

**SKILLS FRAMEWORK FOR MEDIA
TECHNICAL SKILLS AND COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Game Programming and Quality Assurance					
TSC Title	Gameplay Development					
TSC Description	Develop programs for the implementation of gameplay functionalities and features for games					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		MED-GDP-2016-1.1	MED-GDP-3016-1.1	MED-GDP-4016-1.1	MED-GDP-5016-1.1	
		Write code to implement the functionalities of specific gameplay elements to support game development processes	Design and develop programming for the implementation of components of gameplay for game development	Define the technical scope of gameplay and lead the development of programs to implement gameplay for games	Determine the technology to be adopted for gameplay implementation and drive the development of gameplay programming	
Knowledge		<ul style="list-style-type: none"> High-level programming languages Cross-platform scripting languages Guidelines for developing modular and efficient code Input controllers for target platforms Application Programming Interfaces (APIs) for target input devices Quality standards for gameplay programming Documentation methods for programming 	<ul style="list-style-type: none"> Types of gameplay elements and game mechanics used in current games Multi-player and online gameplay features Features and functionalities of standard game engines Interpretation of high-level technical designs Techniques and approaches for gameplay implementation Standard toolkits and libraries for game programming Software development lifecycle (SDLC) Gameplay prototyping approaches Quality standards for gameplay programming 	<ul style="list-style-type: none"> Project parameters and constraints Technologies and tools used in gameplay programming Hardware architecture of target platforms Implications for game design and development when using live data and database-driven content Game animation and creation tools Gameplay prototyping and methods to transition prototypes to production Principles, concepts and techniques of software development Technical design and documentation 	<ul style="list-style-type: none"> Game design principles and concepts Vision and purpose of the game Technologies and tools used in gameplay programming Upcoming technologies that could potentially be used in gameplay programming Research techniques and methods 	
Abilities		<ul style="list-style-type: none"> Support the prototyping of gameplay components by developing and refining code 	<ul style="list-style-type: none"> Interpret gameplay design and technical briefs to understand the programming requirements 	<ul style="list-style-type: none"> Analyse game design documents to understand the scope of the gameplay programming required 	<ul style="list-style-type: none"> Ideate the implementation of gameplay design with designers and artists and provide input for modifications 	

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		<ul style="list-style-type: none"> • Write modular and efficient code to implement gameplay elements • Write scripts to implement the mapping of simple gameplay actions to the components of the input devices • Test and debug own code to ensure desired functionalities and performance • Create and maintain updated documentation for gameplay programming 	<ul style="list-style-type: none"> • Interpret high-level design documents to understand the broad modules and components of gameplay for which programming is required • Develop low-level design blueprints for allocated components of gameplay • Develop gameplay prototypes to refine gameplay features • Write modular and efficient code to implement gameplay elements • Conceive the mapping of various gameplay actions to the components of the input devices • Test and debug code to ensure desired functionalities and performance • Review code developed by junior programmers • Partner with quality assurance to develop testing methods for gameplay programming 	<ul style="list-style-type: none"> • Translate core game mechanics and other gameplay rules and conditions into a high-level design blueprint for all gameplay programming to meet game development requirements • Develop technical briefs to communicate the technical scope of gameplay programming • Oversee the development of functioning prototypes for key gameplay elements • Oversee the development and quality assurance testing of gameplay programming • Review gameplay programming based on established quality standards • Review the mapping of the gameplay actions to the input devices and suggest modifications to make the audience interaction more intuitive and simplified • Integrate gameplay programs developed by the programming team to implement the overall gameplay • Modify gameplay programming codes or scripts to refine gameplay and achieve desired results 	<ul style="list-style-type: none"> • Liaise with designers, artists and programmers to clarify and align expectations from gameplay programming • Define the technical goals of gameplay programming based on the gameplay design requirements • Ideate the selection of technological platforms for development of gameplay programming • Drive research and review proofs-of-concept to identify new techniques to be implemented in gameplay programming • Establish standards of quality for gameplay programming in terms of modularity, portability and maintainability • Establish guidelines and conventions for documentation of gameplay programming • Review gameplay programming in the context of the game's technical goals to provide inputs to refine features or components 	
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