOVT 402

Globalization and World Politics  
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 event of September 11, 2001 and the consequences of these events in the international community.

*Revised Course: MATH 211, Prerequisite revised, Ref. page 95 (Effective 7/1/11)*

MATH 211

Statistics with Aviation Applications  
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 or MATH 140.

*Revised Course: MBAA 604, (Title & Description update) Ref. page 122 (Effective 7/1/11)*

MBAA 604

International Business Administration  
3 Credits

This course addresses international business through the examination of major issues challenging those managers operating in the international business environment. Ways to enter foreign markets and the forces that work for and against that entry are examined. Financial issues, to include foreign currency exchange, hedging techniques, and the International Monetary Fund, are examined. Structuring organizations within the international business environment is analyzed. Human resource issues are also examined, to include culture, the labor force, communications, effective teamwork, and ethics. Strategic planning is reviewed in terms of the various key factors that contribute to the successful conduct of international business. Trade theory, tariffs, the theory of absolute advantage and comparative advantage, and trade barriers are also discussed and examined in terms of global operations. Prerequisites: Satisfactory completion of the Business Foundation courses.

*Revised Course: MBAA 635, (Title & Description update) Ref. page 122 (Effective 7/1/11)*

MBAA 635

Business Capstone Course  
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 research and analysis in the field of Strategic Management. Applications of the concepts are applied to the domestic and international activities of airlines, airports, manufacturing, service, merchandising and government organizations to sustain a competitive advantage. Prerequisites: Completion of all MBAA core courses.

*Revised Courses: (Supports MSM Revised Program) - MGMT 533, MGMT 535, TMGT 605, Ref. page 124-128 (Effective 7/1/11)*

MGMT 533  
Federal 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. 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 535  
Theory and Application of Managerial Communications  
3 Credits

This course explores the impact of communication in managing contemporary technical organizations and provides a broad survey of the technical aspects of communications. Emphasis is placed on the application of theory to practice 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. Students will practice communicating conclusions to problems in concise and persuasive writing and speaking. Written assignments involve preparing technical reports and use of APA Style manual.

TMGT 605  
Organizational Theory in a Technical Environment  
3 Credits

In this course the students review organizational theory and learn how the organizational design impacts organizational effectiveness and productivity. 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, organizational planning, leadership versus management, conflict between functional management, matrix versus hierarchical organizations, organizational alternatives, and human response in the organization. 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, 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.

*Revised Course: MGMT 673, Ref. page 126 (Effective 7/1/11)*

MGMT 673

Global Economic Analysis

3 Credits

Managers in any industry, and particularly those employed by aerospace firms conducting business worldwide, can benefit from a foundation in applied international economics. This course builds three economic models for markets in real goods and services, credit, and foreign exchange. These qualitative models are then integrated into a single analytical framework that students use to understand the effects of government economic policy initiatives and external shocks on an economy. This analysis provides the basis for recommending actions a firm can use to benefit from or mitigate the adverse effect of evolving global economic forces. No previous economic background is required, but students should welcome an analytic approach to problem solving.

*Revised Course: SFTY 409, Prerequisite removed, Ref. page 106 (Effective 7/1/11)*

SFTY 409

Aviation Safety

3 Credits

This course covers all facets for an aviation safety program including both flying safety and safety of ground operations. Major problem areas in aviation safety, safety program evaluation, and impact of accidents on industry are covered. Focus is on human factors, basic accident prevention programs, and the roles of various government and industry organizations have in preventing accidents.

*Revised Course: SFTY 510 (Effective 7/1/11)*

SFTY 510

Industrial Hygiene and Toxicology

3 Credits

This course addresses the technical concepts and application of industrial hygiene and toxicology as it pertains to preventing occupational illnesses. Topics include the recognition of occupational health hazards, hazard evaluation through screening and sampling, and the prevention and control of occupational health hazards in order to mitigate occupational illnesses. The course also prepares the student to select, interpret and apply federal and state occupational health and safety laws and regulations

*Deleted Course: CSCI 210, Ref. page 89 (Effective 7/1/11)*

*The following course has been deleted from the Worldwide catalog:*

CSCI 210 Scientific Programming

*Deleted Course: MBAA 690, Ref. Page 122 (Effective 7/1/11)*

*The following course has been deleted from the Worldwide catalog.*

MBAA 690 Graduate Business Capstone Project

*Deleted Course: MGMT 212, Ref. page 96 (Effective 7/1/11)*

*The following course has been deleted from the Worldwide catalog:*

MGMT 212 Advanced Financial Accounting

*Deleted Course: MGMT 406, Ref. Page 98 (Effective 7/1/11)*

*The following course has been deleted from the Worldwide catalog. MGMT 436 Strategic Management will replace MGMT 406 in all degree programs as applicable.*

MGMT 406 Strategic Management of Technical Operations

*Deleted Course: TMGT 503, Ref. Page 128 (Effective 7/1/11)*

*The following course has been deleted from the Worldwide catalog:*

TMGT 503 Quantitative Methods and Statistics

*Deleted Courses: (MSTM-Termination and MSM Revision) - MGMT 534, TMGT 535, TMGT 621, TMGT 635,, TMGT 651, TMGT 610, TMGT 625 , Ref. page 124-129 (Effective 7/1/11)*

*The following courses have been deleted from the Worldwide catalog. Part of Master of Science in Technical Management Termination and Master of Science in Management Revision:*

MGMT 534 Anatomy of Work Organization  
TMGT 535 Business Communication Skills for Managers  
TMGT 610 Managing Effective Technical Work Teams  
TMGT 621 Regulations, Ethics, and the Legal System  
TMGT 625 Marketing in the Technical Environment  
TMGT 635 Financial and Managerial Accounting and Control for Technical Managers  
TMGT 651 Quality Management and Quality Control

*Revised Course: ENGL 106 Prerequisite added. Ref. Page 90 (Effective 1/1/11)*

ENGL 106  
Introduction to Composition  
3 Credits

This course focuses on the basic principles of unity, support, and coherence as applied to the writing of a variety of paragraphs and essays. Grammar, mechanics, punctuation, sentence skills and basic writing skills are emphasized. Prerequisite: Qualifying score on the ERAU English Placement Examination or GNED 104.

*New Courses: System Engineering- SYSE Series (Effective 1/1/11)*

SYSE 500  
Introduction to Systems Engineering  
3 Credits

This course provides the student with a broad introduction to the fundamental principles, processes, and practices associated with the application of Systems Engineering across the system life cycle. The student will develop an understanding of the skills necessary to translate needs and priorities into system requirements, and develop derived requirements, forming the starting point for engineering of complex systems. Key topics include methods and standards; concept definition; interface definition; requirements development and management; system baseline definition and management; system architecture development; integrated schedule management and analysis; risk assessment; systems integration, verification and validation; mathematical and graphical tools for system analysis and control, testing and evaluation of system and technology alternatives; reliability and maintainability; design trade-offs and trade off models. The course will cover the integrative nature of systems engineering and the breadth and depth of the knowledge that the systems engineer must acquire concerning the characteristics of the diverse components that constitute the total system.

