Ira A. Fulton Schools of Engineering
Arizona State University

Course Syllabus - Fall B 2021

CSE 598: Advanced Software Analysis and Design

Contact Information

Instructor: Ali Altunkaya

Teaching Assistants: [Name]
[Name]

Content Questions: Weekly discussion forums

Project or Assignment Questions: Designated discussion forums

Slack Channel Note: Direct Link: [Refer to the MCS Design Meeting - Notes for your course's URL]
You must join/access this workspace using your ASURITE credentials.

Content Issues: Course "Feedback" tool

Technical Support: Coursera Learner Help Center

Note: Please make sure you are logged in so that support personnel recognize you as an ASU learner.

General Support: mcsonline@asu.edu

Note: When sending an email about this class, please include the prefix "CSE 598" in the subject line of your message.

Please use this email address for questions that are private in nature. If it is a question that would benefit your classmates, and is not private in nature, please post in the discussion forums.

Course Description

Software analysis and design proposes optimal software solutions to solve complex problems. In this hands-on course, students will apply methodologies, frameworks, and fundamentals and techniques of design, implementation, and software architecture to demonstrate real world

applications. Main topics include object-oriented analysis and design, software architecture and design principles, quality attributes of software architecture, stakeholder perspectives and team approaches, mobile applications, service-oriented architecture and microservices-based web applications, and software engineering perspectives regarding robotics and autonomous systems.

Specific topics covered include:

- Nature of Software Systems
- Significance of Software Analysis and Design
- Object-Oriented Analysis and Design
- Software Architecture and Design Principles
- Quality Attributes of Software Architecture
- Architecting Mobile Applications
- Architecting Service-Oriented Architecture and Microservices-based Web Applications
- Architecting Robotics and Autonomous Systems

Technologies covered include:

- Java
- Xcode11/Android Studio
- Swift
- C#

Learning Outcomes

Learners completing this course will be able to:

- Evaluate software complexity and scale traits in modern software systems.
- Articulate software specification analysis and design concepts with foundations.
- Apply standardized structural and behavioral modeling methods and practices for software systems.
- Demonstrate engineering methodology in analysis and design of a model-based software system.
- Use software design pattern concepts and models in designing a new software system.
- Evaluate and apply appropriate software architecture functional and nonfunctional concepts, quality attributes, and styles in designing a new software system.
- Develop structural and behavioral specifications with advanced features using the Unified Modeling Language (UML), C4 Model for Software Architecture (C4), frameworks and tools.

- Apply appropriate architectural styles in designing and implementing software systems in different application domains including, but not limited to mobile, service-oriented, and autonomous and robotics systems.
- Develop, implement, and test consumer/producer style software systems using software design patterns.

Estimated Workload/ Time Commitment Per Week

Average of 18 - 20 hours per week

Required Prior Knowledge and Skills

This course will be very challenging, and learners are expected to learn the necessary technologies on their own time.

Proficient Mathematical Skills and Theoretical Understanding

- Software life cycle models
- Project management
- Team development environments and methodologies
- Software architectures

Strong Application Skills

- iOS App or Android App (you need at least one to complete some coursework)
    - For iOS app: XCode 11 (or newer), programming language Swift (no Objective-C) - **strongly preferred.**
    - For Android app: Android SDK using Java

Note: The course project will be completed using the language that the student chooses. However, the course team will not be able to help the student if they choose any language that is not Java or Swift.

Proficient Experience

- Professional Background:
    - object-oriented programming exposure
    - basic knowledge of software process modules
    - class diagrams, experience working on a software development team
    - experience developing software following a disciplined development process
- Familiarity with the following tools:
    - UML Modeling tools like Astah
    - C4 Modeling tools like draw.io
    - Visual Studio
- Basic understanding of SOAP and REST.
- Knowledge to develop UML class diagrams that represent the design and implement object-oriented design in Java.

