

Curriculum Map: IT Networking and Telecommunications Operations	Specialization Courses							Notes
	EME 3402	EME 3406	EME 4313	EME 4454	EME 4622	EME 4627	EME 4944	
Content								
Apply concepts, principles, and theories of modern programming languages		Learners develop optimized information organization models and navigation schema for specific applications	Learners develop script-based interactive animations for instruction or training					Primarily addressed in CGS3604, COP4710 and the two programming languages required as program prerequisites.
Employ techniques central to analysis of problems in the chosen areas	Learners develop mastery of a technology implementation project case analysis protocol by collaboratively producing a portfolio of six case analyses		Learners produce design and planning documents, including needs analysis, flowcharts and storyboard to address the spectrum of production problems associated with their project.	Learners produce an analysis matrix for a particular organizational technology problem.	Learners produce a Policies and Procedures Manual consisting of authentic planning and problem analysis guidelines and tools for major domains encompassing IT operations Learners solve problems presented through an ongoing case study that are directly related to the subject matter of each module. They produce a case report for each module representing their findings.	Learners produce a Policies and Procedures Manual consisting of authentic planning and problem analysis guidelines and tools for major domains encompassing IT operations. Learners solve problems presented through an ongoing case study that are directly related to the subject matter of each module. They produce a case report for each module representing their findings.		
Select, configure and manage database products		Learners describe the database					Learners produce a journal organized by the major learning	Primarily addressed in COP4710

		infrastructure to support their information models					objectives of the program and they relate their internship experiences directly to those learning objectives as they progress through their time with their host organization.	
Select, install and manage computer networks				Learners produce a complete Request for Proposals and all of the associated analysis and planning documents for the implementation of a network systems project	Learners produce a Policies and Procedures Manual that includes management strategies and procedures for the primary sectors of IT operations	Learners produce a Policies and Procedures Manual that includes management strategies and procedures for the primary sectors of IT operations	Learners produce a journal organized by the major learning objectives of the program and they relate their internship experiences directly to those learning objectives as they progress through their time with their host organization.	
Describe discipline related career paths for which recipients of this degree are qualified	Part of the analysis for each case study in the courses is an appraisal of the role the IT staff plays in the project, especially in terms of interactions with stakeholders over a variety organizations			The case reports the learners produce for each course module address the spectrum of roles IT leaders play in organizations.	The case reports the learners produce for each course module address the spectrum of roles IT leaders play in organizations.		The Journal learners create includes objectives related to the roles IT professionals play in the functioning of organizations.	
Develop educational and training technology support systems				Learners produce a complete set of planning and implementation documents for a	The Policies and Procedures Manual created by learners encompass	The Policies and Procedures Manual created by learners encompass systems that are		

				large technology project addressing communication and professional development challenges in an organization.	systems that are critical to educational and training systems operations	critical to educational and training systems operations		
Critical Thinking								
Apply systematic strategies to solve problems in the chosen areas	Learners analyze six large-scale technology implementation project case studies using a methodical process to determine the root causes for the project outcomes. They are required to provide a proposed solution to the case problem	Learners are assigned two large scale information dissemination problems and are required to develop data organizational models and navigation schema to meet the dissemination requirements	Learners are required to produce a suite of multimedia resources to solve a specific training or educational objective. Media selection, purposeful design and evaluation are required components of their projects.	Learners are given a set of organizational strategic imperatives and are required to perform the analysis to determine the best solution, and then produce the planning documents required to execute that solution.	Learners are presented with specific technology systems problems in each course module via an ongoing case study. They are required to provide a solution to the case problem by working through a prescribed analysis process. This process requires them to define the problem in the context of a strategic goal not being met, conduct their research and analysis, propose a solution and establish the criteria for satisfactory resolution.	Learners are presented with specific technology systems problems in each course module via an ongoing case study. They are required to provide a solution to the case problem by working through a prescribed analysis process. This process requires them to define the problem in the context of a strategic goal not being met, conduct their research and analysis, propose a solution and establish the criteria for satisfactory resolution.	Learners produce a journal organized by the major learning objectives of the program and they relate their internship experiences directly to those learning objectives as they progress through their time with their host organization. They report how host organizations respond to challenges related to the learning objectives from their program coursework.	Learners are required to complete two programming language courses in which the bulk of their time is spent solving problems and troubleshooting algorithms.
Apply emerging technologies research in the field of information technology or one of the chosen areas		Product Development	Product Development	Project Report	Learners are required to develop a plan for evaluating new	Learners are required to develop a policy and response strategy		

