COURSE SYLLABUS

IDS5937 Modeling and Simulation for Instructional Design

- **Credit Hours**: 3
- **Semester/Year**: Summer (C) 2016
- **Location**: Online (W-Mode Course)
- **Recommended Prerequisites**: Graduate Standing or consent of instructor

Instructor Information

**Instructor**: Barbara Truman, DCS

- **Office Hours**: by appointment and group scheduled online
- **E-mail**: btruman@ist.ucf.edu
- **Web site**: https://www.linkedin.com/in/btruman
- **Office**: UCF Research Park, Partnership II Building, Room 324
- **Phone**: (407) 823-0502

**Teaching Assistant**: Rebecca Leis, M.S.

- **Office Hours**: by appointment
- **E-mail**: rleis@ist.ucf.edu
- **Office**: UCF Research Park, Partnership II Building, Cubicle 335 A
- **Phone**: (407) 882-2116

Welcome!
The purpose of this course is to provide Instructional Design guidance to better understand aspects and applications of Modeling and Simulation related to simulation-based training careers. This semester, we look forward to celebrating the achievements of our colleague, Dr. Peter Kincaid, who previously taught this course and is retiring from UCF after many years. Dr. Kincaid founded the Modeling & Simulation Program at UCF.
Optional online meetings will be held consisting of webinars and virtual world tours. You are invited and encouraged to participate in co-curricular, professional development activities that will support and enrich your academic career at UCF and beyond.

Contact protocol

Please use WEBCOURSES (https://online.ucf.edu/support/webcourses) email for all course related correspondence (e.g., curriculum, assignments, or grades). The primary means of communication is Webcourses. It is your responsibility to check the course site at least twice a week. Also, set course options to immediately forward any announcements.

If there are questions regarding Webcourses itself (e.g., difficulty loading pages, problems uploading assignments), please use the "help" button on the upper right hand of the screen and contact Online@UCF (https://online.ucf.edu/support/webcourses/other/login) for technical support.

Course Overview

Course Description
This course is required for the Instructional Design for Simulation Graduate Certificate. It is also an elective course for Modeling and Simulation students and other graduate programs campus-wide.

The course will cover interdisciplinary aspects of M&S applications for instructional design and will emphasize the domains aviation & space, military, healthcare, education, and hospitality & entertainment. Other associated domains may be addressed. The class will be competency-based, requiring you to create materials intended to be included within your portfolios.

Course Goals
The course is designed to promote your success in the fields of Instructional Design and Modeling & Simulation. You may vary in your competency levels on these abilities. If you honor all course policies, review online materials, complete all assigned work in good faith and on time, and meet all other course expectations of you as a student, you can expect to acquire these abilities. By doing so, you will be prepared for the remaining courses in the Instructional Design for Simulation Graduate Certificate Program.

By the end of the course, you will:

- Acquire a strong foundational knowledge of basic modeling and simulation concepts, backgrounds, methods, and definitions
- Understand current states and predict future states of modeling and simulation across multiple disciplines/industries
- Determine the limits and boundaries of modeling and simulation
- Demonstrate awareness of interdisciplinary training and educational applications of simulations across industries/sectors
- Demonstrate awareness of emerging technology in modeling and simulation across industries/sectors
- Identify key lines of research on the training and educational applications
- Locate, analyze, and interpret research findings associated with a particular line or area of research.
- Demonstrate the knowledge gained during the course and construct materials for their portfolios
- Critically evaluate the value of instructional material for a given purpose
- Acquire critical job skills in order to prepare for employment for diverse careers
- Recognize plagiarism

### Required Resources

**Textbook**
The course will rely on articles, videos, and texts available for free online and/or through the UCF Libraries

**Time**
Dedicating a significant amount of time is essential for student success within this course. This course is designed to require approximately 150-180 hours of work throughout the entirety of the course. Students that spend about 10-15 hours a week on course materials and assessments tend to perform better than those that do not.

**Engagement Protocols**
Just as it is wise to learn about cultural protocols for working within and across groups, *Engagement Protocols* are provided as guidance to support professional behavior. The Protocols reinforce what is expected of you, what you can expect in terms of feedback, and how to deal with situations such as inaccurate information that may be presented during the discussions.

