

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 3351 Introduction to Instructional and Performance Technology
3 sh (may not be repeated for credit)

The distinct purposes of instructional technology and human performance technology are explored in depth in this course. The foundations and evolution of each discipline serve to establish distinct definitions that will be investigated. The similarities and differences will be compared to include the historical basis, models, major tasks, and desired outcomes.

EME 3402 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 4083 Program Evaluation in Instructional Design and Technology
3 sh (may not be repeated for credit)

Students will develop skills used in selecting the appropriate model for conducting various types of evaluations. A series of models will be reviewed and aligned with evaluation purposes and questions. Applying the appropriate evaluation model is critical to ensuring that interventions, programs, and projects are successful. Development of a comprehensive evaluation plan will provide students with the opportunity to align an evaluation model with data collection strategies and techniques for a specific evaluation purpose.

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 4343 Multimedia Design and Development
3 sh (may not be repeated for credit)
Prerequisite: EME 3312

The basic visual and typographical elements and technical aspects of multimedia design and development to support learning are the focus of this course. Students will apply instructional design strategies and principles of multimedia learning to the design and development of multimedia. Included are a selection of software applications and services, design principles, hands-on production, and discussion of issues and useful resources.

EME 4350 Human Performance Technology
3 sh (may not be repeated for credit)
Prerequisite: EME 3351

Introduce 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 4352 HPT Intervention Selection and Design
3 sh (may not be repeated for credit)
Prerequisite: EME 4350

Human Performance Technology (HPT) interventions are selected to resolve gaps in desired performance. The skills required to align interventions with the cause(s) of the problem are the focus of this course. Students will classify interventions using various models of Human Performance Technology and select potential interventions to resolve identified problems in human performance scenarios. Students will also develop a formal proposal to communicate recommendations to stakeholders.

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)

Prerequisite: EME 3351

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 4674 Development of Instructional Materials

3 sh (may not be repeated for credit)

Co-requisite: EME 4673

The pedagogical, technical, and logistical aspects of instructional messages will provide the foundation for students to learn the fundamentals of instructional development in this course. Message design principles and individual preferences are considered as they relate to the development of instructional materials. Media and technology aspects relating to effective message delivery will be addressed and related to the logistical constraints of time and cost.

EME 4684 Instructional Design and Technology Capstone

3 sh (may not be repeated for credit)

The capstone is designed to enable students to demonstrate mastery of the Instructional Design and Technology knowledge, skills, and abilities developed during the academic program. Students will identify, propose, and complete a capstone project and develop an electronic portfolio highlighting their attainment of the program level learning outcomes.

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

3 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 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-based instruction 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 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 6678 Theoretical Foundations of Instructional Design
3 sh (may not be repeated for credit)

Students will examine the key components of the instructional system and the theoretical perspectives that inform the practice of instructional design. The role of communication theories, learning theories, and instructional theories, and the overarching concept of alignment in instructional design will be explored.

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

EME 6946 Instructional Design and Technology Capstone
3-6 sh (may be repeated for up to 6 sh of credit)

Students critique the academic program, identifying their key learning outcomes, and the courses and specific instructional strategies that led to those outcomes. Students identify, propose, and complete a complex project, integrating knowledge, skills, and abilities developed in multiple classes to solve an instructional or performance related problem in a real organization. Permission is required.

EME 7015 Analysis in Human Performance Technology
3 sh (may not be repeated for credit)

Students investigate the role of analysis in Human Performance Technology and examine theories, models, and philosophical perspectives related to the performance, gap, and cause analysis processes that guide the practice of HPT. Students will integrate theory and practice to design theoretically sound analysis plans to identify root causes of organizational performance issues in various settings.

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 7067 Emerging Technologies-Analysis and Implementation
3 sh (may not be repeated for credit)

Students will investigate various emerging technologies and explore how those technologies can be integrated into instructional settings. Explorations will include the technologies available, which technology is most appropriate for given instructional situations, how to effectively use the technology to support instruction, and the impact of the technology on instruction.

EME 7068 Technology-Based Learning Theory and Research
3 sh (may not be repeated for credit)

Students develop a comprehensive picture of the research and theory related to the field of technology-based learning. Theoretical, historical, empirical, and philosophical perspectives are investigated as students delve into the various aspects of technology-based learning and related research. Students learn to critically analyze how theory and research influence practice.

EME 7075 Distance Learning Design and Development Leadership
3 sh (may not be repeated for credit)

Students will develop a systems perspective of the design and development of distance learning, exploring the associated risks and constraints and ways to mitigate these risks and constraints, particularly with regard to planning for distance learning. Students will investigate the processes and best practices associated with designing and developing distance learning and will develop skills and knowledge to provide leadership in distance learning.

EME 7079 Distance Learning Implementation and Evaluation
3 sh (may not be repeated for credit)

Students will develop the knowledge and skills to be leaders in the implementation of distance learning into educational and training environments. As part of this process, students will develop a plan for implementing and evaluating distance learning and will consider all needed aspects of this kind of plan, including human and financial resources. Students will take a systems approach to implementing and evaluating distance learning, considering the impact of the implementation on the system.

EME 7353 Leading Intervention Implementation and Evaluation
3 sh (may not be repeated for credit)

Students examine strategies for leading the implementation and evaluation of Human Performance Technology interventions. Students will analyze change management and evaluation models and develop the skills necessary to select and implement appropriate approaches to facilitate intervention implementation and evaluation efforts aligned with the planned change, the available resources, and the constraints of the organization.

EME 7357 Intervention Selection, Design and Development Leadership
3 sh (may not be repeated for credit)

Students will critically examine a wide range of potential performance improvement interventions to determine which solutions are best suited for various situations. Students will focus on aligning solutions with identified problems and organizational constraints and effectively communicating recommendations to stakeholders. Students will apply research, theory, and best practices to lead intervention design and development projects.

EME 7365 Human Performance Technology Theory and Research
3 sh (may not be repeated for credit)

Students examine the theoretical and conceptual foundations of the field of Human Performance Technology through a comprehensive review and critical examination of the literature of the field. Students will develop knowledge, skills, and abilities necessary to apply research and theory to practice to improve organizational performance.

EME 7609 Principles of Instructional Systems 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 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 8905 Directed Study

1-12 sh (may be repeated indefinitely for credit)

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.