

# Auburn University

Department of Industrial Design and Graphic Design

INDD 5960, INDD 6960

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Course Outline, Spring 2012

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**Please note:** The instructor may revise the contents of this course outline during the quarter. The changes may be

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effected to improve and facilitate students' achievement of the competencies for the course.

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### Course Description

Building on the students foundational design skills this class is to teach basic game-play concepts as well as production methods for an interactive media product. The student will deliver an interactive media experience in the form of an iOS app, for current generation Apple devices, using the Unreal Software Developers Kit.

### Objectives

Upon completion of this course, the students will have:

1. An understating of how to apply their design skills to a purely virtual interactive product.
2. An understanding of game-play space.
3. An understanding of user progression and feedback.
4. An understanding of risk versus reward game-play concepts.
5. A foundation for multimedia development and production.

### Credits

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### Room and Time

Online Lab - via Skype  
(Even Numbered Weeks): Wednesday 7pm - 10pm

Office Hours - via Skype  
(Even Numbered Weeks): Monday 7pm - 10pm

In Studio  
Sprint Review  
(Odd Numbered Weeks): Friday 9am - 12pm

Office Hours  
(Odd Numbered Weeks): Friday 1pm - 4pm

*“Odd Numbered Weeks” and “Even Numbered Weeks” are defined in the Schedule section.*

### Instructor

#### Tim Lindsey

Email: [tim.m.lindsey@gmail.com](mailto:tim.m.lindsey@gmail.com)  
Google Chat: [tim.m.lindsey](https://plus.google.com/+timlindsey)  
Skype: [tim.m.lindsey](https://plus.google.com/+timlindsey)  
Web: <http://timlindsey.com>  
Tutorials: [http://timlindsey.com/?page\\_id=570](http://timlindsey.com/?page_id=570)  
Mobile: 571.334.3012

### Required Textbooks

- Design Principles in Game-Play

### Other Materials

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### Drawing Tools

1. 1 Role of Tracing/Trash Paper; <http://www.dickblick.com/products/speedball-tracing-paper-in-rolls/>
2. Drawing Pencils and Pens - what ever you feel comfortable with is fine
3. 1x ream of standard printer paper - for sketching
4. 8.5 x 11 Portfolio Binder - Black; <http://www.dickblick.com/products/prat-start-premium-spiral-ring-binders/>

### Planning Tools

1. Sticky Note Pads (used for Retrospectives and Task Planning); <http://www.officedepot.com/a/products/723832/Post-it-4-x-4-Super/>
  - a. 1x - Green (the colors are important)
  - b. 1x - Pink (it is preferable that the entire class has the same colors)
  - c. 1x - Orange

### Course Software

- Unreal Developers Kit (September 2011 release)
- Fraps - a free software for video capture frequently used in game development; <http://fraps.com/>

### Optional / Situational Software

- Nullsoft Winamp (Free Version) - for .MP3 to .wav conversion for audio; <http://www.winamp.com/>
- iTunes (if deploying to iOS device); <http://www.apple.com/itunes/?cid=OAS-US-DOMAINS-itunes.com>
- UDK Remote installed on iOS device via “The App Store”

### Course Hardware

- Portable storage device
  - USB Drive
  - External Hard Drive
- (Optional - strongly recommended) iOS Device with iOS 5 installed
  - iPod Touch
  - iPhone 4
  - iPad
- (Optional) PC with the following minimum system specs:
  - Dual Core 2.2 ghz cpu
  - 4 gig RAM
  - Nvidia Geforce 8800 GT video card (or comparable)
  - 4 gig or free disk space

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## COURSE GRADING

### Delivery Breakdown

Deliverable	Grade Percentage per Sprint	Accumulated Percentage
Sprint 1	10%	10%
Sprint 2	10%	20%
Sprint 3	10%	30%
Sprint 4	10%	40%
Sprint 5	10%	50%
Sprint 6	10%	60%
Sprint 7	10%	70%
Release Demo	30%	100%

### Grade Scale

A	100 - 90	
B	89 - 80	
C	79 - 70	
D	69 - 60	
F	59 and below	
I	0	

### Submitting Assignments

All assignments **MUST** be delivered digitally to either the **Class Forum** or to the **Class FTP** prior to class beginning. If the content for the assignment was created (sketches, pitches, concepts, etc.) prior to class starting but not submitted digitally to the Forum or FTP then the assignment will be considered late.

The timestamp associated with your files being submitted to the Forum or to the FTP site is a tool I use to verify your level of completion on the designated deliver date and time. This way we have a very clear arbiter for your level of completion.

