

Information Technology

Pathway: Interactive Media

Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ITPC01.01	Interactive Media Pathway	#4: Fundamentals of Digital Communications	Gather and analyze interactive media customer requirements.	Gather data to identify customer requirements.	Gather information using interviewing strategies.
					Determine client's needs and expected outcomes.
				Interpret and evaluate requirements.	Determine purpose of the interactive media project.
					Determine the target audience.
					Determine the interactive media elements to be used.
ITPC01.02	Interactive Media Pathway	#4: Fundamentals of Digital Communications	Define scope of interactive media work in written form.	Define scope of work to meet customer requirements.	Develop a design brief.
					Identify available media and content sources.
					Develop time line for completion.
					Determine staffing resourcesinternal and externalrequired to complete project.
					Develop preliminary project budget.
					Write document.
					Obtain client approval on scope of work.



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ITPC01.03	Interactive Media Pathway	#4: Fundamentals of Digital Communications	Create interactive media product specifications.	Prepare functional specifications.	Develop flowchart/navigational blueprints.
					Determine delivery platform(s).
					Design system architecture.
					Design user interface.
					Design navigational schema.
					Apply principles of design.
					Identify technical constraints.
					Create sample design showing placement of buttons/navigational graphics and suggested color scheme.
				Create final project plan.	Identify and obtain tools and resources to do the job.
					Identify and evaluate risks.
					Develop detailed task list.
					Identify critical milestones.
					Identify interdependencies.



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ITPC01.04	Interactive Media Pathway	#4: Fundamentals of Digital Communications	Demonstrate and apply knowledge of Project Management.	Manage information system project methodologies.	Define the project's contribution to business needs.
					Define the scope of the project.
					Identify stakeholders and decision makers.
					Identify escalation procedures.
					Develop task list (work breakdown structures).
					Evaluate project requirements.
					Identify required resources and budget.
					Estimate time requirements.
					Develop initial project management flowchart.
					Identify interdependencies.
					Identify critical milestones.
					Evaluate risks.
					Prepare contingency plan.
					Manage the change control process.
					Track critical milestones.
					Participate in project phase review.
					Report project status.
					Utilize project management software.
					Develop a method of evaluation.



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			(CONTINUED)	Define scope of work to achieve	Assess the task's contribution to
			,	individual and group goals.	overall business needs.
					Identify size and specifics of the task.
					Formulate task sequence.
					Plan multiple tasks simultaneously.
					Identify potential problems.
					Develop contingency plans.
				Develop time and activity plan to achieve objectives.	Coordinate plan with team, cross- functional groups, or individuals.
					Formulate a task strategy.
					Prioritize tasks according to business needs.
					Manage multiple tasks simultaneously.
					Devise plan of action.
ITPC01.05	Interactive Media Pathway	#4: Fundamentals of Digital Communications	Demonstrate the effective use of tools for interactive media production, development and project management.	Select and utilize appropriate software tools.	Demonstrate proficiency in the use of digital imaging techniques and equipment.
					Synthesize available interactive media technologies into a unified presentation using appropriate authoring software.
					Demonstrate knowledge of available graphics software programs.
					Manipulate images.
					Demonstrate knowledge of the basic principles of animation.
					Identify how different browsers affect the look of a web page.



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ITPC01.06	Interactive Media Pathway	#5: Programming for Digital Media	Demonstrate and apply knowledge of web programming and hosting.	Demonstrate knowledge of Internet programming basics.	Recognize the importance of Internet programming standards.
					Demonstrate knowledge of standard Internet programming coding.
					Demonstrate knowledge of special Internet programming feature codes.
					Differentiate between various versions of Internet programming.
					Demonstrate knowledge of how to use standard programs to produce an Internet application.
					Identify authoring programs specifically designed for Internet programming production.
					Compare/contrast features, strengths, and weaknesses of different authoring programs.
					Identify cross-platform issues.
					Keep up-to-date with new and emerging trends related to Internet programming.



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			(CONTINUED)	Apply knowledge of basic web programming.	Demonstrate knowledge of the purpose of web content delivery enablers (e.g., CGI, API, SSI).
					Demonstrate knowledge of how to interface client/server.
					Demonstrate knowledge of client-side processing and its advantages/disadvantages.
					Identify security issues related to client- side processing.
					Identify standard scripting languages (e.g., JavaScript, Visual Basic Script, ActiveX).
					Demonstrate knowledge of the uses and advantages/disadvantages of various scripting languages.
					Demonstrate knowledge of how to use a scripting language to program a site.
					Demonstrate knowledge of how to use advanced communication protocols.
				Apply knowledge of web hosting.	Compare the advantages and disadvantages of running your own server vs. using a server provider.
					Identify hardware requirements for a server.
					Identify server software options.
					Evaluate server providers.
					Establish a domain name.
					Comply with TCP/IP (Transfer Control Protocol/Internet Protocol).
					Upload files to the server.
					Publicize the site (e.g., submit announcements to major search engines).
					Collect/analyze usage statistics.



