Software Engineering: COSC 3370  
School of Engineering & Computing Sciences 
Spring 2015

A. COURSE INFORMATION

Course number/section: 3370.001
Class meeting time: TR 12:30-01:45 PM
Class location: CI-122
Course Website: http://sci.tamucc.edu/~iersoy/ and https://bb9.tamucc.edu/

B. INSTRUCTOR INFORMATION

Instructor: Mr. Burak Ersoy
Office location: CI-342
Office hours: M 10:00 - 1:00 PM
TR 11:00 - 12:00 PM
Telephone: 825-3711
e-mail: burak.ersoy@tamucc.edu
Appointments: Must be scheduled at least week in advance by email

C. COURSE DESCRIPTION

The application of engineering principles to the development and maintenance of high quality large software systems, delivered on time and within budget, including the development and application of processes and tools for managing the complexities inherent in creating these systems.

D. PREREQUISITES AND COREQUISITES

Prerequisites
COSC 2437

Corequisites
None

E. REQUIRED TEXTBOOK(S), READINGS AND SUPPLIES

Required Textbook(s)

Optional Textbook(s) or Other References
Software Engineering: A Practitioner’s Approach, R.S. Pressman, McGraw Hill, 8th Ed.
Supplies
Some way to archive your documents (Flash drive, Dropbox/Cloud, etc)

F. STUDENT LEARNING OUTCOMES AND ASSESSMENT

Assessment is a process used by instructors to help improve learning. Assessment is essential for effective learning because it provides feedback to both students and instructors. A critical step in this process is making clear the course’s student learning outcomes that describe what students are expected to learn to be successful in the course. The student learning outcomes for this course are listed below. By collecting data and sharing it with students on how well they are accomplishing these learning outcomes students can more efficiently and effectively focus their learning efforts. This information can also help instructors identify challenging areas for students and adjust their teaching approach to facilitate learning.

- Describe the basic concepts of software engineering
- Understand the significance of engineering and programming to software development
- Utilize a variety of techniques to develop good requirements
- Use pseudocode and other techniques for component design
- Understand the use of data flow diagrams
- Develop strategic test plans
- Compute significant software metrics
- Discuss current developments in software engineering
- Understand effective project management techniques

By the end of this course, students should be able to:

1. Achieve team-assigned tasks
2. Listen and communicate in team settings
3. Meet deadlines and team duties
4. Apply current software development methodologies or techniques
5. Apply software principles to solutions to problems of varying complexity
6. Apply documentation principles in the construction of software systems

G. INSTRUCTIONAL METHODS AND ACTIVITIES

This course will be a mixture of lectures and discussions. The student is expected to actively participate in all class activities. The student is also expected to do outside work on assignments and reading.
H. MAJOR COURSE REQUIREMENTS AND GRADING

Grade Scale:  A (90-100%)  B (80-89%)  C (70-79%)  D (60-69%)  F (<60%)

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>% of FINAL GRADE</th>
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<tbody>
<tr>
<td>Mid-Term Exam</td>
<td>20</td>
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<tr>
<td>Team Project with Multiple Deliverables</td>
<td>50</td>
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<tr>
<td>Team Effort Evaluation</td>
<td>10</td>
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<tr>
<td>Final Exam</td>
<td>20</td>
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I. COURSE CONTENT/SCHEDULE

<table>
<thead>
<tr>
<th>DATE (BY DAY OR WEEK)</th>
<th>TOPIC</th>
<th>CHAPTER(S)</th>
<th>ASSIGNMENTS</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Introduction and Overview</td>
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<td>Read Chapter 1</td>
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<tr>
<td>Week 2</td>
<td>The Scope of Object-Oriented SE</td>
<td>1</td>
<td>Read Chapter 2</td>
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<tr>
<td>Week 3</td>
<td>Software Life-Cycle Models</td>
<td>2</td>
<td>Read Chapter 3, 4, Team Assign. 1</td>
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<td>Week 4</td>
<td>The Software Process</td>
<td>3, 4</td>
<td>Read Chapter 4, 5, Team Assign. 2</td>
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<td>Week 5</td>
<td>Teams, The Tools of the Trade</td>
<td>4, 5</td>
<td>Read Chapter 5, 6, Team Assign. 3</td>
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<td>Week 6</td>
<td>The Tools of the Trade, Testing</td>
<td>5, 6</td>
<td>Read Chapter 7</td>
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<td>Week 7</td>
<td>From Modules to Objects</td>
<td>7</td>
<td>Team Assign. 4</td>
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<tr>
<td>03/12/2015</td>
<td>Mid-Term Exam</td>
<td>1, 2, 3, 4, 5, 6, 7</td>
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<tr>
<td>Week 9</td>
<td>Spring Brake – No classes</td>
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<td>Read Chapter 11</td>
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<tr>
<td>Week 10</td>
<td>Requirements</td>
<td>11</td>
<td>Team Assign. 5</td>
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<tr>
<td>Week 11</td>
<td>Requirements</td>
<td>11</td>
<td>Team Assign. 6</td>
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<tr>
<td>Week 12</td>
<td>Requirements</td>
<td>11</td>
<td>Read Chapter 13, Team Assign. 7</td>
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<td>Week 13</td>
<td>Object-Oriented Analysis</td>
<td>13</td>
<td>Team Assign. 8</td>
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<tr>
<td>Week 14</td>
<td>Object-Oriented Analysis</td>
<td>13</td>
<td>Team Assign. 9</td>
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<tr>
<td>Week 15</td>
<td>Object-Oriented Analysis</td>
<td>13</td>
<td>Team Assign. 9</td>
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<tr>
<td>Week 16</td>
<td>Review</td>
<td>11, 13</td>
<td>Read Chapter 10</td>
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<td>05/07/2015</td>
<td>Final Exam (11:00–1:30 PM)</td>
<td>11, 13</td>
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Note: Changes in this course schedule may be necessary and will be announced to the class by
the Instructor. The assignments and exams shown are directly related to the Student Learning Outcomes described in Section F.

