EME: Education: Technology And Media Courses

Courses

EME 1660C  Engineering Technology Applications in Aviation
1-2 sh (may be repeated for up to 6 sh of credit)
Learners will apply engineering technology concepts to successfully plan and execute aviation-related mission scenarios in a high-fidelity fully immersive learning environment at the National Flight Academy in Pensacola, Florida.

EME 2040  Introduction to Educational Technology
3 sh (may not be repeated for credit)
Assists educators in developing skills and competencies which are essential to the integration of technology into the delivery of classroom instruction. Students will survey a wide variety of instructional technology materials and systems. They will also learn to use these tools in a classroom environment.

EME 3002  Intelligence and National Security
3 sh (may not be repeated for credit)
Students will develop an academic understanding of national security and the government agencies that are responsible for protecting the United States and its interests. Students will learn about the intelligence cycle, national security decision making, and the intelligence community and review case studies of intelligence in action. Students will also become familiar with analytic writing and intelligence analysis through case studies and weekly assignments of current national security news.

EME 3003  Open Source Intelligence
3 sh (may not be repeated for credit)
Provides students with an academic and practical understanding of Open Source Intelligence (OSINT) and its applications. Students will learn about Open Source Intelligence as a discipline, its place in the intelligence world, and OSINT planning and execution. Students will become familiar with OSINT acquisition and exploitation techniques by developing an understanding of available technological tools and capabilities.

EME 3312  Technology Supported Learning
3 sh (may not be repeated for credit)
Examines the use of current and emerging technologies to facilitate learning. Topics covered will include distance learning, formal and informal technology based learning and mobile learning. Strategies for integrating technology in educational settings will be explored.

EME 3400  Information Technology Infrastructure Analysis and Recommendation
3 sh (may not be repeated for credit)
Prerequisite: EME 4627
Students will develop the knowledge, skills and abilities necessary to analyze technology infrastructure needs of various types and sizes of organizations and provide appropriate solution recommendations to solve complex problems. Meets Gordon Rule Writing Requirement.

EME 3406  Web Presence Deployment Strategies
4 sh (may not be repeated for credit)
Prerequisite: EME 4627
Technology Systems Specialists support the development and implementation of the web presence for an organization. An organization's web presence integrates a wide variety of technologies into a system that projects its identity and services out through the Internet via any number of media. This integration requires learners to plan, select, produce, organize and manage materials and systems in a variety of settings. Learners will develop strategies to design, develop, and evaluate information-based solutions that meet the needs of stakeholders with real-world communication problems.

EME 3410  Emerging Technology in the Classroom
1 sh (may not be repeated for credit)
Prerequisite: EME 2040
Examines specific methods for integrating technology (hardware and software) into subject area curricula in the classroom. Students will explore models of technology integration, classroom management and administrative tasks that can be performed more efficiently using technology, and learn strategies to select appropriate mediums when planning for technology integration. Individualization will allow each student to select and develop materials in their disciplines.

EME 3624  Training Needs Assessment
3 sh (may not be repeated for credit)
Examines the role of training needs assessment in instructional design. Students will be introduced to techniques used to collect and analyze data to identify and clarify training needs. Prepares students to employ needs assessment techniques to determine who needs to learn what and why prior to engaging in the design and development of instructional materials.

EME 3710  Engineering Technology Applications in CompTIA Security+
3 sh (may not be repeated for credit)
Security+ includes important foundational principles for securing a network and managing risk. Access control, identity management and cryptography are important components of the course. Mitigation and deterrent techniques are provided to prevent network attacks and expose potential vulnerabilities. Successful completion of the CompTIA Security+ exam meets the Information Assurance (I.A.) technical and management certification requirement? outlined by the U.S. Department of Defense. Non-degree seeking students will be required to pass an online pre-test with a minimum score of 80% prior to enrollment.

EME 3711  Engineering Technology Applications in CompTIA Network+
3 sh (may not be repeated for credit)
Network+ includes topics in network technologies, installation and configuration, media and topologies, management, and security. Certification in Network+ enhances several occupations including: network administrator, network technician, network installer, help desk technician and IT cable installer. Network+ is the technical prerequisite option? for IT technicians requesting to join the Apple Consultants Network. Successful completion of the certification exam is recognized by the U.S. Department of Defense. Non-degree seeking students will be required to pass an online pre-test with a score of 80% or better prior to enrollment.

