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| Video Game Quality AssuranceITP 230x (4 Units) **Fall 2016** v.160820b | | Description: E:\Dropbox\USC\viterbiengineering\Viterbi _ Engineering\Vertical\Vertical_Formal_JPEG\Vert_Formal_Viterbi_CardOnTrans.jpg |
| Objective | | |
| 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. | | |
| Concepts | | |
| Survey game software development through quality assurance and in-depth analysis of the development cycle with a focus on bug testing systems and methodologies. | | |
| Prerequisites | No prerequisite. ITP 101 recommended; students should be able to use word processing software, graphic utilities, email, Internet browsers | |
| Instructors | Chris Swain & William Blackwell | |
| Contact | [cswain@usc.edu](mailto:cswain@usc.edu) [wblackwe@usc.edu](mailto:wblackwe@usc.edu) | |
| Office Hours | By appointment | |
| Lab Assistants | Kelly Chang [chan741@usc.edu](mailto:chan741@usc.edu) | |
| Lecture | 1-2 hours per week. | |
| Lab | 2-3 hours per week.  Thursday class : lecture and lab attendance mandatory. Assignments are done during lab and are due that day by end of lab.  Occasionally a guest speaker will come in to augment the lecture and provide a concrete video game industry reality-check. | |
| Exams | Midterm and final exams to consist of written test on paper (T/F, multiple choice, fill-the-blank) and written test cases, bug reports, etc. | |
| Required Textbooks | | |
| Instructor lectures and on-line resources listed on Blackboard.  ***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"** | | |
| Optional Textbooks | | |

**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

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| Website |

All course material will be on Blackboard ([http://blackboard.usc.edu](http://blackboard.usc.edu/)). Lectures are on Blackboard under Content, and assignments are on Blackboard under Assignments. [http://blackboard.usc.edu](http://blackboard.usc.edu/). Assignments are to be turned in online via Blackboard and/or via Bugzilla as instructed [http://itpbugzilla.usc.edu](http://itpbugzilla.usc.edu/)

Material also on Sloperama.com <http://www.sloperama.com/advice/lesson5.htm> and other articles.

Students are also required to stay apprised of video game industry news. Free daily industry newsletter (required reading): [http://www.gamesindustry.biz](http://www.gamesindustry.biz/)

### IT Help

Hours of Service: 8AM-9PM; Phone: 213-740-0517; Email: [engrhelp@usc.edu](mailto:engrhelp@usc.edu)

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| Grading | | |
| The following percentage breakdown will be used in determining the grade for the course. | | |
| Lab assignments, quizzes | 50% | |
| Midterm Exam | 20% | |
| Final Exam | 20% | |
| Participation | 10% | |
| Total | 100% | |
| Grading Scale | | |
| The following shows the grading scale to be used to determine the letter grade. | | |
| A | 100-93 | |
| A- | 92-90 | |
| B+ | 89-87 | |
| B | 86-83 | |
| B- | 82-80 | |
| C+ | 79-77 | |
| C | 76-73 | |
| C- | 72-70 | |
| D+ | 69-67 | |
| D | 66-65 | |
| F | 64 or below | |

### 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. 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/](http://sloperama.com/achieve/) (content of achievements page are subject to change).

### Policies

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, except as permitted by university rules.

*Assignments* - Assignments are posted weekly under Assignments on Blackboard. Exercises are to be submitted online via Blackboard only. Barring an extended campuswide Blackboard outage, no work submitted by email will be graded. Exercises are **due the day assigned**. It is the student’s responsibility to turn in assigned exercises on or before deadlines as set by the instructor. **If student misses class, assignment is still due that day and can be turned in on Blackboard from anywhere in the world with internet access.** If absent due to illness, bring written note from medical facility to get exception.

*Save your work -* You are required to save your labs using a USB flash drive or a website such as [http://www.dropbox.com](http://www.dropbox.com/). You must keep a copy of all labs. You will not be able to save your work on the ITP lab computers.

