



CTIN-532 - Interactive Design and Production I

Production Methods for Creative Designers

*USC Games
Spring Semester 2020*

Interactive Design and Production I

“Production Methods for Creative Designers”

USC Games, CTIN-532

Spring Semester 2020 – Morning Section

Professors:

Andy Nealen

Email: andy@nealen.net

Office: SCI 201

Office hours (by appointment only): TBA

Peter Brinson

Email: peterbrinson@gmail.com

Office: SCI 201 F

Office hours (by appointment only): 10am – 12pm, Thursdays

Student Assistants:

Fanfu Shentu

Office hours (drop in times): 3pm-6pm, Tuesdays

Meeting Information:

Room: SCI L114

Day and Time: Monday/Wednesday 10:00 AM - 12:20 PM

Units: 4

Course Description:

Welcome to CTIN-532 and to a new sequence of learning. In this class you are going to pair up into teams of two people and your team will spend the whole fifteen-week semester working in Unity (or in the Unreal Engine, by special arrangement with us, the instructors) to create a single game or interactive media digital project.

This class is a challenging one, but it should also be a lot of fun. If you pay close attention to your classmates and to me, the instructor, and if you summon the courage to communicate with all of us honestly, frequently, without delay, and with compassion, I can almost completely guarantee you a positive, supportive, sane, and enjoyable experience in the class, and one that leads to a valuable learning outcome.

Imagination and design are inexorably interlinked. The dreams we dream at night and by day can lead to the greatest accomplishments in art and literature, science and technology, industry and entertainment. But until we **commit to a decision** and act upon it we are *not* designing, only speculating. Even the smallest game or interactive media project requires us to

make hundreds or thousands of decisions: some of them major, many of them minor, all of them important.

How can we stay in control of this decision-making process, ensuring that we make good-quality decisions, and that we make the right decisions at the right time? This class aims to show you how.

This is a class in which you can acquire some good new habits

In some important regards, game design and interaction design are fundamentally different from other processes of media design and creation. The dynamically systemic nature of what you make, coupled with the real-time interaction between your games and your players, introduces vast numbers of unknowns, variables, challenges and problems into the creative process; these are challenges that painters, filmmakers, novelists, musicians, and poets usually do not have to deal with.

At the same time, game design and interaction design are quite dissimilar from other kinds of engineering process. They require us sometimes to diverge from any kind of scientific method or wholly rigorous system of progression, and to use our intuition, instincts, and guesswork to realize the products of our imagination.

In this class, we will look at some techniques that you can use to bring your process under better control, and to take away some of the needless risk that can prevent a project from reaching its full potential. You will become more assured of making high-quality work with the limited time and resources that you have available to you, while continuing to find new patterns of interaction, new modes of self-expression, and new types of audience experience.

This is a class in which you can shed some old bad habits

All of us have bad professional habits that we've picked up here and there: because they worked for us in the short term, or at one time, or in a certain context. Many creative people don't think too much about the ways that they plan and manage their work. Creation seems to come naturally; we learn it in childhood or as teenagers, and without even realizing it, we pick up habits to do with the way we organize our work. We pull an all-nighter, "just this once," to meet an important milestone. Suddenly we find ourselves working all night every time a deadline comes around. We work seven days a week during a big project, "just for a couple of weeks," and suddenly realize that we have worked every day of the week for months on end, without a break. Many of us suffer from process blockages—like writer's block—that can sometimes stop us from making any work at all.

When challenged to organize or improve their creative methods, some people use the essentially chaotic nature of creativity as an excuse to avoid taking control of their process. *A lot of creativity is chaotic.* But that chaos can be respected, harnessed, and organized with the right production tools, to create good working habits and the best possible outcome for our projects. On the other hand, bad work habits—especially those that lead to uncontrolled

overwork—can take a terrible toll on individuals and on teams, causing physical and psychological health problems, and causing organizations and businesses to permanently fail.

Most of us will struggle with our bad habits and blockages for the whole of our creative lives, and that is perfectly normal and natural. True learning almost always comes with a struggle, so get ready for a few “growing pains.” Please use this class in a way that makes sense for you as a unique individual, to get rid of some old habits that aren’t serving you well any more, and to pick up some new habits that will help you to become the kind of creative professional you want to be.

This is a class about game production

This class challenges you to acquire new professional skills around design, production, and implementation, skills that will help you to conceptualize and create your future projects. The processes, attitudes, and techniques that you learn in this class will help you to identify problems that come up for you as you work and to solve them. The class will also help you to find new ways to make great games and interactive media while preserving your physical and psychological wellbeing and that of your teammates.

What we call “production” in this class is a formal discipline that is closely related to the discipline of design. Without good production, good design will usually not result in a great game—and vice versa. People working exclusively or predominantly in the discipline of production are called “producers.” Production sometimes goes by different names in our various related industries. It is usually called “production” or “project management” in the game industry and interaction design industry, but people doing work related to production might also be called “production coordinator,” “project coordinator,” “project facilitator,” “product manager,” “Product Owner,” or “Scrum Master.”

