



ITP230 Video Game Quality Assurance

Units: 4

Semester: Spring 2020

When: Mon, Wed 10:00-11:50 AM

Where: KAP 267

Syllabus v.200106a

Instructor: Tom Sloper

Office: OHE412

Office Hours: see <http://sloperama.com/office.html>

Contact: sloper@usc.edu - always include "ITP230" in subject line.

Teaching Assistant: Caleb Deen

Contact: cdeen@usc.edu - *always cc instructor when emailing TA*

IT Help: engrhelp@usc.edu or phone 213-740-0517 from 8AM-9PM.

Course 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. Use of online bug tracking software (Bugzilla) and offline bug tracking spreadsheets (Excel) with best communication practices to report software problems so they can be fixed by the development team.

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, and the use of email and web browsers. Familiarity with Microsoft Excel a plus.

Course Notes

Lecture 1-2 hours per week, lab 2-3 hours per week. Lecture and lab attendance are both mandatory. Assignments are done during lab and are due that day by end of lab. Lecture notes and some links to readings are on Blackboard; assignment instructions are on Blackboard, and assignments are turned in through Blackboard. A guest speaker may come in to augment the lecture and provide a concrete video game industry reality-check.

Syllabus for ITP230

Technological Proficiency and Hardware/Software Required

Students should be familiar with the use of computers and video games. Classroom computers are provided, with all necessary software. Students may use their own laptops; Microsoft Office is required (and may be downloaded from <http://software.usc.edu>). Bugzilla is available through a Viterbi/ITP server and run through any web browser.

Required Readings and Supplementary Materials

Course Reader (also may be referred to as "course pack"), available at USC bookstore. It may sometimes be a combined course pack for both ITP230 and ITP391. 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:

- GAME TESTING ALL IN ONE by C. Schultz, R. Bryant, T. Langdell. Thomson Course Technology, ISBN 1-59200-373-7
- GAME DEVELOPMENT ESSENTIALS: GAME QA & TESTING by Luis Levy, Jeannie Novak; Delmar Cengage Learning; ISBN-10: 1435439473 - ISBN-13: 978-1435439474
- INTRODUCTION TO GAME DEVELOPMENT, edited by Steve Rabin; Charles River Media; Second Edition, ISBN-13: 978-1-58450-679-9; ISBN-10: 1-58450-679-2
- SECRETS OF THE GAME BUSINESS, edited by François Dominic Laramée; Charles River Media; ISBN 1-58450-282-7

Description and Assessment of Assignments

You will create PowerPoint presentations, Excel spreadsheets, Access databases, websites in DreamWeaver, and blogs. 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. There will be at least 5 labs assigned, some in multiple parts.

Lab attendance is not mandatory, but there are some software packages that may not be available in non-ITP labs. If you have questions about any of the lab assignments, attend a lab session. Do not send any email to the instructor regarding lab instructions. You are also invited and encouraged to attend the instructor's office hours for lab-related questions.

You must keep a backup copy of all lab work, including assignments you submit on Blackboard. 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/>

Achievements

Students earn "achievements" by various means: on-time participation 5 weeks in a row, excellent in-class discussion participation, assisting another student during lab, etc. Achievements are awarded in the form of specially marked playing cards or trading cards. Cards may be traded with other students. A student can combine cards to form special combinations; those card combinations can be turned in to the instructor in exchange for marks upgrades, lateness/absence reduction, etc. Details at <http://sloperama.com/achieve/> (content of achievements page are subject to change).

Syllabus for ITP230

Grading Breakdown

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

| Assignment | Points | % of Grade |
|--------------------|--------|-------------|
| Weekly assignments | 1400 | 50% |
| Midterm exam | 100 | 20% |
| Final exam | 100 | 20% |
| Participation | 28 | 10% |
| | | |
| TOTAL | | 100% |

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 SGP (spelling, grammar, and punctuation) errors unless the student is demonstrably from a non-English-speaking country. Points are also deducted when student disobeys or fails to understand instructions or communication principles covered in lecture or demonstrations.

Assignment Submission Policy

Labs must be submitted on Blackboard. Do not email them to the instructor. It is your responsibility to submit your assignments on or before the due date (due date is normally "same day assigned" - normally Wednesdays). 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

Attendance is recorded during each lecture and lab. If you are going to be absent from class, email valid excuse to instructor more than one hour prior to class to be counted as present. 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, and can be turned in on Blackboard from anywhere in the world with internet access. Only proper businesslike emails accepted.

No make-up exams (except for documented medical or family emergencies) will be offered nor will there be any changes made to the Final Exam schedule.

