

- ☒ REQUIRED COURSE
- ☒ ELECTIVE COURSE

Business DIVISION
☐ NEW COURSE
☒ REVISION

Course Information Form

COURSE NUMBER:		CIS-065		TITLE: (30 Characters Max)			Advanced Game Development									
SEM CR HRS:		3	Lecture:		2		Lab:	2			ECH:	4				
Course Level:		<input type="checkbox"/> Gen Ed / IAI <input type="checkbox"/> Baccalaureate /Non-IAI		<input checked="" type="checkbox"/> Career/Technical <input type="checkbox"/> Dev Ed/ Not in Degree Audit		Clinical Practicum:		0	SOE/ Internship:		0	SOE ECH:	0			
COURSE PCS #		12		IAI Code						Contact Hours Per Week						
Repeatable (Y/N):		Y	Pass/Fail (Y/N):		N	Variable Credit (Y/N):		N	Min:		Max:		16 Wks	200	8 wks	400
Prerequisites:		CIS-062														
Catalog Description: (40 Word Limit)		An in-depth examination of the different game genres available and how to create appropriate content for each. Integration of basic programming and animation skills with more advanced topics will be discussed and developed through several individual and group projects.														

List the Major Course Segments (Units)	Contact Lecture Hours	Contact Lab Hours	Clinical Practicum	Non-Clinical Internship/ SOE
Overview of the basic game design process	3			
Game genres overview	5	4		
Character and story development	4	2		
Environment and level design	4	4		
Model development, animation and integration	3	3		
Gameplay development	5	6		
Force feedback and other advanced input/output	2	3		
Multi-player game creation and conversion	2	5		
Final project development	2	3		
TOTAL	30	30	0	0

EVALUATION										
QUIZZES	<input checked="" type="checkbox"/>		EXAMS	<input checked="" type="checkbox"/>		ORAL PRES	<input type="checkbox"/>		PAPERS	<input type="checkbox"/>
LAB WORK	<input checked="" type="checkbox"/>		PROJECTS	<input checked="" type="checkbox"/>		COMP FINAL	<input checked="" type="checkbox"/>		OTHER	<input type="checkbox"/>

COURSE MATERIALS		
TITLE:	The Art of Game Design: A Book of Lenses	
AUTHOR:		
PUBLISHER:	CRC Press	
VOLUME/EDITION/URL:		
COPYRIGHT DATE:	2014	

TITLE:	Level Up! – Guide to Great Video Game Design	
AUTHOR:	Rogers	
PUBLISHER:	Wiley	
VOLUME/EDITION/URL:		
COPYRIGHT DATE:	2010	

MAJOR COURSE SEGMENT	HOURS	LEARNING OUTCOMES
		<i>The student will be able to:</i>
Overview of the basic game design process	3	Identify the steps involved in developing a retail game release from beginning to end.
Game genre overview	5	Explore the variety of different game genres that exist and discuss the pros and cons of each.
Lab Exercises	4	Load and play sample games in each genre to determine best and worst techniques in each category.

Character and story development	4	Discuss the options for and uses of both characters and storylines in the different genres.
Lab Exercises	2	Create unique storylines and appropriate characters given a scenario.
Environment and level design	4	Explore the different tools and techniques used in the creation of backgrounds and game environments.
Lab Exercises	4	Create different 2D and 3D environments and integrate them into different types of games.
Model development, animation and integration	3	Discuss how animation tools and techniques are used in the typical game development process.
Lab Exercises	3	Develop simple models and animations and integrate them into a working game.
Gameplay development	5	Examine gameplay techniques in existing games and determine when each is appropriate. Force feedback and other advanced input/output.
Lab Exercises	3	Modify an existing game to incorporate force feedback.
Multi-player game creation and conversion	2	Discuss the functional differences between single and multi-player games and how to convert one to the other.
Lab Exercises	5	Modify an existing single player game to incorporate multiple players in a networked environment.
Final project development	2	Discuss the options for reviewing code, error-correcting game sequences and outputting compiled games.
Lab Exercises	3	Create executables from final, debugged code.
Insert New Line Above this Line		
52		

COURSE OUTCOMES*	At the successful completion of this course, students will be able to:
	<ul style="list-style-type: none"> Describe the PC game development process.
	<ul style="list-style-type: none"> Create a variety of PC, mobile, or console games.
	<ul style="list-style-type: none"> Understand the game development environment.

* Course Outcomes will be used in the Assessment Software for Outcomes Assessment. Limit to 3 - 5.