Ira A. Fulton Schools of Engineering
Arizona State University

Course Syllabus - Fall B 2025

CSE 571: Artificial Intelligence

Course Description

The field of Artificial Intelligence (AI) develops the principles and processes for designing autonomous agents. This course addresses the core concepts in designing autonomous agents that can reason, learn, and act to achieve user-given objectives and prepares students to address emerging technical and ethical challenges using a principled approach to the field. Main topics include principles and algorithms that empower modern applications and future technology development for self-driving vehicles, personal digital assistants, decision support systems, speech recognition and natural language processing, autonomous game-playing agents, and household robots.

Specific topics covered include:

- Neural Networks
- Classical Planning
- Modeling & Reasoning
- Reinforcement Learning
- Bayesian Networks
- Sensors for Perception
- Perception based Recognition
- Real-world Applications
- Robotics
- Quantum Computing

Learning Outcomes

Learners completing this course will be able to:

- Apply logical reasoning and programming to produce solutions for real-world problems.
- Use probabilistic inference to navigate uncertain information efficiently.
- Determine appropriate machine learning methods for a given scenario or dataset.

- Evaluate the challenges in perception systems for AI.
- Utilize sensors to execute perception tasks and their applications in intelligent systems.
- Apply algorithms to train an image classifier.
- Design an agent that can plan and act to achieve given objectives using noisy sensors and actuators.

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

- Algebra
- Linear Algebra
- Probability
- Statistics
- Algorithms
- Data Structures
- Computer Organization and Architecture
- Operating Systems
- Discrete Math

Strong Application Skills

- Programming in Python
- Ability to effectively read Python code
- Confidence in executing at least one programming language:
    - Python
    - Matlab

- R

Proficient Experience

Learners are expected to enter the course, having demonstrated, confident experience:

- Using high-level programming language (e.g., Python preferred)
- Implementing AI algorithms using Python
- Using digital drawing tools (e.g., for constructing Parse Trees)
- Employing any one (1) of the frameworks:
  - Jupyter Notebook
  - Google Colab
  - Pytorch
- Implementing the tools/libraries:
  - Numpy
  - Pandas
  - Tensorflow
  - Keras
  - Matplotlib
  - Scikit Learn
  - Microsoft Office 365

Course Access

Your ASU courses can be accessed by both my.asu.edu and asu.instructure.com. Bookmark both in the event that one site is down.

Technology Requirements

Proctoring

- Honorlock Minimum System Requirements

Hardware

- Standard personal computer with major operating system

- Reliable, strong Internet connection
- Webcam
- Microphone

Software/Other

- Recommended: Ubuntu 22.04 but can also use Windows/Linux/MacOS
- PyTorch
- Cygwin (Windows users)
- Python 3
- Access to Gradescope

Note: The course project will be completed using the language that you choose. However, the course team will not be able to help you if you choose any language that is not Python.

Technology Recommendations

- These applications/languages may be used to complete coursework but are not required:
    - GProlog 1.5.0

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.

Course Schedule and Important Dates

Course teams will not be working on ASU's days off* and those are listed in the Course Schedule. Please review the ASU Days Off for more details.

Module: Title	Begins at 12:01 AM Arizona (AZ) Time	Ends at 11:59 PM Arizona (AZ) Time
Orientation and Onboarding Review	October 8, 2025	October 12, 2025

You must complete required tasks in the Orientation and Onboarding Review for Module 0: Welcome and Start Here to be unlocked.		
Module 0: Welcome and Start Here You must complete required tasks in Module 0: Welcome and Start Here for the rest of the course to be unlocked.	October 13, 2025	October 16, 2025
Module 1: Introduction to Machine Learning	October 15, 2025	October 19, 2025
Module 2: Introduction to Neural Networks	October 20, 2025	October 26, 2025
Module 3: Recurrent Neural Networks	October 27, 2025	November 2, 2025
Module 4: Convolutional Neural Networks	November 3, 2025	November 9, 2025
Midterm Exam *Assesses modules 1, 2, 3, and 4*	November 16, 2025	November 23, 2025
Module 5: Perception **ASU Day Off: Tuesday, November 11, 2025*	November 10, 2025	November 16, 2025
Module 6: Logic Reasoning	November 17, 2025	November 23, 2025
Course Evaluation You may also refer to ASU's Office of Evaluation and Educational Effectiveness (UOEEE) for dates.	This will be updated in your course.	This will be updated in your course.
Module 7: Sequential Decision-Making **ASU Day Off: Thursday, November 27, 2025 and Friday, November 28, 2025*	November 24, 2025	November 30, 2025
Deadline to Submit all Graded Coursework	N/A	December 11, 2025
Final Exam *Cumulative: Assesses modules 1, 2, 3, 4, 5, 6 and 7*	November 30, 2025	December 07, 2025
Request for Faculty Review: MCS Portfolio Project Report Inclusion Request Optional, degree-seeking learner degree requirement	November 24, 2025	Last submission deadline by December 29, 2025