Production is often a clear-cut and practical discipline, where measurable and empirically verifiable facts are used to make informed and rational decisions about the course that a project will take. However, production is also a part of the creative process where facts and rationality meet the subjective aspects of design, art, and audience. A great producer acknowledges the importance of the creative vision, values, and goals driving a project and learn to reconcile the practical constraints of time and money with creative people’s aspirations towards excellence and innovation.

“...half the job is doing the job, and the other half is finding ways to get along with people and tuning yourself in to the delicacy of the situation.”

Walter Murch

Producers also need the “soft skills” of leadership and collaboration. It is not enough to have good strategies to improve a project if your teammates and collaborators are feeling badly about the project, each other, or you. This is probably the most challenging part of any collaborative creative practice, and this class will give you some practical advice about communication, collaboration, conflict resolution, and how to inspire people to do their very best work. As you develop these soft skills, you will be developing the aspect of your production

ability that allows you to reconcile the measurable, objective needs of a project with its artistic, subjective goals.

So, then: this course is partly a digital interactive design and production “boot camp” where you will work in small teams and learn to create short, innovative digital game and interactive media experiences that have a longer development time and meet higher standards of polish than any that you have created so far in your USC Games career.

This is an art and design class

The class is also an art and design class where you are almost completely free to explore your digital game and interactive media art making and design practice, learning to innovate and hone your craft in experience design, game mechanic design, interaction design, and interface design. Within the bounds of your collaboration with a classmate, and the agreements you reach together, you are free to address new and wide-ranging subject matter, new patterns of gameplay and interaction, and new types of audience experience.

The class is best suited to the creation of short projects, which take around **five to ten minutes** to experience. This might seem short, but we are going to hold you to higher standards of production quality than anyone has held you to in our program so far. ***This is a class about creating quality, not quantity.*** We know that you can produce in volume: now we are challenging you to make experiences that are more detailed, layered, nuanced, rich, and polished than any you have made before.

Projects that work well in this class include short-form narrative games, virtual and augmented reality experiences, “alt controller” games with wildly unusual physical interfaces, simple eSports games, art games, “walking simulators,” short side-scrolling platform games, hybrid performance art-digital interactive media pieces, networked games, and much else besides.

Teaming up

Teaming up into a pair of people for this class will allow you to focus on developing your collaborative skills throughout the semester. You’ll have a chance to look closely at your communication style, and the power dynamics at play in any collaborative work environment. Sometimes you’ll have to take charge and lead; sometimes you’ll have to follow and act in service of your teammate. Figuring out how best to communicate, when to lead and when to follow, will be a major part of the learning experience. We’ll be on hand to help you with this, in either group or one-on-one office hours meetings.

(These teams work best when they have just two people in them, because then these issues of communication and interpersonal dynamics are brought to the fore. In a trio, the dynamics are much more complex, harder for us to help you problem-solve around, and less useful as a learning experience.)

This year we are using a hybrid method of teaming up. Students can either pair into teams without the instructors’ input or can fill out a “character sheet” to be paired up by the instructor.

If we have an odd number of people in class, one person will get the chance to team up with a collaborator from outside class. We will handle this issue with you if it arises.

Don't worry too much about who you end up working with— every working relationship offers us opportunities for learning, and a few challenges regarding project management and interpersonal skills will make for an even richer learning experience. **The best learning experiences in this class usually come from teams that have not worked together before, are not close friends, or even who do not get along together particularly well.**

Please email me if you have any questions or concerns about this teaming up process. You are also encouraged to recruit additional team members from outside the class to help work on your project, although this is not required.

It's ok to have some initial discussion of the kind of project you'd like to make in class before the semester starts, but please don't begin work on your project in earnest until the semester begins.

What the class holds in store

The first three weeks of the class will be spent in the first of four project phases: this is the ideation phase, where we will create small prototypes and other ideation materials that we will discuss in class. We will then spend the remaining eleven weeks of the semester working through the other three project phases: preproduction, full production and postproduction. Preproduction will see us committing to a core set of ideas for our project, building a Vertical Slice, and doing design and scheduling work to plan ahead. During full production we will reach the alpha milestone of the project. The beta milestone will mark the end of full production, and the beginning of postproduction, and the Release Candidate milestone (the final milestone of the project) will arrive on Friday of Week 15.

As I said earlier: within the framework of the class, you have almost total freedom to create any kind of work that could be regarded as a digital game or piece of interactive media. You might find that the biggest challenge you face in exercising this freedom is coming to an agreement with your team partner about what to make. The class is designed to help you make the right decisions about your project at the right times, but **if you ever find yourself having a difficult time reaching agreement with your teammate about your project, immediately talk to us, the instructors, about it.** I recommended that you and your teammate let go of any preconceived ideas you might bring to your project before you start working and follow where your early prototypes lead you.

A large part of the course's content will be focused on in-class discussion, group critique and problem solving for each project. It is very important that you treat the development of your design projects professionally. You will be expected to participate actively in the discussions and critique sessions that take place in class, giving and receiving feedback that honors your fellow students with its depth of analysis and respect for their work.

“There is no such thing as a failed experiment, only experiments with unexpected outcomes”

R. Buckminster Fuller

Ideally, the work you produce in this class will be good enough to be included in your creative portfolio, shown at an internship interview, or submitted to a festival. However, it really doesn't matter if your project doesn't work out well. In fact, we hope that you're going to make some big mistakes in this class, so that you can learn from them, and don't make them again while you're working on later projects.