SYSE 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 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. Descriptive and inferential statistical applications will be explored. Successful completion is necessary to proceed in the MSYSE program.

SYSE 530  
System Requirements Analysis and Modeling

3 Credits

This course is concerned with the development, definition, and management of requirements for system or product. Topics include the system requirements process, requirements elicitation techniques, alternative requirements analysis techniques, requirements specification, requirements verification and validation, requirements management, and requirements standards and tools. Issues such as stakeholder identification, risk analysis, trade off analysis as it relates to the requirements will be covered.

SYSE 560

Introduction to Systems Engineering Management

3 Credits

This course addresses the fundamental principles of engineering management in the context of systems engineering and explores issues related to effective technical planning, scheduling and assessment of technical progress, and identifying the unique challenges of the technical aspects of complex systems and systems of systems and ability to control them. Topics will include techniques for life cycle costing, performance measurement, modern methods of effective engineering management, quality tools, quality management, configuration management, concurrent engineering, risk management, functional analysis, conceptual and detail design assessment, test evaluation, and systems engineering planning and organization, communication and SE management tools and techniques. The course covers an examination of processes and methods to identify, control, audit, and track the evolution of system characteristics throughout the system life cycle. The course includes the development of a Systems Engineering Management Plan, Integrated Master Schedule and/or Integrated Master Plan.

SYSE 610

System Architecture Design and Modeling

3 Credits

This course is focused on concepts and techniques for architecting systems and the process of developing and evaluating architectures. The course includes generating a functional, physical and operational architecture from a top level operations concept for the allocation and derivation of component-level requirements. Variety of modeling and analysis approaches will be discussed as well as the generation of analyzable architecture models for evaluating the behavior and performance of candidate system concepts. Additional topics include interface design; architecture frameworks; enterprise engineering; design for reliability, maintainability, usability, supportability, producibility, disposability, and life cycle costs; validation and verification of systems architecture; the analysis of complexity; methods of decomposition and re-integration; trade-offs between optimality and reusability; the effective application of COTS; and practical heuristics for developing good architectures. Specialized areas of design and architecture may be addressed, such as spacecraft design, design of net centric systems, or smart engineering systems architecture.

SYSE 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.

SYSE 625

System Quality Assurance

3 Credits

This course presents the managerial and mathematical principles and techniques of planning, organizing, controlling and improving the quality, safety, reliability and supportability of a system throughout the system life cycle. The course focuses on the importance of structuring and controlling integration and test activities. Topics include

establishing a baseline control during the integration and test phases; cognitive systems engineering and the human-systems integration in complex systems environments; establishment of criteria for planning tests; the determination of test methods; subsystem and system test requirements; formal methodologies for measuring test coverage; sufficiency for test completeness; and development of formal test plans to demonstrate compliance. Also covered are methods of developing acceptance test procedures for evaluating supplier products. The quality related topics including fitness for use, quality costs, quality planning, statistical quality control, experimental design for quality improvement, concurrent engineering, continuous improvement and quality programs such as ISO 9001:2000, ISO 14001, CMMI, Malcolm Baldrige and TQM. Reliability related topics covered include reliability prediction using discrete and continuous distribution models. Supportability related topics include system supportability engineering methods, tools, and metrics and the development and optimization of specific elements of logistic support. Quality and safety is a key theme throughout the course.

#### SYSE 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.

#### SYSE 654

##### Advanced Engineering Economics

3 Credits

This course centers on the design and analysis of financial strategies in a technical environment. Emphasis is on the application of these strategies in competitive industry. Core topics include review and application of basic engineering economy concepts, mathematical techniques and models, treatment of risk and uncertainties, cost of capital, demand and price elasticity as applied to capital investment decisions, financial statements, financial ratio analysis, taxes and inflation, capital budgeting, and financial planning. Special topics include ethics and legal perspectives.

#### SYSE 660

##### Organizational Systems Management

3 Credits

This course introduces concepts of organizational management and leadership, which are approached from a systems and complex systems perspective to explain the behavior of systems. Focus areas will include strategic management, organizational transformation, and organizational environments. Models will be drawn from a variety of areas including marketing, finance, organizational behavior, and strategic and operational management.

#### SYSE 697

##### Systems Engineering Capstone Project

3 Credits

This course consists of a project in systems engineering that the student will undertake at the conclusion of the academic coursework for this program. It will culminate in a written document on a project chosen and carried out by the student under the guidance of the student's Capstone Project Committee. The project will be expected to demonstrate the student's mastery of his topic, and must be of a quality suitable for publication.

#### [Reinstated Course-through 6/30/11 - ASCI 690 \(Effective 12/1/10\)](#)

#### 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.

\*GCPP 605 changed to ASCI 605 effective 1/1/10.

*Reinstated Courses - Fire Science: FIRE Series (Effective 12/1/10)*

FIRE 300

Fire-Related Human Behavior

3 Credits

This course examines human aspects of the fire problem, including research and analysis of the problem and related issues in residential properties, wildland fires, assisted living/group home situations, commercial/industrial settings, and multiuse high-rise buildings.

FIRE 301

The Community and the Fire Threat

3 Credits

This course examines concepts of community sociology, the role of fire-related organizations within the community, and their impact on the local fire problem, including fire service relationships within the community and other agencies, developing a community inventory, shaping community policy, master planning, and shaping community perceptions about the local fire service. Prerequisite: PHYS 102.

FIRE 302

Fire Dynamics

3 Credits

This course examines fire dynamics within the context of firefighting and its applications to fire situations, including combustion, flame spread, flashover, and smoke movement, as well as applications to building codes, large-loss fires, and fire modeling.

FIRE 303

Fire Protection Structures and Systems Design

3 Credits

This course examines design principles involved in structural fire protection and automatic suppression systems, including fire resistance and endurance, flame spread evaluation, smoke control, alarm systems, sprinkler innovations, evaluation of sprinkler system designs, and specialized suppression systems.

FIRE 304

Incendiary Fire Analysis and Investigation

3 Credits

This course examines technical, investigative, legal, and managerial approaches to the arson problem, including principles of incendiary fire analysis and detection, environmental and psychological factors of arson, gang-related arson, legal considerations and trial preparations, managing the fire investigation unit, intervention and mitigation strategies, and shaping the future. Prerequisite: PHYS 102.

FIRE 305

Fire Prevention Organization and Management

3 Credits

This course examines the factors that shape fire risk and the tools for fire prevention, including risk reduction

education, codes and standards, inspection and plans review, fire investigation, research, master planning, various types of influences, and strategies.

**FIRE 400**

Analytical Approaches to Public Fire Protection

3 Credits

This course examines tools and techniques of rational decision-making in fire departments, including databases, statistics, probability, decision analysis, utility modeling, resource allocation, cost-benefit analysis, and linear programming. Prerequisite: PHYS 102.

**FIRE 401**

Applications of Fire Research

3 Credits

This course examines the rationale for conducting fire research, various fire protection research activities, and research applications, including fire test standards and codes, structural fire safety, automatic detection and suppression, life safety, and firefighter health and safety.