### Course Assessments/Requirements

<table>
<thead>
<tr>
<th>Assignment Grading</th>
<th>Percentage of Grade</th>
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</thead>
<tbody>
<tr>
<td>Assignments (5 assignments -5% each)</td>
<td>25%</td>
</tr>
<tr>
<td>Discussions (5 discussions- 5% each)</td>
<td>25%</td>
</tr>
<tr>
<td>Blog Article</td>
<td>15%</td>
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<tr>
<td>Final Project</td>
<td>35%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
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**Regular Assignments – 25% of grade**
Regular assignments prepare you for the larger activities in the course. Five assignments will focus on specific issues related to the primary course topics. Assignments will be utilized to provide practice and assessment of your declarative and foundational knowledge. Assignments will also include short answer prompts used in order to assess your ability to comprehend, analyze, synthesize, and evaluate material. Detailed instructions are provided under the "Assignments" tab.
Discussions – 25% of grade

Discussions offer you the opportunity to practice discourse that may be useful on the job working collaboratively. Five discussion topics will be posted. Detailed instructions are provided under the “Discussion” tab. Three discussion posts (1 entry and 2 replies) are required, but you are encouraged to support your fellow learners. The discussion area will remain open for the rest of the term to encourage you to continue conversations as a means to electronically “workshop” ideas, as well as discuss theories and various viewpoints. Civility is a premium for working well together.

While instructors will do their best to monitor the information and tone of the discussion posts, it is your responsibility to politely justify their opinions and provide evidence when they feel that someone is misinformed, or if they do not agree with the viewpoint. Stick to the facts as much as possible. For example, start sentences with “I believe,” rather than “Your opinion is wrong.”

While interacting online, it is expected that students will be able to interact in a respectful manner. Disrespectful communication (name-calling, personal-attacks, and other demonstrations of disrespect) will not be tolerated, and will result at least in an "F" for that discussion and may be subject to appropriate referral for further action.

Please Note: A series of optional topics have been added to the discussion boards. These are not required, but are posted as an additional learning opportunity. Make sure to post within the correct discussion thread. Additionally, if you have any questions concerning the syllabus or specific assignments, discussion posts, or project deliverables please post them within the discussion thread dedicated to the particular topic.

Blog Article – 15% of grade

Social media is encouraged to use to advance your learning network and create materials that can become part of your eportfolio that will help build your professional reputation. For the blog article, you are expected to conduct a survey of literature and are encouraged to interact with subject matter experts (SMEs) to make a case for your final project. The blog article will require students to identify a new and emerging technology that can be utilized to enhance simulation-based or game-based training in an approved domain area. Specifically, students will be required to complete an analysis of a technology gap, offer a solution utilizing cutting edge technology, and provide tips for trainers on integrating the technology into the instructional design. The blog article requires you to not only collect appropriate sources and information (literature review and SME input), but will also require you to locate, analyze, and interpret research findings associated with a particular line or area of research. Detailed instructions, appropriate literature sources, and the rubric are located within the “Assignments” tab.

Final Project – 35% of grade

The final project will require you to create a “mini-course,” serious game, or a series of instructional videos using instructional design theories and principals. The project will design training for how to utilize modeling and simulation techniques in one of the domains identified during the course. You are expected to determine an appropriate audience, create learning objectives and a project schedule, and produce a draft of the project as part of the project requirements/milestones. A rubric and specific grading details are provided under the “Assignments” tab. You will also use this rubric to provide peer-reviewed feedback. The final project is due on Wednesday August 3rd in order to ensure enough time to sufficiently evaluate each submission before grades are due on August 10th. The final project is intended to be used as part of the your professional portfolio.

As the project is intended to become a portfolio piece, you are encouraged to complete projects as individuals; however, if the project is large enough group projects will be considered. To submit a group project, you must
first receive approval prior to the fourth week of classes. Classwork will align closely with your project deliverables, and as such, groups should be determined prior to completing assignments associate with the project milestones. Groups can consist of up to four members. Groups will also be required to complete all communication for the coursework via online discussion boards on Webcourses to ensure the instructor can monitor communication in case any issues arise.

Evaluation and Grading

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Points</th>
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<tbody>
<tr>
<td>A</td>
<td>90-100</td>
</tr>
<tr>
<td>B</td>
<td>80-89</td>
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<tr>
<td>C</td>
<td>70-79</td>
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<tr>
<td>D</td>
<td>60-69</td>
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<tr>
<td>F</td>
<td>59 or below</td>
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**Late Work Policy:** Missed or late submissions will be accepted if you make the case for acceptance based on documented evidence of an emergency situation and how you communicate the situation. It is up to our discretion to determine if the documented evidence provided is sufficient enough to excuse a missed or late submission. If we decide to accept your late submission, you will be penalized 5% of the graded value per day for that particular course activity.

**Extra Credit Policy:** Generally, extra credit is not designed into the course experience to meet the grading requirements. The instructors reserve the right to reward outstanding work and behavior.

