

## **AS AIRCRAFT MAINTENANCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. General knowledge of maintenance operations and safety
- B. Electrical and electronic systems operations
- C. Skills in metallic and non-metallic structures and repair
- D. Understanding of a/c systems (hydraulics, environmentals, etc.)
- E. Knowledge of reciprocating and turbine engines and their respective systems
- F. Knowledge and ability to work with technical publications and manuals
- G. Skills in troubleshooting
- H. Use of precision measuring instruments and basic and special tools
- I. Understanding and knowledge of FAA regulations

**BS AERONAUTICAL SCIENCE  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding aerodynamic performance of aircraft powered by reciprocating and turbine engines
- B. Use of electronic navigation and flight control systems
- C. Crew coordination (cockpit resource management)
- D. Knowledge of flight physiology, awareness of flight psychology (human factors)
- E. Awareness of safety and accident prevention
- F. Understanding the concepts and process of meteorology
- G. Instrument flight skill
- H. Multi-engine/high performance aircraft operations
- I. Knowledge of Federal Aviation Regulations
- J. Aeronautical decision making (judgement skills)
- K. Actions, attitudes, and knowledge of security considerations

## **BS AEROSPACE ENGINEERING DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Apply knowledge of mathematics and science
- B. Design and conduct experiments
- C. Analyze and interpret experimental data
- D. Apply knowledge of aerodynamics
- E. Apply knowledge of aircraft performance
- F. Apply knowledge of stability and control
- G. Apply knowledge of aerospace materials
- H. Apply knowledge of aircraft and spacecraft structures
- I. Apply knowledge of propulsion
- J. Apply knowledge of orbital mechanics
- K. Apply knowledge of spacecraft dynamics
- L. Apply knowledge of control systems
- M. Apply knowledge of circuits, electronics, and instrumentation
- N. Identify, formulate, and solve engineering problems
- O. Use the techniques, skills, and modern engineering tools necessary for engineering practice
- P. Design an aircraft or spacecraft system, component, or mission to meet desired needs
- Q. Understand the impact of engineering decisions on society and the environment
- R. Understand professional and ethical responsibility
- S. Recognize the need to continue professional development throughout one's career

**BS AEROSPACE STUDIES  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Effective communication skills
- B. Interpretation of written material
- C. Analytical thinking
- D. International perspectives
- E. Understanding of basic statistics
- F. Cultural awareness
- G. Interdisciplinary knowledge and skills

**BS AIRCRAFT ENGINEERING TECHNOLOGY  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Aerodynamics/performance
- B. Structures
- C. Propulsion
- D. Dynamic systems and control
- E. Material science
- F. Manufacturing processes
- G. Non-destructive testing
- H. Measurement and testing
- I. Reliability/maintainability

**BS AVIATION BUSINESS ADMINISTRATION  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding and applying management theory/concept
- B. Understanding and using accounting and financial information
- C. Understanding how the economic system works
- D. Awareness of personnel practices
- E. Applying statistical and/or quantitative techniques to problem solving
- F. Understanding of the global interconnectivity in the business world
- G. Awareness of how ethical behavior is in the self-interest of both the company and the individual
- H. Ability to access, analyze, and present information using appropriate technology

**BS AVIATION MAINTENANCE MANAGEMENT  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding and applying management theory/concepts
- B. Understanding and using accounting and financial information
- C. Understanding how the market system works
- D. Awareness of personnel procedures, collective bargaining, and the legal obligations of managements
- E. Applying statistical and/or quantitative techniques to problem solving

**BS AVIATION MAINTENANCE MANAGEMENT (AVIONICS)**  
**DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding and applying management theory/concepts
- B. Understanding and using accounting and financial information
- C. Understanding how the market system works
- D. Awareness of personnel procedures, collective bargaining, and the legal obligations of managements
- E. Applying statistical and/or quantitative techniques to problem solving