**FIRE 402**

Advanced Fire Administration

3 Credits

This course examines organizational and leadership tools for fire service administrators, including community approaches to administration, core skills, planning and implementation, leading change, and community risk management. Prerequisite: FIRE 305.

**FIRE 403**

Disaster and Fire Defense Planning

3 Credits

This course examines concepts and principles of community risk assessment, planning, and response to fires and natural disasters, including the Incident Command System (ICS), mutual aid and automatic response, training and preparedness, communications, civil disturbances, natural disasters, hazardous materials planning, mass casualty disasters, earthquake preparedness, and disaster recovery. Prerequisite: PHYS 102.

**FIRE 404**

Managerial Issues in Hazardous Materials

3 Credits

This course examines regulatory issues, hazard analysis, multi-agency contingency planning, response personnel, multi-agency response resources, agency policies, procedures and implementation, public education and emergency information systems, health and safety, command post dynamics, strategic and tactical considerations, recovery and termination procedures, and program evaluation.

**FIRE 405**

Personnel Management for the Fire Service

3 Credits

This course examines relationships and issues in personnel administration and human resource development within the context of fire-related organizations, including personnel management, organizational development, productivity, recruitment and selection, performance management systems, discipline, and collective bargaining.

**FIRE 406**

Political and Legal Foundations of Fire Protection

3 Credits

This course examines the legal, political, and social aspects of government's role in public safety, including the American legal system, fire department operations, employment and personnel issues, fire officials' roles and legislative and political influence.

**FIRE 410**

Terrorism: Roots and Responses

3 Credits

This course is designed to develop the student's broad understanding of issues related to domestic and international terrorism, to familiarize the student with key terms and incidents, and to prepare the student's ability to develop practical plans for providing emergency services before, during, and after a terroristic incident.

FIRE 480

Capstone Class, Senior Seminar in Fire Science

3 Credits

Directed by a faculty member in the student's area of specialization, the student will participate in a course focusing on a topic of current interest and engage the topics through readings, writing and moderated online discussion.

Topics will vary by term but be selected by the department faculty to apply multiple bodies of knowledge.

Prerequisites: FIRE 301, FIRE 305, FIRE 403, FIRE 405.

FIRE 299, 399, 499

Current Topics in Fire Science

1-3 Credits

These courses consist of individual independent or directed studies of selected topics in Fire science. Prerequisites: CONSENT OF INSTRUCTOR, APPROVAL OF DEPARTMENT AND PROGRAM CHAIRS, AND 12 HOURS OF FIRE COURSES.

*Revised Course: GNED 103 title changed (Effective 7/1/10)*

GNED 103

Basic Mathematics

1 Credit

The purpose of this course is to enable the student who did not take algebra in high school or who took it several years ago to succeed in an intermediate algebra course or in courses that require a very basic knowledge of the fundamentals of algebra. Topics included in the course are properties of the rational numbers to include review of operations with fractions, simple linear equations and inequalities in one variable, ratio, proportion, percent, basic operations with simple polynomials and applications to problem solving integrated throughout the course. This course cannot be used to satisfy credit for General Education requirements.



## Worldwide 2010-2012 Catalog

The following additions or changes apply to the 2010-2012 Worldwide volume of the Embry-Riddle Aeronautical University Catalog with the effective date of July 1, 2010 through June 30, 2012.

**Revised Certificate Program: Information Assurance (National Security Agency)– (Effective 2/1/12)**

*Sentence added to clarify that the Information Assurance Certificate must be taken in conjunction with a bachelor's degree program.*

**INFORMATION ASSURANCE (NATIONAL SECURITY AGENCY)  
CERTIFICATE OF COMPLETION**

Embry-Riddle Aeronautical University Worldwide's National Security Agency Certificate of Completion presents a curriculum of three required courses, which address the core tenets of the National Security Agency, Committee on National Security Systems' Information Systems Security (INFOSEC) Professionals, NSTISSI 4011 requirements. After the successful completion of the required courses, students will receive an Information Assurance Certificate, granted by Embry-Riddle on behalf of the National Security Agency, noting the NSTISSI 4011 designation.

This Certificate of Completion will be beneficial for information systems professionals looking to gain a better understanding of information assurance (IA), computer systems, information management, and systems security. Students who complete this program will be welcome to utilize the IA (4011) designation.

The University awards a Certificate of Completion in Information Assurance to those who have completed the following courses with a CGPA of at least 2.8. The Information Assurance Certificate must be taken in conjunction with a bachelor's degree program. The Information Assurance Certificate must be taken in conjunction with a bachelor's degree program.

**DEGREE REQUIREMENTS:**

<b>Course/Title</b>	<b>Credits</b>
CSCI 109 Introduction to Computers and Applications -OR- equivalent 3-credit introductory computer systems course recognized by ERAU.	3
MGMT 221 Introduction to Management Information Systems	3
MGMT 320 Business Information Systems	3
<b>Total Credits:</b>	<b>9</b>

**Revised Degree Program: BS in Technical Management-Engineering Sciences Specialty, Ref. Page 31 – (Effective 1/1/12)**

**TECHNICAL MANAGEMENT - BACHELOR OF SCIENCE  
(ENGINEERING SCIENCES SPECIALTY)**

The Engineering Sciences Specialty is designed to help students develop a conceptual understanding of what engineering, the engineering design process, technology and technology-related concepts are. This specialty is designed to give students a foundation for supervising or managing with an understanding of engineering tools and concepts.

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.

<b>Course</b>	<b>Title</b>	<b>Credits</b>
ESCI 105	Fundamentals of Engineering	3
PHYS 150	Physics I for Engineers	3
PHYS 160	Physics II for Engineers	3
PHYS 250	Physics III for Engineers	3

Take two of the following courses:

CESC 220	Digital Circuit Design	3
ESCI 201	Statics	3
ESCI 202	Solid Mechanics	3
ESCI 204	Dynamics	3
ESCI 206	Fluid Mechanics	3

**ENGINEERING SCIENCES SPECIALTY 18**

**GENERAL EDUCATION REQUIREMENTS:**

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

**ENGINEERING SCIENCE COURSES:**

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 and Skills:**

ENGL 123 English Composition	3
Speech/English	6

**Humanities/Social Sciences:**

Humanities/Social Sciences upper level electives	6
Humanities lower-level electives	6
Social Science lower-level elective: (History/Government/Social Science/Psychology)	3

**Mathematics:**

MATH 140 College Algebra	3
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**Computer Science:**

CSCI 109 Introduction to Computers and Applications	3
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**Economics:**

ECON 210 Microeconomics	3
<b>Total Credits</b>	<b>33</b>

**PROGRAM SUPPORT:**

ECON 211 Macroeconomics	3
MATH 211 Statistics with Aviation Applications	

-OR-

MATH 222 Business Statistics	3
<b>Total Credits</b>	<b>6</b>

**BUSINESS CORE:**

MGMT 201 Principles of Management	3
MGMT 210 Financial Accounting	3
MGMT 221 Introduction to Management Information 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
<b>Total Credits</b>	<b>33</b>

**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
<b>Total Credits</b>	<b>18</b>

**MANAGEMENT ELECTIVES:**

Upper level courses	12
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<b>TOTAL DEGREE REQUIREMENTS</b>	<b>120</b>
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Revised Degree Program: Master of Science in Occupational Safety Management– (Effective 1/1/12)

**OCCUPATIONAL SAFETY MANAGEMENT - MASTER OF SCIENCE**

The Master of Science in Occupational Safety Management (MSOSM) degree program provides the safety, health and environmental professional or aspiring professional with an advanced educational experience to enhance the practice of occupational safety, health and environmental management. This graduate degree provides the requisite skills, knowledge and credentials necessary to succeed in the practice of safety and also provides specialized skills and knowledge needed to achieve leadership positions in the safety, health, and environmental fields. The MSOSM degree prepares graduates for several professional careers, such as director of safety, safety manager, safety consultant, compliance officer, or loss control manager, in virtually every occupational setting including heavy industry, light manufacturing, construction, transportation, service industries, federal, state, and local government operations, and insurance companies.