*Quiz -* During the first half of the semester, a quiz will be given (to be announced at least one week ahead of time). The quiz counts the same as a regular weekly assignment, and its grade goes into the assignments portion of the overall grade.

*Extra Credit -* During the second half of the semester, extra credit assignments are available. An extra credit assignment counts the same as a regular weekly assignment, and its grade goes into the assignments portion of the overall grade. Extra credit must be turned in prior to the end of the last class (before Study Days).

*Athletes -* If you must miss class due to an athletic event, you must notify instructor in advance of the absence. You are still expected to turn in all work. As noted above, **assignment is still due that day and can be turned in on Blackboard from anywhere in the world with internet access.**

*Late Submissions -* Exercises/assignments turned in late will be reduced by **20%** the first day it's late, and by **50%** the second day. On or after the third day, a zero is entered in the grade center. Extensions are granted based on written excuse and are granted on a case-by-case basis only; no guarantee that an extension will be granted.

*Make-up policies* - To make up for a missed assignment, student must turn in assignment on Blackboard (subject to lateness penalty per above). To make up for a missed exam, the student must provide a satisfactory reason (as determined by the instructor) along with proper documentation.

*Attendance -* Students should notify instructor by email in advance if a class will be missed. Students are expected to come to class on time and attend each class and do lab work in lab.

*Games -* Games provided by ITP must be returned at the end of lab. No exceptions.

*Time Limit -* Promptly at the close of lab session, all students must cease playing and exit classroom, turning in games to lab assistant. No "just one more level." No exceptions.

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| Incomplete and Missing Grades |

Excerpts for this section have been taken from the University Grading Handbook, located at

<http://www.usc.edu/dept/ARR/grades/gradinghandbook/index.html>. Please see the link for more details on this and any other grading concerns.

A grade of Missing Grade (MG) “should only be assigned in unique or unusual situations… for those cases in which a student does not complete work for the course before the semester ends. All missing grades must be resolved by the instructor through the Correction of Grade Process. One calendar year is allowed to resolve a MG. If an MG is not resolved [within] one year the grade is changed to [Unofficial Withdrawal] UW and will be calculated into the grade point average a zero grade points.

A grade of Incomplete (IN) “is assigned when work is no completed because of documented illness or other ‘emergency’ **occurring after the twelfth week** of the semester (or 12th week equivalency for any course scheduled for less than 15 weeks).”

**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](http://capsnet.usc.edu/%20department/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](mailto: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/academicsupport/ centerprograms/dsp/home\_index.html](http://sait.usc.edu/academicsupport/%20centerprograms/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/*](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.

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| Emergency Preparedness/Course Continuity in a Crisis |

In case of emergency, when travel to campus is difficult, if not impossible, USC executive leadership will announce a digital way for instructors to teach students in their residence halls or homes using a combination of the Blackboard LMS (Learning Management System), teleconferencing, and other technologies. Instructors should be prepared to assign students a “Plan B” assignment that can be completed ‘at a distance.’ For additional information about maintaining your classes in an emergency, please access: [http://cst.usc.edu/services/ emergencyprep.html](http://cst.usc.edu/services/%20emergencyprep.html)

