

Syllabus

Course Number: MSSE 600

Course Title: Object Oriented Software Engineering

Course Description:

Introduces basic object-oriented concepts, and the object-oriented development process. Provides an overview of the software design process, requirements, object-oriented domain design, and software oriented architecture.

Prerequisite Courses:

MSCC 610 Information System Concepts

Course Overview

This course presents a survey in the various aspects of creating software from defining the requirements through testing. In this class we focus on the process of software creation. We focus on the fundamentals of the software design lifecycle (SDLC) within an organization:

- Gathering, defining, and validating user requirements
- Creating domain and software architectural designs
- Sustainable development methodologies and techniques
- Software quality assurance and testing

Course Outcomes:

Upon completion of this course, learners should be able to:

- Describe the knowledge of the field of software engineering and provide examples of the types of activities done in each of these areas
- Describe the basic object-oriented analysis and design techniques and explain how they are implemented in software
- Describe the software development lifecycle including gathering requirements, architectural design, sustainable development, and software quality assurance.
- Discuss ethics and social responsibility related to current incidents within the Software Engineering community

Course Materials:

Required Texts:

Stephens, R (2015). Beginning Software Engineering, John Wiley & Sons, Inc.

Course Assignments and Activities:

Week	Topics	Readings	Graded Assignments	Grade %
1	Intro to Software Engineering	Chapter 1	Discussion Questions Weekly reading questions	2.5 2.5
2	Requirements Gathering	Chapter 4	Discussion Questions Weekly reading questions Project Component: Software Project Outline	2.5 2.5 7
3	Software Design	Chapter 5	Discussion Questions Weekly reading questions Project Component: Requirements	2.5 2.5 7
4	Object Oriented Design & Data Design	Chapter 6	Discussion Questions Weekly reading questions Project Component: Domain Design	2.5 2.5 7
5	Development	Chapter 7	Discussion Questions Weekly reading questions Project Component: Database Design	2.5 2.5 7
6	Testing	Chapter 8	Discussion Questions Weekly reading questions Project Component: Software Test Plan	2.5 2.5 7
7	Deployment & Maintenance	Chapters 9, 11	Discussion Questions Weekly reading questions	2.5 2.5
8	SDLCs	Chapters 12-14	Discussion Questions Weekly reading questions Paper – What is the best SDLC? Final Exam	2.5 2.5 5 20

Summary of Assignments and Percentage Weight towards course grade.

Assignments	Weighted Percentage
Discussion Questions/ Participation (Weeks 1-8)	20%
Weekly reading questions (Weeks 1-8)	20%
SDLC Paper	5%
Project Components	35%
Final Exam (Week 8)	20%
Total	100%

CC&IS Grading Scale

Letter Grade	Percentage	Grade Point
A	93 to 100	4.00
A–	90 to less than 93	3.67
B+	87 to less than 90	3.33
B	83 to less than 87	3.00
B–	80 to less than 83	2.67
C+	77 to less than 80	2.33
C	73 to less than 77	2.00
C–	70 to less than 73	1.67
D+	67 to less than 70	1.33
D	63 to less than 67	1.00
D–	60 to less than 63	.67
F	Less than 60	0

Additional information about grading can be found in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx>.

CC&IS Policies and Procedures

Each of the following CC&IS Policies & Procedures is incorporated here by reference. Students are expected to review this information each term, and agree to the policies and procedures as identified here and specified in the latest edition of the University Catalog, available at <http://www.regis.edu/Academics/Course%20Catalog.aspx> or at the link provided.

- The CC&IS Academic Integrity Policy.
- The Student Honor Code and Student Standards of Conduct.
- Incomplete Grade Policy, Pass / No Pass Grades, Grade Reports.
- The Information Privacy policy and FERPA. For more information regarding FERPA, visit the [U.S. Department of Education](http://www.ed.gov).
- The HIPAA policies for protected health information. The complete Regis University HIPAA Privacy & Security policy can be found here: <http://www.regis.edu/About-Regis-University/University-Offices-and-Services/Auxiliary-Business/HIPAA.aspx>.
- The Human Subjects Institutional Review Board (IRB) procedures. More information about the IRB and its processes can be found here: <http://regis.edu/Academics/Academic-Grants/Proposals/Regis-Information/IRB.aspx>.

The CC&IS Policies & Procedures Syllabus Addendum summarizes additional important policies including, Diversity, Equal Access, Disability Services, and Attendance & Participation that apply to every course offered by the College of Computer & Information Sciences at Regis University. A copy of the CC&IS Policies & Procedures Syllabus Addendum can be found here: <https://in2.regis.edu/sites/ccis/policies/Repository/CCIS%20Syllabus%20Addendum.docx>.