COURSE OUTLINE
Game Graphics and Interface Design

Course Description
IN 147. Game Graphics and Interface Design. 3 hours credit. This course will enable the student to use image editing software to create original seamless textures for game graphics and learn to export them for use in game design. The student will use a variety of digital tools and techniques to create and optimize textures and images for use with game engines and apply those to new levels in game design and 3D models.

Course Relevance
With the computer game industry growing rapidly over the past several years, there is a need for competent game graphic artists. The ever-evolving field demands rapid changes in graphical quality, which demands a greater knowledge in this field. To be successful in this market, the student needs to be proficient with the tools as well as techniques to create quality work. This class will enable the student to create professional quality work.

Required Materials

* - For complete textbook information, refer to http://www.butlercc.bkstr.com

USB Drive, 4GB minimum

Personal earbuds or headphones for use in the lab

Butler Assessed Outcomes
The intention is for the student to be able to
1. Create a digital portfolio of game textures and graphics.
2. Create a digital portfolio of a custom user interface.

Learning Outcomes
1. Understand and adhere to the standards and quality needed in game graphics.
2. Create professional-quality game textures and graphics.
3. Understand custom user interfaces and their creation.
4. Create professional-quality user interfaces and icons.

Learning PACT Skills that will be developed and documented in this course
Through involvement in this course, the student will develop ability in the following PACT skill area(s):
Analytical Thinking Skills
1. Problem solving
   - By solving technical issues that arise related to the creation of game graphics and user interfaces, the student will demonstrate problem-solving skills.

**Technology Skills**
1. Discipline-specific technology
   - Through the selection and application of software and hardware to create game graphics and user interfaces, the student will build specific technology skills.

**Major Summative Assessment Task(s)**
These learning outcome(s) and the Learning PACT skill(s) will be demonstrated by
1. Documenting solutions to image production problems.
2. Preparing a digital gallery that demonstrates professional application of game graphic design principles and production skills.

**Course Content**
I. Skills or Competencies – Actions that are essential to achieve the course outcomes:
   A. Identify and evaluate tools used to create game graphics
   B. Maintain a digital gallery that illustrates ongoing development of game graphics design
   C. Maintain an asset flow to improve design times
   D. Create game graphics following industry standards
   E. Develop the skills needed to improve current game graphics standards

**Learning Units**
I. Introduction to game graphics
   A. Photoshop basics
   B. Concept of design
   C. Graphical choices
   D. Genres

II. Graphics creation
   A. Textures from photographs
   B. Digital graphic creation
   C. Standard sizing and quality
   D. Team communication
   E. Standard graphic extensions

III. Advanced graphics creation
   A. Texture application
   B. Basic object creation and texturing

IV. Game technology
   A. Game engines
   B. Graphical editors
   C. Basic level design knowledge
V. User interface creation
   A. User interface basics
   B. Icon creation
   C. Texturing and sizing interfaces

VI. Team management
   A. Asset management
   B. Team roles
   C. Needs assessment

VII. Finalizing designs
   A. Texture and graphic grouping
   B. Importing and applying textures and graphics

VIII. Production
   A. Texture gallery preparation
   B. Interface gallery preparation
   C. Icon gallery preparation
   D. Gallery presentations

Learning Activities
Learning activities will be assigned to assist the student in achieving the intended learning outcomes through lectures, class discussions, team research, individual research, reading, viewing tutorials and study material, quizzes, tests and other activities at the discretion of the instructor.

Grade Determination
The student will be graded on the learning activities and assessment tasks. Grade determination may include the following: class participation, projects, team and individual participation, research assignments, quizzes, tests and other activities at the discretion of the instructor.