CSC 834
Software Engineering

(CRN 23684, Spring 2021, 3 Credit Hours)
Department of Computer Science

Syllabus

General

Instructor:	Kuang-Nan Chang
Email:	kuangnan.chang@eku.edu
Homepage:	EKU Blackboard
Office:	Wall 409
Phone:	(859) 622-1935
Office Hours:	TBA

Course Objective (Catalog)

3 credit hours—Prerequisite: At least a "C" in CSC 190 and 191, or equivalent courses. Planning, organizing, monitoring, and controlling the implementation of a software project.

Student Outcomes

Upon successful completion of this course, the students will have the abilities to:

- Understand software engineering principles,
- Decide and use a software process model to develop a software system,
- Analyze and derive system requirements,
- Design a solution (system architecture) to satisfy the requirements, and
- Implement a software system with Visual Studio and UML.

Major Topics

- Software engineering principles and techniques
- UML and OO analysis/design
- Software process models
- System analysis and design methods
- Software testing

Textbook (Reference)

David C. Kung, Object-Oriented Software Engineering-An Agile Unified Methodology, McGraw-Hill, New York, 2013. (Recommended)

Course Prerequisites

At least a C in CSC 190 and CSC 191, or equivalent courses.

Course Activities

- 6 assignments: 30% (5% each)
- 1 team project: 30%
- 2 Exams: 30% (15% each, midterm and final)
- 5 forum discussions: 10% (2% each)

Please be aware of Final Exam Schedule and the Last Day to Drop the Course.

Grade Distribution

- A: 90-100 AND at least a B in each of the above components
- B: 80-89 AND at least a C in each of the above components
- C: 70-79 AND at least a D in each of the above components
- D: 60-69 AND at least a D in each of the above components
- F: 0-59

Assignments

Assignments will consist of programming exercises, homework problems, and/or miscellaneous activities (short presentations or individual project). Each assignment must be submitted for grading by the established due date. For late assignments, ten points will be deducted each day until all one hundred points have been deducted. In the event of extenuating circumstances, please discuss the situation with the instructor.

Policy on Cheating on Assignments

Definition of Cheating from EKU Student Handbook
Cheating is an act or an attempted act of deception by which a student seeks to misrepresent that he/she has mastered information on an academic exercise. Cheating includes, but is not limited to:

- Giving or receiving assistance not authorized by the instructor or University representative;
- Participating in unauthorized collaboration on an academic exercise;
- Using unapproved or misusing electronic devices or aids during an academic exercise.

Late Assignment Policy

Every assignment is due at the end of the day (11:59 pm) of the due date. Late assignment will be penalized 10% per day for each day late (excluding weekends and holidays). No assignments will be accepted if they are late for more than three days.

Make-up Policy

Make-ups for graded activities may be arranged if your absence is caused by illness, work, or personal emergency. A written explanation (including supporting documentation) must be submitted to the instructor; if the explanation is acceptable, an alternative to the graded activity will be arranged. Whenever possible, make-up arrangements should be completed prior to the scheduled due date.

Course Web Page

EKU Blackboard (http://learn.eku.edu) is used as a repository for all course material. The course web page will contain copies of any course announcement, homework assignments, course handouts, project/team information, notes, etc.

Academic Integrity

Students are advised that EKU's Academic Integrity policy will strictly be enforced in this course. The Academic Integrity policy is available at www.academicintegrity.eku.edu. Questions regarding the policy may be directed to the Office of Academic Integrity. Students are expected to do all assignments independently, unless explicitly told otherwise. The official definitions of cheating and plagiarism can be found in the Academic Integrity policy.

Attendance Policy

Attendance will be taken during lecture and lab. Unexcused absences in excess of 10% of the scheduled lecture/lab meetings will result in a one letter grade reduction for the course. Unexcused absences in excess of 20% of the scheduled lecture/lab meetings will result in a two letter grade reduction for the course. Unexcused absences in excess of 30% of the scheduled lecture/lab meetings will result in a three letter grade reduction for the course. Students with unusual circumstances should advise the instructor of their situation immediately. Students will be held responsible for all announcements made in class.

Classroom Behavior

Behavior conducive for learning is expected in the classroom, which means no excessive talking to other students or sleeping. Also, this includes turning off cell phones and other electronic devices while in class. Electronics devices include laptop computers, unless you are using them to take class notes. If you are using them to take notes you need to get permission from the instructor. Anyone who violates this policy may be asked to leave the classroom for that class period

Tentative Course Schedule/Contents

Week	1	2	3	4	5	6	7	8
Topics	Intro to SE + Waterfall model + System analysis **<Forum 1>**	Use case diagram + Domain diagram + Scenario analysis with Visual Studio **<Forum 2>**	Architectural design + Sequence diagram + Class diagram + State diagram + Activity diagram **<Forum 3>**	Database design + Midterm exam **<Forum 4>**	Process models in detail + UML in detail	Architectural design in detail + Formal report formatting	*Software testing* + (Assignment 6: Integration Test for OO Systems)	Review + Final exam **<Forum 5>**
Individual Project	Requirements specification (Assignment 1)	OO analysis (Assignment 2)	OO design (Assignment 3)	Database design (Assignment 4)	Coding	Final report (Assignment 5)		
Team Project		(Form teams)	OO analysis	Requirements specification	OO design (Checkpoint 1)	Database design	Coding	Final report (Checkpoint 2)

Additional Notes

The instructor reverses the right to modify course policies, the course calendar, and assignment or project point values and due dates. All students are expected to be responsible users of the computer systems used for this course.

If you require accommodation based on disability, please meet with the instructor in the privacy of his office the first week of the semester to be sure you are appropriately accommodated.

If you are registered with the Office of Services for Individuals with Disabilities, please obtain your accommodation letters from the OSID and present them to the course instructor to discuss any academic accommodations you need. If you believe you need accommodation and are not registered with the OSID, please contact the Office in the Student Services Building Room 361 by email at disserv@eku.edu or by telephone at (859) 622-2933 V/TDD. Upon individual request, this syllabus can be made available in an alternative format.