SELF ASSESSMENT GUIDE

Qualification:	**GAME PROGRAMMING NC III**
Units of Competency Covered:	• **Design game program logic** • **Apply object-oriented programming language skills** • **Apply programming skills for in-game application**

Instruction:
- Read each of the questions in the left-hand column of the chart.
- Place a check in the appropriate box opposite each question to indicate your answer.

Can I?	YES	NO
DESIGN GAME PROGRAM LOGIC		
• Formulate/design game program logic *		
• Analyze game specifications		
• Obtain, review and clarify design documentation		
• Conceptualize game technical design		
• Analyze game physics		
• Identify and solve physics problems/equations based on GDD		
• Apply differentiation based on GDD		
• Prepare technical game documentation*		
• Transform requirements to technical design document		
• Illustrate program structures		
• Identify and document special routines or procedures		
• Identify resources for coding and testing of program		
• Prepare concept arts for GUI *		
• Validate technical game documentation *		
• Check technical design document		
APPLY OBJECT-ORIENTED PROGRAMMING LANGUAGE SKILLS		
• Identify game/project coding standards		
• Apply basic language syntax and layout*		

• Use and customize appropriate language syntax for sequence, selection and iteration constructs		
• Apply basic object-oriented principles in the target languages*		
• Implement a class that contains primitive member/instance variables		
• Implement a class that contains multiple options for object construction		
• Enforce a class security using encapsulation		
• Implement inheritance to at least two levels of depth		
• Use polymorphism via inheritance to enable easy code extension		
• Debug codes*		
• Use integrated development environment		
• Use a program debugging techniques to detect and resolve errors		
• Follow guidelines for developing maintainable code		
• Use and follow internal documentation standards		
• Test codes*		
• Develop and conduct simple tests to confirm the coding process		
• Document activities		
APPLY PROGRAMMING SKILLS FOR IN-GAME APPLICATION		
• Obtain game mechanics by analyzing the GDD and TDD		
• Analyze technical design document		
• Derive technical storyboard and corresponding pseudo code from GDD and TDD		
• Prepare game development environment *		
• Set the necessary hardware/software to code, compile and run game development tools		
• Apply basic language syntax and layout		
• Use and customize appropriate language syntax for sequence, selection and iteration constructs		
• Write code for game application*		

• Develop working prototype		
• Identify game module per iteration		
• Define and explain game loop		
• Create and implement program code		
• Use mathematical concepts and techniques in controlling and implementing game systems		
• Use the style and design principles to solve common game programming problems		
• Use and customize the data structures and algorithms to ensure robust and fast implementation of game systems		
• Identify and apply appropriate design patterns in coming up with initial prototype		
• Execute and test the game application*		
• Check workability of the prototype		
• Evaluate prototype based on GDD		
• Apply prototype iteration based on evaluation results		
• Implement iterative prototyping cycle until game final prototype is approved		
• Refine/debug a system		
• Assess game prototype to follow quality assurance/testing techniques		
• Address and fix program errors		
• Address overall game design concerns		
• Optimize a game program based on project requirements		
I agree to undertake assessment in the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.		
Candidate's Name:	**Date:**	

NOTE: *Critical Aspects of Competency