**BS AVIATION MAINTENANCE MANAGEMENT (MAINTENANCE)**  
**DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding and applying management theory/concepts
- B. Understanding and using accounting and financial information
- C. Understanding how the market system works
- D. Awareness of personnel procedures, collective bargaining, and the legal obligations of managements
- E. Applying statistical and/or quantitative techniques to problem solving
- F. General knowledge of maintenance operations and safety
- G. Electrical and electronic systems operations
- H. Skills in metallic and non-metallic structures and repair
- I. Understanding of a/c systems (hydraulics, environmental, etc.)
- J. Knowledge of reciprocating and turbine engines and their respective systems
- K. Knowledge of and ability to work with technical publications and manuals
- L. Skills in troubleshooting
- M. Use of precision measuring instruments and basic and special tools
- N. Understanding and knowledge of FAA regulations

**BS AVIATION TECHNOLOGY (AVIONICS/FLIGHT)  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. General knowledge of maintenance operations and safety
- B. Knowledge of and ability to work with technical publications and manuals
- C. Skills in troubleshooting
- D. Use of precision measuring instruments and basic and special tools
- E. Understanding and knowledge of FAA regulations
- F. Use of electronic navigation and flight control systems
- G. Crew coordination (cockpit resource management)
- H. Knowledge of flight physiology, awareness of flight psychology (human factors)
- I. Awareness of safety and accident prevention
- J. Understanding the concepts and process of meteorology
- K. Instrument flight skill
- L. Multi-engine/high performance aircraft operations
- M. Aeronautical decision making (judgement skills)
- N. Basic and advanced electronics analysis and theory
- O. Avionics equipment and system analysis
- P. Avionics/electronics system test, analysis, and repair

**BS AVIATION TECHNOLOGY (MAINTENANCE/AVIONICS)**  
**DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. General knowledge of maintenance operations and safety
- B. Skills in metallic and non-metallic structures and repair
- C. Understanding of a/c systems (hydraulics, environmental, etc.)
- D. Knowledge of reciprocating and turbine engines and their respective systems
- E. Knowledge of and ability to work with technical publications and manuals
- F. Skills in troubleshooting
- G. Use of precision measuring instruments and basic and special tools
- H. Understanding and knowledge of FAA regulations
- I. Basic and advanced electronics analysis and theory
- J. Avionics equipment and system analysis
- K. Avionics/electronics system test, analysis, and repair

**BS AVIATION TECHNOLOGY (MAINTENANCE/FLIGHT)  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. General knowledge of maintenance operations and safety
- B. Skills in metallic and non-metallic structures and repair
- C. Understanding of a/c systems (hydraulics, environmentals, etc.)
- D. Knowledge of reciprocating and turbine engines and their respective systems
- E. Knowledge of and ability to work with technical publications and manuals
- F. Skills in troubleshooting
- G. Use of precision measuring instruments and basic and special tools
- H. Understanding and knowledge of FAA regulations
- I. Electrical and electronic systems operations
- J. Understanding aerodynamic performance of aircraft powered by reciprocating and turbine engines
- K. Use of electronic navigation and flight control systems
- L. Crew coordination (cockpit resource management)
- M. Knowledge of flight physiology, awareness of flight psychology (human factors)
- N. Awareness of safety and accident prevention
- O. Understanding the concepts and process of meteorology
- P. Instrument flight skill
- Q. Multi-engine/high performance aircraft operations
- R. Aeronautical decision making (judgement skills)

**BS AVIONICS ENGINEERING TECHNOLOGY  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Basic and advanced electronics analysis and theory
- B. Avionics system analysis and design
- C. Avionics/electronics system test
- D. Applied mechanical engineering concepts
- E. Basic design and engineering concepts
- F. Applications software and programming
- G. Reliability/maintainability
- H. Systems integration

**BS CIVIL ENGINEERING  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Airport planning and design
- B. Transportation engineering
- C. Hydraulics/hydrology
- D. Materials testing
- E. Construction engineering and management
- F. Soil mechanics
- G. Pavement design
- H. Structural analysis and design
- I. Computer skills for civil engineering analysis and design
- J. CAD
- K. Environmental engineering
- L. Understand and adapt to the challenges of contemporary civil engineering
- M. Apply interdisciplinary skills and knowledge to actual problems
- N. Recognize the need to continue professional development throughout one's career