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“Technical Difficulties” involved in submitting your work will not be considered unless there are extraordinary factors involved. Extraordinary factors are defined as extended loss of power due to weather or the equivalent.

### Late Assignments

Assignments delivered during the class when they are due will take a 5% penalty. Assignments delivered after the class when they are due will take a 15% penalty.

### Resubmitting Assignments

Students wishing to make improvements on a completed assignment that has been critiqued and received back from the instructor are encouraged to do so. A resubmitted assignment will be accepted anytime during the quarter after it was first critiqued, provided that it was turned in on time initially. It will then be reevaluated and a new grade may replace the earlier grade.

### Grading Policy

Each assignment is reviewed and graded with 3 criteria in mind. These criteria are level of completion, craftsmanship, and creativity. These criteria are defined in greater detail here:

- Level of Completion is based on the ratio of work submitted prior to class as compared to the amount of work assigned. If 10 story boards and 10 pitches are assigned but 8 pitches and 6 story boards are delivered prior to class then the resulting grade is a  $14/20 = 70\%$ . Though the remainder of the work may be submitted during class the total will still suffer a flat 5% penalty to the total meaning a 95% is the best possible score.
- Craftsmanship is based on the quality of the work delivered in terms of **how well your ideas are communicated**. A crude sketch that clearly illustrates how the player progresses may do its job well and may get full credit. A crude sketch drawn just fulfill a Level of Completion requirement may not receive full credit. Remember - the goal of all deliveries is to communicate its purpose clearly to myself, your teammates, and your end users.
- Creativity is my opportunity to award students who seek and successfully create something compelling and unique. A delivery that hits all marks in terms of Completion and Craftsmanship but do not creatively explore new ground will find themselves with a total looking something like:

■ Level of Completion	100
■ Craftsmanship	100
■ Creativity	25
■ Total for Sprint	75% - ouch!

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#### Attendance Policy

It is the goal of this policy to improve the academic performance of students in the classroom by stressing the importance of course attendance and reinforcing the work-ready expectations of employers for employee attendance.

Students are expected to be aware of all current attendance policies. This course will abide by the policies as well as the following:

#### Course Attendance Policy

1. Students are required to attend all class meetings, to arrive on time, and to stay for the duration of the class.
2. The class starts **on time**. Tardiness will not be recorded and will not affect the student's overall grade, but the instructor is not responsible for covering missed material. This class will be fast paced and missing class time is not advised.
3. Students who accumulate more than three absences may be dropped from the course and a grade of "I" will be recorded for the course.

#### Excused Absences

Students are granted excused absences from class for the following reasons: illness of the student or serious illness of a member of the student's immediate family, the death of a member of the student's immediate family, trips for student organizations sponsored by an academic unit, trips for university classes, trips for participation in intercollegiate athletic events, subpoena for a court appearance, and religious holidays. Students who wish to have an excused absence from class for any other reason must contact the instructor in advance of the absence to request permission. The instructor will weigh the merits of the request, and render a decision. When feasible, the student must notify the instructor prior to the occurrence of any excused absences, but in no case shall such notification occur more than one week after the absence. Appropriate documentation for all excused absences is required. Please see the Tiger Cub for more information on excused absences.

Students may verify their attendance with the instructor of each course. In the event a student receives an "I" for a course and believes an error in recording attendance has been made, he or she should first contact the instructor.

#### Make-Up Policy

Arrangement to make up a missed major examination (e.g.:hour exams, mid-term exams) due to properly authorized excused absences must be initiated by the student within one week of the end of the period of the excused absence(s). Except in unusual circumstances, such as the continued absence of the student or the advent of university holidays, a make-up exam will take place within two weeks of the date that the student initiates arrangements for it. Except in extraordinary circumstances, no make-up exams will be arranged during the last three days before the final exam period begins.

#### Academic Honesty Policy

All portions of the Auburn University student academic honesty code (Title XII) found in the Tiger Cub will apply to university courses. All academic honesty violations or alleged violations of the SGA Code of Laws will be reported to the Office of the Provost, which will then refer the case to the Academic Honesty

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Committee.

## Disability Accommodations

Students who need special accommodations in class, as provided for by the Americans With Disabilities Act, should arrange for a confidential meeting with the instructor during office hours in the first week of classes (or as soon as possible if accommodations are needed immediately). The student must bring a copy of their Accommodation Letter and an Instructor Verification Form to the meeting. If the student does not have these forms, they should make an appointment with the Program for Students with Disabilities, 1288 Haley Center, 844-2096 (V/TT).