- Basic knowledge:
    - web-service development
    - service invocation
    - application building

Technology Requirements

Hardware

- Personal computer that is able to run Java IDE, Visual Studio (to create C# Projects), and Android SDK
- Having a Mac computer or access to a Mac computer is **highly recommended** to complete the assignments in **Week 6.**
- Reliable, strong Internet connection
- Webcam
- Microphone

Software/Other

- Java development IDE
- Visual Studio 2019 or newer
- XCode 11 (or newer)/Android Studio
- UML modeling tool such as Astah
- C4 modeling tool such as draw.io
- iOS App **or** Android App (you need at least one to complete some coursework)
    - For iOS app: XCode 11 (or newer), programming language Swift (no Objective-C) - **strongly preferred**
    - For Android app: Android SDK using Java

Note: All of these software systems are either open source, free download or can be downloaded through ASU My Apps for ASU learners free of charge.

Textbook and Readings

At the graduate level, inquiry, research, and critical reading are part of the learning experience; however, this course does not have a required textbook. Any required readings are provided within or are accessible through the course or are accessible through ASU's Library.

Course Content

Instruction

- Video lectures

- Interview videos
- Readings
- Discussion forums
- Live events (e.g. Live Sessions hosted by the faculty and Virtual Office Hours hosted by the course team members)

Assessments

- Knowledge checks (KCs): individual, ungraded, auto-feedback, untimed, unlimited attempts
- Graded quizzes: individual, graded, auto-graded, 45 minutes timed, 1 attempt
- Exam 1 and Exam 2: individual, graded, auto-graded, 2 hours = 120 minutes timed, 1 attempt, proctored
- Projects: individual, graded, human-graded/rubric and peer-reviewed, untimed, 1 attempt

Details of the main instructional and assessment elements in this course:

Each course in the MCS program is uniquely designed by expert faculty, so learners can best master the learning outcomes. As a result, course features and experiences are not the same across all MCS courses. Learners are expected to plan accordingly to accommodate these differences.

Lecture videos: The concepts you need to know will be presented through a collection of video lectures. You may stream these videos for playback within the browser by clicking on their titles or download the videos. To help you develop your own notes, you should use the knowledge check questions and quizzes to help fine tune your thinking. To further support learning, all of the videos include transcripts and *most* include PDF lecture slides. Weekly overview videos, and project-related videos do not have PDF lecture slides because they are not lectures and have associated documents specific to them.

Readings: Required reading citations accompany topics and are accessible through ASU's Library.

Discussion forums: Discussion forums are present each week in the course and include designated forums for each project. Although the course team is engaged in these discussions, the forums are spaces to clarify, support, and enrich learner-to-learner communication and learning. If you have specific questions that you would like to be considered to be addressed in the weekly Live Event hosted by the instructor, please indicate your request in your post. *There are no late penalties. Discussion forum posts and replies are not counted towards your overall course grade.*

Knowledge checks (KCs): Designed to support your learning, these are short, ungraded quizzes to test your knowledge of the concepts presented in the lecture videos. You may take your time, review your notes, and learn at your own pace because knowledge checks are untimed. With unlimited attempts, you may retake these as often as you would like at any point

in the course. You are encouraged to read the feedback, review your answer choices, and compare them to the correct answers. With the feedback as your guide, you may use these as opportunities to study for other assessments and tasks in the course. *There are no late penalties. Knowledge checks are not counted towards your overall course grade.*

Graded Quizzes: This course has two (2) types of graded quizzes:

1. Graded quizzes throughout each week: these *typically* include 10 multiple choice questions and learners have one (1) attempt in a single-session of a timed 45 minutes to complete these quizzes.
2. Graded quiz at the end of each week that covers the content from the entire week: these *typically* include 15 multiple choice questions and learners have one (1) attempt in a single-session of a timed 45 minutes to complete these quizzes.

Students will be able to review the quizzes and use them to study until the end of the seventh (7th) week of the course. *An automatic late penalty of 10% for each day late is applied to quizzes submitted after the scheduled due date and time. These quizzes count toward your final grade in the class.*

Projects: This course includes five (5) projects. All projects are provided in the first week of the course in the *Welcome and Start Here* section, so you can preview what is expected and design your own learning schedules to complete these on time. At the beginning of specific weeks when they are due, they will be re-introduced and included on your weekly task list each week. Projects are due at the end of the second week, third week, fourth week, fifth week, and sixth week of the course. A submission area is provided at the end of those weeks. Four (4) projects are course team-graded, and one (1) project is peer-graded. *An automatic late penalty of 15% for each day late is applied to projects submitted after the scheduled due date and time. These projects count toward your final grade in the class.*

