A. JAMES CLARK
SCHOOL OF ENGINEERING

Course:	ENPM 611 – Software Engineering
Semester:	Fall 2017
Day(s):	Mon
Time:	7pm – 9:40pm
Location:	TBD
Instructor:	Dr. Chris Ackermann
Phone:	
Email:	enpm611@gmail.com

Course Description

Prerequisites

Some experience with programming and software development preferred. The course will include basic development exercises in Python. Experience with Python is not required but some development experience will be helpful. The course will include an introduction into the Python programming language.

Statement of Course Goals and/or List of Student Learning Outcomes

This course discusses methods, processes and tools for successfully executing software projects. Specifically, the objectives are:

- Provide an overview of the software engineering lifecycle and its key activities, as well as the various lifecycle models that can be used to organize and manage these activities from planning of the project through the delivery of working software, and beyond.
- Familiarize students with concrete methods and tools to execute the individual lifecycle phases.
- Present state-of-the-art software engineering methods as well as highlight techniques commonly applied in practice.
- Provide hands-on experience with activities throughout the software engineering lifecycle by means of semester-long team assignments.
- Provide an overview of the management and measurement of key lifecycle activities and strategies for continuous improvement that can be deployed to improve the effectiveness and efficiency of software development projects.

The objective of this course is not to teach programming constructs.

Grading Procedures

50% for assignments
15% for midterm exams
20% for final exams
15% for quizzes

A. JAMES CLARK
SCHOOL OF ENGINEERING

Required/Recommended Textbooks

Recommended textbook is Software Engineering: Theory and Practice (4th edition), by Shair Lawrence Pfleeger and Joanne M. Atlee, Prentice Hall; 4th edition (February 27, 2009), ISBN-13: 978-0136061694

Course Outline

9/1/2015	Course Overview; Why Software Engineering	Chapter 1
9/8/2015	Capturing the Requirements	Chapter 4
9/15/2015	Verification & Validation	
9/22/2015	Architecting the System	Chapter 5
9/29/2015	Designing the Modules	Chapter 6
10/6/2015	Implementation	Chapter 7
10/13/2015	Testing the Programs	Chapter 8
10/20/2015	Midterm Exam	
10/27/2015	Testing the System	Chapter 9
11/3/2015	Delivering & Maintaining the System	Chapters 10 & 11
11/10/2015	Software Development Processes	Chapter 2
11/17/2015	Project Planning	
11/24/2015	Project Management	
12/1/2015	Process Evaluation	
12/8/2015	Process Improvement	
12/15/2015	Final Exam	