In terms of your grade: even if you're not at all happy with the way that your project turns out, you can expect to do well in this class if you apply yourself earnestly to the course, complete the class assignments and meet the required milestones, do your best to follow the advice we give you along the way, and reflect lucidly in your project review essay at the end of the semester about what went well and what could have gone better.

The set of best practices, tools, and skills that we require you to use this semester are drawn from our own experiences as designers and producers, and from the experiences of other professionals across the worlds of game development, interactive media, software development, and other creative industries and artistic fields. The methods that we'll teach you in this class aren't the only way to design and produce a project, but they will give you a good base of production knowledge to build on and should stand you in good stead for the rest of your time in the USC Games program and in your professional career.

We will go out of our way to provide you with all the support and help that you need while you are in our class. You matter a lot to us, and we will meet with you whenever you need to meet outside class. So please come and see us about any problems you encounter in our class. **When things go wrong for people and projects in CTIN-532, it is usually because people wait too long to come and discuss their problems with us.** Please know that, outside of the professional obligations we have to report any instances of discrimination, sexual assault, or harassment, we will always hold anything you tell us in complete confidence. **You will not be “ratting out” your teammates by coming to us to discuss a disagreement or a conflict of personalities.** Instead, we'll work together to help you with the communication challenges from which most conflict stems, always remembering to treat our collaborators with respect and compassion. We will hold office hours every week and will almost always be able to meet with you outside of office hours if necessary, often at short notice.

The games and interactive experiences that you create in this class are going to be delightful, surprising, moving and challenging. We're looking forward to seeing what you create in our class, and to accompanying and guiding you on this next stage of your creative journey.

— Andy Nealen & Peter Brinson, 7th December, 2019

Learning Objectives

What a student is expected to learn and how these goals fit with the USC Games program's learning objectives

The course builds on the skills and knowledge introduced in your first semester of study. You will learn what it means to work “**playcentrically**” and collaboratively in greater depth than before, by working on a single project for a whole semester.

You will design iteratively in an intensive cycle of decision-making, implementation, playtesting, and design revision. You will learn what it means to hold onto the vision of a set of **project goals** while using an iterative design cycle over a longer time than you are used to. These are core learning goals of the USC Games program.

You will learn to tackle bigger challenges of **collaboration** than you have in the past, as you learn to apportion work, take responsibility for your individual and shared tasks, and negotiate with your teammate to solve problems and resolve conflicts. These are core learning goals of the USC Games program.

You will learn a design and production methodology based on the “Method” used at studios like Naughty Dog and Insomniac and which also incorporates attitudes and elements from “Agile development”. You will learn to use this methodology to properly **plan, scope, and build** a project in a way that **reliably results in finished work that has a very high level of quality**, while **minimizing uncontrolled overwork**.

You should not come into class expecting to create an expansive story world or a long experience. Instead, you should aim to create a short, **very polished** playable or interactive experience, with **a total play time of between five and ten minutes**.

Prerequisite(s): Open to MS students in the Viterbi School of Engineering Computer Science (Games) program, as well as other interested and qualified students, by interview with the instructors.

Co-Requisite (s): none

Concurrent Enrollment: none

Recommended Preparation: a foundational level of game and/or interactive media design and development education, including an introduction to Unity.

Course Notes

The Grading Type of this class is “letter grade”.

University guidelines recommend that students do two hours work outside class for every one hour spent in class. Our class meets for four hours and forty minutes a week; therefore **we expect that you will spend at least nine hours and twenty minutes each week outside of class working on your project and reading, viewing or playing the class assignments**.

I am happy for you to spend more than this minimum amount of time working on the assignments I set. However, **uncontrolled overwork in this class—as in our professional lives—is very undesirable**, and I do not expect anyone to do more than **twelve hours** classwork each week outside of class. **If you find that you are working on class assignments for more than twelve hours a week outside class, please contact me** to discuss how you can make your workload more manageable.

Technological Proficiency and Hardware/Software Required

For practical projects, it is expected that you will work in Unity. We understand that you may be using Unity for the first time, and we will work with you to make the learning process as easy as possible, and to fit with the assignments required by the class. If you want to work in a framework other than Unity and can present a good argument for doing so (for example, if you wish to develop for a platform or interface that Unity does not support), please let us know, and we'll discuss your situation. The Unreal Engine is the alternative framework that we most commonly permit.

However, **don't worry too much about the skills that you do or don't have at the start of the class**; talk your concerns through with us and we will be able to advise you. We understand that everyone will enter the class with a unique set of digital content creation skills covering 2D art, 3D art, animation, audio design, programming and version control. While it might be true that the larger the set of skills you have when entering this class, the better prepared for the class you will be, **we will be recommending in class that you design a project that is largely tailored to the existing skills that you and your teammate bring into the class. Great work can be made with any set of skills.** That said, we will also be recommending that you design a project that pushes you outside of your comfort zone in one or two areas, so you should expect to teach yourself some new digital content creation skills while taking this class.

The hardware and software required for use in this class are available in the course classroom for those students who do not have access to them at home or on a laptop.

You are expected to bring an updated version your project to every class meeting, ready to either present it or work on it. If you do not have a laptop, the computers in our meeting room are available for your use, so please bring your project to class on a thumb drive.