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| **Video Game Quality Assurance**  ITP 230x (4 Units) - Fall, 2016 | |
| **Course Outline** | |
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| **Week 1, Aug. 22** – Intro to class and QA. Test Cases | |
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|  | **Reading:** Sloperama FAQ 5 (Link on Blackboard/Websites) |
| **Aug. 24** | **Assignment:** Write 5 test cases in Excel and 2 simulated emails |
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| **Week 2, Aug. 29** – Game teams, Test Suites | |
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|  | **Reading:** Sloperama FAQs 7, 17, and 75 (links on Blackboard/ Websites) |
| **Aug. 31** | **Assignment:** Write 5 related test cases in Excel. |
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| **Week 3, Sept. 7** – Industry company types, writing bug reports | |
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|  | **Reading:** Course Pack, Chapter 7.2 pp. 837-849 |
| **Sept. 7** | **Assignment:** Write bugs in Bugzilla, track bug progress in Excel. |
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| **Week 4, Sept. 12** – The retail side, getting a QA job, using worksheets to log Bugzilla work | |
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|  | **Reading:** Course Pack, Chapter 7.2 pp. 850-854 |
| **Sept. 14** | **Assignment:** Track Bugzilla bugs in Excel worksheet |
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| **Week 5, Sept. 19** – Concept phase, greenlight considerations, moving up from QA | |
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|  | **Reading:** Course Pack, Chapter 7.1 pp. 791-794 |
| **Sept. 21** | **Assignment:** Quiz (date subject to change; might be week 6) |
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| **Week 6, Sept. 26** – Pre-Production, planning, internal vs. external development, bugs back-and-forth | |
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|  | **Reading:** Course Pack, Chapter 13, pp. 269-285 |
| **Oct. 28** | **Assignment:** Write bugs, fill in worksheet |
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| **Week 7, Oct. 3**  – Test Trees | |
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|  | **Reading:** Sloperama FAQ 10, Course Pack Chapter 7.1, pp. 794-804 |
| **Oct. 5** | **Assignment:** Create test tree; write bugs; worksheet |
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| **Week 8, Oct. 10** – Production phase, Marketing | |
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|  | **Reading:** Course Pack, Chapter 7.1 pp. 804-823, and "The Class of Quality Assurance" (link on Blackboard/Websites) |
| **Oct. 12** | **Assignment:** Write bugs; worksheet |
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| **Week 9** – MIDTERM (paper exam) | |
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|  | Monday Oct. 17 - Midterm review in class |
|  | **Wednesday Oct. 19** - Midterm exam (no lab assignment) |
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| **Week 10, Oct. 24** – Midterm postmortem. GDC postmortem. Lecture: Post-Production | |
|  | **Reading:** Course Pack, Chapter 11 (Test Flow Diagrams) |
| **Oct. 26** | **Assignment:** Write bugs; worksheet |
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| **Week 11, Oct. 31** – Test Flow Diagrams | |
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|  | **Reading:** Course Pack, Chapter 7.3 (Pub-Dev Relationship) |
| **Nov. 2** | **Assignment:** Create TFD; write bugs; worksheet |
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| **Week 12, Nov. 7** – Publisher-developer relationship, Combinatorial Testing | |
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|  | **Reading:** Course Pack, Chapter 7.1 (finish chapter); "Extra Credits - Playtesting" video on YouTube (link on Blackboard) |
| **Nov. 9** | **Assignment:** Create combo table; write bugs; worksheet |
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| **Week 13, Nov. 14** – Ad Hoc Testing, Play Balance Testing, Player-Type Combo Testing | |
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|  | **Reading:** IGN article, "Tough Life of a Game Tester" (link on Blackboard) |
| **Nov. 16** | **Assignment:** Create player-type table; write bugs; worksheet |
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| **Week 14, Nov. 21** – Lab immediately follows lecture due to Thanksgiving holiday. Topic: Quality Appraisal - Various ways to measure and quantify quality; User Stories; Aftermarket phase | |
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|  | **Reading: "**Spiderman Shattered Dimensions" postmortem (link on Blackboard); find online articles about Xbox One vs. PS4, and Steam Machine, Ouya, and Oculus Rift. For discussion week 15 |
| **Nov. 21** | **Assignment:** Write user stories; write bugs; worksheet |
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| **Week 15, Nov. 28** – Testing Social games, Localization testing, Certification testing; The Future of Games and Game QA; Final exam prep | |
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|  | **Readings:** God of War Ascension Postmortem, Albert Reed on Indie Dev, and How Riot Handles Rapid QA Cycles (links on Blackboard/Websites). Will be on final exam. |
| **Nov. 30** | **Assignment:** Close open bugs; finish worksheet |

Above schedule is subject to modification.

**Finals Week** - Final exam: multiple choice, true/false, fill-the-blank, essay.

Exam will take place in classroom on **Monday, Dec. 12, at 8:00 AM**. No exceptions. See <https://classes.usc.edu/term-20163/finals/>