J. COURSE POLICIES

Attendance/Tardiness
You are expected to be in attendance, punctual, and prepared for class. If you are more than 5 minutes late to class, you will be counted as tardy. Please make sure that you will never be tardy to any of your classes or accept the consequences.

Late Work and Make-up Exams
NO makeup exams, assignments, or quizzes will be allowed unless I have agreed prior to the exam, assignment, or quiz time and been provided with official supporting documents.

Extra Credit
There is NO EXTRA CREDIT - don't bother asking.

Cell Phone Use
You are required to turn off your cell phone in class and pay attention to class discussions.

Laptop Use
Use of laptops and other electronic devices is restricted to taking notes.

Food in Class
Eating food in class is Not Allowed.

Missed Exam
Missed exams will be graded as ‘0’.

Participation
Class discussions and information provided in class are considered regular course material; it is your responsibility to take appropriate notes. You are expected to attend lectures and actively participate in class discussions.

Others
Read Section L!!!

K. COLLEGE AND UNIVERSITY POLICIES

• Academic Integrity (University)
   It is expected that university students will demonstrate a high level of maturity, self-direction, and ability to manage their own affairs. Students are viewed as individuals who possess the qualities of worth, dignity, and the capacity for self-direction in personal behavior.
See Full University Policy at http://catalog.tamucc.edu/content.php?catoid=10&navoid=313#Academic_Integrity

**Classroom/Professional Behavior**
Texas A&M University-Corpus Christi, as an academic community, requires that each individual respect the needs of others to study and learn in a peaceful atmosphere. Under Article III of the Student Code of Conduct, classroom behavior that interferes with either (a) the instructor’s ability to conduct the class or (b) the ability of other students to profit from the instructional program may be considered a breach of the peace and is subject to disciplinary sanction outlined in article VII of the Student Code of Conduct. Students engaging in unacceptable behavior may be instructed to leave the classroom. This prohibition applies to all instructional forums, including classrooms, electronic classrooms, labs, discussion groups, field trips, etc.

**Deadline for Dropping a Course with a Grade of W (University)**
The grade of W will be assigned to any student officially dropping a course by Friday, April 10, 2015. No student is eligible to receive a W without completing the official drop process by this deadline. Visit the Office of the University Registrar for the Course Drop Form that must be submitted. After April 10, 2015 a student will not be allowed to drop a course.

**Grade Appeals (College of Science and Engineering)**
As stated in University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules website at http://www.tamucc.edu/provost/university_rules/index.html, and the College of Science and Engineering Grade Appeals webpage at http://sci.tamucc.edu/students/GradeAppeal.html. For assistance and/or guidance in the grade appeal process, students may contact the chair or director of the appropriate department or school, the Office of the College of Science and Engineering Dean, or the Office of the Provost.

**Disability Services**
Disability Services (DS) is the hub for coordinating services and accommodations to ensure accessibility and utilization of all programs for all Texas A&M University-Corpus Christi students with disabilities. Our services are designed to meet the unique educational needs of enrolled students with documented permanent or temporary disabilities. DS provides intake and consultation services to students
seeking to register with our office. DS reviews an individual’s documentation of
disability and assesses eligibility for services and the determination of reasonable
accommodations. For more information visit the Disability Services Office at 116
Corpus Christi Hall or go to http://disabilityservices.tamucc.edu/

L. OTHER INFORMATION

• Exams and quizzes are NOT open-book unless instructed otherwise.
• Not all quizzes times will be announced; pop-up quizzes are likely.
• Assigned readings, as discussed in class and usually found in Blackboard, should
be completed before coming to the next class. You are expected to read the
textbooks.
• Start working on your assignments early; last day questions that show
carelessness will not be responded to.
• Please ask questions on any material that you do not understand; if I do not
explain it to your satisfaction, please see me during my office hours.
• Announcements will be made available in class, on course Blackboard page,
and/or through Islander email. It is your responsibility to regularly check for
announcements.
• It is your responsibility to determine what was covered during any days you miss
and obtain notes from a classmate.
• Demonstrate integrity, maturity, and ethical behavior.

GENERAL DISCLAIMER
I reserve the right to modify the information, schedule, assignments, deadlines, and course
policies in this syllabus if and when necessary. I will announce such changes in a timely
manner during regularly scheduled lecture periods.