Faculty Feedback for the Review: MCS Portfolio Project Report Inclusion Request Optional, degree-seeking learner degree requirement	December 19, 2025	January 12, 2026
Course Closes Past this date, Ed Discussion will no longer be monitored. Please download copies of what you would like from the course (e.g., Request for Faculty Review: MCS Portfolio Project Report Inclusion Request).		January 26, 2026

Grades are due December 15, 2025. Please see the ASU Academic Calendar for additional information.

Late or Missed Coursework

When possible, kindly notify the instructor before a coursework deadline by creating a private thread in Ed.

If an urgent situation or emergency arises and you are unable to submit the assignment on time, please send the instructor a private thread on Ed as soon as you are able to.

Follow the appropriate University policies to request an accommodation for religious practices or to accommodate a missed assignment due to University-sanctioned activities.

Coursework Due Dates and Late Penalties

Unless otherwise noted, all coursework is due on **Sundays at 11:59 PM Arizona (AZ) time**. Due dates in your course are set up in Arizona Standard time. Use a Time Converter to ensure you account for the difference in time zones and remember to update your course settings to reflect your time zone (see your onboarding course for directions). Arizona does **not** observe daylight savings time.

Review specific due dates directly in your course. For learners with accommodations through Student Accessibility and Inclusive Learning Services (SAILS) and/or the Pat Tillman Veterans Center

(PTVC), please work with your SAILS consultant and/or PTVC Advocacy Team, Connect, and your instructor.

This course has a designated deadline to submit all graded coursework. This deadline means graded coursework submitted after the date, will not be evaluated and result in a grade of zero (0) points. Please review the Course Schedule and Important Dates section.

Projects

A single-automatic late penalty of 5% is applied after the scheduled due date and time.

- **Part 1 - Neural Network for Collision Prediction Project**
- **Part 2 - Neural Network for Collision Prediction Project**
- **Part 3 - Neural Network for Collision Prediction Project**
- **Part 4 - Neural Network for Collision Prediction Project**

Exams

An automatic late penalty of 100% is applied after the scheduled due date and time.

- **Midterm Exam**
- **Final Exam**

Course Content

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 for these differences.

Content and Assessment Details

If you have specific questions related to instructional and assessment items in this course that you would like to be considered to be addressed in the Zoom meeting hosted by the instructor, please clearly indicate your request in your Ed Discussion thread.

For details regarding how points are earned in different types of assessments, please refer to your onboarding courses.

PlayPosit Lecture Playlists

The course content is presented through a collection of Playposit Playlists embedded in each module. Playposit is a video platform that prompts interaction and note-taking while viewing course content. The playlists launch automatically and you can playback the course content by selecting the video titles in the playlist. The videos can be rewatched, but playlist videos cannot be downloaded. The playlist pages will include the downloadable video transcripts and any applicable supplementary material. Other course materials that accompany the lectures will be found in the media guides.

A media guide is included at the beginning of each module in the Overview section. These guides are designed to give you a snapshot description of each module's media components and to provide PDF lecture slides or note-taking materials where available, so you can plan your learning and quickly go back and review material as you prepare for your coursework.

Overview videos do not have PDF lecture slides because they are not lectures and have associated documents specific to them. The interview videos build context for the course and do **not** have PDF slides.