## **BS COMPUTER ENGINEERING DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Apply knowledge of mathematics, science, and engineering
- B. Design and conduct experiments
- C. Analyze and interpret data
- D. Design a computer system or component to meet desired needs
- E. Implement computer programs and computational processes to meet desired needs
- F. Function on multi-disciplinary teams
- G. Identify, formulate, and solve engineering problems
- H. Understand professional and ethical responsibility
- I. Communicate effectively
- J. Understand the impact of engineering solutions in a global and societal context
- K. Engage in life-long learning
- L. Understand contemporary issues in computer engineering
- M. Use modern engineering tools

## **BS COMPUTER SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understand and apply object-oriented programming concepts to the development of software modules
- B. Understand and apply algorithm design concepts and techniques to the design of software modules
- C. Understand and apply data structures theory to the design of software modules
- D. Apply theory of modularity, abstraction, and information hiding to the design of software systems
- E. Understand the fundamental concepts of computer organization and architecture
- F. Understand the fundamental concepts of real-time computing
- G. Understand the theory and use of operating systems
- H. Apply software engineering concepts to specify, design, construct, and test a software product
- I. Understand the interrelationship between computer hardware and software fundamentals
- J. Apply scientific, mathematical, and engineering concepts, methods, and tools to the solution of software engineering problems
- K. Use defined life-cycle engineering processes designed to produce software systems that meet functional, quality, economic, and schedule requirements
- L. Understand and appreciate an engineer's professional and ethical responsibilities
- M. Understand and appreciate the importance of life-long learning



## **BS ELECTRICAL ENGINEERING DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Apply knowledge of mathematics, science, and engineering
- B. Design and conduct experiments
- C. Analyze and interpret data
- D. Design a computer system or component to meet desired needs
- E. Implement computer programs and computational processes to meet desired needs
- F. Function on multi-disciplinary teams
- G. Identify, formulate, and solve engineering problems
- H. Understand professional and ethical responsibility
- I. Communicate effectively
- J. Understand the impact of engineering solutions in a global and societal context
- K. Engage in life-long learning
- L. Understand contemporary issues in electrical engineering
- M. Use techniques, skills, and modern engineering tools necessary for engineering practice
- N. Demonstrate depth within specific sub-areas of electrical engineering such as control, communications, systems, circuit design, etc.

## **BS ENGINEERING PHYSICS DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Apply knowledge of mathematics, science, and engineering
- B. Design and conduct experiments
- C. Analyze and interpret data
- D. Design a system, component, or process to meet desired needs
- E. Function on multi-disciplinary teams
- F. Identify, formulate, and solve engineering problems
- G. Understand professional and ethical responsibility
- H. Communicate effectively
- I. Understand the impact of engineering solutions in a global and societal context
- J. Recognize and engage in life-long learning
- K. Knowledge of contemporary issues
- L. Use the techniques, skills, and modern engineering tools necessary for engineering practice
- M. Knowledge of classical mechanics
- N. Knowledge of engineering electricity and magnetism
- O. Knowledge of space physics
- P. Knowledge of quantum physics
- Q. Knowledge of space systems engineering and design
- R. Knowledge of electro-optical engineering
- S. Knowledge of microcomputers and electronic instrumentation

**BS HUMAN FACTORS PSYCHOLOGY  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Knowledge of human psychophysiological, cognitive, and perceptual functioning
- B. Knowledge of human factors including analytic methods, models, and human capabilities and limitations
- C. Knowledge of basic statistical procedures, including analysis of variance
- D. Research methods and design skills
- E. Effective oral and written communication skills
- F. Ability to read, comprehend, and analyze results of published empirical studies in the human factors field
- G. Understanding of the application of human factors and psychological knowledge in aviation and other applied domains

**BS MANAGEMENT OF TECHNICAL OPERATIONS  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Relating management concepts to prior knowledge in a technical operations specialty
- B. Using accounting, financial, and statistical information in the management of technical operations
- C. Applying organizational and human resources theory and concepts in the workplace
- D. Using computer technology to support technical operations
- E. Understanding the social, economic, ethical, political, and legal environment of a technical enterprise
- F. Applying strategic and project planning principles and techniques in a technical operation
- G. Using general managerial skills (leadership, problem solving, and decision-making)
- H. Using managerial skills in computers
- I. Using managerial skills in technical writing
- J. Using managerial skills in quantitative/mathematics