The curriculum is a cohesive and rigorous educational experience providing advanced academic work in occupational safety and health. This degree requires the completion of 36 credit hours of study composed of Safety Management (27 credit hours) and Research (9 credit hours). Courses in the area of safety management include: occupational safety and health management; technical aspects of occupational safety and health; environmental protection; industrial hygiene and toxicology; human factors and ergonomics; fire safety management; disaster preparedness and emergency response; legislation, litigation and compliance operations; and, systems safety. The research courses include statistics, research methods and the student's graduate capstone course.

**DEGREE REQUIREMENTS:**

Course	Title	Credits
SFTY 510	Industrial Hygiene and Toxicology	3
SFTY 530	Safety, Health and Environmental Legislation, Litigation & Compliance	3
SFTY 540	Disaster Preparedness and Emergency Response	3
SFTY 570	Fire Safety Management	3
SFTY 580	Environmental Protection for the Safety, Health and Environmental Manager	3
SFTY 590	Hazard Control Methods in Occupational Safety and Health	3
SFTY 600	Occupational Safety and Health Management	3
SFTY 619	Human Factors & Ergonomics	3
SFTY 630	System Safety Programs	3
SFTY 691	Graduate Capstone Course	3
RSCH 665	Statistical Analysis	3
RSCH 670	Research Methods	3
<b>Total Credits</b>		<b>36</b>

Revised Degree Program: BS in Transportation, "Transportation related academic credit", Ref. Page 37- (Eff. 1/1/12)

Revised statement:

**Transportation related academic credit**

Students may also receive specified elective credit from transportation related academic courses from regionally accredited colleges/universities; military experience, which may include management or operational training related to transportation; and specific professional training including credit recommended from transportation related occupations. Professional and military training must be recognized by the American Council on Education [ACE].

Revised Degree Program: Master of Science in Management (MSM), (specialization update) Ref. Page 55 – (Effective 8/1/11)

This update supersedes previous updates to this program.

**MANAGEMENT - MASTER OF SCIENCE**

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: General Management or Technical Management.

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,

**Specialization Credits: 12**

**Management Core:**

Course	Title	Credits
MGMT 532	Philosophy, Principles, and Practices in Management of Quality	3
MGMT 533	Federal Regulations, Ethics and the Legal System	3
MGMT 535	Theory and Application of Managerial Communications	3
MGMT 633	Managerial Accounting and Control for Managers	3
TMGT 555	Applied Regression Analysis	3
TMGT 646	Operations Research and Management Science	3
TMGT 661	Project Development Techniques	3
TMGT 690	Graduate Capstone Project	3

**Core Credits 24**

**TOTAL DEGREE REQUIREMENTS 36**

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 one of the two specializations. Students wishing to complete multiple specializations must have "unduplicated" credit in each of the specializations.

- General Management
- Technical Management

**SPECIALIZATIONS:**

**Specialization 1**

**General Management**

Course	Title	Credits
MBAA 514	Strategic Marketing Management in Aviation	3
MGMT 671	Entrepreneurship and Leadership	3
MGMT 672	Planning and Execution of Strategy	3
MGMT 673	Global Economic Analysis	3

**Specialization 2**

**Technical Management**

Course	Title	Credits
TMGT 605	Organizational Theory in a Technical Environment	3
TMGT 616	Production Operations Management	3
TMGT 630	Technical Management Information Systems	3
TMGT 641	Project Management Concepts and Practices	3

New Degree Program: Master of Science in Leadership – (Effective 8/1/11)

**LEADERSHIP - MASTER OF SCIENCE**

Many companies look the same from the outside. But, on the inside there are dramatic differences in culture and performance. It all starts with leadership. Good leaders develop high performing teams who consistently outperform their competition. These teams capitalize on their strengths, draw inspiration from diversity, and hold each other accountable to achieving their mission. Good leadership is not a fluke. Good leaders are systematically developed. The Master of Science in Leadership degree helps students develop the competencies that are essential for leading an organization effectively.

Through this comprehensive curriculum, you will learn how to:

- Inspire the best from those around you
- Communicate powerfully and develop additional sources of influence
- Understand your leadership capacities and minimize your blind spots
- Coach and mentor others to achieve their potential
- Analyze and diagnose organizational issues that impact your team's performance
- Anticipate the need for organizational change and renewal
- Establish and foster a high-performing culture across your organization

In addition to grooming you for today's most challenging leadership positions, this degree will arm you with the skill and vision to become one of the architects of tomorrow.

**DEGREE REQUIREMENTS:**

**LEADERSHIP CORE:**

<b>Course</b>	<b>Title</b>	<b>Credits</b>
MSLD 500	Leadership Foundations in Research	3
MSLD 510	Aviation and Aerospace Leadership	
	-OR-	
MSLD 511	Organizational Leadership	3
MSLD 520	Management Skills for Leaders	3
MSLD 521	Leadership Communication	3
MSLD 630	Organizational Change and Development	3
MSLD 631	Leading High Performance Teams	3
MSLD 632	Decision Making for Leaders	3
MSLD 633	Strategic Leadership	3
MSLD 634	Leadership Ethics and Corporate Social Responsibility	3
MSLD 690	Graduate Leadership Capstone	3
<b>Total Core Credits</b>		<b>30</b>

**Electives:** **6**

Select 6 credit hours from the following list of courses:

MBAA 511, MBAA 520, MBAA 522, MBAA 604, MBAA 607, MGMT 524, MGMT 533, MGMT 535, MGMT 641, MGMT 652, MGMT 671, MGMT 672, PMGT 501, PMGT 502, PMGT 611, PMGT 612, PMGT 613, PMGT 614, TMGT 605, TMGT 616, TMGT 641, TMGT 646, TMGT 661, LGMT 634.

**TOTAL DEGREE REQUIREMENTS** **36**

*New Degree Program: BS in Technical Management-Project Management Specialty – (Effective 7/1/11)*

**TECHNICAL MANAGEMENT - BACHELOR OF SCIENCE  
(PROJECT MANAGEMENT SPECIALTY)**

Project managers who can deliver the desired results on time and on budget are a valuable business resource. This specialty degree combines theory and techniques used by professional project management practitioners in a digital global environment to allow students to develop the skills to effectively lead and manage complex projects.