Request for Faculty Review: MCS Project Portfolio: This is an optional task for degree students wanting to use this course's projects as part of their portfolio degree requirement/specialization requirements. Review your onboarding course and the Welcome and Start Here section of your course for more details. The submission space is towards the end of the course. *Although there are no late penalties, these requests must be submitted by the designated deadline. The Request for Faculty Review: MCS Project Portfolio does not count toward your final grade in the class.*

Proctored Exam(s): You have two (2) proctored, timed exams. These consist of Exam 1 and Exam 2. For academic integrity purposes, once grades are made available, learners will see their overall total scores. Correct and incorrect answers and feedback to each question will ***not*** be provided. Read the Graded Quiz and Exam Policy for more information.

Exam 1

Details

- **Content covered:** Weeks 1, 2, and 3

- **Question type(s):** multiple choice, autograded
- **Number of questions:** 40 content questions + 1 academic integrity question = 41 total questions
- **Availability:** Friday, October 29, 2021 at 12:01 AM AZ Time - Tuesday, November 2, 2021 at 11:59 PM AZ time
- **Duration:** Plan for 15 minutes for proctoring set up and 2 hours (120 minutes) for the exam

Exam 2

Details

- **Content covered:** Weeks 4, 5, 6, and 7
- **Question type(s):** multiple choice, autograded
- **Number of questions:** 40 content questions + 1 academic integrity question = 41 total questions
- **Availability:** Monday, November 29, 2021 at 12:01 AM AZ Time - Sunday, December 5, 2021 at 11:59 PM AZ time
- **Duration:** Plan for 15 minutes for proctoring set up and 2 hours (120 minutes) for the exam

Exam Allowances

- **Hardcopy and/or digital books and/or reference materials (all)**: None
- **Calculators (all)**: None
- **Notes in any format of any kind (all)**: No more than 6 sheets of hard copy front-and-back, handwritten, printed, or a combination of handwritten and printed notes on standard letter (8.5 inches x 11 inches)/A-4 paper as reference during the exam. No electronic/digital notes are allowed.
- **Web (all)**: None
- **Software (all)**: None
- **Other technologies, devices, and means of communication (all)**: None
- **Whiteboard, scratch paper, writing utensils, erasing resources**: Learners are *strongly* encouraged to use the whiteboard option instead of scratch paper.
    - If using a whiteboard, learners may have erasable whiteboard markers and what is needed to erase writing on the whiteboard; please have extra whiteboard markers and eraser resources in your testing area.
    - If using scratch paper, learners may have an unlimited amount of blank scratch paper of any size, writing utensils (e.g., pens, pencils, markers, and/or highlighters) and erasers; please have extra ones in your testing area should you run out of ink, the pencil breaks, etc.

    - Before the exam concludes and the proctoring session ends, all scratch paper must be destroyed and all whiteboard markings must be erased. The last question in the exam will be a confirmation of learners executing these ASU academic integrity actions.
- **Other**: Learners are to independently take the exam in a single session without leaving the testing space (e.g., no bathroom breaks) to ensure proctoring of the entire session. Once you open the exam, your testing session begins. You will be allowed one (1) attempt to take and complete each exam. Learners are to stay within a clear view of the proctor throughout the duration of the proctored exam session. You will be unable to open the exam until the exam proctor enters the password during the date and time you scheduled to take your exam with ProctorU.
- **Note**: All virtual machines must be closed *prior* to starting proctoring.

Proctoring

ProctorU is an online proctoring service that allows learners to take exams online while ensuring the integrity of the exam for the institution.

- You are expected to scan your testing space using your webcam for the proctor. Proctoring also requires you to have sound and a microphone. Please plan accordingly.
- You are strongly encouraged to schedule your exam(s) within the first two weeks of the course to ensure you find a day and time that works best for your schedule. Time slots can fill up quickly, especially during high volume time periods.
    - You *must* set up your proctoring at least 72 hours prior to the exam.
- **The exam proctor will input the exam password**.
- Additional information and instructions are provided in the *Welcome and Start Here* section of the course.
- **When you are going to schedule exams, you *must* pick "Coursera" as your institution.**
- Your ID needs to be in English. See your MCS Onboarding Course for more information.