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ITPC01.07	Interactive Media Pathway		·	Produce interactive media as member of a development team.	Define the role of individual team members.
					Develop a conceptual model for the interactive media project.
					Select the media elements (e.g., sound, video, graphics, text, animation) to be used.
					Integrate media elements.
					Select the publication process to be used.
					Select the distribution method to be used.
				Implement functional design criteria.	Identify, utilize and create reusable components.
					Create and produce content.
					Create and refine design concepts.
				Create product visual design.	Apply principles and elements of design.
					Apply color theory to select appropriate colors.
					Create and/or implement the look and feel of the product.
					Create graphical images.
					Apply knowledge of typography.
					Enhance interactive media presentation using a photographic process.
					Alter digitized images using an image manipulation program.
					Evaluate visual appeal.
				Produce or acquire content.	Produce or acquire graphics content.
					Produce or acquire animation content.
					Produce or acquire audio content.
					Produce or acquire video content.



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			(CONTINUED)	Apply knowledge of web programming.	Demonstrate knowledge of Internet programming codes for formatting page layout.
					Demonstrate knowledge of the purpose of web content delivery enablers (e.g., CGI, API, SSI).
					Demonstrate knowledge of how to interface client/server.
					Demonstrate knowledge of client-side processing and its advantages/disadvantages.
					Identify security issues related to client- side processing.
					Identify standard scripting languages (e.g., JavaScript, Visual Basic Script, ActiveX).
					Demonstrate knowledge of the uses and advantages/disadvantages of various scripting languages.
					Demonstrate knowledge of how to use a scripting language to program a site.
					Demonstrate knowledge of how to use advanced communication protocols.
					Demonstrate knowledge of how bandwidths affect data transmission and on-screen image.
					Keep up-to-date with new and emerging trends related to Internet programming.



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			(CONTINUED)	Integrate media elements.	Integrate the use of photographic special effects into interactive media presentations.
					Integrate photographically derived images with hand-drawn graphic images.
				Participate in iterative development with clients and team members.	Manage the change control process.
					Identify and track critical milestones.
					Report project status.
ITPC01.08	Interactive Media Pathway	#7: Advanced Applications in Digital Media	Test interactive media product.	Develop and implement a test plan.	Perform usability tests.
					Assess product effectiveness.
					Test product for reliability.
					Plan and coordinate customer acceptance testing.
				Resolve product problems.	Define the problem.
					Identify/test possible solutions.
				Develop resolution plan.	
					Implement solution.
					Evaluate problem-solving processes and outcomes.



Code	Topic	Course	Knowledge and Skill	Performance Element	Measurement Criteria
ITPC01.09	Interactive Media Pathway	#7: Advanced Applications in Digital Media	Deliver a quality interactive media product.	Demonstrate knowledge of interactive media quality assurance.	Demonstrate knowledge of the QA process.
					Demonstrate knowledge of the standards/requirements for QA.
					Develop team relationships to support quality assurance tasks.
				Perform quality assurance tasks to produce a quality product.	Use customer satisfaction in determining product characteristics (e.g., cost, user-friendliness).
					Recognize the relationship between dependability, functionality, ease of use, etc.
					Follow established procedures for testing, identifying problems, and tracking resolutions.



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ITPC01.10	Interactive Media Pathway	#8: Maintenance and Support of Digital Media	Perform maintenance and customer support functions for interactive media products.	Analyze software technical support needs.	Identify maintenance and support requirements.
					Apply information and data analysis techniques.
					Define scope of work to meet customer support needs.
				Perform customer service.	Access needed information using appropriate reference materials.
					Provide help to first line user-support personnel to answer user questions.
					Provide troubleshooting for interactive
					media products.
					Perform system-tuning function.
					Diagnose problems within system.
					Perform technical functions required by customer/user.
					Communicate and document technical support provided.
				Perform product maintenance activities.	Follow organizational procedure in communicating and documenting maintenance tasks.
					Identify and analyze problem.
					Analyze and propose solutions.
					Implement solutions in code and documentation.
				Perform product maintenance activities.	Release software and documentation updates according to procedures.