Playposit Interactions: In-Video Questions and Knowledge Checks

Playposit provides opportunities for interaction and reflection as you learn the course content. During lecture videos, there are interactions referred to as in-video questions, and after videos, there are interactions called knowledge checks. Interactions are designed to support your learning, highlight specific content, encourage active viewing and/or note-taking and provide practice opportunities. They are untimed, ungraded learning opportunities to test your knowledge of the concepts presented during the lecture videos. You may retake these as often as you would like at any point in the course.

You can toggle the clipboard icon on the left of the screen and select a review to see all the questions. You are accountable for this information as it may be assessed in different ways in other graded coursework.

There are no late penalties. Interactions are not counted toward your final grade in the class.

Discussions

Ed Discussion

Ed Discussion (Ed) is being used in place of Canvas Discussion Forums. The purpose of Ed Discussion is to provide a place for learners to ask questions and receive answers from course staff and peers about course content and coursework. The course team is engaged in discussions, but it is also a space to clarify, support, and enrich learner-to-learner communication and learning. There are designated categories for course items. You must select a category and subcategory to start a thread.

Discussions in Ed are designed to provide:

- Clarification
- Feedback
- Enrichment and deeper learning
- Connections between concepts or key ideas
- Reflection opportunities of real-world experiences
- Respectful debate and perspective building
- Resource sharing
- Networking

There are no late penalties. Ed is not counted toward your final grade in the course.

Designated Project Discussion in Ed Discussion

Use Ed to discuss items relating to the course projects. Questions/Threads should be categorized by their designated title in Ed. Please check for questions already asked and answered, or marked as resolved.

There are no late penalties. Responses in Ed are not counted toward your final grade in the course.

Practice Quizzes

There is a practice quiz to help prepare you for your exams. You may retake these as often as you like at any point in the course. You are encouraged to 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. Practice quizzes are **not** counted toward your final grade in the class.

Individual Projects

This course includes one (1) individual project that is broken into four (4) parts. All project overview documents and materials are provided in the Welcome and Start Here section of your course, so you can preview what is expected and design your own learning schedules to complete these on time. Review the "Request for Faculty Review: MCS Portfolio Project Report Inclusion Request" section of this syllabus for what can be used from this course to potentially meet the degree portfolio requirement, which is optional and for degree-seeking learners only.

There are late penalties associated with the projects. The project counts toward your final grade in the class.

Gradescope

The Neural Network for Collision Prediction Project for this course will use Gradescope. You must complete and then submit your work for each part in Gradescope. Carefully review submission directions outlined in the project overview document in order to correctly earn credit.

Request for Faculty Review: MCS Portfolio Project Report Inclusion Request

This is an optional task for degree-seeking students wanting to use this course's projects as part of their portfolio degree requirement/specialization requirements. Review your onboarding course and *Module 0: Welcome and Start Here* of your course for more details. The submission space is towards the end of the course.

Important Note: This does **not** apply to degree-seeking students admitted for **Fall 2025 or later**. If you have any questions, please contact advising (mcsonline@asu.edu).

Your Request for Faculty Review: MCS Portfolio Project Report Inclusion Request will be evaluated only if the criteria is met (see your MCS Handbook for more details):

- Your course is designated as a portfolio eligible course
- You address the designated project(s), which equal 30% or more of your overall course grade
- Your final course letter grade of a B* or higher

*Degree-seeking students with course letter grades that are lower than a B will **not** have their submissions reviewed.

Although there are no late penalties, these requests must be submitted by the designated deadline(s). The Request for Faculty Review: MCS Portfolio Project Report Inclusion Request does not count toward your final grade in the class.

Address these projects in your Request for Faculty Review: MCS Portfolio Project Report Inclusion Request:

- Part 1 - Neural Network for Collision Prediction Project
- Part 2 - Neural Network for Collision Prediction Project
- Part 3 - Neural Network for Collision Prediction Project
- Part 4 - Neural Network for Collision Prediction Project

Practice Exams

In order to help you prepare for your proctored exams, you will have practice exams. Since they are intended to be practice opportunities and to help you learn, you have unlimited attempts and they are untimed, ungraded, and include feedback.