Course Grade Breakdown

Course Work	Quantity	Team or Individual	Percentage of Grade
Quizzes	26	Individual	30%
Exam 1	1	Individual	15%
Exam 2	1	Individual	15%

Projects*	5	Individual	40%

*The project(s) count for 30% or more of the overall course grade, so this is a portfolio eligible course. See the MCS Graduate Handbook for more information about the portfolio requirement if you are a degree student.

Grade Scale

You must earn a cumulative grade of 70% to earn a “C” in this course. You must earn at least a “C” to receive graduate credit. This course has no grade curving. All graded coursework will be included to calculate grades (i.e., no graded items will be dropped). Grades will not be rounded. Grades in this course will include pluses or minuses.

**The instructor reserves the right to adjust individual grades based on, but not limited to: violations of academic integrity.*

A+	97% - 100%
A	90% - 96%
B+	87% - 89%
B	80% - 86%
C+	77% - 79%
C	70% - 76%
D	60% - 69%
E	<60%

Course Schedule

Week/Title	**Begins at 12:01 AM Arizona (AZ) Time**	**Ends at 11:59 PM Arizona (AZ) Time**
Week 1: Nature of Software Systems and Significance of Software Analysis and Design	10/13	10/17
Week 2: Object-Oriented Analysis and Design	10/18	10/24

Week 3: Software Architecture Preliminaries and Software Design Principles	10/25	10/31
Exam 1	10/29	11/2
Week 4: Software Architecture Fundamentals, Documentation and Evaluation	11/1	11/7
Week 5: Architecting Service Oriented and Microservices Based Web Applications	11/8	11/14
Week 6: Architecting Mobile Applications	11/15	11/21
Week 7: Architecting Robotics and Autonomous Software Systems	11/22	11/28
Exam 2	11/29	12/5
Week 8: Course Wrap-Up	11/29	12/5

**Grades are due December 13, 2021 (Please see the ASU Academic Calendar for additional information.).*

Live Events

This course has two types of live events: **live sessions** and **virtual office hours**. Check the Live Events page in your course for your local time and access details. Although we try to be consistent for our learners' planning purposes, the Live Event schedule is subject to change throughout the course, so stay up-to-date on Live Event details by checking your Course Announcements and the Live Events page in your course.

Read about the specific policies related to Live Events in the Policy section of this syllabus: Live Events, Policy Regarding Expected Classroom Behavior, and the Student Code of Conduct for more detailed information.

Live Sessions - Weekly

Live Sessions are a valuable part of the learning experience because learners can meet with the course instructor and fellow classmates to learn more about course topics, special topics within the field, and discuss coursework. If you are able to attend these Live Sessions, you are strongly encouraged to do so. If you have specific questions or topics of interest to be discussed during the live events, please indicate your request in your discussion forum post. Although it may not be possible to address all requests live, the instructor is interested in tailoring the live

events to your questions and interests. The instructor will be following a set agenda, so please be mindful of that when engaging in the live session.

Live Sessions hosted by the faculty will be recorded and uploaded to the course.

Course Run Year Live Sessions will be

Virtual Office Hours - Weekly
Virtual Office Hours offer a chance for learners to get their questions answered from the course team. Although the course team is responsive to trends in the discussion forums and mcsonline@asu.edu emails, virtual office hours focus on addressing learners' specific questions related to content: clarifications, reteaching, assessment review, etc. These sessions are not intended to address program or course design questions or feedback. Assistants do not have the authority to weigh in or make decisions regarding those items, so please do not include those at this time. These sessions are specific to helping learners learn materials and understand various course assessments. Feedback of that nature is best addressed in the communication channel: mcsonline@asu.edu and please include it in your course survey.

Virtual office hours are recorded, but not uploaded into the course. The instructor may decide to include virtual office hours or segments of virtual office hours as deemed necessary. Direct requests for office hour recordings may or may not be granted.

Course Run Year Live Sessions will be

Assignment Deadlines and Late Penalties

Unless otherwise noted, all graded work is due on **Sundays at 11:59 PM Arizona (AZ) time**.

