ITP230 Video Game Quality Assurance
Units: 4
Semester: Spring 2022
When: Thursdays Noon-3:50 AM
Where: 

Instructor: Kyle Ackerman
Office: Class Discord
Office Hours: Class Discord / Information
Contact: kyleacke@usc.edu - please include "ITP230" in subject line.

Teaching Assistant: TBD
Contact: TBD - cc instructor when emailing TA

IT Help: USC ITS
Contact Info: 213-740-5555

Catalogue Description
Survey game software development through quality assurance and in-depth analysis of the development cycle with a focus on bug testing systems and methodologies.

Course Description
Provides students with a survey of game development through the lens of production and QA management. In addition to teaching the basics of video game production roles and systems, students will get to perform in-depth analysis of the game production cycle with a focus on managing bug-testing systems and methodologies. Lab assignments will involve gameplay and analysis, including the use and management of bug-tracking, and will both teach and reinforce professional communication skills that should be useful in any industry.

Students will also learn more about the Advanced Game Project process at USC Games, to see ongoing software development by fellow students and better understand game production within USC. The class will prepare students for professional QA positions, and to better integrate with teams for game development, particularly within the framework provided by AGP. It is a terrific introduction for those new to game development, who are interested in pursuing a game production track at USC, or who wish to explore possible game development roles of interest.

Learning Objectives
Upon completion of the class, the student will be able to fulfill the job requirements of an entry-level quality assurance tester in the video game industry. In addition, the student will have developed communication skills that will be useful in any industry or endeavor.

Prerequisite(s): none
Co-Requisite(s): none
Concurrent Enrollment: none
Recommended Preparation: familiarity with playing video games on console and PC, and with the use of email and web browsers. Familiarity with Microsoft Excel a plus.
Course Notes
Syllabus is posted on Blackboard. Will consist of Lecture 1-2 hours per week, lab 2-3 hours per week, including collaboration with AGP. Lecture and lab attendance are both mandatory. Assignments are done during lab and are due that day by end of lab.

Technological Proficiency and Hardware/Software Required
Students should be familiar with the use of computers and video games. Microsoft Office is required (and may be downloaded from http://software.usc.edu

Required Readings and Supplementary Materials
Course Reader (also may be referred to as "course pack"), planned to be available through the USC bookstore. Title: "Video Game Quality Assurance, Production, Design" or simply "Video Game Quality Assurance." Additional readings may be accessed through Blackboard/ Web Links. Students are further advised to subscribe to GamesIndustry.biz.

Recommended reading:
- THE GAME PRODUCTION TOOLBOX by Heather Maxwell Chandler (CRC Press 2020)

Description and Assessment of Assignments
You will create PowerPoint presentations, Excel spreadsheets, testing plans and bug reports. Graders will use a rubric to assess grade.

The lab assignments will be posted on Blackboard under the “Assignments” section. Each lab will include instructions, a due date, and a link for electronic submission. Labs will have multiple parts and some will involve communication and management skills related to the Advanced Game Project games.

You must keep a backup copy of all lab work, including assignments you submit. You are required to save your labs on your laptop, in an email to yourself, or on a website such as http://www.dropbox.com. You will not be able to save your work on the lab computers, but you can save your work on the virtual desktop available from Viterbi at https://mydesktop.vlab.usc.edu/

Grading Breakdown
The following percentage breakdown will be used in determining the grade for the course.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>% of Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly assignments</td>
<td>1400</td>
<td>50%</td>
</tr>
<tr>
<td>Midterm exam</td>
<td>100</td>
<td>20%</td>
</tr>
<tr>
<td>Final exam</td>
<td>100</td>
<td>20%</td>
</tr>
<tr>
<td>Participation</td>
<td>28</td>
<td>10%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100%</strong></td>
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Grading Scale
Course final grades will be determined using the following scale

A 95-100
A- 90-94
B+ 87-89
B  83-86
B- 80-82
C+ 77-79
C  73-76
C- 70-72
D+ 67-69
D  63-66
D- 60-62
F  59 and below

**Assignment Rubrics**
In general, points may be deducted for egregious SGP (spelling, grammar, and punctuation) errors. Points are also deducted when student disobeys or fails to understand instructions or communication principles covered in lecture or demonstrations.

**Assignment Submission Policy**
Details on Blackboard or Shared Drive submission of assignments will be shared on a by-assignment basis on Blackboard. Work is not to be submitted by e-mail. It is your responsibility to submit your assignments on or before the due date (due date is normally by the end of the weekly lab period). Assignments turned in one day late will have 20% of the total points deducted from the graded score. Assignments turned in two days late will have 50% of the total points deducted from the graded score. After two days, submissions will not be accepted, and you will receive a 0.

**Grading Timeline**
Standard timeline is one week. Notify instructor if grades are not posted within 10 days of assignment due date.