**BS PROFESSIONAL AERONAUTICS  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Knowledge and understanding of aviation law and regulations
- B. Understanding and application of management theory/concepts
- C. Understanding and use of accounting and financial information
- D. Use of statistical/quantitative techniques to solve problems
- E. Understanding of safety issues, employment of accident prevention techniques, safety program practices and management, and mishap investigation
- F. Knowledge and understanding of advanced management concepts, issues, and practices as applied in a variety of aviation operations and services
- G. Knowledge and understanding of aeronautical science, technology and operations, concepts, theory and applications

## **BS SAFETY SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Identify, evaluate and control health and safety hazards
- B. Demonstrate competency in the principles of fire prevention, suppression, and life safety
- C. Demonstrate competency in the fundamentals of industrial hygiene and toxicology
- D. Apply systems safety analysis techniques to identify, prioritize, and control hazards in human-machine systems
- E. Demonstrate knowledge of aviation safety reporting systems and safety data sources
- F. Develop an understanding of workplace security to deal with the threat of violence and other intentional harmful acts
- G. Demonstrate an ability to participate in the development, testing, and maintenance of an airport emergency plan, including Aircraft Rescue and Fire Fighting
- H. Develop an understanding of federal human resources statutes and legal torts and contracts as it relates to safety/risk management in aviation law
- I. Develop and maintain a comprehensive safety program for the aviation and aligned industries that address all relevant regulatory requirements of the FAA, OSHA, EPA and DOT
- J. Apply DOT regulations to the transportation of different classes of hazardous materials
- K. Discuss the federal regulations pertaining to aircraft operations, rulemaking and certification
- L. Evaluate an airport's compliance with federal regulations
- M. Demonstrate an understanding and application of the regulatory requirements organizations operate under, including OSHA, EPA and DOT regulations, and workers' compensations laws
- N. Initiate, develop, conduct and manage aircraft accident investigations in accordance with all the requirements of the NTSB, FAA and other relevant regulatory bodies
- O. Apply SHELL and Reason's model to understanding accident causation and prevention
- P. Evaluate the role of human factors issues (fatigue, body rhythms, vision, etc.) as they relate to human performance and accident causation and prevention
- Q. Apply principles of crash survival to the design and outfitting of aircraft
- R. Complete a "Crash Survival Analysis" rating for various fixed-wing and rotor aircraft

**BS SCIENCE, TECHNOLOGY, AND GLOBALIZATION  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understand, analyze, and work with international cultures, different types of business enterprises, private and public organizations
- B. Define and find solutions to complex problems that may have multiple, open-ended solutions
- C. Communicate clearly and effectively to different audiences and in different circumstances
- D. Work effectively in diverse teams
- E. Act responsibly and demonstrate ethical behavior
- F. Conduct independent research at the level of a senior thesis or professional-level consulting project

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **AERONAUTICS SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies
- G. Advances in Aviation/Aerospace aerodynamics
- H. Value of simulation in aviation training programs
- I. Operation of high technology meteorology data computer systems
- J. Evaluation of aircraft and spacecraft guidance, control, communication, and navigation systems
- K. Analysis of spacecraft propulsion systems



**M AERONAUTICAL SCIENCE  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

**AVIATION/AEROSPACE EDUCATION TECHNOLOGY SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies
- G. Role of education in Aviation/Aerospace industry
- H. Value of simulation in aviation training programs
- I. Similarities and differences between pedagogy and andragogy
- J. Uniqueness and commonalities of the adult learning process

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **AVIATION/AEROSPACE MANAGEMENT SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies
- G. Production and procurement management in manufacturing
- H. Supply and distribution functions in the logistic system
- I. Strategic planning and strategic management concepts
- J. Interaction of maintenance with operations, logistics, and training functions
- K. Key factors impacting on R and D programs