- For graded quizzes, there is an automatic 10% grade penalty for each day late past the deadline.
- For exams, there is an automatic 100% grade penalty after the deadline. No late exams will be permitted or accepted and will result in a score of zero points (0). This does not include established accommodations for learners with disabilities.
- For projects, there is an automatic 15% grade penalty for each day late past the deadline.

Course Outline with Assignments

Week 1: Nature of Software Systems and Significance of Software Analysis and Design (10/13-10/17)

Content

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- [ ] Complex Nature of Modern Software Systems
- [ ] Architecture-Centric Software Development

Other Tasks

- [ ] Schedule your proctoring with ProctorU for your proctored exam(s)
- [ ] For learners needing accommodations, submit requests through Connect and review the ASU Student Accessibility and Inclusive Learning Services website.
- [ ] Knowledge Checks

Graded Coursework

- [ ] Graded Quizzes

Week 2: Object-Oriented Analysis and Design (10/18-10/24)

Content

- [ ] Object-Oriented Design Fundamentals
- [ ] From Requirements to Object
- [ ] Documenting Software Analysis and Design Using Unified Modeling Language (UML)

Other Tasks

- [ ] Knowledge Checks

Graded Coursework

- [ ] Graded Quizzes
- [ ] Graded Project: Sport Concussion Assessment System Project

Week 3: Software Design Principles and Software Architecture Preliminaries (10/25-10/31)

Content

- [ ] Software Architecture Principles
- [ ] Software Design Principles
- [ ] Object-Oriented Design Patterns

Other Tasks

- [ ] Knowledge Checks
- [ ] Prepare for Exam 1

Graded Coursework

- [ ] Graded Quizzes
- [ ] Graded Project: Directory Management System Project
- [ ] Exam 1

Exam 1 (10/29-11/2)

Reminders

- [ ] Schedule your proctoring with ProctorU for your proctored exam(s) *at least* 72 hours prior to your exam date and within the availability window
- [ ] Covers content from weeks 1, 2, 3
- [ ] Review the details and allowances information for this exam

Week 4: Software Architecture Fundamentals, Documentation and Evaluation (11/1-11/7)

Content

- [ ] Software Architecture: A Deep Dive
- [ ] Documenting Software Architecture
- [ ] Software Architecture Quality Attributes
- [ ] Evaluation Software Architecture: Architecture Tradeoff Analysis Approach (ATAM)

Other Tasks

- [ ] Knowledge Checks

Graded Coursework

- [ ] Graded Quizzes
- [ ] Graded Project: Online Shopping Store Project

Week 5: Architecting Service Oriented and Microservices Based Web Applications (11/8-11/14)

Content

- [ ] SOA Application Development and SOA Architecture
- [ ] Microservices Application Development and Microservices Architecture

Other Tasks

- [ ] Knowledge Checks

Graded Coursework

- [ ] Graded Quizzes
- [ ] Graded Project: BMI Calculator Project Part 1

Week 6: Architecting Mobile Applications (11/15-11/21)

Content

- [ ] Mobile App Development and Architecture Considerations
- [ ] Web Data Integration for Mobile Applications

Other Tasks

- [ ] Knowledge Checks
- [ ] Complete the course survey before your final exam (*strongly encouraged, appreciated, and used by the course team)*
- [ ] Prepare for Exam 2

Graded Coursework

- [ ] Graded Quizzes
- [ ] Graded Project: BMI Calculator Project Part 2

Week 7: Architecting Robotics and Autonomous Systems (11/22-11/28)

Content

- [ ] Survey the Field of Robotics and Autonomous Systems
- [ ] Towards a Generic Software Architecture for Robotics and Autonomous System

Other Tasks

- [ ] Request for Faculty Review: MCS Project Portfolio Submission *(optional - for degree students wanting to use this course's projects as part of their portfolio degree requirement/specialization requirements)*
- [ ] Complete the course survey before your final exam (*strongly encouraged, appreciated, and used by the course team)*
- [ ] Knowledge Checks
- [ ] Prepare for Exam 2

Graded Coursework

- [ ] Graded quizzes
- [ ] Exam 2

Exam 2 11/29-12/5

Reminders

- [ ] Complete the course survey before your final exam (*strongly encouraged, appreciated, and used by the course team)*
- [ ] Schedule your proctoring with ProctorU for your proctored exam(s) *at least* 72 hours prior to your exam date and within the availability window
- [ ] Covers content from weeks 4, 5, 6, and 7
- [ ] Review the details and allowances information for this exam
- [ ] Prepare for the exam

Slack Channel

This course will have a unique Slack workspace where you can communicate with your classmates.