Learners who choose this specialization are often interested in pursuing project manager, lead, or coordinator positions with aviation-related and non-aviation related organizations alike. The project management specialty degree teaches knowledge and skills to help participate in and lead the management of a variety of project types. The degree includes instruction on a variety of project management-related topics including the nine project management knowledge areas and the five processes designated by the Project Management Institute (PMI). The degree is also designed to foster critical thinking, analysis and communication skills.

**PROJECT MANAGEMENT TECHNICAL SPECIALTY:**

Course Title	Credits
MGMT 391 Introduction to Project Management	3
MGMT 424 Aviation Project Management	3
MGMT 461 Global Project Management	3
MGMT 462 Project Management Advanced Concepts	3
MGMT 492 Information Systems Project Management	3
<b>Total Credits</b>	<b>15</b>

**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
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**Mathematics:**

MATH 111 & MATH 112, -OR- MATH 140 & MATH 142, MATH 320*	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 Applications	3
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**Economics:**

ECON 210 Microeconomics	3
ECON 211 Macroeconomics	3

**Total Credits 36**

**PROGRAM SUPPORT:**

AMGT 202 Aeronautical Science for Management	3
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MATH 211 Statistics with Aviation Applications

**-OR**

MATH 222 Business Statistics	3
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MGMT 201 Principles of Management	3
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MGMT 210 Financial Accounting	3
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MGMT 221 Introduction to Management Information	3
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Systems	3
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**Total Credits 15**

**BUSINESS CORE:**

MGMT 311 Marketing	3
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MGMT 312 Managerial Accounting	3
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MGMT 314 Human Resource Management	3
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MGMT 317 Organizational Behavior	3
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MGMT 320 Business Information Systems	3
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MGMT 325 Social Responsibility and Ethics	3
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in Management	3
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MGMT 335 International Business	3
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MGMT 371 Leadership	3
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MGMT 390 Business Law	3
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MGMT 436 Strategic Management	3
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**Total Credits 30**

**MANAGEMENT ELECTIVES:**

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

	15
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**TOTAL DEGREE REQUIREMENTS**

**120**

*Revised Degree Program: Master of Aeronautical Science (MAS,) Specialization 6, Ref. Page 51– (Effective 7/1/11)*

**MAS, Specialization 6 HUMAN FACTORS IN AVIATION SYSTEMS**

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

Course Title	Credits
ASCI 513 Space Habitation and Life Support Systems	3
ASCI 516 Applications in Crew Resource Management	3
ASCI 634 Aviation/Aerospace Psychology	3
ASCI 660 Sensation and Perception	3
ASCI 661 Human-Computer Interaction	3
ASCI 663 Memory and Cognition	3
<b>Total Credits</b>	<b>12</b>

Revised Degree Program: Master of Business Administration in Aviation (MBAA), Ref. Page 51-52– (Effective 7/1/11)

**BUSINESS ADMINISTRATION IN AVIATION - MASTER OF**

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	Managerial Accounting for Decision Making	3
MBAA 518	Managerial Finance	3
MBAA 522	Business Research Methods	3

MBAA 523	Advanced Aviation Economics	3
MBAA 604	International Business Administration	3
MBAA 635	Business Capstone Course	3
<b>Total Core Credits</b>		<b>24</b>

**AVIATION BUSINESS ELECTIVES**

Complete a total of 12 credit hours from the following courses. For all Worldwide campuses, the recommended electives are those with the MBAA prefix. While these are recommended they are not mandatory.

Course	Title	Credits
MBAA 520	Organizational Behavior, Theory and Applications in Aviation	3
MBAA 521	Global Information and Technology Management	3
MBAA 607	Human Resource Development	3
MBAA 696	Graduate Internship in Aviation Business Administration	1-3
MBAA 699	Special Topics in Business Administration	1-3
MGMT 533	Federal Regulations, Ethics and the Legal System	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

**Total Aviation Business Electives 12**

**TOTAL DEGREE REQUIREMENTS 36**

Revised Minor Program: International Relations, Ref. Page 39 – Effective 7/1/11

**MINOR IN INTERNATIONAL RELATIONS**

Course	Title	Credits
GOVT 331	Current Issues in America	3
HIST 130	History of Aviation in America	3
Take three of the following courses: (GOVT 325, GOVT 340, GOVT 363, GOVT 402, HUMN 210, MGMT 335)		9
<b>Total Credits</b>		<b>15</b>

**Terminated Degree Program: Master of Science in Technical Management – (Effective 7/1/11)**

The Master of Science in Technical Management (MSTM) degree has been terminated and removed from the Worldwide catalog.

**Revised Degree Program: MS to MBAA– Ref. Pages 52 and 53 (Effective 7/1/11)**

*This update supersedes previous updates to this program.*

**MASTER OF SCIENCE (MS) TO THE MASTER OF BUSINESS ADMINISTRATION IN AVIATION (MBAA)**

**MSM TO MBAA DEGREE REQUIREMENTS**

For the MSM to the MBAA, students will transfer the following courses:

GCPP 605 or MGMT 605 for MBAA 522 Research Methods	3
MGMT 524 for MBAA 511 Operations Research	3
MGMT 533 Federal Regulations, Ethics and the Legal System (in both programs)	3
MGMT 633 for MBAA 517 Accounting for Decision Making	3
MGMT 535 Theory and Application of Managerial Communications (in both programs)	3
<b>Total Transfer Credits</b>	<b>15</b>

**REQUIRED ADDITIONAL CORE COURSES:**

Course	Title	Credits
MBAA 518	Managerial Finance	3
MBAA 523	Advanced Aviation Economics	3
MBAA 604	International Business Administration	3
MBAA 635	Business Capstone Course	3
<b>Total Additional Core Courses</b>		<b>12</b>

**AVIATION BUSINESS SPECIALIZATION**

Completed a total of 9 unduplicated credit hours from the Aviation Business Specialization listed in the MBAA section of the catalog or other department of business administration courses. Students may not transfer in additional credits taken from the MSM program.