You may engage with your peers in Ed Discussion to address questions, share resources and strategies, and provide feedback to help one another learn. You are encouraged to read the feedback, review your answer choices, and compare them to the correct answers. You are encouraged to submit questions in Ed Discussion for the course team to address during Zoom Events and/or Zoom Support Sessions. Use the feedback to guide your learning and to study for the proctored exam.

There are no late penalties. Practice exams are **not** counted toward your final grade in the class.

Proctored Exams

You have two (2) proctored exams. These consist of a Midterm Exam and a Final Exam. Proctored exams do **not** include feedback. Read the Graded Quiz and Exam Policy for your course for more information.

No late exams will be permitted or accepted and will result in a score of zero (0) points. This does **not** include established accommodations for learners receiving accommodations through Student Accessibility and Inclusive Learning Services (SAILS) and and/or the Pat Tillman Veterans Center (PTVC).

Proctored exams count toward your final grade in the class.

Exam Details	Midterm Exam	Final Exam
Content Covered	Modules 1, 2, 3, and 4	Modules 1, 2, 3, 4, 5, 6, and 7
Question Type	Multiple-choice questions with a single correct answer	Multiple-choice questions with a single correct answer
Number of Questions	31 total questions (30 content questions + 1 academic integrity question)	31 total questions (30 content questions + 1 academic integrity question)
Availability Start	Sunday, November 16, 2025 at 12:01 AM AZ Time	Sunday, November 30, 2025 at 12:01 AM AZ Time
Availability End	Sunday, November 23, 2025 at 11:59 PM AZ Time	Sunday, December 07, 2025 at 11:59 PM AZ Time
Scheduling Reminder In order to have enough time to complete the exam, you should start your exam no later than the listed date and time to ensure you have enough time to complete it before the due date.	Sunday, November 23, 2025 at 9:01 PM AZ Time	Sunday, December 07, 2025 at 9:01 PM AZ Time
Duration	120 minutes + plan for at least 15 minutes for proctoring set up	120 minutes + plan for at least 15 minutes for proctoring set up

Proctoring

Learners needing allowance accommodations need to work through the Student Accessibility and Inclusive Learning Services (SAILS) and/or the Pat Tillman Veterans Center (PTVC).

Honorlock

Honorlock will proctor your exams this session. Honorlock is an online proctoring service. You do **not** need to create an account or schedule an appointment in advance. Honorlock is available twenty-four hours a day and seven days a week (24 hours/7 days).

Honorlock will be enabled for at least one practice assessment in your course to prepare you for the proctored exams in this course.

Review your onboarding course and the Welcome and Start Here section in your course for more information about Honorlock and how to download the required Chrome Extension.

Midterm Exam and Final Exam Allowances

Any items **not** included in this list are **not** allowed during the exam or in your exam space.

Reminders

- You are to independently take your exams in a single session. Once you open your exam, your testing session begins and you will need to complete it within the allotted time. Your exam will automatically be submitted if it is **not** completed before the deadline. You will be allowed one (1) attempt to take and complete your exams.
- You 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.
- You are to stay within a clear view of the webcam throughout the duration of the proctored exam session.
- 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 you upholding ASU academic integrity.

Specific Allowances

- **Site URLs:** No
- **Open book:** No

- **Pre-written paper notes:** yes - you may select **one** of the options listed:
    - **Handwritten notes**: Hard; six (6) sheets/pages; standard letter-size (8.5 inches x 11 inches) or A4 paper; double-sided (front and back), or
    - **Printed Notes**: Hard; six (6) sheets/pages; standard letter-size (8.5 inches x 11 inches) or A4 paper; double-sided (front and back), or
    - Notes must be free-standing hard copies and not within any other items, such as, but not limited to: within a drawer, book, notebook, or binder. Have your notes physically out prior to starting the proctoring review and easily available in your workspace.
- **Scratch paper**: Yes
    - Two (2) sheets 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.
- **On-Screen Calculator**: Yes
    - Scientific Calculator
- **Handheld calculator**: No
    - Not a separate device's calculator (e.g., mobile/cell phone) or anything with Internet access.
    - Scientific Calculator
- **Restroom breaks**: No
- **Copy and Paste**: No
- **Hats**: No
- **Headphones**: No
- **Take Exam in a Public Area**: No
- **Mobile Phone Use**: No