Required Readings and Supplementary Materials

There is no single set book for this semester. Readings for discussion in class will be drawn from a number of different sources.

Supplementary materials listed in the syllabus will be available on the web, as handouts in class or as digital files on the course website.

Specific readings cited below may be subject to change as the semester progresses.

Description and Assessment of Assignments

What kind of work is to be done and how should it be completed, i.e. how the learning outcome will be assessed.

The class is comprised of a mixture of reading, viewing, written, and practical assignments. Reading assignments, viewing assignments, and written assignments will usually be given on Mondays and will be due on the following Monday. The Friday class meeting will be used for regular in-class playtesting and project review sessions, so practical assignments will usually be given on Fridays and will be due on the following Friday. Clear and specific time-and-day

milestones for each assignment, along with information about how to submit each assignment, will be listed on the course website.

Your work in this class will be assessed according to eight assignments:

Participation

I will be calling on every class member in almost every class discussion, and will assess your participation in class on the basis of your willingness and ability to participate in our discussions in a constructive and productive way, including your ability to demonstrate that you have prepared for each class by reading and viewing each week's assignments. If you have difficulty participating in group discussions (for example, because of shyness or social anxiety), please let us know and we'll figure out a way for you to participate in class that works for you.

Practical Assignments

Early Prototypes

You will submit the prototypes that you make in the first three weeks of class for assessment, along with some accompanying notes in your team's development blog. I'll be hoping to see that you have performed a sequence of earnest and wide-ranging explorations within the bounds of your prototyping ability, in order to be able to create a Project Goal Statement.

End of Preproduction Deliverables

The deliverables due at the end of Preproduction phase of the project are a Project Design Macro, a Burn Down Chart and a Vertical Slice, along with accompanying entries in your team's development blog.

Alpha milestone, Formal playtests, Beta milestone, Release Candidate milestone

At each of these milestones, taking place during full production and at the end of the project, you are required to submit a working build of your project, along with accompanying entries in your team's development blog, and in some cases, some other documentation.

Each of these practical assignments will be assessed according to detailed requirements that have been discussed in class and which are laid out in the assignments section of the course website. I will evaluate your work in the context of the accompanying entries in your team's development blog that you will provide with each assignment—so even if you struggled with a particular assignment, you can still get a good grade for the assignment if you can reflect clearly about the ways in which you struggled.

*For all practical coursework, please note that while high production values in terms of visual, audio and interaction design will contribute to good grades, **earnestly attempting to engage with the requirements of each assignment is the most important influence on your grade.** The best way to demonstrate that you have taken note of and attempted to meet the*

requirements for each assignment is by reflecting on your process in the entries in your team's development blog that you will submit with each practical assignment.

Project review essay

A project review essay from each individual student will be due in place of a final examination at 4 p.m. on Monday, May 11th, 2020. In this essay you will be asked to reflect on what went well and what could have gone better in the course of creating your project.

This assignment is modeled on the popular style of “postmortem” GDC lectures and Gamasutra articles, and on the internal end-of-project review processes that happen in most creative studios. For example:

https://www.gamasutra.com/view/feature/132203/postmortem_naughty_dogs_.php

We will know a lot about how your project ran by the end of the semester and will assess your essay based on how much self-aware reflection you bring to it—so be honest in your project review essay, with us and with yourself!

Assessment and Grading Rubric:

A number of assignment points will be awarded for each assignment, up to the maximum for each assignment shown in the table below.

Participation	15
Early prototypes	5
End of preproduction deliverables	10
Alpha milestone	15
Formal playtests	10
Beta milestone	15
Release Candidate milestone	15
Project review essay	15
Total:	100

The assignment points you earn for each assignment will be derived from my evaluation of your work in the context of the assignment as specified on the class web page, and will be calculated according to this scale, rounded to two decimal places¹:

Percentage of available points awarded	Corresponding Grade	
0	F	Complete absence of evidence of learning.
60	D	Little evidence of learning. Poor performance in all aspects of the assignment.
70	C-	Work of lower than fair quality. Failing grade for graduate credit
73	C	Work of fair quality. Minimum passing grade for graduate credit
77	C+	Work of satisfactory quality in most of the assignment, with the remainder being somewhat substandard
80	B-	Work of satisfactory quality
83	B	Work of good quality
87	B+	Work of high quality in all or most aspects of the assignment
90	A-	Work of excellent quality in most aspects of the assignment; high quality work in the remainder
93	A	Work of excellent quality

Your overall grade for the class will be assigned based on the total number of assignment points you earn in the semester (your “Grading Score”), according to this scale:

Grading Score >=	Grade
0	F
60	D
70	C-
73	C
77	C+
80	B-
83	B
87	B+
90	A-
93	A

¹ These grading guidelines are adapted from the USC Office of Academic Records and Registrar ‘Definitions of Grades and Marks’

<http://www.usc.edu/vh/arr/services/grades/gradinghandbook/gradingpolicies.html>

and from the University of Washington’s Faculty Resource on Grading ‘Sample UW Grading Guidelines’

<http://depts.washington.edu/grading/practices/guidelines.html>

Course content by class meeting

Before first class meeting:

Practical Assignment: if possible, contact your teammate and have a brief discussion about the coming semester's work.

