

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



**SAULT
COLLEGE**

COURSE OUTLINE

COURSE TITLE:	Game Art Studio 3		
CODE NO. :	VGA304	SEMESTER:	12F
PROGRAM:	Video Game Art		
AUTHOR:	Matias Kamula		
DATE:	August, 2015	PREVIOUS OUTLINE DATED:	Aug. 2014
APPROVED:		"Colin Kirkwood"	Aug/15
		_____ DEAN	_____ DATE
TOTAL CREDITS:	6		
PREREQUISITE(S):	Game Art Studio 2		
HOURS/WEEK:	6		

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For additional information, please contact Colin Kirkwood, Dean
School of Environment, Technology and Business
(705) 759-2554, Ext. 2688

I. COURSE DESCRIPTION: In this advanced session of Game Art Studio, participants will be faced with the challenges of learning high poly sculpting, re-topology and creating optimized game assets. Another emphasis of the course will be learning advanced workflows for Next-Gen game art pipelines.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

1. Design, digitally sculpt, re-typologize and assemble polished and efficient 3D game models

Potential Elements of the Performance:

- Design and create visually appropriate game assets including 2D concepts, 2D textures, and 3D base meshes
- Demonstrate the ability to sculpt a high poly 3D mesh
- Demonstrate the ability to re-typologize a high poly 3D mesh to make an efficient low poly 3D game mesh
- Demonstrate the ability to extract surface texture detail from a high poly 3D sculpted game mesh
- Demonstrate the ability to assemble a final low poly optimized game mesh complete with texture maps

2. Create and produce optimized, efficient 3D game meshes ready for game animators

Potential Elements of the Performance:

- Understand typology as it pertains to 3D game meshes
- Show the ability to create a clean, efficient 3D game mesh
- Work within low polygon limitations to create clean deformable 3D game mesh joints ready for animation
- Demonstrate the ability to model clean, efficient hard surface 3D game meshes

3. Demonstrate the ability to efficiently transfer and use 3D game meshes and 2D assets from content creation programs alongside game assets created inside a 3D game engine

Potential Elements of the Performance:

- Understand how to export 3D meshes and 2D from content creation programs
- Demonstrate how to efficiently import, setup, manage and use 3D meshes and 2D game assets in a 3D game engine

- Demonstrate working knowledge of game engine asset creation tools to make game assets inside a 3D game engine
 - Design and layout a 3D game scene using a combination of game assets from both inside and outside of a 3D game engine
4. Develop perspective in the role of game artists and art within development team and projects objectives by working effectively as a game artist within a team environment
Potential Elements of the Performance:
- Demonstrate the ability to apply effective business practices and time management skills appropriate to his/her position in the game art industry
5. Learn how to create and use 2nd UV channels, and light maps in 3D game engines and content creation programs
Potential Elements of the Performance:
- Demonstrate the ability to create and export a 2nd UV channel in a 3D content creation program
 - Demonstrate the ability to import, manage and use a 2nd UV channel in a 3D game engine
 - Demonstrate the ability to render and apply light maps to 3D assets in a 3D game engine
 - Design and produce a fully light 3D game scene complete with light maps

III. TOPICS:

1. Introduction to digital sculpting
2. High poly digital sculpting
3. High poly vs low poly
4. Creating optimized, low poly game models
5. Low poly asset creation process
6. Creating next gen characters
7. Introduction to light maps, 2nd UV channels and 3D game engines

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

V. EVALUATION PROCESS/GRADING SYSTEM:

Assignments/Projects = 100% of final grade

Assignments/projects will constitute 100% of the student's final grade in this course. A missing assignment is equivalent to course objectives not achieved which results in an "F" (fail) grade for the assignment/project.

The following semester grades will be assigned to students:

Grade	<u>Definition</u>	<i>Grade Point Equivalent</i>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

VI. **SPECIAL NOTES:**

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.

VII. **COURSE OUTLINE ADDENDUM:**

The provisions contained in the addendum located on the portal form part of this course outline.