- **Background Noise (Occasional sounds expected in the testing area)**: No

Course Grade Breakdown

Course Work	Quantity	Team or Individual	Points
Part 1 - Neural Network for Collision Prediction Project*	1	**Individual**	175
Part 2 - Neural Network for Collision Prediction Project*	1	**Individual**	175
Part 3 - Neural Network for Collision Prediction Project*	1	**Individual**	175
Part 4 - Neural Network for Collision Prediction Project*	1	**Individual**	175
Midterm Exam	1	**Individual**	100
Final Exam	1	**Individual**	200
Total Course Points			1000

*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 be rounded. Grades in this course will **not** include pluses or minuses.

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

Range of Points	Percentage	Letter Grade
900 - 1000	90 - 100	**A**
800 - 899.99	80 - 89.99	**B**
700 - 799.99	70 - 79.99	**C**
600 - 699.99	60 - 69.99	**D**
0 - 599.99	0 - 59.99	**E**

Zoom Meetings

This course may have three (3) types of Zoom meeting opportunities:

- **Instructor Zoom Events:** If learners have specific questions or topics of interest to be discussed, they can indicate their request in an Ed Discussion thread prior to the meeting. Although it may not be possible to address all requests during the Zoom event, the instructor is interested in tailoring this time to the learners' questions and interests. The instructor will be following a set agenda, so please be mindful of that when engaging in the Zoom event.
- **Instructional Assistant (IA) Zoom Support Sessions:** These sessions offer a chance for learners to get their questions answered from the IA(s). Although the course team is responsive to trends in Ed Discussion, these events focus on addressing learners' specific questions related to content: clarifications, reteaching, assessment preparation, etc.
- **Grader Zoom Support Sessions:** These sessions are singularly focused on addressing questions related to **grading**.

Check the Zoom tab in the navigation menu of your course. Although we try to be consistent for our learners' planning purposes, the schedule is subject to change throughout the course, so stay up-to-date on the event details by checking Ed Discussion and course announcements.

Read about the specific policies related to Zoom meetings directly in your onboarding course and your course pages: Syllabus, ASU Course Policies, and any additional course-specific policy information in *Module 0: Welcome and Start Here*. Additional information may be included in the Policies section of this syllabus. You are responsible for adhering to all policies.

Zoom Recordings

- Instructor Zoom Events are **recorded and shared** through the "Zoom" navigation link in your course. These can be found by going to the "Cloud Recordings" tab. These recordings will be unavailable after 120 days.
- IA Zoom Support Sessions are **recorded**, but **not uploaded** into the course. It is at the discretion of the instructor if these sessions will be shared during the course session.
- Grader Zoom Support Sessions are **recorded**, but **not uploaded** into the course.

Policies

Please refer to the ASU Course Policies section in your course, your onboarding course, and *Module 0: Welcome and Start Here* of your course in addition to the policies listed in this section.

Code of Conduct

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. The Student Code of Conduct is designed to promote this environment at Arizona State University.

The Student Code of Conduct sets forth the standards of conduct expected of students who choose to join the university community. Students who violate these standards will be subject to disciplinary sanctions in order to promote their own personal development, to protect the university community, and to maintain order and stability on campus.

Students are expected to follow the ABOR Student Code of Conduct and the ASU Student Code of Conduct at all times.

Expected Behavior

Students are expected to follow the ASU Student Code of Conduct and are expected to acknowledge and embrace the FSE Student Professionalism Expectation.

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 (e.g., in Canvas, Ed Discussion, Zoom, etc.), please notify the course team.

Our classroom community rules are to:

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

Academic Integrity

All engineering students are expected to adhere to the ASU Student Honor Code and the ASU 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. If you have taken this course before, you may not reuse or submit any part of your previous assignments without the express written permission from the instructor.

All student academic integrity violations are reported to the Fulton Schools of Engineering Academic Integrity Office (AIO). Withdrawing from this course will not absolve you of responsibility for an academic integrity violation and any sanctions that are applied. The AIO maintains a record of all violations and has access to academic integrity violations committed in all other ASU college/schools.

