Contact Information:

- Professor Bruce R. Maxim

- Email: bmaxim@umich.edu

- Phone Number: 313-536-9155

- Office Hours: 4-5 T W Th by appt. MF

- Office Location: 233 CIS

Learning Goals:

Dearborn Discovery Core Category and Goals: None

Program Learning Goals:

- Our graduates will be successfully employed in a computer and information science-related field or another career path, in an industrial, commercial, academic, governmental, or non-governmental organization, or will be a successful graduate student in a program preparing them for such employment
- Our graduates will lead and participate in culturally diverse teams, becoming global collaborators and adapting to an ever changing field.
- Our graduates will continue their professional development by obtaining continuing education credits, professional registration or certifications, or post-graduate study credits or degrees

Course Objectives:

a. Outcomes of instruction

- The student will be able to apply techniques for play-testing computer games
- The student will be able to assess the quality of game products
- The student will be able to create analysis models for a game software product
- The student will be able to participate in the peer review of software engineering documents and software products

b. Student outcomes addressed in this course

- Outcome 1 – Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.

- Outcome 2 – Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline.
- Outcome 3 – Communicate effectively in a variety of professional contexts.
- Outcome 5 – Function effectively as a member or leader of a team engaged in activities appropriate to the program's discipline.

Required Materials and/or Technology:

- REQUIRED: Introduction to Game Design, Prototyping, and Development by Bond, Addison-Wesley, 2017.

- RECOMMENDED: Game Design Workshop by Fullerton, CRC Press, 2018. (CIS 487)

- TECHNOLOGY: Unity 2017.X or Unity 2018.X and multimedia editing tools.

- URL: http://www-personal.umd.umich.edu/~bmaxim/
         http://groups.engin.umd.umich.edu/CIS/course.des/cis587.html

Assignments and Grading Distributions:

6 Project Assignments (Written and Oral)	30%
2 Final Reports	20%
2 Working Games	30%
Presentation on Game Topic	20%

97-100%	**A+**	84-86%	**B**	70-73%	**C-**
94-96%	**A**	80-83%	**B-**	67-69%	**D+**
90-93%	**A-**	77-79%	**C+**	64-66%	**D**
87-89%	**B+**	74-76%	**C**	60-63%	**D-**

Tentative Course Outline and Schedule:

Date	Activity, Content, Assignments
Sept 04	Video Game Evaluation Criteria, Intellectual Property B1-B6
Sept 11	Game Design, Story Telling, Puzzle Design, Unity Basic F1-F5, B8, B12, B13, B17
Sept 18	Game Evaluation Presentations
Sept 25	Game Play, Balance, Prototyping F6-F8, B9, B11
Oct 02	Design Documents, 2D Physics B7, B18-B27, Notes
Oct 09	User Experience Design, Agile, SCRUM B12, B14
Oct 16	2D Design Document and Prototype Reviews (reviews assigned)
Oct 23	Sound Design, Level Design, Sprite Animation, and Movement B16, Notes
Oct 30	Terrain Construction, Physics, Game AI B28, B29, B35
Nov 06	2D Game Festival (reviews assigned) 139 CIS 6:00-9:00
Nov 13	3D Game Concept Presentations (reviews assigned)
Nov 20	Team Organization, Game Production, and Playtesting F9-F16, B10, B15
Nov 27	Thanksgiving Vacation – no class
Dec 04	Alpha Prototype Demos (reviews assigned) Game Presentations
Dec 11	Study Day
Dec 18	139 CIS 3D Game Festival 6:30-9:30

Course and University Policies:

Instructor or Course Specific Policies:

A student enrolled in a course (lecture, laboratory, recitation, colloquium, seminar, or other university approved format) is expected to attend every scheduled session of the course. The instructor of each course will make known to the students the course attendance policy with respect to student absences. It is the student's responsibility to be aware of this policy. The instructor makes the final decision to excuse or not to excuse an absence.

Presence or participation is also expected in online courses. Participation in online courses can take various forms; it is the instructor who determines what form of presence or participation is expected. Students enrolled in online courses are responsible for being aware of that policy/expectation. An instructor is entitled to give a failing grade for excessive absences or for a student who stops participating in class at some point during the semester.

The University of Michigan-Dearborn values academic honesty and integrity. Each student has a responsibility to understand, accept, and comply with the University's standards of academic conduct as set forth by the Code of Academic Conduct, as well as policies established by each college. Cheating, collusion, misconduct, fabrication, and plagiarism are considered serious offenses and violations can result in penalties up to and including expulsion from the University.

University-wide Policies or Statements Relevant to Courses:

Please see the 'Course Policies' Menu on Canvas for information on the following:
- University Attendance Policy
- Academic Integrity Policy
- Counseling
- Disabilities Services
- Safety Statement
- Harassment, Sexual Violence, Bias, and Discrimination