Syllabus for ITP230

ITP230 Course Schedule: A Weekly Breakdown

Precise schedule of class lectures and assignments may vary due to holidays, guest speaker availability, or other unforeseen circumstances.

| | Topics/Daily Activities | Readings and Homework | Deliverable/ Due Dates |
|---------------|--|--|--|
| Week 1 | Intro to course and to QA. Intro to Test Cases. | Sloperama FAQ 5 - link on Blackboard/Web Links | Write 5 test cases in Excel; write 2 simulated emails in Word. Due Wednesday by 11:59 PM (always on Wednesday by 11:59 PM) |
| Week 2 | No class Monday (holiday). Wednesday: Game development teams and Test Suites. | Sloperama FAQs 7, 17, and 75 - links on Blackboard/ Web Links | Write a test suite of 5 related test cases in Excel |
| Week 3 | Game industry company types. Intro to Bug Reports. | Course Pack chapter 7.2, pp. 837-849 | Write bugs in Bugzilla, and track bug progress in Excel (hereinafter: "Bugzilla and Excel") |
| Week 4 | The retail side. Getting a QA job. | Course Pack chapter 7.2, pp. 850-854 | Bugzilla and Excel |
| Week 5 | Concept Phase of game development. Moving up from QA. | Course Pack chapter 7.1, pp. 791-794 | Bugzilla and Excel |
| Week 6 | No class Monday (holiday). Wednesday: Pre-Production Phase of game development. The back-and-forth of bug reporting. | Course Pack chapter 13, pp. 269-285 | Quiz, worth half this week's lab work. Bugzilla and Excel |
| Week 7 | Test Trees. | Course Pack chapter 7.1, pp. 794-804 | Create a Test Tree in Word or Excel or PowerPoint. Bugzilla and Excel |
| Week 8 | Production Phase of game development. | Course Pack chapter 7.1, pp. 804-823 Read "The Class of Quality Assurance" - link on Blackboard/Web Links | Bugzilla and Excel |
| Week 9 | Monday: prep for midterm. Wednesday: MIDTERM EXAM Format: multiple choice, True/False, fill-the-blank, essay (write | To prepare for midterm, review lectures, readings, and lab assignments | No lab assignment this week |

Syllabus for ITP230

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|---------------------|--|---|--|
| | a bug, a test case, a test suite) | | |
| SPRING BREAK | | | |
| Week 10 | Midterm postmortem. Lecture: Post-Production Phase of game development | Course Pack chapter 11 (Test Flow Diagrams) | Bugzilla and Excel |
| Week 11 | Test Flow Diagrams. | Course Pack chapter 7.3 (Publisher-Developer Relationship) | Create test flow diagram. Bugzilla and Excel |
| Week 12 | Publisher-developer relationship in game development. Combo Testing. | Course Pack chapter 7.1 (finish chapter). Watch "Extra Credits - Playtesting" - link on Blackboard/Web Links | Create combo table. Bugzilla and Excel |
| Week 13 | Play Balance Testing, ad hoc testing, player-type combo testing. | IGN article, "Tough Life of a Game Tester" - link on Blackboard/Web Links | Create player-type table. Bugzilla and Excel |
| Week 14 | Quality Appraisal. User Stories. Aftermarket Phase of game development. | "Spider-Man Shattered Dimensions" Postmortem - link on Blackboard/Web Links. Find online articles about trends in games for discussion week 15. | Write user stories. Bugzilla and Excel |
| Week 15 | Testing social games, localization testing, certification testing. The future of games and game QA. Final exam prep. | "God of War Ascension" postmortem. "Albert Reed on Indie Dev." "How Riot Handles Rapid QA Cycles." - link on Blackboard/Web Links | Close all open bugs on Bugzilla; finish Excel worksheet. |
| FINAL | Held in usual classroom. Format: multiple choice, True/False, fill-the-blank, essay (write a bug, a test case, a user story) | To prepare for final, review lectures, readings, and lab assignments | Date: Monday May 11, 8:00-10:00 AM - see https://classes.usc.edu/term-20201/finals/ NO EXCEPTIONS* NO MAKE-UP EXAM |

*Except for the exceptions discussed in lecture, and showing in lecture slides on Blackboard

Syllabus for ITP230

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” <https://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, <http://policy.usc.edu/scientific-misconduct>.

Support Systems:

Student Counseling Services (SCS) - (213) 740-7711 – 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. <https://engemannshc.usc.edu/counseling/>

National Suicide Prevention Lifeline - 1-800-273-8255

Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. <http://www.suicidepreventionlifeline.org>

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-4900 - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to gender-based harm. <https://engemannshc.usc.edu/rsvp/>

Sexual Assault Resource Center

For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: <http://sarc.usc.edu/>

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086

Works with faculty, staff, visitors, applicants, and students around issues of protected class. <https://equity.usc.edu/>

Bias Assessment Response and Support

Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. <https://studentaffairs.usc.edu/bias-assessment-response-support/>

The Office of Disability Services and Programs

Provides certification for students with disabilities and helps arrange relevant accommodations. <http://dsp.usc.edu>

Student Support and Advocacy – (213) 821-4710

Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. <https://studentaffairs.usc.edu/ssa/>

Diversity at USC

Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. <https://diversity.usc.edu/>

USC Emergency Information

Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible, <http://emergency.usc.edu>

USC Department of Public Safety – 213-740-4321 (UPC) and 323-442-1000 (HSC) for 24-hour emergency assistance or to report a crime.

Provides overall safety to USC community. <http://dps.usc.edu>