Note: You must join/access this workspace using your ASURITE credentials.

Slack is intended to provide a space to create community with your classmates. Please remember to follow the communication protocol pinned in your Slack channel to ensure that any questions or concerns you have are addressed in a timely manner. Also, please remember ASU's Academic Integrity policy, and please refrain from sharing assessment questions, answers or solutions.

Policies

All ASU and Coursera policies will be enforced during this course. For policy details, please consult the MCS Graduate Handbook and the MCS Onboarding Course.

Graded Quiz and Exam Policy

Each course in the MCS program is uniquely designed by expert faculty so that learners can best master the learning outcomes specific to each course. By design, course features and experiences are different across all MCS courses.

In the MCS program, we strive to provide learners with exercises and applied practice beyond quizzes and exams that align with the hands-on nature of the computer science industry. Ungraded practice opportunities *may* include, but are not limited to: in-video-questions (IVQs), knowledge check quizzes (KCs), weekly (i.e., unit) practice quizzes, practice exams, and other assignments or exercises. For all these learning activities, the questions and correct answers are provided to learners. When available, auto-generated typed feedback is built into the course to further help learners learn in real-time. Please thoroughly review your course to ensure that you are aware of the types of practice opportunities available to you.

For academic integrity purposes, once grades are made available, learners will see their overall total scores. Like other standardized tests, such as the GRE and SAT, learners will receive a singular grade for the graded quizzes and exams, but the questions, correct and incorrect answers, and feedback to each question will ***not*** be provided.

If learners desire 1:1 feedback for their questions on graded assessments, please submit questions to mcsonline@asu.edu. Rather than receiving the exact questions learners had correct and incorrect and the answers to those questions, learners will likely receive the concepts that were covered in the assessment questions so they will know what they need to review prior to other assessments and how to apply this information in their professional environments.

Absence Policies

There are no required or mandatory attendance events in this online course. Live Events, both Live Sessions hosted by the instructor and Virtual Office Hours hosted by the course team do not take attendance.

Learners are to complete all graded coursework (e.g., projects and exams). If exceptions for graded coursework deadlines need to be made for excused absences, please reach out to the course team by the end of the second week of the course using the mcsonline@asu.edu email address. Review the exam availability windows and schedule accordingly. The exam availability windows allow for your own flexibility and you are expected to plan ahead. Personal travel does not qualify as an excused absence and does not guarantee an exception.

Review the resources for what qualifies as an excused absence and review the late penalties in the Assignment Deadlines and Late Penalties section of the syllabus and the course:

a. Excused absences related to religious observances/practices that are in accord with ACD 304–04, “Accommodation for Religious Practices”
b. Excused absences related to university sanctioned events/activities that are in accord with ACD 304–02, “Missed Classes Due to University-Sanctioned Activities”
c. Excused absences related to missed class due to military line-of-duty activities that are in accord with ACD 304–11, “Missed Class Due to Military Line-of-Duty Activities,” and SSM 201–18, “Accommodating Active Duty Military”

Live Event Expectations

The environment should remain professional at all times. Inappropriate content/visuals, language, tone, feedback, etc. will not be tolerated, reported and subject to disciplinary action. Review the Policy Regarding Expected Classroom Behavior section of the syllabus and the Student Code of Conduct for more detailed information.

Policy Regarding Expected Classroom Behavior

The aim of education is the intellectual, personal, social, and ethical development of the individual. The educational process is ideally conducted in an environment that encourages reasoned discourse, intellectual honesty, openness to constructive change, and respect for the rights of all individuals. Self-discipline and a respect for the rights of others in the university community are necessary for the fulfillment of such goals. An instructor may withdraw a student from a course with a mark of "W" or "E" or employ other interventions when the student's behavior disrupts the educational process. For more information, review SSM 201–10.