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **AVIATION/AEROSPACE OPERATIONS SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies
- G. Past, present, and future airspace and ATC technology
- H. Roles and responsibilities of FAA, NTSB, and military in accident investigation
- I. Crash site investigation
- J. Management and operations related to Air Carriers
- K. Qualifications and training of aircraft dispatchers
- L. Responsibilities associated with Corporate Aviation operations

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **AVIATION/AEROSPACE SAFETY SYSTEMS SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **HUMAN FACTORS IN AVIATION SYSTEMS SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies

## **M AERONAUTICAL SCIENCE DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **SPACE STUDIES SPECIALIZATION**

- A. Air transportation as part of the global, multi-modal system
- B. Basic elements of Space Transportation System
- C. State-of-the-art materials and practices used in manufacture and maintenance of A/A vehicles
- D. Human factors problems and analysis
- E. Major steps in developing a research study
- F. Analysis of five major research methodologies

**M AEROSPACE ENGINEERING AND MS AEROSPACE ENGINEERING  
DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Ability to work independently on new scientific/engineering projects
- B. Ability to design novel experiments
- C. Knowledge of aerodynamics
- D. Knowledge of aircraft structures
- E. Knowledge of aerospace materials
- F. Knowledge of computational techniques

## **M BUSINESS ADMINISTRATION IN AVIATION DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Understanding the functions and scope of the management of human resources
- B. Knowledge and application in aviation of organizational concepts including group dynamics, leadership, conflict resolution, ethics, and motivation
- C. Understanding the concepts and strategies involved in planning, implementing, and controlling a marketing plan with special emphasis on aviation organizations
- D. Application and analysis of the following managerial accounting concepts: cost accounting, cost-volume-profit relationships, budgeting, standard costs, segment analysis, and financial ratios with emphasis on aviation and aviation-related industries
- E. Skills in analyzing financial statements and other corporate finance concepts and techniques in aviation and aviation-related industries
- F. Knowledge of general systems concepts, decisions, and information systems
- G. Application of statistical and quantitative analysis
- H. Application of microeconomic concepts to aviation operations demand using forecasting and pricing techniques
- I. Skills to formulate strategy and policy required to obtain organizational goals in the competitive environment of airlines, airports, manufacturing, and government



## **MS HUMAN FACTORS AND SYSTEMS DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **HUMAN FACTORS ENGINEERING TRACK**

- A. Ability to identify human factors problems in operational environments
- B. Knowledge of general systems concepts
- C. Ability to apply the knowledge of human perception, cognition, and memory to operational and design problems
- D. Understanding and ability to apply statistical and quantitative techniques
- E. Understanding and ability to apply the strategies involved in planning, implementing, and controlling a research plan

## **MS HUMAN FACTORS AND SYSTEMS DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

### **SYSTEMS ENGINEERING TRACK**

- A. Knowledge of general systems concepts
- B. Ability to apply the knowledge of reliability, maintainability, logistics, safety, and producibility to operational and design problems
- C. Ability to identify human factors problems in operational environments
- D. Ability to balance operational, behavioral, economic, and logistical factors in operations and design
- E. Understanding and ability to apply statistical and quantitative techniques
- F. Understanding and ability to apply the strategies involved in planning, implementing, and controlling a research plan

## **MS TECHNICAL MANAGEMENT DEGREE-SPECIFIC SKILLS**

**DIRECTIONS:** Use the items listed to answer question #11. Record all ratings on the survey itself, NOT on this flyer.

- A. Using computer techniques to solve management problems
- B. Understanding and applying quantitative and statistical skills for decision making
- C. Using computer graphics to enhance verbal presentations
- D. Understanding electronic data systems and relational databases
- E. Using financial accounting and quality control processes
- F. Applying statistical methods to project development and problem solutions
- G. Understanding systems development and operation
- H. Understanding the role of leadership and management in a variety of organizational alternatives
- I. Understanding the role of communication in team building and motivation
- J. Assessing the regulatory, ethical, and legal environments of an organization or industry
- K. Understanding marketing techniques applicable to technical operations
- L. Understanding project management and tactical planning in the technical environment
- M. Using management science principles and software to make better decisions
- N. Understanding the cost and process of improving product quality in an organization