Practical Assignment: create a very short presentation to introduce yourself to us and to the class, and to set an intention for your learning experience in our class.

Reading:

This class syllabus

Catastrophic Prototyping and Other Stories

by Chaim Gingold

<http://www.levitylab.com/blog/2011/01/catastrophic-prototyping-and-other-stories/>

What Having a "Growth Mindset" Actually Means

by Carol Dweck

<https://hbr.org/2016/01/what-having-a-growth-mindset-actually-means>

Week 1 – First week of the ideation phase

The themes and goals of the course.

Student, instructor, and student assistant introduction presentations.

What kind of project is a good fit for this class?

Discussion of the readings.

Taking control of your working life: calculating your weekly working hours

An ideation refresher.

Communication skills: fundamental techniques.

Playtest session.

Version control and housekeeping 1 – the Assets Folder

Wellness, thriving, and self care.

Peter Workshop: Unity

Practical Assignment: Create your first project prototype from a design prompt.

Written Assignment: Set up your team's development blog and create your first entries.

Reading:

Prototyping

by Richard Lemarchand

Week 2 – Second week of ideation

No class on Monday (Dr. Martin Luther King, Jr. Day)

Syllabus rubric recap.

Playtest session.

Repertoire and growth: playing to our strengths and pushing outside our comfort zone.

Communication skills: "I like, I wish, what if..?"

Project Goals: what they are, and how to use them

Practical Assignment: Create a second project prototype from a design prompt.

Reading:

MDA: A Formal Approach to Game Design and Game Research

by Robin Hunicke, Marc LeBlanc, Robert Zubek

<http://www.cs.northwestern.edu/~hunicke/MDA.pdf>

MDA by Frank Lantz

<http://gamedesignadvance.com/?p=2995>

An Underappreciated Key to College Success: Sleep

by Jane E. Brody

<https://www.nytimes.com/2018/08/13/well/an-underappreciated-key-to-college-success-sleep.html>

Week 3 – Third and final week of ideation

An exercise in collaboration and leadership.

Discussion of the reading.

The power of the list.

The Three Cs: Character, Control, Camera.

Version control and housekeeping 2 – commenting code

Playtest session.

Advice about starting to build your vertical slice.

Looking ahead to the major milestones.

Version control and housekeeping 3 – version control.

Games as Systems and Stories, an Introduction

Until we make decisions, we're not designing

Peter Lecture: “Single A Games”

Practical Assignment: Create your third project prototype from a design prompt.

Written Assignment: Create a Project Goal Statement

Viewing: Cerny Method talk

<https://www.youtube.com/watch?v=QOAW9ioWAvE>

Reading:

Modular Building & Concentric Development

by Richard Lemarchand

Directing Video Games 101: Tips for Creative Leaders (sample)

by Brian Allgeier

Week 4 – Preproduction begins

Discussion of the reading and viewing.

Communication skills: dealing with conflict.

Communication skills: project-focused feedback, openness and honesty, trust and respect.

Experiences, emergence, and systemic richness.

Communication skills: communication styles exercise

Communication skills: accountability.

Playtest session.
Elevator pitch exercise.
Project Goals first review.
Making games is hard.
Looking ahead to the end of Preproduction
Concentric development: in design, everything matters.
Against crunch.

Peter Lecture: “Creativity is Not A Talent”

Practical Assignment: Begin work on the Vertical Slice, building on the individual work done so far

Written Assignment: Revise Project Goal Statement

Reading:

Into the Woods: How Stories Work and Why We Tell Them (Introduction and Chapter One)

by John Yorke

Designing A Movie For Sound (excerpt)

by Randy Thom

Tools for Systems Thinkers: The 6 Fundamental Concepts of Systems Thinking

by Leyla Acaroglu

<https://medium.com/disruptive-design/tools-for-systems-thinkers-the-6-fundamental-concepts-of-systems-thinking-379cdac3dc6a>

Viewing: *Is your game ‘juicy’ enough?* by Martin Jonasson and Petri Purho

<http://www.gamasutra.com/view/news/178938/>

Week 5 – Reviewing the first week of preproduction

A discussion of the sound design reading and *Is your game ‘juicy’ enough?*

Project Goals second review.

Rhythmic structures in systems, stories and games; the Project Design Macro.

Scoping a project by making a list.

Communication skills: dealing with conflict.

Version control and housekeeping 4.

Burn Down Chart in-class workshop.

Playtest session.

Peter Workshop: “Version Control with Perforce”

Practical Assignment: Continue work on the Vertical Slice

Written Assignment: First draft of Project Design Macro

Week 6 – Reviewing the second week of preproduction

No class on Monday (President’s Day)

Class review of first draft Project Design Macros.
Are our projects meeting our Project Goals?
Playtest session.

Written Assignment: Burn Down Chart and second draft of Project Design Macro
Practical Assignment: Complete work on the Vertical Slice
No reading this week because of the upcoming major milestone.

Week 7 – Preproduction ends: full production begins

First stand up meeting.
Checking project scope.
Vertical slice in-class reviews.
Communication skills: empowering others, so that their passion can flourish.
Playtest session.

