Welcome!

Professor Hossein Saiedian

EECS 348: Software Engineering

January 17, 2023

Spring 2023

KU THE UNIVERSITY OF KANSAS

Course meeting info

- **Meetings**: Tu and Thur, 2:30 pm - 3:45 pm, LEEP2 2415

- **Instructor**: Hossein Saiedian

- **Office**: Eaton Hall 3012

- **Telephone**: 785-864-8812

- **Email**: saiedian@ku.edu

- **URL**: people.eecs.ku.edu/~saiedian

- **Office hours**: Tuesdays and Thursdays, 1:00-2:00 PM (and by appointment)

Course description

This course is an introduction to software development fundamentals and software engineering. It incorporates a thorough introduction to a compiled programming language. A baseline knowledge of tools and utilities is covered including the shell, common programs, version control, IDEs, editors, and build tools. Topics include: software development principles (e.g., design patterns, modularity, loose coupling), extending larger codebases, developing larger codebases, continuous integration, continuous deployment, debugging, unit testing, test-driven development, and databases. Grade of C (not C-) required to progress. **Prerequisite**: EECS 268.

Four excellent TAs

Liangqin Ren

Anjalie Pare

Sudha Yadlapalli

Jarret Zeliff

Course meeting info

- Tuesdays and Thursdays, 2:30 pm - 3:45 pm, LEEP2 2415

W 09:00 - 10:50 PM EATN 1005B (Jarret) [55779]

W 01:00 - 02:50 PM EATN 1005B (Liangqin) [55780]

W 01:00 - 02:50 PM EATN 1005D (Anjali) [57747]

Th 09:00 - 10:50 AM EATN 1005C (Sudha) [55781]

Th 08:00 - 09:50 AM EATN 1005D (Liangqin) [57746]
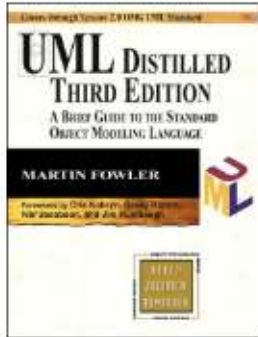
Th 11:00 - 12:50 PM EATN 1005B (Sudha) [55782]

F 12:00 - 1:50 PM EATN 1005B (Anjali) [55783]

F 02:00 - 03:50 PM EATN 1005B (Jarret) [55784]

Textbook

Ian Sommerville
Engineering Software Products: An Introduction to Modern Software Engineering,
Pearson, 2020.

Martin Fowler
UML Distilled: A Brief Guide to the Standard Object Modeling Language
3rd edition, Pearson, 2004.

Roger Pressman and Bruce Maxim
Software Engineering: A Practitioner's Approach
9th edition, McGraw-Hill, 2020.

Ian Sommerville
Software Engineering
10th edition, Pearson, 2016.

Lecture notes, readings, …

- Course announcements, lecture notes, readings, exams, quizzes, labs, … all will be placed on Canvas

- Regularly visit the course Canvas page and course website

Evaluation criteria / grading scale

- Exams and quizzes: 50%

- Labs: 50%

- Grading scale
  A = 90%..100%
  B = 80%..89%
  C = 70%..79%
  D = 60%..69%

Quality is free

- Two well known books on quality

Just load the wagon

- Self's dad used to tell him all the time, 'Son, don't worry about the mules, just load the wagon'

- It meant, he should just do his job, and if he did his job well, things will work out

Quizzes and exams

- Closed book and notes and on Canvas
  - Always bring a device that allows you to connect to Canvas and take the exam or quiz
  - No other devices is to be used other than the one used for connecting to Canvas
  - No other app other than Canvas should be used
  - When using a browser to connect to Canvas, only one for Canvas should be use

Quizzes and exams

- On exams, quizzes, lab:
  - Avoid a single paragraph response for a question that has multiple parts
  - If a question says "name three parts of ..." then give three paragraphs, one for each part to prevent ambiguous or intertwining responses
  - Better yet, start each paragraph as (1), (2), (3). If you provide more than three parts, only the first three will be graded

- On exams, quizzes, and homework: Give responses that were discussed and presented in class and are in lecture notes
  - We are not interested in Wikipedia or similar responses; we will be rewarding students who attend class, take notes, and study their own notes

Quizzes and exams

- On exams, quizzes, and homework
  - Your response will have to be precise and complete and technical
  - Avoid vague and incomplete responses
  - We have to make sure you understood the concepts to give full credit
  - An answer that's basically correct but perhaps vague or incomplete or an answer that has something to do with a correct answer but is not precise or is somehow off the mark will not receive full credit

No late work

- No make-up exams, quizzes are given

- No late work will be accepted

- Exceptions will be made for family emergencies, religious observance, bereavement, and illnesses
  - Must be documented

Technical problems

- If you experience technical problems with your EECS account or the EECS servers or the lab equipment, please submit a support request help at:

  https://tsc.ku.edu/request-support-engineering-tsc

Attendance

- Attendance is important and required

- Throughout the semester, attendance may randomly be taken; each three absences (in class or lab) will result in one letter grade drop from the final grade

- Furthermore, if a student misses a class session, he or she will be entirely responsible for learning the materials missed without the benefit of a private lecture on the instructor's part

- Furthermore, the student will be responsible for finding out what assignments may have been given and when they are due, any updates to the project, schedule or the course syllabus

Email communications

- Check your @ku.edu email address regularly
  - Important course updates, syllabus updates, etc

