

SYLLABUS
School of Informatics and Computing/Media Arts and Science

N485/N585 Serious Games
Spring 2015

Section No.: 33752/31678 **Credit Hours:** 3

Location: IT 256, Informatics & Communications Technology Complex, 535 West Michigan Street, Indianapolis, IN 46202 [\[map\]](#)

Class Meeting Time: Monday 6:00pm – 8:40pm

First Class: January, 2015

Website: <https://oncourse.iu.edu/portal/site/SP15-IN-NEWM-N485-33752>
<https://oncourse.iu.edu/portal/site/SP15-IN-NEWM-N585-31678>

Instructor: Prof. Joseph Defazio, Ph.D.

Office Address: IT 465, IT Building 535 W. Michigan St. Indianapolis, IN 46202

Office Phone: 317-278-4148

Office Hours: Monday 2:00pm – 5:00pm
Wednesday 2:00pm – 4:00pm
or by appointment

Email Address: use OnCourse Email

Course Description:

Serious games and simulations have found their niche' in education, healthcare, health education and the military. This course examines several aspects and comparisons of the use of serious games including simulations and virtual worlds in multiple domains. This course explores the work of notable authors and serious game and simulation developers. In this course, students will analyze, design and develop a mini serious game or simulation.

Extended Course Description:

We will adopt a reflective practice and creative process for this course. This course is intended to be a fast-paced, building a serious game or simulation from the ground-up focusing on interactive and integrated media design.

Important: Since there computers are not available in IT 256, students will be required to bring a laptop computer to each class.

Course Objectives:

- Demonstrate effective planning for a serious game or simulation
- Deconstruct an existing serious game or simulation
- Define specific metrics required to ensure an error-free serious game or simulation
- Develop a sound implementation strategy
- Produce a working serious game or simulation

Core Competencies:

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The core competencies of this course include the following:

1. Research - analyze current state-of-the-art serious games and simulations
2. Digital media Production – demonstrate effective serious game creation
3. Communication/Team Building - demonstrate effective team-based communication and collaboration

IUPUI Principles of Undergraduate Learning:

The learning outcomes of this course are in alignment with the IUPUI principles of undergraduate learning:

- **Critical thinking:** This will be engaged through assignments that ask you to apply your understanding of the readings in new contexts, such as a wiki project, and through critical analysis exercises.
- **Integration and application of knowledge:** We will look at new media from a variety of contexts, and seek to understand how new media has developed in the integration of technology, culture and communication. We will then take that integrated understanding of new media and examine how it is applied by new media practitioners.

IUPUI Principles of Graduate and Professional Learning

The principles below form a conceptual framework that describes expectations of all graduate/professional students at IUPUI. More specific expectations are determined by the faculty in a student's field of study. Together, these expectations identify knowledge, skills, and abilities graduates will have demonstrated upon completing their specific degrees.

- Demonstrating mastery of the knowledge and skills expected for the degree and for professionalism and success in the field
- Thinking critically, applying good judgment in professional and personal situations
- Communicating effectively to others in the field and to the general public
- Behaving in an ethical way both professionally and personally”

Learning Outcomes:

Students should be able to:

- Describe how games teach and assess 21st century skills such as problem solving, collaboration and negotiation.
- Demonstrate effective design and development skills in interactive digital media production.

Required Textbook:

The Complete Guide to Simulations & Serious Games

Author: Clark Aldrich

Publisher: John Wiley & Sons Inc., 2009

ISBN: 978-0-470-46273-7

Recommended Textbooks:

- **Developing Serious Games**
Authors: Bryan Bergeron
Publisher: Addison-Wesley Pub 2002
ISBN: 0-201-72898-2
- **Serious Games**
Author: Clark C. Abt
Publisher: University Press of America 1987
ISBN: 978-0819161482

Recommended Video Tutorials:

Gamification of Learning with Karl Kapp (Parts 1 and 2)

<http://www.lynda.com/sdk/Education-Higher-Education-tutorials/Gamification-Learning/173211-2.html>

An Ant's Life

<http://www.cs.tufts.edu/~alex/comp150cis-spring2009/AnAntsLife/>

Software Education Sources:

Books 24x7 - <http://www.ulib.iupui.edu/node/9054>

Class Structure – Topics

- *Course Overview – Class Management, SOIC Resources*
- *Expectations*
- *Theories and Concepts in Serious Game Design and Development*
- *Creativity – Behavior and Motivation*
- Game Staging and Management
- Game Production Assessment and Evaluation

Course Deliverables – Expectations/Guidelines/Policies:

- This class meets (1) time per week. You are expected to attend every class. Attendance is required. Failure to attend class could result in a reduction or failing grade. At each class session, an attendance roster will be passed around the class. Your initials are confirmation that you will receive credit for that day's attendance. (10 points if you attend, 0 points if you miss). At the end of the semester, your attendance score will be calculated and scored into your final grade for this course.
- Readings: There will be several reading assignments required as part of this class. Students will be expected to engage in class discussion on issues related to each chapter readings from the textbook and several articles selected for discussion. Articles will be posted in the Resource Section of Oncourse
- Quizzes: There are (2) Quizzes scheduled for this course. Quizzes will cover content from the lectures and reading assignments.
- Assignments: Game design assignments are a critical part of this course. Game design includes, developing a story, creating storyboards, developing assets, flowcharts, setting goals, etc. Each student will complete assignments that will be used toward developing a serious game as a requirement for this course.
- Deconstruction Assignment: Each student will select a game from list provided by the instructor. Students will play, review and deconstruct the game of their choice. After students become familiar with their game, each student will write a formal paper deconstructing the game. Deconstruction methods discussed and outlined in the lectures.
- Presentations – Each student will design, develop and present a series of presentations in the area of serious game design and development. Presentations will consist of solo and/or team based formats. Presentations will be graded on clarity, structure, grammar, spelling, and peer review.
- Final Project and Presentation: There will be one final project. You are expected to produce a quality serious game using one of the software platforms discussed in class. Each student should strive to develop the work to be added to your portfolio. All projects will be graded based upon comprehensiveness, creativity, effectiveness, execution, adherence to your production schedule, and your ability to follow instructions.

Grading Information:

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- Requirements (homework/reading assignments, quizzes, final project and team project presentations and attendance)
Failure to complete any of these requirements could result in a failing grade.
- The solo serious game project grade will be based on quality, execution, production, peer review, and instructor evaluation.

Undergraduate Grading Scale

Assignment #1 - Game Title/Story	25 points
Assignment #2 -Game Storyboard	25 points
Assignment #3: Game Prototype	50 points
Assignment #4: Game Deconstruction Paper	100 points
Formal Game Design Document	200 points
Quiz #1 - 2-16-2015	50 points
Quiz #2 - 4- 6 -2015	50 points
Final Project (Game) Presentation	50 points
Peer Evaluation Final Game Presentation	50 points

Total Possible Points = 650 points

Grading scale [points]

590 – 650 = A, 520 - 589 = B, 460 – 519 = C, 390 – 459 = D, 389 – 0 = F

Graduate Grading Scale

Assignment #1 - Game Title/Story	25 points
Assignment #2 -Game Storyboard	25 points
Assignment #3: Game Prototype	50 points
Assignment #4: Game Deconstruction Paper	100 points
Formal Game Design Document	200 points
Quiz #1 - 2-16-2015	50 points
Quiz #2 - 4- 6 -2015	50 points
Usability Evaluation Report	100 points
Final Project (Game) Presentation	50 points
Peer Evaluation Final Game Presentation	50 points

Total Possible Points = 750 points

Grading scale [points]

680 – 750 = A

600 - 681 = B

0 – 599 = F

Weekly Schedule:

The Weekly Schedule is available through Oncourse and is subject to change. The instructor will notify students in the event changes are made. The Weekly Scheduled is available as a PDF in the Syllabus Section of Oncourse.

Equipment Recommendations:

A computer is the core productivity tool for technology-based learning. The portability of a laptop computer is required for this course. Each student should begin making plans for this addition to one's learning resources. Either a Windows or Mac platform is acceptable. Further information can be obtained through our technology services office and Kim Melluck at kmelluck@iupui.edu. IUPUI has information through UITs on computer purchasing to help meet this need.