Reading: *It's Not Just Standing Up: Patterns for Daily Standup Meetings*
by Jason Yip

<https://martinfowler.com/articles/itsNotJustStandingUp.html>

Practical Assignment: Move project 25% of the way to Alpha

Week 8 – Reviewing the first week of full production

Discussion of the reading
Being 'feature complete' at Alpha – when will we be done scoping?
'Stubbing in' content.
Creating metrics tools.
Playtest session.

Practical Assignment: Move project 50% of the way to alpha.
Reading: to be determined.

Mid-term conferences (by appointment)

Week 9 – Reviewing the second week of full production

“Brain Trust” project presentations
Focus testing game titles and prototype key art.
Preparing for a formal playtest.
Types of testing.

Practical Assignments:

- Move project 75% of the way to Alpha
- Implement metrics system
- Prepare a stable build for the first formal playtest

No reading this week, to allow you to prepare for the formal playtest.

Week 10 – First formal playtest

Testing metrics tools.

Checking back to our Project Goals.

How to stay enthused when your project gets old

Formal playtest session with “Kleenex” playtesters using metrics data-gathering tools.

Focus testing game title.

Practical Assignment: Move project 100% of the way to alpha and finalize metrics system

No reading this week because of the upcoming major milestone.

Week 11 – The alpha milestone

Projects are feature complete and “game flow” complete.

“Brain Trust” review of alpha builds.

Game balance.

Being ‘content complete’ – planning to the Beta milestone.

Practical Assignment: Add the first half of the project’s remaining content and prepare a stable build for the second formal playtest

No reading this week, to allow you to prepare for the formal playtest.

Week 12 – Second formal playtest

Formal playtest session with “Kleenex” playtesters using metrics data-gathering tools.

Frame rate check.

Whether to leave anything for after beta.

Practical Assignment: Add the second half of the project’s remaining content and prepare a stable version for the beta milestone

No reading this week because of the upcoming major milestone.

Week 13 – The beta milestone

Projects are content complete.

“Brain Trust” review of beta builds.

Reviewing the results of the second formal playtest and analyzing metrics data.

Audio mixing.

Test planning and bug fixing.

Practical Assignment: Content polishing and bug fixing

Reading: to be determined.

Week 14 – Post-production

Post-production workshop: final project balancing, audio mix and frame rate check.

Practical Assignment: creating a Release Candidate build

No reading this week because of the upcoming major milestone.

Week 15 – The Release Candidate

Class recap and feedback session.
Learning Experience Evaluation
Presentation of completed projects to class.

Finals Week

Written Assignment (due 4 p.m. on Monday, May 11th, 2020):
Project review essay, including reflections on five ways in which your project went well and five ways in which it could have gone better, and a conclusion about how your design practice has evolved this semester.

Additional Policies

Missing an Assignment Deadline, Incompletes

The only acceptable excuses for missing an assignment deadline or taking an incomplete in the course are personal illness or a family emergency. Students must inform the instructor **before the assignment due date** and present verifiable evidence in order for a deadline extension to be granted. Students who wish to take incompletes must also present documentation of the problem to the instructor or student assistant before final grades are due.

For assignments turned in after the assignment deadline without prior permission from the instructor, a penalty will be imposed equal to 10% of the total available points for the assignment, for each day or part of a day that the assignment is late, up to a maximum of seven days.

Attendance Policy

Punctual attendance at all classes is mandatory. Students arriving more than five minutes late to three classes, more than ten minutes late to a single class, or leaving early, will be marked as having an unexcused absence from class, unless prior permission has been obtained from the instructor. The following guidelines are from the Interactive Media & Games Division handbook regarding absences and grading and apply to all students.

Guidelines for absences affecting grading

- Two unexcused absences: lowers grade one full grade point (for example, from A to B)
- Three unexcused absences: lowers grade two full grade points
- Four or more unexcused absences: request to withdraw from course (instructor's discretion)

Additionally, we may ask you to withdraw if your total absences become excessive, even if they are excused.

The only excused absences are for illness, family emergencies, and (with advance notice) commitments related to a scholarship you are receiving, e.g. for a varsity sport or commitments related to your professional practice, such as to attend a festival where you are

showing a game or a conference where you are speaking. You must contact us as soon as possible regarding your absence. Generally, we will expect to hear from you before class; in exigent circumstances I would expect to hear from you within 24 hours. If we do not hear from you in a timely fashion you may forfeit your option to make up what you have missed.

All that said:

1. **If you are sick, stay home.** You need to be healthy to learn, and so do your classmates (and instructors).
2. We do not distinguish between mental health and physical health. If you cannot complete an assignment on time or come to class because of mental health issues, you must contact us promptly, just as with physical health problems. See the Support Systems section below for additional information.

Social Media Use in Class

Social media use, including text messaging, Internet messaging and email, is not permitted in class unless explicitly permitted by the instructor. A 0.5% grade reduction will result from each occurrence of a student being found using social media in class.

Video and Audio Recording in Class

Video and audio recording during class meetings is not permitted, except by prior arrangement with the instructor and the class members.

Content Warnings

If you include content in the work that you produce which may cause distress to your fellow students, please tell us (the instructors) before showing the work in class and make a verbal “content warning” immediately before you present the work in class. Also include a written content warning, either at the beginning of a piece of written work or in the readme file of a project, when you submit the work for grading.