Specific academic integrity announcements for this class are:

- Learners in violation will receive a zero (0) on the graded coursework item for the first academic integrity issue. Some academic integrity issues may be subject to further consequences, depending on the investigation and the results. If there have been other

reported academic integrity issues in other courses, both in MCS courses or other courses, please move to the next bullet.

- Any issues after the first issue will result in a removal from the class with an XD designation on both official and unofficial transcripts.
- All academic integrity issues will be reported and all decisions by the University will be carried out.
- No refunds are provided when there are academic integrity issues.

Use of Generative AI is Generally Permitted Within Guidelines

Use of AI tools (e.g., ChatGPT, Copilot, Gemini, etc.) is generally welcome in this class. Examples of ways that AI tools can be used include brainstorming, drafting, editing, and revising assignments. You must inform the instructor when you have used an AI tool. This site provides examples of how to properly cite any use of generative AI. Any submitted course assignment that does not explicitly articulate how generative AI was used will be assumed to have been created entirely without its use. Using AI tools to generate content without proper acknowledgement will be considered a violation of the ASU Academic Integrity Policy, and students may be subject to sanctions for non-allowable use. If you have any questions about what is permitted, please contact the instructor to discuss *before* submitting your work.

Copyright

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.

The contents of this course, including lectures (Zoom recorded lectures included) and other instructional materials, are copyrighted materials. Students may not share outside the class, including uploading, selling or distributing course content or notes taken during the conduct of the course. Any recording of class sessions is authorized only for the use of students enrolled in this course during their enrollment in this course. Recordings and excerpts of recordings may not be distributed to others (see ACD 304–06, "Commercial Note Taking Services" and ABOR Policy 5-308 F.14 for more information).

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), module practice quizzes, practice exams, and other coursework. When available, the questions and correct answers are provided to learners. Depending on the type of questions, auto-generated 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, please send a private thread to the course team on Ed and/or attend a Zoom meeting with the course team. 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. Different types of Zoom meetings hosted by any course team member do not take attendance.

Excused absences do not relieve students of responsibility for any part of the coursework required during the period of absence. If exceptions for graded coursework deadlines need to be made for known excused absences, please reach out to the course team by the end of the second week of the course by sending a private thread to the course team on Ed. Review availability windows and due

dates for coursework and schedule accordingly. The exam availability windows allow for your own flexibility and you are expected to plan ahead.

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” (please see Religious Holidays and Observances).

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”.

Zoom Meetings

Recording Notice

Instructors will record Zoom meetings. An archived recording will be made available in Canvas for enrolled students, instructors, or support personnel. Creation of recordings for individuals or groups beyond these requires consent from students who are recorded.

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 Behavior section of the syllabus, ASU Student Code of Conduct, and FSE Student Professionalism Expectation for more detailed information.

Policy Against Threatening Behavior, per the Student Services Manual, (SSM 104-02)

Students, faculty, staff, and other individuals do not have an unqualified right of access to university grounds, property, or services (see SSM 104-02). 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 are made for students with disabilities. Students needing accommodations must register with ASU Student Accessibility and Inclusive Learning Services (SAILS) office. 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 the online portal. See ACD 304-08 Classroom and Testing Accommodations for Students with Disabilities. SAILS will send the instructor a notification of accommodations. It is recommended that students communicate with instructors regarding documented accommodations.

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.

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. ASU online students may access 360 Life Services, https://goto.asuonline.asu.edu/success/online-resources.html.

Photo Requirement

Arizona State University requires each enrolled student and university employee to have on file with ASU a current photo that meets ASU's requirements (your "Photo"). ASU uses your Photo to identify you, as necessary, to provide you educational and related services as an enrolled student at ASU. If you do not have an acceptable Photo on file with ASU, or if you do not consent to the use of your photo, access to ASU resources, including access to course material or grades (online or in person) may be negatively affected, withheld or denied.

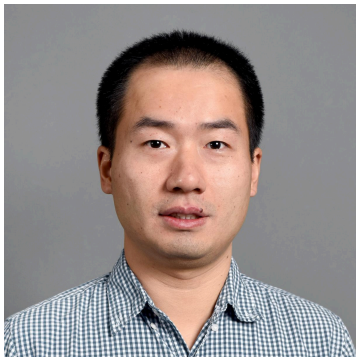
Warning of Offensive Class Materials

If you feel any course material is offensive, please reach out to the instructor by sending a private thread on Ed Discussion.