**Grades of "Incomplete":** The current university policy concerning incomplete grades will be followed in this course. Incomplete grades are given only in situations where unexpected emergencies prevent a student from completing the course and the remaining work can be completed the next semester. Your instructor is the final authority on whether you qualify for an incomplete. Incomplete work must be finished by the end of the subsequent semester or the “I” will automatically be recorded as an “F” on your transcript.

**Rewrite Policy:** Typically, do-overs are not part of the designed course experience. Requests for additional feedback for submissions of previously graded work will be honored so long as response time does not interfere with other grading cycles.

**Group Work Policy:** Everyone who volunteered for a group project must participate. All members of a group will receive the same score; that is, the project is assessed and everyone receives this score. However, that number is only 90% of your grade for the project. The final 10% is individual, and refers to your teamwork. Every person in the group will provide the instructor with a suggested grade for every other member of the group as part of the group reflection. The instructor will assign a grade that is informed by those suggestions. Also, everyone
must submit a group reflection. The grading criteria are the same as the group project. Once formed, groups cannot be altered or switched, except for reasons of extended hospitalization.

Primary Topics Covered in the Course

- Job Skills for Instructional Designers in Simulation for Training
- Introduction to Modeling and Simulation
- History of Modeling and Simulation
- Simulation for Training
- Simulation for Training in Aviation and Space
- Simulation for Training in Military Applications
- Simulation for Training in Healthcare and Cognitive Neuroscience
- Simulation for Training in Education and Serious Games
- Simulation for Training in Hospitality and Entertainment

Course Schedule and Assignments

<table>
<thead>
<tr>
<th>Week</th>
<th>Due Date</th>
<th>Assignments</th>
<th>Deadline</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>FRI May 20th, 2016</td>
<td>Course Success-Quiz (Financial Aid) Introduction Discussion Learner Analysis Survey Instructional Design Terminology Modeling &amp; Simulation Terminology Information Literacy Modules Academic Integrity Modules</td>
<td>Due by 8:00 pm Due by 11:59 pm</td>
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<td></td>
<td>May 22nd, 2016</td>
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<tr>
<td>Week 2</td>
<td>May 29th, 2016</td>
<td>Assignment 1: Learning Contract Discussion 1 Begins on Aviation &amp; Space M&amp;S</td>
<td>Due by 11:59 pm</td>
</tr>
<tr>
<td>Week 3</td>
<td>June 5th</td>
<td>Discussion 1 Ends Online Class Seminar</td>
<td>Due by 11:59 pm</td>
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<td></td>
<td>May 30-June 3</td>
<td></td>
<td>Optional</td>
</tr>
<tr>
<td>Week 4</td>
<td>June 12th, 2016</td>
<td>Assignment 2: Draft Project Plan Discussion 2 Begins on Military M&amp;S</td>
<td>Due by 11:59 pm</td>
</tr>
<tr>
<td>Week 5</td>
<td>June 19th</td>
<td>Discussion 2 Ends Online Class Field Trip</td>
<td>Due by 11:59 pm</td>
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<td>TBD</td>
<td></td>
<td>Optional</td>
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<tr>
<td>Week 6</td>
<td>June 26th, 2016</td>
<td>Assignment 3: Final Project Plan Discussion 3 begins on Healthcare M&amp;S</td>
<td>Due by 11:59 pm</td>
</tr>
<tr>
<td>Week 7</td>
<td>July 3rd, 2016</td>
<td>Blog –Article Deliverable Draft Outline of Final Project Discussion 3 ends</td>
<td>Due by 11:59 pm</td>
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<tr>
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<td>July 3rd, 2016</td>
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<td>Due by 11:59 pm</td>
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<tr>
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<td>July 3rd, 2016</td>
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<td>Due by 11:59 pm</td>
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<tr>
<td>Week 8</td>
<td>July 10th, 2016</td>
<td>Assignment 4: Draft Design Document Discussion 4 begins on Hospitality &amp; Entertainment M&amp;S</td>
<td>Due by 11:59 pm</td>
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<tr>
<td>Week 9</td>
<td>July 17th, 2016</td>
<td>Peer Reviews Discussion 4 ends Tweet Chat</td>
<td>Due by 11:59 pm</td>
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<td></td>
<td>July 17th, 2016</td>
<td></td>
<td>Optional</td>
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Week 10 | July 24th, 2016 | Assignment 5: Final Design Document Discussion 5 begins on Education and Serious Games M&S | Due by 11:59 pm
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Week 11 | July 31st, 2016 TBD | Discussion 5 Online Class Seminar | Due by 11:59 pm Optional
Week 12 | August 3rd, 2016 | Final Project Reflection activity | Due by 11:59 pm

All dates and times are based on US Eastern Standard Times (EST). Make sure to follow the course calendar.