EME 3905  Directed Study
1-12 sh (may be repeated indefinitely for credit)
EME 4001  HUMINT Operations  
3 sh (may not be repeated for credit)  
Students will learn the importance of human originated information, or HUMINT, in the context of law enforcement, military and intelligence operations. Students will learn about interview, interrogation and elicitation techniques that are employed within the law enforcement and national security communities. Students will be able to recognize and describe the difference between overt and clandestine source operations and when HUMINT should and should not be utilized in the pursuit of legal or national security priorities. Students will also be able to assess basic psychological indicators in the profiling of historic espionage cases and their impact on national security.

EME 4043  Instructional Technology Leadership  
3 sh (may not be repeated for credit)  
Students will examine the role of the technology leader in effective integration, management and use of technology in a variety of settings, including education, training, military, public sector and non-profits. The course focuses on technology, information, and information literacy. Special attention is paid to the role of systems thinking in effective technology leadership. Offered concurrently with EME 5316, graduate students will have additional work.

EME 4313  Wireless and Mobile Communications  
3 sh (may not be repeated for credit)  
Introduces common wireless technologies and wireless network architectures including common carrier cellular networks. Learners will examine characteristics of these technologies and identify their roles in enterprise-class information technology operations. Learners will identify common tools and applications associated with these technologies and explain their roles in design, deployment and management of them. Wireless technologies strengths and weaknesses are described in the context of their effect on enterprise security, performance and cost management.

EME 4350  Human Performance Technology  
3 sh (may not be repeated for credit)  
Introduces students to the field of Human Performance Technology (HPT). Students will be introduced to research, theories and models associated with HPT, preparing them to conduct comprehensive performance, gap and cause analyses in organizations to identify and provide both training and non-training based solutions to address organizational performance concerns.

EME 4454  Technology Systems Implementation Strategies  
3 sh (may not be repeated for credit)  
Prerequisite: EME 4627  
Examines the processes and challenges posed by those processes involved in the conception, planning and implementation of a technology systems project. Learners will develop model documents for each process and each phase of the project implementation process.

EME 4474  Technical Intelligence Collection  
3 sh (may not be repeated for credit)  
Introduces students to intelligence disciplines (ELINT, SIGINT, MASINT, GEOINT) and intelligence organizations (NSA, NGA, NRO and DIA). Students will examine the history of these organizations, technologies used in each intelligence discipline, and common uses of each technology. The course focuses on improving analytical writing and research skills in the intelligence discipline.

EME 4622  Technology Systems Operations: Management Strategies  
4 sh (may not be repeated for credit)  
Prerequisite: EME 4627  
Students will develop skills and abilities to effectively manage a networked system. Network-related fault management, configuration, security, performance, and utilization measurements will be addressed. Lessons will include in-depth examination and appropriate applications in each functional area. Hardware and software tools that are required to perform network management tasks will be examined.

EME 4627  Technology Systems Operations: Architectures and Components  
4 sh (may not be repeated for credit)  
Students learn advanced principles associated with designing, developing and operating technology systems for large organizations spanning one or more sites.

EME 4673  Foundations of Instructional Design  
3 sh (may not be repeated for credit)  
Introduces students to the field of instructional design, a systemic and systematic, research-based means of designing effective, efficient, learner focused instruction. Students will use the ADDIE process to design a lesson.

EME 4905  Directed Study  
1-12 sh (may be repeated indefinitely for credit)  

EME 4944  Internship/Practica  
3 sh (may not be repeated for credit)  
Observation of and participation in technology systems related roles in professional settings. Students participate in field-based experiences related to their course of study and future goals. Prerequisite: Permission of instructor.

EME 5316  Instructional Technology Leadership  
3 sh (may not be repeated for credit)  
Students will examine the role of the technology leader in effective integration, management and use of technology in a variety of settings, including education, training, military, public sector and non-profits. The course focuses on technology, information, and information literacy. Special attention is paid to the role of systems thinking in effective technology leadership. Offered concurrently with EME 4043, graduate students will have additional work.

EME 5403  Education and Training Technology Support Systems  
4 sh (may not be repeated for credit)  
Students learn advanced principles associated with designing and developing multi-site and enterprise-based support systems for education and training technologies and organizations that focus on developing effective learning environments and communities. Offered concurrently with EME 4627; graduate students will be assigned additional work.