**Total Aviation Business Specialization Courses** 9

**TOTAL MSM TO MBAA DEGREE REQUIREMENTS** 36

**MSTM TO MBAA DEGREE REQUIREMENTS**

For the MSTM to the MBAA, students will transfer the following courses:

TMGT 535 for MGMT 535 Theory and Application of Managerial Communications	3
TMGT 605 for MBAA 520 Organizational Behavior, Theory, and Applications Aviation	3
TMGT 635 for MBAA 517 Managerial Accounting for Decision Making	3
TMGT 646 for MBAA 511 Operations Research	3
TMGT 661 for MBAA 522 Business Research	3
<b>Total Transfer Credits</b>	<b>15</b>

**REQUIRED ADDITIONAL CORE COURSES:**

MBAA 514 Strategic Marketing Management in Aviation	3
MBAA 518 Managerial Finance	3

**MSPM TO MBAA DEGREE REQUIREMENTS**

For the MSPM to the MBAA, students will transfer the following courses:

PMGT 501 for MGMT 652 Concepts and Practices of Project Management	3
MGMT 524 for MBAA 511 Operations Research	3
MGMT 533 Federal Regulations, Ethics and the Legal System (in both programs)	3
MGMT 633 for MBAA 517 Managerial Accounting for Decision Making	3
PMGT 502 for MGMT 535 Theory and Application of Managerial Communications	3
<b>Total Transfer Credits</b>	<b>15</b>

**REQUIRED ADDITIONAL CORE COURSES:**

MBAA 514 Strategic Marketing Management in Aviation	3
MBAA 518 Managerial Finance	3
MBAA 523 Advanced Aviation Economics	3
MBAA 604 International Business Administration	3
MBAA 522 Business Research Methods	3
MBAA 635 Business Capstone Course	3
<b>Total Additional Core Courses</b>	<b>18</b>

**AVIATION BUSINESS SPECIALIZATION**

Complete a total of 3 unduplicated credit hours from the Aviation Business Specialization listed in the MBAA section of the catalog or other department of business administration courses. Students may not transfer in additional credits taken from the MSPM program.

**Total Aviation Business Specialization Credits** 3

**TOTAL MSPM TO MBAA DEGREE REQUIREMENTS** 36

MBAA 523 Advanced Aviation Economics	3
MBAA 604 International Business Administration	3
MBAA 635 Business Capstone Course	3
<b>Total Additional Core Courses</b>	<b>15</b>

**AVIATION BUSINESS SPECIALIZATION**

Complete a total of 6 unduplicated credit hours from the Aviation Business Specialization listed in the MBAA section of the catalog or other department of business administration courses. Students may not transfer in additional credits taken from the MSTM program.

**Total Aviation Business Specialization Credits** 6

**TOTAL MSTM TO MBAA DEGREE REQUIREMENTS** 36

*New Degree Program: Master in Systems Engineering – (Effective 1/1/11)*

**SYSTEMS ENGINEERING – MASTER OF**

Complex engineering projects are at the heart of modern business. In order to innovate, adapt, thrive and survive, organizations must undertake efforts that require the coordination of different teams, the understanding of complex technology and tools, and the integration of interdepartmental work processes. Leaders who can effectively manage these efforts are in high demand across many industries. The Master of Systems Engineering (MSysE) degree program prepares and qualifies students to take on such a role.

Through this focused curriculum, students will establish a solid foundation of fundamental systems engineering knowledge, learning how to apply a systems perspective to business and technology. The program is offered in two tracks, allowing students to tailor their education to their career goals. The Technical track concentrates on system design, analysis, and implementation. The Engineering Management track concentrates on organization, process and management.

The MSysE delivers exceptional learning and an esteemed credential for systems engineers entering the field, engineers wishing to broaden their perspective or advance to management positions, and managers seeking the knowledge and skills necessary for engineering products and services from a systems perspective.

**DEGREE REQUIREMENTS:**

**Course/Title**

<b>Credits</b>	
SYS/SYSE 500 Introduction to Systems Engineering	3
SYS/SYSE 530 System Requirements Analysis and Modeling	3
SYS/SYSE 560 Introduction to Systems Engineering Management	3
SYS/SYSE 625 System Quality Assurance	3
SYS/SYSE 697 Systems Engineering Capstone Project	3

**Technical Track**

SYS/SYSE 610 System Architecture Design and Modeling	3
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**-OR-**

**Engineering Management Track**

SYS/SYSE 660 Organizational Systems Management	3
<b>Total Core Credits:</b>	<b>18</b>

**Electives:**

Electives will be chosen from existing Embry-Riddle Daytona Beach and Worldwide courses in other disciplines, and must be approved by the student's advisor or program coordinator.

<b>Total Electives Credits:</b>	<b>12</b>
<b>Total Credits</b>	<b>30</b>

*Reinstated Degree Program: BS in Fire Science – (Effective 12/1/10)*

**FIRE SCIENCE - BACHELOR OF SCIENCE**

The Fire Science degree provides students with the theoretical foundations for leadership and administration of fire service organizations. The curriculum includes the principles, theory, and practices associated with today's fire service professionals. Coursework incorporates analytical approaches to fire dynamics and fire protection, fire prevention organization and management, fire analysis and investigation, disaster planning including dealing with hazardous materials, administration and personnel management, and the political and legal issues occurring in the Fire Service. This degree will be based on the model bachelor's degree curriculum from the National Fire Academy's Fire and Emergency Services Higher Education project and meets the criteria set forth by the National Fire Protection Association and the International Association of Fire Chiefs. There are two specialties offered: Aviation Emergency Management and Fire and Emergency Services.

The Aviation Emergency Management Specialty focuses on the fire and aviation safety leadership and management skills and technical knowledge needed to lead the fire and emergency services organizations into the future.

The Fire and Emergency Services Specialty focuses on the leadership and management skills and technical knowledge needed to lead the fire and emergency services organizations into the future.

**DEGREE REQUIREMENTS:**

**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 prerequisites are met. Courses from other institutions are acceptable if they fall into these broad categories and are at the level specified.

<b>Communication Theory and Skills:</b>	<b>Credits</b>
ENGL 123 English Composition	3
Speech/English	6
<b>Humanities/Social Sciences*:</b>	
Humanities lower- or upper-level elective	3
Social Science lower- or upper-level elective	3
History/Government/Social Science/Psychology	
*(One course must be an upper-level Humanities or Social Science elective)	
<b>Physical and Life Science lower-level elective:</b>	
Physics/Biology/Meteorology	6
<b>Mathematics:</b>	
MATH 111 & MATH 112, or	
MATH 140 & MATH 142, MATH 320*	6
*MATH 320 may be substituted as the second course in the series.	
<b>Computer Science:</b>	



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

**PROGRAM SPECIALTIES:**

**AVIATION EMERGENCY MANAGEMENT SPECIALTY :**

Course Title	Credits
AMGT 202 Aeronautical Science for Management	3
ASCI 120 Principles of Aeronautical Science	3
ASCI 254 Aviation Legislation	3
ASCI 356 Aircraft Systems and Components	3
ASCI 401 Airport Development and Operations	3
ASCI 412 Corporate and Business Aviation	3
FIRE 301 The Community and the Fire Threat	3
FIRE 302 Fire Dynamics	3
FIRE 303 Fire Protection Structures & Systems Design	3
FIRE 305 Fire Prevention Organization and Management	3
FIRE 400 Analytical Approaches to Public Fire Protection	3
FIRE 401 Applications of Fire Research	3
FIRE 403 Disaster and Fire Defense Planning	3
FIRE 404 Managerial Issues in Hazardous Materials	3
FIRE 405 Personnel Management for the Fire Service	3
FIRE 480 Capstone Class, Senior Seminar in Fire Science	3

SFTY 215 Introduction to Health, Occupational and Aviation Safety	3
SFTY 320 Human Factors in Aviation Safety	3
SFTY 330 Aircraft Accident Investigation	3
SFTY 409 Aviation Safety	3
WEAX 201 Meteorology I	3

