STATE UNIVERSITY OF NEW YORK
COLLEGE OF TECHNOLOGY
CANTON, NEW YORK

MASTER SYLLABUS

GAME 370 Digital Media and Interaction

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CANINO SCHOOL OF ENGINEERING TECHNOLOGY
DECISION SYSTEMS
FALL 2018

A. <u>**TITLE**</u>:   Digital Media and Interaction

B.   <u>**COURSE NUMBER:**</u> GAME 370

C.   <u>**CREDIT HOURS: (Hours of Lecture, Laboratory, Recitation, Tutorial, Activity)**</u>

    # Credit Hours: 3
    # Lecture Hours: 2 per week
    # Lab Hours: per week
      Other: (1) two-hour recitation **per week**

    Course Length: 15 Weeks

D.   <u>**WRITING INTENSIVE COURSE**</u>: No

E.   <u>**GER CATEGORY:**</u>

F.   <u>**SEMESTER(S) OFFERED:**</u> Spring

G.   <u>**COURSE DESCRIPTION:**</u>
This course explores how digital media is created and utilized within computer games, virtual reality, and simulations. Students develop a video game, including storyboards, design documents, game development, and a playable demo.

H.   <u>**PRE-REQUISITES/CO-REQUISITES:**</u>

    a. Pre-requisite(s): GAME 350
    b. Co-requisite(s):
    c. Pre- or co-requisite(s):

I.   <u>**STUDENT LEARNING OUTCOMES:**</u>

II. *Course Student Learning Outcome [SLO]*	*PSLO*	*GER*	*ISLO*
a. Identify Object oriented design ideas and pipelines	**PSLO 3** Students will explore, evaluate, and analyze assigned projects through group critique.		4[T]
b. Apply proper knowledge of sound, video, and images to digital media products	**PSLO 8** Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.		5
c. Illustrate skills of dynamic contextual advertising and sound modeling	**PSLO 8** Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.		5
d. Implement algorithms, graphics, and visualization	**PSLO 8** Demonstrate an understanding of recent principles of game design, including, programming, narrative, character and level design.		5
e. Practice game world and level generation as well as current and emerging interaction techniques.	**PSLO 7** Students understand the ethical values of teamwork, copyright infringement and plagiarism.		4 [ER]
f. Apply principles and related concepts of digital media and video graphics to a final project.	**PSLO 7** Students understand the ethical values of teamwork, copyright infringement and plagiarism.		4 [ER]

KEY	Institutional Student Learning Outcomes [ISLO 1 – 5]
ISLO #	ISLO & Subsets
1	**Communication Skills** Oral [O], Written [W]
2	**Critical Thinking** *Critical Analysis [CA] , Inquiry & Analysis [IA] , Problem Solving [PS]*
3	**Foundational Skills** *Information Management [IM], Quantitative Lit,/Reasoning [QTR]*
4	**Social Responsibility** *Ethical Reasoning [ER], Global Learning [GL], Intercultural Knowledge [IK], Teamwork [T]*
5	**Industry, Professional, Discipline Specific Knowledge and Skills**

J.   APPLIED LEARNING COMPONENT: Yes___X___   No_____

K.   TEXTS:
The Art of Game Design: A Book of Lenses, Second Edition 2nd Edition by Jesse Schell (Author). Publisher: A K Peters/CRC Press; 2 edition (November 6, 2014) ISBN-10: 1466598646, ISBN-13: 978-1466598645

L.   REFERENCES:
Digital Games and Learning: Research and Theory by Nicola Whitton (Author). Publisher: Routledge (4 April 2014). ISBN-10: 041562939X, ISBN-13: 978-0415629393

Animation, Embodiment, and Digital Media: Human Experience of Technological Liveliness by Kenny Chow (Author). Publisher: Palgrave Macmillan (20 Sept. 2013). ISBN-10: 1137283076, ISBN-13: 978-1137283078

M.   EQUIPMENT:
PC Computer Lab with Microsoft Office, Unity, Visual Studio, and NVidia graphics hardware installed.

N.   GRADING METHOD: A-F

O.   SUGGESTED MEASUREMENT CRITERIA/METHODS:
- Writing assignments
- Coding assignments and labs
- Projects
- Quizzes
- Participation

P.   DETAILED COURSE OUTLINE:
1. Introduction
    a. Introduction to the high-level overview of digital media, video graphics, media interaction and computer games
    b. Introduction to the Computer Lab as well as related computer graphics and visualization hardware and software
    c. Syllabus
2. Sound
    a. Objects
    b. Collisions
    c. Background Noise
    d. Advancing Stages
3. Video
    a. Narrative Introductions
4. Digital images
    a. Typography
    b. Aesthetics
5. Interactive programming
    Game world
6. User cognition and perception
7. 2D and 3D level generation
8. Interactive digital media systems
    a. Digital media in gaming
    b. Sound and character animation
9. Dynamic contextual advertising and video simulation
10. Final Project Presentations

Q.   LABORATORY OUTLINE:
None