EME 5457  Distance Education Technologies  
4 sh (may not be repeated for credit)  
Distance education will be investigated as an instructional method in terms of delivery, development, and implementation. Students will design a distance education environment that uses emerging technologies that support distance delivery. Offered concurrently with EME 4454; graduate students will be assigned additional work.
EME 5625  Technology Tools: Site-Based Educational Networks
4 sh (may not be repeated for credit)

Students learn the basic principles associated with designing and
developing site-based networks that support education and training
organizations. Major topics to be examined include: terminology,
troubleshooting techniques and strategies, the future of educational
networks. Offered concurrently with EME 4622; graduate students
will be assigned additional work. Credit may not be received in both
EME 5625 and EME 5315.

EME 5905  Directed Study
1-12 sh (may be repeated indefinitely for credit)

EME 6054  Foundations of Instructional Technology
3 sh (may not be repeated for credit)

Students investigate theoretical, historical, sociological, and
philosophical perspectives and applications of instructional technology
in education and training environments. Students develop the
knowledge, skills, and abilities needed to integrate instructional
technology theories and processes into education and training
settings. Students are introduced to the theoretical and philosophical
foundations of the field, and they are empowered to develop a
comprehensive definition of the field and a broad perspective of IT on
educational and training settings.

EME 6062  Applied Instructional Technology Investigations
3 sh (may not be repeated for credit)

This course provides an introduction to past, present, and future
instructional technology research. Research paradigms and underlying
theory appropriate for IT are emphasized. Quantitative, qualitative,
and mixed methods research designs and appropriate data analysis
techniques are explored.

EME 6317  Instructional Technology for Educational Leaders
3 sh (may not be repeated for credit)

This course provides future technology leaders with the basic
terminology, historical perspectives, theoretical basis, research and
practical application of instructional technology to enable them to
be empowered persons and professionals who work in educational
settings. This course builds knowledge and skills to assist school and
district leaders in using and applying instructional technology planning
and management techniques to real-world situations. Upon completion
of the course, students will have the ability to use instructional
technology for administrative and instructional purposes and to plan,
organize, and promote its use in PK-12 educational environments.

EME 6358  Evaluation for MSA Professionals
1.5 sh (may not be repeated for credit)

Students will develop skills used in conducting effective personnel
evaluations in an administrative environment. A competency-based
performance approach will be taken, and students will develop the
skills needed in preparing for, conducting, and giving competency-
based personnel evaluations.

EME 6408  Integrated Technology Learning Environments
3 sh (may not be repeated for credit)

The skills and abilities necessary in planning for the integration of
technology into educational and training environments are the focus of
this course. Students will develop a technology integration plan for a
real-world scenario through the application of the major practices and
models of technology integration.

EME 6409  Distance Learning Implementation
3 sh (may not be repeated for credit)

Integrates theory and best practices to explore and develop skills
for developing and implementing effective education and training
environments delivered via distance learning media. Students will
focus on the principles and practices that are research-based and
result in quality distance learning experiences, and students will
explore technologies available to support and distribute distance
learning and the considerations unique to distance learning. The
course focuses heavily on online environments, and it emphasizes
application of the best practices by enabling students to develop
and implement their own instructional lessons that are delivered via
distance learning technologies.

EME 6414C  Web-Based Instructional Tools for Educators
3 sh (may not be repeated for credit)

Students will gain the knowledge and skills necessary to design and
develop web-baseinstruction using a variety of current technologies.
Through integrating theory and application, students will learn to
critically examine the instructional capabilities of various technologies
and identify instructional strategies that support integration. Multiple
units of instruction will be developed and designed that demonstrate
the ability to align technology integration with the principles of learning
theory and instructional design.

EME 6415  Digital Video for Instruction
3 sh (may not be repeated for credit)

Principles of instructional video design and development including
designing for learning objectives, effective audio and lighting
techniques, video recording, editing, and delivery will be taught.
Students will explore the opportunities and technical challenges
associated with web-based video as a communication medium.
Practical application projects are an integral part of the learning
experience as students explore all aspects of instructional video pre-
production, production, and post-production.

EME 6426  HPT Interventions
3 sh (may not be repeated for credit)

Human Performance Technologists, the education and training leaders
in organizations, identify gaps between desired and actual employee
performance levels. Once the gaps have been identified, the HPT
practitioner determines interventions or combinations of interventions
that are needed to close those gaps. These interventions consist of
instructional and non-instruction solutions that educators and trainers
design and develop that, in turn, solve organizational performance
problems.