**Additional Policies**
The only acceptable excuses for missing an assignment deadline or taking an incomplete in the course are personal illness or family emergency. Attendance is recorded during each lecture and lab. If you are going to be absent from class, email a valid excuse to instructor more than one hour prior to class for an absence to be excused. Athletes likewise must notify instructor in advance of the absence and are still expected to turn in all work. As noted above, assignment is still due on the day of lab.
**ITP230 Course Schedule: A Weekly Breakdown**

Precise content of class lectures and assignments subject to update, guest speaker availability, or other unforeseen circumstances. Draft subject to change based on integration with AGP and active game development.

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics/Daily Activities</th>
<th>Readings and Homework</th>
<th>Deliverable/ Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1</td>
<td>Intro to course and to QA. Intro to Test Cases.</td>
<td>Posted Online</td>
<td>Test Cases and e-mail communication</td>
</tr>
<tr>
<td>Week 2</td>
<td>Game development teams and Test Suites.</td>
<td>Posted Online</td>
<td>Test Suite of Related Test Cases</td>
</tr>
<tr>
<td>Week 3</td>
<td>AGP Visit for Alpha Presentations and Meet Game Directors</td>
<td>Posted Online</td>
<td>Bug Reports</td>
</tr>
<tr>
<td>Week 4</td>
<td>QA functions, employment, and management.</td>
<td>Posted Online</td>
<td>Game Reaction, Testing Plan</td>
</tr>
<tr>
<td>Week 5</td>
<td>Concept Phase of game development.</td>
<td>Posted Online</td>
<td>Testing, reports</td>
</tr>
<tr>
<td>Week 6</td>
<td>Pre-Production Phase of game development. The back-and-forth of bug reporting.</td>
<td>Posted Online</td>
<td>Quiz, Testing</td>
</tr>
<tr>
<td>Week 7</td>
<td>Test Trees.</td>
<td>Posted Online</td>
<td>Create a Test Tree in Word or Excel or PowerPoint, Testing</td>
</tr>
<tr>
<td>Week 8</td>
<td>Production Phase of game development.</td>
<td>Posted Online</td>
<td>Testing</td>
</tr>
<tr>
<td>Week 9</td>
<td>Wednesday: MIDTERM EXAM followed by Lab Format: multiple choice, True/False, fill-the-blank, essay (write a bug, a test case, a test suite)</td>
<td>To prepare for midterm, review lectures, readings, and lab assignments</td>
<td>No lab assignment this week</td>
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<tr>
<td>SPRING BREAK</td>
<td></td>
<td></td>
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<tr>
<td>Week 10</td>
<td>Midterm postmortem. Lecture: Post-Production Phase of game development</td>
<td>Posted Online</td>
<td>AGP Testing, Reports</td>
</tr>
<tr>
<td>Week 11</td>
<td>Test Flow Diagrams.</td>
<td>Posted Online</td>
<td>Create test flow diagram. AGP Testing</td>
</tr>
<tr>
<td>Week 12</td>
<td>Publisher-developer relationship in game development. Combo Testing.</td>
<td>Posted Online</td>
<td>Create combo table. AGP Testing</td>
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<tr>
<td>Week 13</td>
<td>Play Balance Testing, ad hoc testing, player-type combo testing. AGP Beta</td>
<td>Posted Online</td>
<td>Create player-type table. AGP Testing</td>
</tr>
<tr>
<td>Week 14</td>
<td>Quality Appraisal. User Stories. Aftermarket Phase of game development.</td>
<td>Posted Online</td>
<td>Write user stories. AGP Testing</td>
</tr>
<tr>
<td>Week 15</td>
<td>Testing social games, localization testing, certification testing. The future of games and game QA. Final exam prep.</td>
<td>Posted Online</td>
<td>Close all open bugs, final bug report.</td>
</tr>
<tr>
<td>FINAL</td>
<td>Held in usual classroom. Format: multiple choice, True/False, fill-the-blank, essay (write a bug, a test case, a user story)</td>
<td>To prepare for final, review lectures, readings, and lab assignments</td>
<td>Date: see usc.edu NO EXCEPTIONS* NO MAKE-UP EXAM</td>
</tr>
</tbody>
</table>

*Except for the exceptions discussed in lecture, and showing in lecture slides on Blackboard
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 Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call studenthealth.usc.edu/counseling
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call suicidepreventionlifeline.org
Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press “0” after hours – 24/7 on call studenthealth.usc.edu/sexual-assault
Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298 equity.usc.edu, titleix.usc.edu
Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298 usc-advocate.symplicity.com/care_report
Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity | Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776 dsp.usc.edu
Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support and Intervention - (213) 821-4710 campussupport.usc.edu
Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101 diversity.usc.edu
Information on events, programs and training, the Provost’s Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

**USC Emergency - UPC**: (213) 740-4321, **HSC**: (323) 442-1000 – 24/7 on call
dps.usc.edu, emergency.usc.edu
Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

**USC Department of Public Safety - UPC**: (213) 740-6000, **HSC**: (323) 442-120 – 24/7 on call
dps.usc.edu
Non-emergency assistance or information.

**Office of the Ombuds - UPC**: (213) 821-9556 / **HSC**: (323-442-0382
ombuds.usc.edu
A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.