## SCHEDULE

Week	Date	Lab / Sprint Review	
1	1/13	Introduction (3hr)	<ul style="list-style-type: none"><li>• Our first class will be aimed at clarifying how the course is going to work, to define what is expected of the students, and to illustrate the goals of the project.</li><li>• We will outline the production terminology and practices that will be used through out the semester and discuss why these methods are valuable and helpful. Terminology used in this course is derived from Agile production methods. <a href="http://en.wikipedia.org/wiki/Agile_management">http://en.wikipedia.org/wiki/Agile_management</a></li><li>• Syllabus will be delivered and reviewed.</li><li>• Example product to be used for tutorials and reference will be delivered.</li><li>• Discuss deliveries for first Sprint.</li><li>• Comparative Market Analysis &amp; Understanding Your User.</li><li>• List of sample products to play. Pop-Cap, Zynga, Game Loft, etc.</li><li>• <b>UDK Demo:</b> Opening a scene in Unreal, adding assets to the scene and navigating the scene. Importing Assets, creating materials and manipulating materials.</li><li>• Brainstorming - what to research and what to play?</li></ul>
2	1/20	Lab (3hr)	<ul style="list-style-type: none"><li>• Mid-Sprint Review</li><li>• Review the assigned tutorials.</li><li>• Open forum concerning the first batch of concepts.</li></ul>

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3	1/27	Sprint Review (3hr)	<ul style="list-style-type: none"> <li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li> <li>• Sprint Planning - Assignment of the next round of tasks.</li> <li>• <b>UDK Demo:</b> Simple Scripting</li> <li>• Creating a pitch to compel your audience to play.</li> <li>• Creating a story board to help you, the creator, better understand your game-play goals.</li> <li>• Brainstorming - applied gameplay to your theorem.</li> </ul>
4	2/3	Lab (3hr)	<ul style="list-style-type: none"> <li>• Mid-Sprint Review</li> <li>• Review the assigned tutorials.</li> <li>• Open forum concerning the second batch of concepts.</li> </ul>
5	2/10	Sprint Review (3hr)	<ul style="list-style-type: none"> <li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li> <li>• Sprint Planning - Assignment of the next round of tasks.</li> <li>• <b>UDK Demo:</b> Basic animation using Matinee</li> <li>• Drawing a flow chart that maps out all of the users interactions.</li> <li>• Creating a physical prototype that tests your game play goals.</li> <li>• Brainstorming.</li> </ul>
6	2/17	Lab (3hr)	<ul style="list-style-type: none"> <li>• Mid-Sprint Review</li> <li>• Review the assigned tutorials.</li> <li>• Open forum concerning the third batch of concepts.</li> </ul>
7	2/24	Sprint Review (3hr)	<ul style="list-style-type: none"> <li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li> <li>• Sprint Planning - Assignment of the next round of tasks.</li> <li>• <b>UDK Demo:</b> Creating UI and input fields.</li> <li>• Play your prototypes. Is this fun?</li> <li>• Begin implementing game-play in UDK. World layout.</li> <li>• Brainstorming. Revise proto-type as discussed.</li> </ul>
8	3/2	Lab (3hr)	<ul style="list-style-type: none"> <li>• Mid-Sprint Review</li> <li>• Review the assigned tutorials.</li> <li>• Open forum concerning the final batch of concepts.</li> </ul>
9	3/9	Sprint Review (3hr)	<ul style="list-style-type: none"> <li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li> <li>• Sprint Planning - Assignment of the next round of tasks.</li> <li>• <b>UDK Demo:</b> Scripting 2</li> <li>• Play your revised prototypes. Is this fun?</li> <li>• Play-test game-play in UDK.</li> <li>• Brainstorming.</li> </ul>
10	3/16		<b>SPRING BREAK</b>

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11	3/23	Sprint Review (3hr)	<ul style="list-style-type: none"><li>• Sprint Demo - Each student presents and explains the work from their prior assignment of just shares stories with the class from Spring Break.</li><li>• Sprint Planning - Assignment of the next round of tasks.</li><li>• <b>UDK Demo:</b> Animation 2. Manipulate cameras.</li><li>• Draw out your scripts and plan your player interactions.</li><li>• Brainstorming.</li></ul>
12	3/30	Lab (3hr)	<ul style="list-style-type: none"><li>• Mid-Sprint Review</li><li>• Review the assigned tutorials.</li><li>• Open forum concerning UDK prototypes.</li></ul>
13	4/6	Sprint Review (3hr)	<ul style="list-style-type: none"><li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li><li>• Sprint Planning - Assignment of the next round of tasks.</li><li>• <b>UDK Demo:</b> Lighting and effects in depth.</li><li>• Technical assistance.</li></ul>
14	4/13	Lab (3hr)	<ul style="list-style-type: none"><li>• Mid-Sprint Review</li><li>• Review the assigned tutorials.</li><li>• Open forum concerning UDK prototypes.</li></ul>
15	4/20	Sprint Review (3hr)	<ul style="list-style-type: none"><li>• Sprint Demo - Each student presents and explains the work from their prior assignment.</li><li>• Sprint Planning - Assignment of the next round of tasks.</li><li>• Technical assistance.</li><li>• Planning for final Play-Test</li></ul>
16	4/27	Lab (3hr)	<ul style="list-style-type: none"><li>• Mid-Sprint Review</li><li>• Review the assigned tutorials.</li><li>• Open forum concerning UDK prototypes.</li></ul>
17	4/4	Final	<b>Final Presentation and Release Play Test</b>

