CS 48102   GAME DEVELOPMENT PRACTICUM (ELR) (WIC) 4 credit hours

Instructor’s Name: Caitlyn Lenhoff

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Office Hours: 2:00-3:00pm MW

(Textbook Title, Author, Year): No textbook needed

(Other Supplemental Material)

Course Content:

With the supervision of the instructor, students will work in teams to design and implement a 2D/3D computer game, a mobile game or a 3D interactive simulation program using game engines, physics engine and/or related development tools in a professional setup (e.g., communication with graphic designers, product managers, and developers). The course is a writing intensive class in which the students writes regular reports describing his/her progress toward completing the project. This course is three credits lecture and one credit lab.

Prerequisites or co-requisites: CS 33901 and 48101 or 38101; and junior standing

Goals:

the purpose of the game development practicum is to provide students with an industry-level game development experience that allows them to integrate and apply the basic game programming material they have learned during the game programming concentration to synthesize a new game product or game device.

Outcomes:

Students will:

(1) demonstrate an ability to apply knowledge of game design and programming
(2) have an ability to function on multi-disciplinary teams
(3) have an ability to work in teams to analyze a problem requiring a virtual environment, produce a development plan, and implement a computer solution for the problem.
(4) communicate effectively with others including graphic designers, developers, and product managers about the progress and issues of the project
**Topics to be Covered:**

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<th>Hours</th>
<th>Topics</th>
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<tr>
<td>3</td>
<td>Team building, developmental tools including hardware and software audit</td>
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<td>9</td>
<td>Project planning and timetable development</td>
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<td>15</td>
<td>Weekly progress assessments and project plan evaluation</td>
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<td>15</td>
<td>Weekly meeting with content providers and producers</td>
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<td>25</td>
<td>Project development</td>
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<td>5</td>
<td>Project demonstration</td>
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<td>3</td>
<td>Social and professional issues: ethics, intellectual property rights</td>
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**Course Requirements:**

- Working in a group (3-4 members) to design, implement, and demonstrate a computer game, a mobile game or interactive simulation.

- The project teams will produce an initial report describing their project, its goals and a timeline for its implementation. Over the course of the rest of the semester that report will be update with completed software and documentation. Reports are submitted to Blackboard and source code to the class software repository.

- After the initial design phase, approximately every two or three weeks each team will present a progress report to the class discussing what they have accomplished and discussing any revisions in the project time lines and goals. Each member of the team will also submit a weekly report describing what he/she did to advance the project during that week. The project reports (team reports and weekly team member reports) will account for 60% of the class grade. The team reports will be submitted to BlackBoard and given verbally in class. The weekly member reports will be upload to BlackBoard by Monday each week. The grades for a team project reports and the weekly member reports will be determined by quality of the implementation and the clarity of the report. Each member of the team will be expected to give a team report.

- Each student will write a final report describing what (s)he contributed to the project and participate in the final group report on the project. The final report and presentation will account for 20% of the grade.

- Class and Lab Participation (class presentation, lab interactions, lab productivity, class discussions, finding solutions to posted problems, etc): 20% of the grade.

- The class time and lab time are for planning, trouble shooting, and problem solving, not for project coding. Students are expected to do most of their development work outside of classes and lab. When project development has started evidence of weekly code development is required.