Class Attendance (Monday Evening – Lecture/Lab):

Class attendance is crucial to your success in this course. If you have a documented family or medical emergency, you must notify your Professor and Teaching Assistant as soon as possible, so that you can receive an excused absence. Please note: you must turn in documentation in order to receive an excused absence. You will be allowed one unexcused absence this semester. After your first absence, each additional unexcused absence will negatively affect your FINAL GRADE. Multiple unexcused absences will result in your failure of the class. Your signature is confirmation that you will receive credit for that lecture's attendance.

Class Delivery:

This class meets on Monday evenings from 6pm – 8:40pm. In general, the first hour-and-a-half (6:00pm -7:30pm) is devoted to lectures and presentations. There will be a 10 minute break (7:30pm – 7:40pm). The remaining time will be devoted to lab time. Students are strongly encouraged to use this time to work on assignments and projects and engage in dialogue with the instructor and their classmates.

Policy on Academic Dishonesty/Integrity/Plagiarism:

"Using another student's or author's work on a project or assignment, cheating on a test or any other form of dishonesty will result in a grade of zero and possibly an "F" in this course and will be referred to the Dean of Students. All students should aspire to high standards of academic integrity. This class encourages cooperation and exchange of ideas."

All students are responsible for reading the Code of Student Rights, Responsibilities and Conduct of IUPUI. Included are policies regarding children in classes.

<http://life.iupui.edu/help/code.asp>

Special Needs:

If you have a learning disability, or other special needs, please talk to me about it during the first week of the semester, either in person, by email or by phone. I want to work with you to help you succeed in this course. You will need official documentation from IUPUI. A good place to start is by contacting Adaptive Educational Services (AES). If you are not already an AES client, or if you want to find out if you qualify to be an AES Client, go to this web address:

<http://www.iupui.edu/~divrsity/aes/about/new-clients.html>

Values and Ethics:

Profanity/swearing, or derogatory comments about or towards any member or instructor in this class will not be tolerated. This is also true during online communication in Oncourse or any type of electronic communication (voice, video, or text) between all members of this class. These rules are also enforced with your communication with other classmates as part of the social network in solo work, team work, group discussion (forums) and blogging.

The ethical standards must be adhered to in all class assignments including web interactions and communications. Core values of collegiality, and respect for others and their ideas is core to the values of IUPUI and the academic community.

From the *Code of Student Rights, Responsibilities and Conduct*:

"A student must not violate course rules as contained in a course syllabus, which are rationally related to the content of the course or to the enhancement of the learning process in the course." [Code of Student Rights, Responsibilities, and Conduct, page 29]

Administrative Withdrawal: *A basic requirement of this course is that you will participate in class and conscientiously complete writing and reading assignments. Keep in touch with me if you are unable to attend class or complete an assignment on time. If you miss more than half our class meetings within the first four weeks of the semester without contacting me, you will be administratively withdrawn from this section. Our class meets once per week; thus if you*

miss more than two classes in the first four weeks, you may be withdrawn. Administrative withdrawal may have academic, financial, and financial aid implications. Administrative withdrawal will take place after the full refund period, and if you are administratively withdrawn from the course you will not be eligible for a tuition refund. If you have questions about the administrative withdrawal policy at any point during the semester, please contact me.

IUPUI Mission Statement

The Mission of IUPUI is to provide for its constituents excellence in Teaching and Learning, Research, Scholarship, and Creative Activity, Civic Engagement. With each of these core activities characterized by Collaboration within and across disciplines and with the community A commitment to ensuring diversity, and Pursuit of best practices IUPUI's mission is derived from and aligned with the principal components – Communities of Learning, Responsibilities of Excellence, Accountability and Best Practices – of Indiana University's Strategic Directions Charter.

Statement of Values

IUPUI values the commitment of students to learning; of faculty to the highest standards of teaching, scholarship, and service; and of staff to the highest standards of service. IUPUI recognizes students as partners in learning. IUPUI values the opportunities afforded by its location in Indiana's capital city and is committed to serving the needs of its community. Thus, IUPUI students, faculty, and staff are involved in the community; both to provide educational programs and patient care and to apply learning to community needs through service. As a leader in fostering collaborative relationships, IUPUI values collegiality, cooperation, creativity, innovation, and entrepreneurship as well as honesty, integrity, and support for open inquiry and dissemination of findings. IUPUI is committed to the personal and professional development of its students, faculty, and staff and to continuous improvement of its programs and services.