- You are a student registered in a course offered by the School of Engineering at the University of Kansas, a top regional and a nationally ranked institution

- Your communications, especially written communications (composition, grammar, spelling, punctuation, politeness, respectfulness, etc.), should reflect that status

- Please review email etiquettes

Professional email etiquettes

- Include a clear subject matter

- Use an appropriate greeting (salutations)

- Include a signature block (minimally your name)

- Reply in a timely fashion

- Be wary of colloquialism across cultures

- Think about where your email could end up

- Proofread every email message

- Double check the recipient

Subject: EECS448: Project 2, part 1

Hi Professor Johnson,

<Body of the email … >

Joe Smith

j.smith@ku.edu

913-123-4567

Attachment: ~~My Project.doc~~   Smith-EECS448-Project2-part1.pdf

Common policies

- **Grade correction**: If you feel that your grades on a homework, quiz, or exam is incorrect, you should discuss them within one week after your work had been graded.

- **Classroom policy**
  - Students are expected to come to the class on time, be attentive and engaged, conduct themselves professionally, engage in informative discussions, and avoid anything that could cause a distraction or detrimental either for other students learning or for the instructor's presentations
  - Profanity and swearing is not allowed

Academic integrity/dishonesty policy

- The definitions and consequences of institutional academic integrity policies will used

- Academic dishonesty "includes giving or receiving of unauthorized aid on examinations or in the preparation of assignments or reports, knowingly misrepresenting the source of any academic work, falsification of research results, and plagiarizing of another's work."

The SoE Statements on EdTech

- The use of EdTech services (e.g., Chegg.com) for posting or downloading material for the preparation and/or submission of exams, HW, lab reports, etc., constitutes academic misconduct, which is not tolerated in the School of Engineering at the University of Kansas. It violates Article 3r, Section 6 of its Rules & Regulations, and may lead to grades of F in the compromised course(s), a note on your transcript, dismissal from the School, or expulsion from the University of Kansas.

- When a person signs up to use EdTech services, the "terms of service" that are agreed to do not protect that person when an academic unit (e.g., KU School of Engineering) conducts investigations related to academic misconduct (e.g., plagiarism and/or cheating). These services retain contact and information (e.g., IP address, Email, time of use) of subscribers and users, which is released upon request.

Late exam-taking policy

- If a student will have to take an exam later (due to an excused and verified absence), he or she will be asked to make the following pledge and sign it

  I have been granted the privilege to take this exam on _____ because I was unable to take it on _____ due to an excused absence. I pledge that I will not obtain from anyone by any means (in writing, speaking or via digital communications) any information about the exam

Cell phone and laptop policy

- Cell phones should be turned off before coming to the classroom

- Avoid laptop distractions
  - Audio
  - Web surfing or social media visits that could cause distraction for others

Accommodations for students with disabilities

- The University of Kansas is committed to providing equal opportunity for participation in all programs, services and activities. Requests for special accommodations may be made thru the KU Student Access Services

KU's diversity policy statement

- As a premier international research university, the University of Kansas is committed to an open, diverse and inclusive learning and working environment that nurtures the growth and development of all.

- KU holds steadfast in the belief that an array of values, interests, experiences, and intellectual and cultural viewpoints enrich learning and our workplace.

- The promotion of and support for a diverse and inclusive community of mutual respect require the engagement of the entire university.

KU's sexual harassment policy statement

- The University of Kansas prohibits sexual harassment and is committed to preventing, correcting, and disciplining incidents of unlawful harassment, including sexual harassment and sexual assault.

- Sexual harassment, sexual violence, and a hostile environment because of sex are forms of sex discrimination and should be reported

KU commercial note-taking policy

- Pursuant to the University of Kansas' Policy on Commercial Note-Taking Ventures, commercial note-taking is not permitted in this course.

- Lecture notes and course materials may be taken for personal use, for the purpose of mastering the course material, and may not be sold to any person or entity in any form.

- Any student engaged in or contributing to the commercial exchange of notes or course materials will be subject to discipline, including academic misconduct charges, in accordance with University policy.

KU concealed handguns policy

- Individuals who choose to carry concealed handguns are solely responsible to do so in a safe and secure manner in strict conformity with state and federal laws and KU weapons policy. Safety measures outlined in the KU weapons policy specify that a concealed handgun:
  - Must be under the constant control of the carrier.
  - Must be out of view, concealed either on the body of the carrier, or backpack, purse, or bag that remains under the carrier's custody and control.
  - Must be in a holster that covers the trigger area and secures any external hammer in an un-cocked position.
  - Must have the safety on and have no round in the chamber.

Avoid rework: Follow the guidelines

- Assignments/projects: Format, standards, organization, paper vs electronic submission, …

- Presentations: Format, organization, unique slide titles, slide #, references, …

- Exams: Answer in allotted space, …

- …

- Software is vital to United State's global competitiveness, innovation, and national security

- Also, the US economy, IT infrastructure, healthcare, and education depend on software

- Great research opportunities (if you plan grad school)

- *Great professional opportunities*
  - Be a part of the excitement
  - Fun to develop new products

Concluding remarks

- Always remember
  - A degree from KU is a prestigious degree
  - Highly respected by local, regional, and national organizations
  - The degree is prestigious, but it is also challenging and requires hard work, uninterrupted attention in classrooms, self-confidence, and dedicated efforts
  - The courses are supposed to be enjoyable, educational, fun, and rewarding
  - You must show enthusiasm