**FIRE SCIENCE ELECTIVES (Lower-Level) 6**

**OPEN ELECTIVES (Lower-Level) 6**

**OPEN ELECTIVES (Upper-Level) 3**

**SPECIFIED ELECTIVES - 300 Level ASCI / SFTY 3**  
(Choose 3 credits from ASCI/ SFTY Specified Electives)

**SPECIFIED ELECTIVES - 400 Level ASCI / SFTY 3**  
(Choose 3 credits from ASCI/ SFTY Specified Electives)

**Total Credits 84**

**TOTAL DEGREE REQUIREMENTS 120**

-OR-

**FIRE AND EMERGENCY SERVICES SPECIALTY:**

Course Title	Credits
FIRE 300 Fire-Related Human Behavior	3
FIRE 301 The Community and the Fire Threat	3
FIRE 302 Fire Dynamics	3
FIRE 303 Fire Protection Structures & Systems Design	3
FIRE 304 Incendiary Fire Analysis and Investigation	3
FIRE 305 Fire Prevention Organization and Management	3
FIRE 400 Analytical Approaches to Public Fire Protection	3
FIRE 401 Applications of Fire Research	3
FIRE 402 Advanced Fire Administration	3
FIRE 403 Disaster and Fire Defense Planning	3
FIRE 404 Managerial Issues in Hazardous Materials	3
FIRE 405 Personnel Management for the Fire Service	3
FIRE 406 Political and Legal Foundations of Fire Protection	3
FIRE 480 Capstone Class, Senior Seminar in Fire Science	3
SFTY 341 Occupational Safety and Health Program Management	3

**FIRE SCIENCE ELECTIVES (Lower-Level) 15**

**OPEN ELECTIVES (Lower-Level) 12**

**FIRE SCIENCE ELECTIVES (Upper Level), OPEN ELECTIVES, or MINOR 12**

**Total Credits 84**

**TOTAL DEGREE REQUIREMENTS 120**

**ASCI / SFTY Specified Electives:**

Course Title	Credits
ASCI 300 Satellite and Spacecraft Systems	3
ASCI 309 Aerodynamics	3
ASCI 310 Aircraft Performance	3
ASCI 320 Commuter Aviation	3
ASCI 357 Flight Physiology	3
ASCI 405 Aviation Law	3
ASCI 419 Aviation Maintenance Management	3
SFTY 315 Environmental Compliance and Safety	3
SFTY 335 Mechanical and Structural Factors in Aviation Safety	3
SFTY 341 Occupational Safety and Health Program Management	3
SFTY 350 Aircraft Crash and Emergency Management	3
SFTY 355 Industrial Hygiene	3
SFTY 360 Construction Safety	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

Reinstated Minor Program: Fire Science (Effective 12/1/10)

**MINOR IN FIRE SCIENCE**

(Not open to BS in Fire Science Students)

Course	Title	Credits
FIRE 301	The Community and the Fire Threat	3
FIRE 302	Fire Dynamics	3
FIRE 400	Analytical Approaches to Public Fire Protection	3
FIRE 403	Disaster and Fire Defense Planning	3
Take two of the following courses:		6
FIRE 300, FIRE 303, FIRE 304, FIRE 305, FIRE 401, FIRE 402, FIRE 404, FIRE 405, FIRE 406, FIRE 410,		
<b>Total Credits</b>		<b>18</b>

Course Addition in a Degree Program: Master of Aeronautical Science (MAS) Specialization 4– Ref. Page 50 (Effective 8/1/10)

**MASTER OF AERONAUTICAL SCIENCE, Specialization 4 Aviation/Aerospace Operations**

- Course addition to Specialization 4 Aviation/Aerospace Operations: Added ASCI 603 Aircraft and Spacecraft Development to the list of courses to select from.

**Specialization 4**

**Aviation/Aerospace Operations**

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

ASCI 515 Aviation/Aerospace Simulation Systems	3
ASCI 518 Aviation/Aerospace Operations Research	3
ASCI 560 Advanced Rotorcraft Operations	3
ASCI 603 Aircraft and Spacecraft Development	3
ASCI 606 Air Traffic Control and the National Airspace System	3
ASCI 617 Airport Safety and Certification	3
ASCI 620 Air Carrier Operations	3
ASCI 622 Corporate Aviation Operations	3

## Worldwide 2010-2012 Catalog

The following additions or changes apply to the 2010-2012 Worldwide volume of the Embry-Riddle Aeronautical University Catalog with the effective date of July 1, 2010 through June 30, 2012.

*New Section: Associate Degree General Education Requirements (Effective 1/1/12)*

*The following statement has been added as a new section under the General Education Requirements (page 22):*

**Associate Degree General Education Requirements**

Candidates for Associate degrees must complete a minimum of 18 credit hours in general education courses, with at least three credit hours coming from each of the six areas defining the student learning outcomes for general education, as listed for the Bachelor's degree. Students who plan to continue studying for a Bachelor's degree after completing the Associate's degree are required to complete 36 credit hours of general education. Students should endeavor to complete the general education requirements as early as possible in their degree program.

*Revised Section: Assessment Examinations –Renamed Placement Examinations, Ref. Page 19 (Effective 8/1/11)*

*This update supersedes previous updates to this section.*

### PLACEMENT EXAMINATIONS

The purpose of the English and Mathematics Placement Exams is to help ensure that students are initially placed in English and Mathematics courses in which they can be successful, and which will prepare them for subsequent courses. ERAU Worldwide English and Mathematics placement policies are as follows:

*English*

1. All undergraduate students enrolling at ERAU for the first time must take the English Placement examination.
2. For students who do not possess transfer credit equivalent to ENGL 106 or above, the following placement criteria apply:
  - a. Students who score 70% or above on the placement examination may enroll in ENGL 123.
  - b. Students who score at least 50% but less than 70% on the placement examination must take ENGL 106.
  - c. Students who score less than 50% on the placement examination must take both GNED 104 and ENGL 106.
3. Students who possess transfer credit equivalent to ENGL 106 or above and who score less than 70% on the placement examination should take ENGL 106, and students who score less than 50% on the placement examination should take both GNED 104 and ENGL 106.
4. The placement examination may be taken one time only; there will be no opportunity to retake the examination after the first time it is completed and scored.

*Mathematics*

1. All undergraduate students enrolling at ERAU for the first time must take the Mathematics Placement examination.
2. For students who do not possess transfer credit equivalent to MATH 106 or above, the following placement criteria apply:
  - a. Students who score 70% or above on the placement examination may enroll in MATH 111 or MATH 140.
  - b. Students who score at least 50% but less than 70% on the placement examination must take MATH 106.
  - c. Students who score less than 50% on the placement examination must take both GNED 103 and MATH 106..
3. Students who possess transfer credit equivalent to MATH 106 or above and who score less than 70% on the placement examination should take MATH 106, and students who score less than 50% on the placement examination should take both GNED 103 and MATH 106.
4. The placement examination may be taken one time only; there will be no opportunity to retake the examination after the first time it is completed and

5. ENGL 106 cannot be used to satisfy General Education Communication Theory and Skills requirements.

scored.

