**CS5337 SYLLABUS**

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| Instructor | Dr. José Macias (Call me José) |
| Phones | Work: (818)393-0771; Cell: (626)639-5503 |
| Emails | [josemasia@gmail.com](mailto:josemasia@gmail.com)  [jose.m.macias@jpl.caltech.edu](mailto:jose.m.macias@jpl.caltech.edu)  jmacias2@exchange.calstatela.edu |
| Office & Hours: | I have no office at CSULA (Library Hoteling?)  During Remote instruction we will use ZOOM  TuTh: 6-8pm; Fr: 10am-2pm; M-W-F after class |
| Alternate Instructor & Email: | Richard Cross  [**richard.csdept@gmail.com**](mailto:richard.csdept@gmail.com) |
| Your EMAIL HEADING: | “cs5337- the subject” |
| Strong Pre-requisite | Good Programming Skills (Java, C++, …) |
| Textbook-References | “Software Engineering”, Ian Sommerville, Addison Wesley  "Software Engineering: A Practitioner's Approach", Roger Pressman, McGraw-Hill.  "Essentials of Software Engineering, Fourth Edition" by Frank Tsui, Orlando Karam & Barbara Bernal. ISBN-13: 978-1284106008. ISBN-10: 128410600.  "Software Engineering Economics", Barry Boehm, Prentice-Hall. Good only for COCOMO information. |
| Course Catalog Description: | Software development methodologies;  managing software development projects;  formal methods for modeling and specification;  various designs such as architectural, user-interface, pattern-based, web-app, and mobile-app designs;  software testing;  other advanced topics.  *Lecture 2:30hrs/week.* |
| Pre-requisites | CS 3337 or G2 Standing and/or Department Authorization. |
| Required/Elective | MS Program Elective. |
| Student Learning Outcomes (SLO) addressed by this course | 1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions.  2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program’s discipline.  3. Communicate effectively in a variety of professional contexts.  4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles.  5. Function effectively as a member or leader of a team engaged in activities appropriate to the program’s discipline.  6. Apply computer science theory and software development fundamentals to produce computing-based solutions.  Other outcomes of instruction:  At the end of the course, students are able to  *Estimate the cost and effort for software projects*  *Make schedules for software projects.*  *Elicit software requirements*  *Create data model, flow-oriented model and behavior model*  *Convert the requirement models into software architectures*  *Implement component-level design* |
| Course Topics | Analysis of large Software Engineering Projects using models to estimate the Software Project effort and budget.  Software Process  Requirement Engineering  Elements of Design Engineering  Project Implementation  Project Presentation and Defense (To be discussed in class) |
| Laboratory Project | The students will complete a software project.  Their project shall be uploaded under “Software Design and Implementation Document” assignment on CSNS.  Projects will include subjects such as: (To be discussed in class) |
| S/W Requirements Document & Software Design Document | Samples of the Document Templates will be provided/discussed in class. |
| Grading (100%) | To receive a grade in this class *each individual part* must receive at least a passing grade before the grades are weighted, that is,  Exams, Quizzes, Readings, Documentation and Peers Evaluation, if any. All areas must pass independently BEFORE they can be weighted. (See below the grading curve). Any single grade at or below 50% is considered a *non-passing* grade. |
| Exams grading (30%) | There will be three exams. The exams are open book/notes (All exams will be taken remotely - take home). The exams are weighted 10% (Midterm), and 20% (Final) of the total grade. All exams grades are required. |
| Readings (20%) | Readings is a most fundamental part of the class. Readings are controlled by means of quizzes. The expected number of readings is to be discussed in classes (undergrad reading is 5-6 papers).  ***All readings are required, that is, you cannot miss any reading grade. The average of all readings shall be above the passing grade*.** The average of all reading quizzes is 20% of the total grade.  **NOTE: We may decide to go to a different reading pattern, a hybrid one. This will be discussed on line next time.** |
| Project (20%) | Average of the grades assigned to the team’s work and presentation at the end of the course amount to 20% of the total grade. The typical graders are one or two independent (possibly academic) parties, the instructor and the students. |
| Peers Grading (30%) | The evaluation of peers is assessed at 30% of the total grade. This grade is the average of the grade each member of the team assigns to the other team members. This grade is emailed to the instructor *after* all course activities have ended. It reflects the opinion of the team members regarding the contribution, work and dedication the other team members have put in the execution of their team's project.  **WARNING: Any team member evaluated at “D” or “F” by more than one team member in his or her group, will not receive a passing grade in this class.** |
| Attendance | **Required attendance is 100% (the team work cannot be done at a later time). Exceptional circumstances, explained to the instructor in advance, may allow for an absence of one week of classes. The maximum possible grade given to a student missing one class will be A- (A minus), provided that the student grade was an A, that is, the grade will be reduced "one grade step".**  **A student missing more than a full week of classes will receive a final grade of "F".**  **PUNCTUALITY: Students are expected to be at their working place from the beginning until the end of class. “Wandering students” will be considered not in class or late for class. THREE “LATE” notes will be considered as one day of absence.**  **BREAKS:** **Any break is the student personal request. Students are expected to be back in class in a timely manner. Being consistently present is part of your class attendance record. Your grade may be affected by not fulfilling this requirement.** |
| Academic Integrity (University Policy) | The California State University has issued strong warnings disqualifying cheating by the students. Cheating on any assignment or exam will be taken seriously.  All parties involved will receive a failing grade in the course and will be reported to the Department Chair for further disciplinary action. |

***ALL STUDENTS IN THIS CLASS WILL BE ASKED TO SIGN A DOCUMENT CALLED “SYLLABUS UNDERSTANDING” ASSERTING THAT THEY HAVE READ AND UNDERSTOOD THIS SYLLABUS REQUIREMENTS AND CONDITIONS.***

**Typical Grading Curve (~Highest Class Grade is 100%):**

**A : 90% or better C : 45% or better**

**A- : 80% or better** **D : 40% or better**

**B+ : 70% or better F : below 40%**

**B : 60% or better**

**B- : 50% or better**

**Peers Grading values (if any): A or A+ is 100%, A- is 90%, B+ is 80%, B is 70%, B- is 60%, C+ is 50%, C is 40%, D is 20%, F is 1% (2 D's or F's means failing the class)**

**FALL 2020 SEMESTER DAY(S) DATE(S)**

Fall Semester Begins - Convocation Thursday Aug. 20

Fall Classes Begin *Monday* Aug. 24

**Labor Day, University closed** *Monday* Sept. 7

**Veterans Day, University closed** *Wednesday* Nov. 11

**Fall Recess - No Classes, Campus Open Monday - Wed. Nov. 23 -25**

**Thanksgiving, University Closed Thursday - Sat. Nov. 26 - 28**

Fall Classes End *Saturday* Dec. 12

Final Exams Monday - Saturday Dec. 14 - 19

Fall Grades Due Wednesday Dec. 23

Fall Semester Ends Wednesday Dec. 23