ITP 181 Video Game Quality Assurance Management
Units: 2
Semester: Spring 2023
When: Wednesdays 1 PM to 2:50 PM
Where: EGG 108

Instructor: Kyle Ackerman
Office: Class Discord
Office Hours: See Blackboard
Contact: kyleacke@usc.edu - please include "ITP181" in subject line.

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

IT Help: Viterbi IT
Hours of Service: Monday – Friday, 8:30 a.m. – 5:00 p.m.
Contact Info: DRB 205
(213) 740-0517
engrhelp@usc.edu

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

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 game development process at USC Games, to prepare to participate in ongoing software development by fellow students. The class will prepare students for professional QA positions, and to better integrate with teams for game development. 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, students will be able to:
1. Recognize game software that is not working as intended, be familiar with proprietary and commercially available bug-reporting systems
2. Compose professional electronic communications and thorough, reproducible bug reports
3. Understand how to prioritize, replicate, and clear bugs as part of a software development pipeline
4. Design and implement a testing plan
5. Understand the management and function of a videogame QA team, and issues related to both local and remote QA team management
6. Perform key QA planning, management, and implementation for a student game project

Prerequisite(s): n/a
Co-Requisite(s): n/a
Concurrent Enrollment: n/a
Recommended Preparation:
ITP 180 (Video Game Production), also familiarity with playing video games on console and PC, and with the use of email and web browsers.

Course Notes
Syllabus is posted on Blackboard. Will consist of Lecture 1-2 hours per week, lab 2-3 hours per week, including game testing. 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:
• SECRETS OF THE GAME BUSINESS, edited by François Dominic Laramée; Charles River Media; ISBN 1-58450-282-7

Description and Assessment of Assignments
Weekly Assignments
Weekly assignments will include drafting communications, testing plans and bug reports. Clear formats will be provided in spreadsheet or word processor format and assignments are expected to adhere to the format. Weekly assignment grades are divided as follows: 30% Follow professional communication standards as covered in lecture and demonstrations (including spelling, grammar, and punctuation), 30% Completeness of fields and diagrams, 30% Clarity and reproducibility of reports and plans, 10% comprehensiveness and detail. You must keep a backup copy of all lab work through the end of the semester.
Examinations
Midterm and final examinations are expected to be 70% multiple-choice and fill-in-the-blank questions, and 30% essays. Essays will be evaluated as 30% ideas, 30% organization, 30% supporting evidence, and 10% style (including grammar, punctuation, and spelling).

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>
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<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 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 revised course materials.

<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>Packet and Online – Jobs, QA and Writing a bug Report</td>
<td>Test Suite of Related Test Cases</td>
</tr>
<tr>
<td>Week 3</td>
<td>Game Presentations and Game Directors</td>
<td>Course Pack 7.2 – 837-849</td>
<td>Bug Report Assignment</td>
</tr>
<tr>
<td>Week 4</td>
<td>QA functions, employment, and management.</td>
<td>Course Pack 7.2 – 850-854</td>
<td>Game Reaction, Testing Plan</td>
</tr>
<tr>
<td>Week 6</td>
<td>Pre-Production Phase of game development. The back-and-forth of bug reporting.</td>
<td>Course Pack ch 13</td>
<td>Quiz, Testing - Bug Report Assignment</td>
</tr>
<tr>
<td>Week 7</td>
<td>Test Trees.</td>
<td>Course Pack 7.1 – 794 - 804</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>Course Pack 7.1 – 804 - 823</td>
<td>Testing – Bug Report Assignment</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>Review 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>
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<tr>
<td>Week 10</td>
<td>Midterm postmortem. Lecture: Post-Production Phase of game development</td>
<td>Course Pack Test Flow Diagrams</td>
<td>Testing, Reports</td>
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<tr>
<td>Week 11</td>
<td>Test Flow Diagrams.</td>
<td>Course Pack Ch 7.3</td>
<td>Create test flow diagram. Testing</td>
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<td>Week 12</td>
<td>Publisher-developer relationship in game</td>
<td>Course Pack Ch 7.1</td>
<td>Create combo table. Testing</td>
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<tr>
<td>Week 13</td>
<td>Play Balance Testing, ad hoc testing, player-type combo testing. Beta</td>
<td>“Tough Life” article, linked on Blackboard</td>
<td>Create player-type table. Testing</td>
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<td>Week 15</td>
<td>Testing social games, localization testing, certification testing. The future of games and game QA. Final exam prep.</td>
<td>Further “Postmortem” articles, linked on Blackboard</td>
<td>Close all open bugs, final bug report.</td>
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<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</td>
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</tbody>
</table>
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 - (213) 821-9556 (UPC) / (323-442-0382 (HSC)**

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.