					technologies for adoption within the large organization that is the subject of the course case study.	for a large organization that addresses the investigation, testing, deployment and evaluation of emerging technologies.		
Select and conduct appropriate statistical analyses of data from the chosen areas		Learners are introduced to web analytics and are required to develop an analysis strategy for determining the effectiveness of their information model.				Learners are required to develop a network performance management strategy that involves the collection and analysis of performance data.		Learners are required to take STA2023, Statistics as a prerequisite to the program
Communication								
Employ terminology from the chosen areas accurately	Learners are required to produce a glossary of terms including definitions and specific applications of the terms relevant to the course			Learners are required to produce a glossary of terms including definitions and specific applications of the terms relevant to the course	Learners are required to produce a glossary of terms including definitions and specific applications of the terms relevant to the course	Learners are required to produce a glossary of terms including definitions and specific applications of the terms relevant to the course	Reflection Journal	
Communicate information from the chosen area in oral form employing appropriate technology	Learners are required to work in groups to analyze their case studies using Elluminate, an online						Daily interactions with host team members requires the learners to orally communicate about their activities and the technologies employed in their	

	collaboration tool using audio, video and screen sharing.						tasks.	
Demonstrate effective technical and/or business writing skills	Learners produce and edit professional quality case analyses for six large system implementation projects			Learners produce a complete Request for Proposals for a large technology implementation project and all of the planning documents associated with its development, including a strategic goals analysis, a space utilization analysis, a functional requirements analysis and a task planning analysis	Learners produce one half of their Network Policies and Procedures Manual (NPPM)	Learners complete the remaining half of their Network Policies and Procedures Manual (NPPM) initiated in EME4622	Learners produce a Learning Objectives-based Journal that makes explicit connections between their activities in the internship and the learning objectives from their major courses.	Learners are required to complete a professional writing course (ENC3250) or a software documentation course (CIS3512)
Evaluate information technology literature discriminately and with comprehension				Learners conduct technical research to develop a system schematic and components list as part of their planning documents for the large system implementation project problem they are tasked with solving	Learners must conduct research in several categories of network technologies in order to derive the policies and procedures for the sections of their NPPM	Learners develop policies and specific procedures (for their NPPM) for managing a large network system by conducting research and evaluating specifications for network components.		
Integrity/Values								
Apply professional and ethical principles in IT	One of the six Case Studies learners analyze			Learners apply ethical principles in the development of	Learners address the ethical concerns related to IT operations,	Learners address the ethical issues related to system design and	Learners are required to address at least one of their Ethics-related	

	directly involves serious ethical issues upon which the learners are required to take and defend a position.			the distribution of information for bid proposals, the collection and protection of sensitive bid information, and in developing the bid evaluation and selection processes.	data security, and process fairness in the form of specific organizational policies that become part of their Network Policies and Procedures Manuals	implementation processes in the form of policies in their Network Policies and Procedures Manual.	learning objectives from their program as a section of the journal of reflections they produce for their internship.	
Project Management								
Apply project management techniques that incorporates a reasonable time line to address problems in the chosen areas				The entire course models the management of a project from conception to design, to execution, through evaluation. They produce a task list and Gantt chart to support their project.	The Network Policies and Procedure Manual learners create includes operations strategies that require the coordination of material, financial, and human resources. One example is the creation of a disaster recovery plan	The Network Policies and Procedure Manual learners create includes operations strategies that require the coordination of material, financial, and human resources. One example is a problem in which the learners are given a set of performance objectives that must be met within a 3-year period with a limited budget and specific technical restrictions.		
Collaborate effectively with others on team projects	For the entire course, learners are required to collaboratively conduct six case analyses in working groups. This			Learners are required to post their solutions to Case study problems to a common group thread where they can be evaluated by other class	Learners are encouraged to work together to produce the authentic documents for their Network Policies & Procedures	Learners are encouraged to work together to produce the authentic documents for their Network Policies & Procedures	Learners reflect on their interactions with their internship hosts and the efficiency of communications and clarity of procedures.	

	requires division of labor, schedule-setting and coordination, group editing, and peer performance evaluation			members.	Manually and to resolve questions and issues themselves through a common group thread.	Manually and to resolve questions and issues themselves through a common group thread.		
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