If you identify something as unacceptable classroom behavior on the class platform (e.g., Coursera discussion forum) or communication channels (e.g., Zoom, virtual live session, virtual office hours, Slack, etc.), please notify the course team using the mcsonline@asu.edu email. In the discussion forums, you can also flag the post for our attention. For more specifics on appropriate participation, please review our Netiquette infographic.

Our classroom community rules are to:

- Be professional
- Be positive
- Be polite
- Be proactive

Academic Integrity

Students in this class must adhere to ASU's academic integrity policy, which can be found at https://provost.asu.edu/academic-integrity/policy). Students are responsible for reviewing this policy and understanding each of the areas in which academic dishonesty can occur. In addition, all engineering students are expected to adhere to both the ASU Academic Integrity Honor Code and the Fulton Schools of Engineering Honor Code. All academic integrity violations will be reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). The AIO maintains a record of all violations and has access to academic integrity violations committed in all other ASU colleges/schools.

Copyright

All course content and materials, including lectures (Zoom recorded lectures included), are copyrighted materials and students may not share outside the class, upload to online websites not approved by the instructor, sell, or distribute course content or notes taken during the conduct of the course (see ACD 304–06, "Commercial Note Taking Services" and ABOR Policy 5-308 F.14 for more information).

You must refrain from uploading to any course shell, discussion board, or website used by the course instructor or other course forum, material that is not the student's/learner's original work, unless the student/learner first complies with all applicable copyright laws; faculty members reserve the right to delete materials on the grounds of suspected copyright infringement.

Policy Against Threatening Behavior (SSM 104-02)

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services. Interfering with the peaceful conduct of university-related business or activities or remaining on campus grounds after a request to leave may be considered a crime. All incidents and allegations of violent or threatening conduct by an ASU student (whether on- or off-campus) must be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students.

Disability Accommodations

Suitable accommodations will be made for students having disabilities. Students needing accommodations must register with the ASU Student Accessibility and Inclusive Learning Services. Students should communicate the need for an accommodation at the beginning of each course so there is sufficient time for it to be properly arranged. These requests should be submitted through Connect. See ACD 304-08 Classroom and Testing Accommodations for Students with Disabilities. ASU Student Accessibility and Inclusive Learning Services will send the instructor of record a notification of approved accommodations and students are copied on these letters. It is recommended that students reply to the faculty notification letters, introduce themselves to their instructor, and share anything they might want to disclose.

Harassment and Sexual Discrimination

Arizona State University is committed to providing an environment free of discrimination, harassment, or retaliation for the entire university community, including all students, faculty members, staff employees, and guests. ASU expressly prohibits discrimination, harassment, and retaliation by employees, students, contractors, or agents of the university based on any protected status: race, color, religion, sex, national origin, age, disability, veteran status, sexual orientation, gender identity, and genetic information.

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at https://sexualviolenceprevention.asu.edu/faqs.

Mandated sexual harassment reporter: As a mandated reporter, I am obligated to report any information I become aware of regarding alleged acts of sexual discrimination, including sexual

violence and dating violence. ASU Counseling Services, https://eoss.asu.edu/counseling, is available if you wish to discuss any concerns confidentially and privately.

Disclaimer

The information in this syllabus may be subject to change without advance notice. Stay informed by checking course announcements and the syllabus section of your course.

Course Creator(s)

Janaka Balasooriya, Ph.D. created this course.

Janaka Balasooriya, Ph.D. joined Arizona State University in 2007. Prior to joining ASU, Balasooriya was a postdoctoral fellow at Missouri University of Science and Technology. With several years of industry experience as a Software Engineer, his research interests span the areas of distributed computing and software engineering, including service-oriented computing, cloud computing, and software testing. Balasooriya has taught courses in Distributed Computing, Mobile Computing, Software Testing, Algorithms and Data Structures, Software Engineering, and Programming Languages. Balasooriya is an ASU Barrett Honors faculty and serves as a faculty honors advisor to CS and CSE students. He is also a program committee member in several premier conferences, including IEEE Service Oriented Computing and IEEE Cloud Computing Conferences since 2007, and serves as an editorial board member of The Services Transactions on Cloud Computing (IJCC).