EME 6427  Implementing HPT Interventions
3 sh (may not be repeated for credit)

Provides students with fundamental knowledge and skills related to
the intervention implementation and change management activities
associated with the practice of Human Performance Technology
(HPT). Examines models of change management, the role of the
change agent and the importance of developing and implementing
effective change management plans to insure successful intervention
implementation and institutionalization.
EME 6428   Evaluating HPT Interventions
3 sh (may not be repeated for credit)

Students will examine the theory and practice of evaluation models and processes as they relate to the formative, summative and confirmative evaluation of instructional and non-instructional HPT interventions. Students will develop the knowledge, skills and abilities necessary to plan and conduct comprehensive evaluations based on best practices.

EME 6429   Human Performance Improvement
3 sh (may not be repeated for credit)

Provides students with fundamental knowledge and skills related to the performance, gap and cause analysis activities associated with the practice of Human Performance Technology (HPT). Examines the importance of systems thinking in HPT and the theories and theorists of the field.

EME 6458   Distance Learning Policy and Planning
3 sh (may not be repeated for credit)

Examines the history of distance learning and the principles, policies and issues related to the design, development, implementation and administration of distance learning courses and programs in various settings. Issues related to technology, teaching, learning, assessment and faculty and student preparation will be considered from both theoretical and practical perspectives.

EME 6607   Implementation of Instructional Technology Projects
3 sh (may not be repeated for credit)

Provides students with the knowledge, skills, abilities, and attitudes necessary to provide leadership in the implementation of instructional technology. Students will learn to identify the constraints and risks associated with instructional technology planning and implementation and develop ways to manage these factors. Students will utilize software tools to manage the implementation of an instructional technology project.

EME 6609   Principles of Instructional Design
3 sh (may not be repeated for credit)

Students will examine the use of instructional systems design models to create instruction that is appropriate from a pedagogical and practical viewpoint. Theories and models to support the design of instruction for use in a variety of instructional formats will be emphasized. Focus areas will include analysis, instructional goals and objectives, assessment, instructional strategies and the role of formative evaluation in instructional design. Students will apply theories and best practices to design a pedagogically sound instructional product.

EME 6626   Emerging and Innovative Technology Systems
3 sh (may not be repeated for credit)

New technology and approaches to teaching and learning evolve and revolutionize how professionals approach technology integration. Explore how innovation and new technologies can be used in instructional strategies to promote performance and learning.

EME 6905   Directed Study
1-12 sh (may be repeated indefinitely for credit)

EME 6946   Field Experiences in Instructional and Performance Technology
3-6 sh (may not be repeated for credit)

Observation and participation in instructional and performance technology organizational settings. Students participate in field-based experiences related to their course of study and future goals. Permission is required.

EME 7063   Research on Emerging and Innovative Technology Systems
3 sh (may not be repeated for credit)

Education specialist students conclude their program with this capstone course in which they apply knowledge and skills gained throughout the program to a scholarly activity in an educational environment. Students integrate a synthesis of theories, concepts, and themes learned in previous coursework. Capstone activities may include a research study, field experience, or special project.

EME 7676   Advanced Instructional Design Theory
3 sh (may not be repeated for credit)

Examination of the theoretical foundations on which the field of instructional design and technology is based. Students will identify the key components of the instructional system; developing the knowledge, skills and abilities necessary to design and develop theoretically sound instruction. Theories examined will include systems theory, communication theories, learning theories, and instructional theories.

EME 7905   Directed Study
1-12 sh (may be repeated indefinitely for credit)

EME 7938   IT Research Design Seminar
3 sh (may not be repeated for credit)

Provides Instructional Technology advanced graduate students with the opportunity to conduct an in-depth examination of the processes and procedures in applied IT research, specifically as related to the dissertation process. Students explore how to determine appropriate topics for IT research, format and style for research publications, strategies for conducting literature reviews, hypotheses, a research design, and appropriate statistical application.

EME 8608   IDT Foundations, Issues and Trends
3 sh (may not be repeated for credit)

Examines the history and evolution of the field of instructional design and technology and its relationship to the related fields of educational technology and human performance technology. Examines current issues and trends influencing the field. Focuses heavily on research, critical thinking and communication skills.

EME 8980   Dissertation
1-6 sh (may be repeated for up to 18 sh of credit)

Major individual research in an area of significant educational interest; designed specifically for candidates in the Ed.D. Curriculum and Instruction, Instructional Technology program. The dissertation reflects intensive educational research produced by the student and collaboratively developed with the student's graduate committee. Graded on a satisfactory / unsatisfactory basis only. Admission to candidacy, completion of all other doctoral program requirements and permission is required.