This is not intended to limit the subject matter that you address with your work: it is intended to expand it. This simple approach is intended to create an environment in which you are free to address any subject matter that you wish, no matter how challenging, explicit or controversial, in a spirit of respect and consideration for your classmates and instructors.

Students who ever feel the need to step outside class during the presentation or discussion of work that warrants a content warning may always do so without academic penalty. You will, however, be responsible for any material you miss. If you do leave the room for a significant time, please make arrangements to get notes from another student or see us individually.

Content which requires a content warning includes graphic depictions or descriptions of violence, sexual acts, racial, sexual or cultural stereotyping, abuse (especially sexual abuse or torture), self-harming behavior such as suicide, self-inflicted injuries or disordered eating, eating-disordered behavior or body shaming, and depictions, especially lengthy or psychologically realistic ones, of the mental state of someone suffering abuse or engaging in self-harming behavior.

If you have any questions about what requires a content warning, relating to story, game mechanics, and interaction patterns, please let us (the class instructors) know.

If you ever wish to discuss your personal reactions to material presented in class, either with the class or with us afterwards, we welcome such discussion as an appropriate part of our coursework.

Inclusivity and Diversity

In this class, we make a commitment together to foster a welcoming and supportive environment where students of all identities and backgrounds can flourish. This means that you will be expected to offer content warnings when appropriate, use students' preferred pronouns, and respect self-identifications. While debate and discussion are welcome, please remain aware of the implications of your words and the images that you include in your work. If the instructor or another student points out that something you have said or shared with the group might be offensive, avoid being defensive; this is a valuable opportunity for us to grow and learn together. If you have a concern about any aspect of the class, you are encouraged to speak with the instructors. If you feel uncomfortable speaking with the instructors, you are encouraged to speak with either the undergraduate or graduate advisor for your program.

In making games and interactive media in a professional and ethical way, it is important that you consider diversity. When looking at your projects, you should consider who is depicted and how this work will impact others. What kinds of individuals and communities are represented in your work? What point of view does your work express? This class may assist you in learning how to make work that includes diverse viewpoints, and may discuss racial, religious, gender and sexual orientation issues in the context of games and interactive media.

Guidelines for Group Critique

Giving and receiving constructive feedback is a key element of critique. Follow these guidelines:

1. Pair your critiques with compliments. Before pointing out something that you think could be improved, point out something that you like or something that you think has exciting potential.
2. Consider suggesting possible solutions. It can be discouraging to simply hear what somebody thinks is "wrong." Offering ideas for changes or additions that you think might improve your classmates' work can emotionally and intellectually inspire them.
3. Speak from the "I." Rather than stating your critique as fact or your suggestions as imperatives, start your sentences with phrases like "I think..." or "I feel..." or "If this were my game, I would..." Many people use the technique popularized by design firm IDEO, and make a statement in the form of "I like... I wish... what if..?"
4. Listen carefully and calmly. Avoid the urge to defend your work, unless you feel like that defense adds something important to the conversation. Thank your colleague for their feedback.

If you have a question...

1. First, check the class website and the syllabus. Most questions about logistics, assignments, and expectations can be found already listed there.
2. If the information you are looking for is not on the syllabus, contact the course Student Assistant.
3. If the Student Assistant is unable to answer your question, or your question is of a sensitive nature and you would feel more comfortable speaking with one of the instructors, you can email an instructor at the addresses listed above. You can usually expect a response within twenty-four hours during the standard work week.
4. Schedule an appointment during office hours. Office hours are a wonderful opportunity to speak with an instructor one-on-one. Note the office hours listed at the top of the syllabus and email the instructor at least twenty-four hours in advance to schedule an appointment.

Fair Use

Fair use is a legal principle that defines certain limitations on the exclusive rights of copyright holders. The Interactive Media & Games Division of USC's School of the Cinematic Arts seeks to apply a reasonable working definition of fair use that will enable students and instructors to develop multimedia projects without seeking authorization for non-commercial, educational uses. In keeping with section 107 of the Copyright Act we recognize four factors that should be considered when determining whether a use is fair: (1) the purpose and character of use, (2) the nature of the copyrighted work, (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole, and (4) the effect of the use upon the potential market for or value of the copyrighted work. In general, we regard the reproduction of copyrighted works for the purposes of analysis or critique in this class to be covered by the principle of fair use.

Citation Guidelines

Where appropriate, all projects will need to include academically appropriate citations in the form of a Works Cited section, which covers all sources, in order to receive a passing grade. The Works Cited is either included in the project or as a separate document, as appropriate to your project. The style we use is APA 6th edition and you may refer to these guidelines: <http://owl.english.purdue.edu/owl/resource/560/01/>

Note for Students with Disabilities

Any student requesting academic accommodations based on a disability is required to register with Disability Services and Programs (DSP) each semester. A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to us as early in the semester as possible. DSP is located in STU 301, and is open 8:30am - 5:00pm Monday through Friday. The phone number for DSP is (213) 740-0776.

Disruptive Behavior

Behavior that persistently or grossly interferes with classroom activities is considered disruptive behavior and may be subject to disciplinary action. Such behavior inhibits other students' ability to learn and an instructor's ability to teach. A student responsible for disruptive behavior may be required to leave class pending discussion and resolution of the problem and may be reported to the Office of Student Judicial Affairs for disciplinary action.