Course Creators

Yuli Deng, PhD

Dr. Yuli Deng is a lecturer at GOEE and SCAI in ASU. His research interests include adaptive learning technology in cybersecurity education and the advancement of cybersecurity technologies through the application of multi-disciplinary approaches such as artificial intelligence and machine learning. He received his doctoral degree in Computer Science from Arizona State University in 2021.



Yu “Tony” Zhang, PhD

Yu (“Tony”) Zhang, PhD is an Assistant Professor at Arizona State University (ASU), where he directs the Cooperative Robotic Systems (CRS) laboratory. He graduated with a Ph.D. degree in Computer Science from the University of Tennessee, Knoxville in 2012. His research interests include the intersection of artificial intelligence (AI) and robotics. The focuses are innovating and applying AI and machine learning methods to human-robot teaming, multi-agent systems, distributed robotic systems, and more generally, human-in-the-loop AI systems. His research has been funded by federal governments and agencies, such as the National Science Foundation (NSF), National Aeronautics and Space Foundation (NASA) and Air Force of Scientific Research(AFOSR). Zhang has been highlighted with “Best Paper” Awards in premier robotics conferences. He is also a member/senior member of the program committees of major AI and robotics conferences, such as AAAI, IJCAI, IROS, and ICRA.

Heni Ben Amor, PhD

Heni Ben Amor, PhD is an Assistant Professor at Arizona State University (ASU) where he leads the ASU Interactive Robotics Laboratory. He studied Computer Science at the University of Koblenz-Landau (GER) and earned a PhD in robotics from the Technical University Freiberg and the University of Osaka in 2010 where he worked with Hiroshi Ishiguro and Minoru Asada. He received the NSF CAREER Award as well as the Outstanding Assistant Professor Award in 2018. Prior to that, he was a Research Scientist at the Institute for Robotics and Intelligent Machines at GeorgiaTech in Atlanta. Heni's research topics focus on artificial intelligence, machine learning, human-robot interaction, robot vision, and automatic motor skill acquisition. He received the highly competitive Daimler-and-Benz Fellowship as well as several “Best Paper” awards at major robotics and AI conferences. He is also on the program committee of various AI and robotics conferences such as RSS, AAAI, IJCAI, IROS, and ICRA.

Yezhou Yang, PhD

Yezhou Yang, PhD is an Assistant Professor at the School of Computing, Informatics, and Decision Systems Engineering (CIDSE), Arizona State University (ASU), directing the Active Perception Group (APG). He received his MS and PhD degrees in Computer Science from the University of Maryland at College Park in 2013 and 2015 respectively. Prior to that, he obtained a B.Eng. degree in Computer Science and Engineering from Zhejiang University, China. His primary research focus is in Computer Vision and Robot Vision, especially exploring visual primitives in interpreting peoples' actions and the scene's geometry from visual input, grounding them by natural language as well as high-level reasoning over the primitives for intelligent systems. His research mainly focuses on solutions to visual learning, which significantly reduces the time to program intelligent agents. He is a recipient of Qualcomm Innovation Fellowship 2011, Verisk AI faculty award, and the NSF CAREER award in 2018.

Siddharth Srivastava, PhD

Siddharth Srivastava, PhD is an Assistant Professor of Computer Science in the School of Computing, Informatics, and Decision Systems Engineering (CIDSE) at Arizona State University (ASU). Prof. Srivastava was a Staff Scientist at the United Technologies Research Center in Berkeley. Prior to that, he was a postdoctoral researcher in the RUGS group at the University of California Berkeley. He received his PhD in Computer Science from the University of Massachusetts Amherst. His research interests include robotics and AI, with a focus on reasoning, planning, and acting under uncertainty. His work on integrated task and motion planning for household robotics has received coverage from international news media. His dissertation work received a "Best Paper" award at the

International Conference on Automated Planning and Scheduling (ICAPS) and an Outstanding Dissertation award from the Department of Computer Science at UMass Amherst.