

**DUY TAN UNIVERSITY**  
International School  
**CMU-SE 450 – CAPSTONE PROJECT 1**  
Semester 1 - Academic Year: 2017 – 2018

No. of Credit Hours	Instructor Information	Class Information
LEC: 3 credits	<b>All Lecturers</b> <b>Office:</b> Rm. 601, 254 Nguyen Van Linh, Danang, Vietnam <b>Office Hours:</b> M - 7:00-10:00 <b>Tel.:</b> +84-511-3650403 (Ext 601) <b>Cell:</b> <b>Email:</b>	T - 13:00-16:15 Rm. 601, 254 Nguyen Van Linh, Danang, Vietnam

**Textbook(s)**

1. There is no required textbook.

**Reference Materials**

1. Readings from academic and industry sources will be determined based on project topics.

**Course Description:** This capstone course emphasizes team collaboration and application of modern engineering approaches to software construction. The development by each team of an original, industry-strength software-intensive product is the main objective of the course. The teams will report on their project's progress by giving *presentations* and submitting deliverables related to the project. The teams will deliver and present project parts at the following stages of project development: topic proposal (*concept*), software specification (*requirements*), design (*model*), and implemented software (*in-progress* & *final product*). At the beginning of the semester the teams will set up a communication protocol between team and mentor, which will be updated regularly to reflect the projects' progress and team meeting. At the end of the semester there will be a Senior Projects Defense with project *demos*, *posters*, and *presentations*

Academic Program: Software Engineering		
Prerequisite(s)	Co-requisite(s)	Course Status for Program
Permission by instructor		<input checked="" type="checkbox"/> Required (R) <input type="checkbox"/> Selected Elective (SE) <input type="checkbox"/> Elective (E)

**COURSE TOPICS & SCHEDULES**

Content No.	Date/Time	Course Topic	Readings	Note
<b>CONT. 1</b>		Tools, Technologies, Management Tools	-	
<b>CONT. 2</b>		Software Process	-	
<b>CONT. 3</b>		Project concept	-	
<b>CONT.4</b>		Requirements specification	-	
<b>CONT.5</b>		High level (architectural) design	-	
<b>CONT.6</b>		DB design, User interface design	-	
<b>CONT.7</b>		Construction/ Implementing	-	
<b>CONT.8</b>		Testing & Automation test tool	-	

<b>CONT.9</b>		Teamwork and Project management	-	
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## COURSE ASSESSMENT PLAN

### Final Score

Assessment Type	Grade Percentile
Mentor grading	30%
Defense committee grading (at least 3 members)	70%
Total:	<b>100%</b>

## COURSE LEARNING OUTCOMES

At the completion of this course, students will be able to:

*CLO.1. an ability to design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs, within realistic constraints specific to the field*

*CLO.2. an ability to function effectively on multi-disciplinary teams*

*CLO.3. an ability to analyze a problem, and identify, formulate and use the appropriate computing and engineering requirements for obtaining its solution*

*CLO.4. an understanding of professional, ethical, legal, security and social issues and responsibilities*

*CLO.5. an ability to communicate effectively with a range of audiences*

*CLO.6. the broad education necessary to analyze the local and global impact of computing and engineering solutions on individuals, organizations, and society*

*CLO.7. an ability to apply design and development principles in the construction of software systems or computer systems of varying complexity*

## COURSE LEARNING OUTCOMES AND STUDENT OUTCOMES

Course Learning Outcome	Course Topic	Teaching Methodology	Assessment Type	Level of Coverage	Student Outcome
CLO.1	CONT.1,2,3,4,5,6	Learning by Doing, Project Based Learning, CDIO Approach			b,c
CLO.2	CONT.9		-		d
CLO.3	CONT.1,2,3,4,5,6,7		-		e
CLO.4	- CONT4,5,8,9		-		f
CLO.5	- CONT 4,5,7,8,9		-		g
CLO.6	- CONT.4,5		-		h
CLO.7.	- CONTT.3,4,5,7		-		i