Learning Experience Evaluations

Learning Experience Evaluations will be conducted on Monday, 27th April, 2020. This will be your opportunity to provide feedback about your learning experience in the class. This feedback helps the instructor determine whether students are having the intended learning experiences for the class. It is important to remember that the learning process is collaborative and requires significant effort from the instructor, individual students, and the class as a whole. Students should provide a thoughtful assessment of their experience, as well as of their own effort, with comments focused on specific aspects of instruction or the course. Comments on personal characteristics of the instructor are not appropriate and will not be considered. For this feedback to be as comprehensive as possible, all students should complete the evaluation.

Syllabus Updates:

This syllabus is liable to change up to the beginning of class and possibly over the semester. Please check the posted syllabus regularly and note all changes that are shared by the instructor in class.

Statement on Academic Conduct and Support Systems

Academic Conduct

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in *SCampus* in Section 11, *Behavior Violating University Standards* <https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/>. Other forms of academic dishonesty are equally unacceptable. See additional information in *SCampus* and university policies on scientific misconduct, <http://policy.usc.edu/scientific-misconduct/>.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the *Office of Equity and Diversity* <http://equity.usc.edu/> or to the *Department of Public Safety* <http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us>. This is important for the safety whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. *The Center for Women and Men* <http://www.usc.edu/student-affairs/cwm/> provides 24/7 confidential support, and the sexual assault resource center webpage sarc@usc.edu describes reporting options and other resources.

Support Systems

A number of USC's schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute <http://dornsife.usc.edu/ali>, which sponsors courses and workshops specifically for international graduate students. *The Office of Disability Services and Programs* http://sait.usc.edu/academicssupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, *USC Emergency Information* <http://emergency.usc.edu/> will provide safety and other updates, including ways in which instruction will be continued by means of Blackboard, teleconferencing, and other technology.

The university provides extensive support for students facing everything from normal exam stress to insomnia to personal crises. Among the many services:

- The Wellness Lounge in room 203 of the Engemann Student Health Center offers not only drop-in consultation but fresh fruit, chocolate and massage chairs.
- The Office of Wellness Health and Promotion (owhp@usc.edu or 213-740-4777) runs daily Happy Hours featuring yoga, weekly visiting therapy dogs, and more.
- Student Counseling Services (213-740-7711, 24 hours, or walk-in on the third floor of Engemann) offers an enormous array of resources, from one-time crisis support to weekly Stress Fitness workshops, for students facing all types of challenges.

Instructor Biographies

Andy Nealen

Andy Nealen is a game designer, computer scientist, architect, engineer, and Professor of Cinematic Arts, based in Santa Monica, CA.

He designs interfaces, algorithms, and systems for games, digital shape modeling tools, and virtual cameras. Some of my past projects include FiberMesh (SIGGRAPH 2007), Osmos (Apple Design Award winner 2011), Models of Viewpoint Preference (SIGGRAPH 2012), Pixelation, RigMesh (SIGGRAPH Asia 2012), Exploring Game Space (FDG 2015), AniMesh (SIGGRAPH Asia 2015), Highscores (FDG 2016), and Depth in Games (AAAI 2017).

Nealen is an Associate Professor of Cinematic Arts in the Interactive Media & Games Division at the USC School of Cinematic Arts, where I teach classes in Game Design, Prototyping, Artificial Intelligence, and Computer Graphics. He also co-hosts *The Spelunky Showlike* and a member of *Hemisphere Games*.

To find out more about him, you can read about my opinion on the future of AI, listen to a conversation on *Game Design Advance*, watch this *tek* syndicate interview, browse my talks on the *GDC vault*, or search for my name on the *Web*. Andy is also featured in a *TIME* video, a *PBS Off Book*, and have helped out with the annual *Independent Games Festival* and *Indiecade*.

Peter Brinson

Peter Brinson is an artist and educator living in Los Angeles. He teaches computer programming as an art practice, game design to computer science students, and cinema production to game designers. He makes projects that explore the aesthetics of cognition, feature documentary play, and celebrate collective ownership.

As faculty at USC since 2002, he has long been an advocate for game development as a fine arts practice, and with that, has exhibited in numerous venues during that time, including the Independent Games Festival, Ars Electronica, Museum of Modern Art, Out of Index, KW Institute of Contemporary Art, Slamdance, Indiecade, Yerba Buena Center for the Arts, ZKM, Canadian International Film Festival, Games for Change, the Royal Ontario Museum, A Maze Game Festival, Rotterdam International Film Festival, Wing Luke Museum, The Kitchen, SIGGRAPH, and numerous others.

Peter's teaching philosophy embraces recursion. He proposes that the game designer is first and foremost a teacher. When a game works, we see the player like an engaged student; the player asks questions about the possibilities, makes conceptual connections, and synthesizes the system before pursuing outcomes. Peter's classroom is a playground, and by extension, a model for game design itself.

Peter attended the University of North Carolina and the California Institute of the Arts.



CTIN-532 - Interactive Design and Production I

Production Methods for Creative Designers

*USC Games
Spring Semester 2020*