COURSE OUTLINE

VGA303

Prepared: Jeremy Rayment   Approved: Sherri Smith

Course Code: Title	VGA303: TEXTURING AND SHADERS
Program Number: Name	4006: VIDEO GAME ART
Department:	VIDEO GAME ART
Semester/Term:	17F
Course Description:	Textures and shaders give life to art in the game. Students will learn how to create efficient textures and shaders for game assets. Students will also learn both normal and parallax mapping techniques.
Total Credits:	4
Hours/Week:	4
Total Hours:	60
Prerequisites:	VGA203
This course is a pre-requisite for:	VGA401
Vocational Learning Outcomes (VLO's): **Please refer to program web page for a complete listing of program outcomes where applicable.**	#3. Identify and relate concepts from a range of industry roles, including programing, design and art to support the development of games. #4. Contribute as an individual and a member of a game development team to the effective completion of a game development project. #5. Develop strategies for ongoing personal and professional development to enhance work performance in the games industry. #6. Perform all work in compliance with relevant statutes, regulations, legislation, industry standards and codes of ethics. #7. Support the development of pre-production and conceptual art for games and gaming through the selection and application of relevant design tools and drawing techniques. #8. Create original game assets to meet requirements outlined in game design documents and/or creative briefs. #9. Contribute to world building and level design in a game engine to meet industry and marketplace requirements
Essential Employability Skills (EES):	#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective

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communication.
#4. Apply a systematic approach to solve problems.
#5. Use a variety of thinking skills to anticipate and solve problems.
#6. Locate, select, organize, and document information using appropriate technology and information systems.
#7. Analyze, evaluate, and apply relevant information from a variety of sources.
#8. Show respect for the diverse opinions, values, belief systems, and contributions of others.
#9. Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals.
#10. Manage the use of time and other resources to complete projects.
#11. Take responsibility for ones own actions, decisions, and consequences.

Course Evaluation:	Passing Grade: 50%, D

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Assignments / Projects	100%

Course Outcomes and Learning Objectives:

Course Outcome 1.

Design and produce convincing 3D game textures and shaders.

Learning Objectives 1.

* Develop an understanding of the capabilities of various platforms and create assets that maximize platform potential.
* Understand and create normal maps to be used on 3D assets.
* Become familiar with tools and functions found in a game engine for creating and editing textures and shaders.

Course Outcome 2.

Design and create visually appropriate 2D game assets for textures and shaders.

Learning Objectives 2.

* Use traditional and digital art skills to create convincing textures.

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* Understand how to efficiently import, manage and package 2D assets inside a game engine.

Course Outcome 3.

Create textures and shaders for a game using a 3D game engine.

Learning Objectives 3.

* Demonstrate the ability to use a 3d game engine to create and manage textures and shaders.
* Use a game engine to create appropriate shaders for 3D assets.
* Understand how to efficiently import, manage and package 3D assets inside a game engine.

Course Outcome 4.

Learn how to use and apply lights in a game engine to enhance game textures and shaders.

Learning Objectives 4.

* Demonstrate the ability to place and use all various light types in a game engine.
* Understand the core difference between light types and when it is best to use each.
* Effectively light a game asset in a game scene with both textures and shaders applied.

Date: Thursday, August 31, 2017

Please refer to the course outline addendum on the Learning Management System for further information.