5. MATH 106 cannot be used to satisfy General Education Mathematics Requirements.

*Revised Section: Certificates of Completion, paragraph 2, Ref. Page 40 (Effective 7/1/11)*

### **CERTIFICATE OF COMPLETION**

Most certificates are available to both degree seeking and nondegree 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 degree program. The cumulative GPA for the series of courses in the certificate program must be 2.8 or higher on a 4.0 scale.

*New Section: EAGLET Online Writing Lab, (Effective 5/1/11)*

### **EAGLET ONLINE WRITING LAB**

EAGLET (Electronic Access to Grammar, Language, and Essay Tutoring) is an online writing lab for Embry-Riddle students. It provides writing help, usually via short, 2-5 minute videos. It covers all aspects of the writing process, from brainstorming through organizing and drafting, to editing and proofreading. It also contains advice on avoiding common grammar and punctuation problems, and tips and guidance on researching and documentation using APA style. EAGLET is accessed via the Student Services tab in ERNIE.

*New Section: Prerequisite Knowledge, Ref. Page 48 (Effective 5/1/11)*

### **PROGRAM-SPECIFIC CRITERIA:**

#### **PREREQUISITE KNOWLEDGE**

Subject knowledge for a specific graduate course must be satisfied before enrollment in that course is permitted. Students may enroll in graduate level courses only if they meet prerequisite knowledge requirements. Graduate level prerequisite courses taken with ERAU must be completed with a grade of B or better.

*Revised Section: Two Degrees of the Same Rank, Ref. Page 139 (Effective 5/1/11)*

#### **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. Students may not simultaneously pursue degrees of different levels (ex. bachelor's and master's) at the university.

*Revised Section: International Students, Ref. Page 17 (Effective 4/1/11)*

Sentence added regarding approval to enroll nonimmigrant students.

### **INTERNATIONAL STUDENTS**

Undergraduate and Graduate

An international student is defined as any non-United States citizen intending to study at campuses located outside the United States, students who live outside of the United States enrolled through the Online Division of our

Worldwide Campus, as well as non-residents, non-immigrants planning to study in the United States. This school is authorized by federal law to enroll nonimmigrant students.

*Revised Section: General Education Requirements and Competencies, Ref. Page 22-23 (Effective 3/1/11)*  
*This update supersedes previous updates to this section.*

## GENERAL EDUCATION REQUIREMENTS

### 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 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.

#### 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. Three hours may be satisfied by placement, examination, or course completion. The other three hours must be completed by taking a course that has 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 and Economics,

##### 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, government, 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.

## UNIVERSITY GENERAL EDUCATION COMPETENCIES

While taking General Education required courses, students develop a basic set of General Education skills (i.e., competencies, listed below) based on course learning outcomes. This skill set will be instrumental to student success in upper level courses within their degree program; in these courses students will practice application of this skill set, eventually demonstrating mastery before graduation. As a result, students will graduate with a set of General Education competencies that will provide the basis for success in life and on the job. The following skills are the competencies that all University students will develop, practice, and master in preparation for graduate school or the workplace.

### Critical Thinking

The student will apply knowledge at the synthesis level to define and solve problems within professional and personal environments.

### Quantitative Reasoning

The student will demonstrate the use of digitally-enabled technology (including concepts, techniques and tools of computing), mathematics proficiency & analysis techniques to interpret data for the purpose of drawing valid conclusions and solving associated problems.

### Information Literacy

The student will conduct meaningful research, including gathering information from primary and secondary sources and incorporating and documenting source material in his or her writing.

**Communication**

The student will communicate concepts in written, digital and oral forms to present technical and non-technical information.

**Scientific Literacy**

The student will be able to analyze scientific evidence as it relates to the physical world and its interrelationship with human values and interests.

**Cultural Literacy**

The student will be able to analyze historical events, cultural artifacts, and philosophical concepts

**WORLDWIDE GENERAL EDUCATION  
COMPETENCIES**

The following additional competency has been identified by the faculty as being relevant to students in the Worldwide Campus.

**Lifelong Personal Growth**

The student will be able to demonstrate the skills needed to enrich the quality of life through activities which enhance and promote lifetime learning.

**Revised Section: Foreign Credential Evaluation- ACEI added, Ref. Page 17 (Effective 2/1/11)**

The following has been added as an ERAU approved foreign credentials evaluations agency.

Academic Credentials Evaluation Institute, Inc. (ACEI)  
P.O. Box 6908  
Beverly Hills, California 90212  
Phone: (310) 275-3530  
Fax: (310) 275-3528  
[www.acei1.com](http://www.acei1.com)

**New Section: Academic Advisement; Embry-Riddle Asia Students, Ref. Page 131 (Effective 11/1/10)**

**Embry-Riddle Asia Students**

Students participating in academic programs offered through Embry-Riddle Asia may be subject to variations in academic program content or university regulations, as appropriate to individual locations. Please consult with the Director of Enrollment Management-Asia, for any specifics regarding ERAU Asia.

**Revised Section: Privacy of Student Records; updated definition of Directory Information, Ref. Page 141 (Effective 10/1/10)**

**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 consent of the student, unless the student submits a written non-disclosure request. Students are required to file requests for non-disclosure with the Registrar's Office. Non-disclosure forms remain in place permanently, unless the office is notified otherwise.

Directory information consists of: student name; permanent or local mailing addresses and telephone numbers\*; ERAU e-mail or box address; non-ERAU email addresses or account information\*; date of birth\*; major courses of study and areas of specialization; dates admitted, attended, and graduated; enrollment and class status; campus, school or college attended; degrees sought or earned and dates received or anticipated; awards, honors, and special programs or recognitions; most recent previous school attended; for student athletes and scholarship recipients the

ERAU ID and photograph; factual disciplinary history, including results of pending disciplinary processes at time of withdrawal\*; information from public sources.\*

*\*Directory information may be released without student consent, but only for compelling reasons and only with advanced approval of the Registrar.*

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:

1. The records to be released.
2. The purpose of the disclosure.
3. Identify the party or class of parties to whom disclosure may be made and their address.
4. Do not designate a recipient fax number; transcripts are not available via fax. If urgency exists, students are advised to request the delivery of an electronic transcript, via the Scrip-Safe® Transcripts on Demand™ (TOD) service.
5. 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 Registrar's Office. The Registrar's 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 review the ERAU Worldwide FERPA Notification in ERNIE at (ernie.erau.edu) or contact the Registrar's Office.

**Revised Section: Registration. – Ref. Page 132 (Eff. 8/1/10)**

Second paragraph eliminated regarding undergraduate students registering for graduate courses. Students must complete their undergraduate degree requirements before registering for graduate level courses.

**REGISTRATION**

Students are responsible for initializing enrollment each term by contacting their home location/campus. At all campus locations, students are allowed to register online if they meet the required criteria. Registration must be completed according to instructions published by the Office of Enrollment Management. Payment of all tuition deposits and fees must be made at the time of registration. 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 Admissions, Advising and Student Affairs Office, or the Registrar.