Note that this schedule is not locked down. This course is an upper-level course and as such some of the specific things you learn will be fluid and based on what you intend to do on your project. You will have to learn some basic concepts, but the rest of the scripts you are taught are to help you develop awareness for scripting and its uses as opposed to having to know how to do one particular thing for one particular game engine.

## COURSE SPECIFIC CONCEPTS

### Presentations and Brainstorms

- During Presentations your work will be critiqued by yourself and your classmates.

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- You will be expected to critique your work in order to improve your ability to discern problems and areas of improvement. This will have no direct bearing on your grade. In the film and video game industries the written form of this self-critique is often referred to as the “post-mortem”.
- Your colleagues will help critique your work for both good and bad so as to provide you a balanced view of your work, point out areas of improvements, share the tricks they have picked up to problems you run into, get you used to accepting and utilizing constructive criticism, and to give you a chance to practice critically looking at other people’s work. Their advice will have no bearing on your grade so take it in the spirit it is meant – a tool to help.
- Your professor’s comments will not necessarily translate into your grade points – a lot of it may just be helpful advice. When your grade is received your professor will be very happy to discuss the specifics of your grade in order to help you improve.
- During Brainstorms all students will be encouraged to write and voice any ideas that come to them concerning any project in the class. A Brainstorm is a completely open forum and criticism is actually discouraged. Participation in Brainstorms is mandatory. The practice of building on ideas as a community is a critical component to working in what is now a very multi-disciplinary field.

## Projects and Grading

Projects in this course build directly upon the skills used in previous projects. Bring all of your design skills to bear.

Everyone in this class is part of a team. Though the grades you receive will be based completely on your solo efforts you are expected to collaborate and assist in play-testing. I am not grading on a curve and will not be grading competitively. A standard will be set for you to achieve and you will be graded based on your accuracy in hitting the mark.

The minimum requirements listed on a project sheet are the minimum you need to get a passing grade of “C”. “C” means “average” and means you have a basic understanding of the concepts taught in this course.

## TUTORIALS

Tutorials will be delivered for all of the tool specific assignments for this class. Tutorials will be in the form of a YouTube video accessible from: <http://timlindsey.com/>

Tutorials will be created by me and will cover exactly what is necessary to deliver your final game for this class. Tutorials will be available on-line prior to class beginning for that topic and I do not intend to remove them.

Hundreds of other UDK tutorials exist on-line. Please feel free to seek them and use them. If you find a demo on-line that you wish to use but are confused by I will take time to help you work it out. I encourage exploration.

Tutorials will be generated based on the current need of the class. They will begin simple and we can judge the abilities of the class and then get

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more complex as deemed appropriate.

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## REFERENCES

### Design

- Byrne, Ed. Game Level Design. Charles River Media, Inc. Hingham, Massachusetts. 2005
- Licht, Michael S. An Architect's Perspective On Level Design Pre-Production. gamasutra.com . June 2003. [http://www.gamasutra.com/features/20030603/licht\\_01.shtml](http://www.gamasutra.com/features/20030603/licht_01.shtml)

### Tools

- Epic Megagame's Compendium concerning Mobile Platform development; <http://udn.epicgames.com/Three/MobileHome.html>
- Creation of Whizzle using the UDK; [http://www.udk.com/elements/downloads/Whizzle\\_Creation\\_Document\\_1\\_2.pdf](http://www.udk.com/elements/downloads/Whizzle_Creation_Document_1_2.pdf)
- Epic's Library of video tutorials; <http://udn.epicgames.com/Three/VideoTutorials.html>
- Jazz Jackrabbit Tutorial; <http://www.udk.com/showcase-jazzy>
- Beyond Unreal, A community UDK resource; [http://wiki.beyondunreal.com/External\\_UDK\\_Tutorials](http://wiki.beyondunreal.com/External_UDK_Tutorials)