**Please Note:** Graded assignments will be due on Sundays, except for the final project. The final project is due on **Wednesday August 3rd** in order to ensure enough time to sufficiently evaluate each submission before grades are due on August 10th.

**Holidays**
- Memorial Day- May 30th
- Independence Day-July 4th

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**Standard Ethical Guidelines**

**Academic Honesty**

We expect a high level of integrity and honesty among our scholars. Plagiarism and cheating of any kind on a course activities will result at least in a zero for that assignment and you will not be permitted to make-up or re-do the project. UCF has an Office of Academic Integrity (http://honor.sdes.ucf.edu) and online modules exist that you can review.

Depending on the severity of the plagiarism or cheating case, it could lead to an "F" for the entire course and you may be subject to appropriate referral to the Office of Student Conduct for further action. See the [UCF Golden Rule](http://goldenrule.sdes.ucf.edu) for further information.

We will assume for this course that you will adhere to the UCF Academic Creed and will maintain the highest standards of academic integrity. In other words, don't cheat by giving answers to others or taking them from anyone else. We will also adhere to the highest standards of academic integrity, so please do not ask us to change (or expect us to change) your grade illegitimately or to bend or break rules for one person that will not apply to everyone. Finally, we reserve the right to use plagiarism-detection services, such as Turn-It-In.com.

**Accessibility Statement**

The University of Central Florida is committed to providing reasonable accommodations for all persons with disabilities. This syllabus is available in alternate formats upon request. Students with disabilities who need accommodations in this course must contact the professor at the beginning of the semester to discuss needed accommodations. No accommodations will be provided until the student has met with the professor to request accommodations. Students who need accommodations must be registered with Student Accessibility Services, Student Resource Center Room 132, phone (407) 823-2371, TTY/TDD only phone (407) 823-2116, before requesting accommodations from the professor.
Copyright

This course may contain copyright protected materials such as audio or video clips, images, text materials, etc. These items are being used with regard to the Fair Use doctrine in order to enhance the learning environment. Please do not copy, duplicate, download or distribute these items. The use of these materials is strictly reserved for this online classroom environment and your use only. All copyright materials are credited to the copyright holder. Concerning the development of your materials, referrals to resources will be made available for you to obtain rich media content for assignments. UCF has a policy for the use of copyrighted material. You are expected to know and follow university policy. http://policies.ucf.edu/documents/2-103.1UseOfCopyrightedMaterial.pdf

Third-Party Software and FERPA

During this course you might have the opportunity to use public online services and/or software applications sometimes called third-party software such as a blog or wiki. While some of these could be required assignments, you need not make any personally identifying information on a public site. Do not post or provide any private information about yourself or your classmates. Where appropriate you may use a pseudonym or nickname. Some written assignments posted publicly may require personal reflection/comments, but the assignments will not require you to disclose any personally identity-sensitive information. If you have any concerns about this, please contact your instructor.

Financial Aid Requirements about "Engagement"

All faculty are required to document students’ academic activity at the beginning of each course. To satisfy the requirement in this course, all students must complete the "Week 1 Discussion: Introduction" and the “Pre-Quiz” course assessments as soon as possible to demonstrate that you are actually engaged with this course. These assessments will not receive a grade but failure to do so may result in a delay in the disbursement of your financial aid. Due to this regulation, the "Week 1 Discussion: Introduction" and the “Pre-Quiz” are due sooner than usual; we are required to complete this compliance assessment by the end of the first week of class. Otherwise students may not receive their financial aid.

Changes/Announcements

Though we try to plan for everything, life will surprise us and we may have to make adjustments. In the event that anything in this syllabus changes (e.g., changes in due dates, contact information), we will use a broad announcement so that all students are informed immediately. Again, it is critically important that you set your Webcourse announcements so that you receive all notifications and be sure to check the class site at least twice a week.

Technical Support

- UCF Service Desk (https://www.cst.ucf.edu/service-desk)
- Tech Rangers (https://techrangers.cdl.ucf.edu)
- Learn Online (https://online.ucf.edu/learn-online)
- Knights Online: What Do I Need to be a Successful Online Student? (https://online.ucf.edu/learn-online/knights-online)
- Canvas Student Guide (http://guides.instructure.com/m/4212)
- Canvas Browser Support (http://guides.instructure.com/m/4214/l/41056)
- Canvas Computer Specifications (http://guides.instructure.com/s/2204/m/4214/l/82542-what-are-the-basic-computer-specifications-for-canvas)