



Syllabus for CSE175: Introduction to Artificial Intelligence

Fall 2024

Instructor: Miguel Carreira-Perpinan

Designation:	CSE175 Introduction to Artificial Intelligence
Catalog Description:	Overview of the main concepts and techniques underlying the design and analysis of intelligent computer systems. Topics include: search and games; knowledge representation, reasoning, and planning; reasoning under uncertainty; machine learning; robotics, perception, and language understanding.
Text Books and Other Required Materials:	Russell, S. & Norvig, P.: "Artificial Intelligence: A Modern Approach", Fourth Edition. Pearson, 2020.
Course Objectives/ Student Learning Outcomes:	<ul style="list-style-type: none">- CLO1: Students will identify problems where artificial intelligence techniques are applicable (PLOs 1, 4).- CLO2: Students will understand problem solving techniques in artificial intelligence systems (PLOs 1, 2).- CLO3: Students will understand techniques for representing knowledge and reasoning automatically, using logic and probability (PLOs 1, 2).- CLO4: Students will understand the concepts and algorithms of machine learning, robotics, computer vision and speech, and natural language processing (PLOs 1, 2).- CLO5: Students will implement simple AI systems in software (PLO 2).- CLO6: Students will write a project report documenting their results (PLO 3).
Program Learning Outcomes:	<ol style="list-style-type: none">1. Analyze a complex computing problem and to apply principles of computing and other relevant disciplines to identify solutions2. Design, implement, and evaluate a computing-based solution to meet a given set of computing requirements in the context of the program's discipline3. Communicate effectively in a variety of professional contexts4. Recognize professional responsibilities and make informed judgments in computing practice based on legal and ethical principles
Prerequisites by Topic:	CSE031 AND CSE100 AND MATH024 AND MATH032
Course Policies:	See course website at http://faculty.ucmerced.edu/mcarreira-perpinan/teaching/CSE175
Academic Dishonesty Statement:	<ol style="list-style-type: none">a. Each student in this course is expected to abide by the University of California, Merced's Academic Honesty Policy. Any work submitted by a student in this course for academic credit will be the student's own work.b. You are encouraged to study together and to discuss information and concepts covered in lecture and the sections with other students. You can give "consulting" help to or receive "consulting" help from such students. However, this permissible cooperation should never involve one student having possession of a copy of all or part of work done by someone else, in the form of an e mail, an e mail attachment file, a diskette, or a hard copy. Should copying occur, both the student who copied work from another student and the student who gave material to be copied will both automatically receive a zero for the assignment. Penalty for violation of this Policy can also be extended to include failure of the course and University

Designation:	CSE175 Introduction to Artificial Intelligence disciplinary action. c. During examinations, you must do your own work. Talking or discussion is not permitted during the examinations, nor may you compare papers, copy from others, or collaborate in any way. Any collaborative behavior during the examinations will result in failure of the exam, and may lead to failure of the course and University disciplinary action.
Disability Statement:	Accommodations for Students with Disabilities: The University of California Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities based on the principles of independent living, accessible universal design and diversity. I am available to discuss appropriate academic accommodations that may be required for student with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except for unusual circumstances. Students are encouraged to register with Disability Services Center to verify their eligibility for appropriate accommodations.
Topics:	Overview of the main concepts and techniques underlying the design and analysis of intelligent computer systems. Topics include: search and games; knowledge representation, reasoning, and planning; reasoning under uncertainty; machine learning; robotics, perception, and language understanding.
Class/laboratory Schedule:	See registrar website
Midterm/Final Exam Schedule:	See course website at http://faculty.ucmerced.edu/mcarreira-perpignan/teaching/CSE175
Course Calendar:	
Professional Component:	
Assessment/Grading Policy:	Based on homeworks, exams, lab participation and lab assignments.
Coordinator:	
Contact Information:	Miguel Á. Carreira-Perpiñán mcarreira-perpignan@ucmerced.edu Office: SE2-217
Office Hours:	TR 4-4:55pm SE2-217

Computer Science Department Policy on Academic Honesty

As stated in the campus wide Academic Honesty Policy (AHP)¹, "*academic integrity is the foundation of an academic community*". Accordingly, the CSE faculty takes this matter very seriously and has embraced a zero tolerance on this matter. The process described in the following establishes the minimum consequences for violations of the AHP in CSE courses, but repercussions may be more severe for egregious violations.

The Computer Science Department Policy on Academic Honesty ("CSE Policy" from now onwards), does not substitute the AHP, but rather specifies how it will be implemented when students enrolled in classes offered by the Computer Science and Engineering (CSE) department² are found in violation of the AHP. In particular, the CSE Policy defines how the CSE faculty implements the "Instructor-Led Process" described in AHP 802.00.A.

This policy and the associated processes have been developed in collaboration with the Office of Student Conduct and the School of Engineering, and is jointly implemented by the CSE Faculty, the School of Engineering, and the Office of Student Conduct.

The CSE Policy becomes effective starting from the Fall 2019 term.

Preamble

Computer science education relies on a variety of methods to assess students' preparation and learning. The term "assignment" shall be interpreted as any method or process resulting in a grade or contributing to the final grade for a class. Accordingly, the term "assignment" used in the following includes, but is not limited to: homeworks, quizzes, in-class exams, take-home exams, programming assignments, software projects, and presentations.

Shared Responsibility

Maintaining an environment where academic integrity is valued and enforced requires commitments by both instructors and students. Instructors will clearly specify what type of collaboration is allowed or disallowed for a given assignment, and students should strictly follow the provided guidelines. When in doubt, students should contact the instructor and ask for clarifications.

1

http://studentconduct.ucmerced.edu/sites/studentconduct.ucmerced.edu/files/page/documents/academic_honesty_-_800.pdf

² These include all CSExxx classes, irrespective of the departmental affiliation of the instructor.

First Infraction

If it is determined that a student has cheated, plagiarized, or otherwise violated the AHP, the student will receive a 0 (or equivalent grade) for the assignment. As per the AHP, violations will be reported to the Dean of the School of Engineering and to the Office of Student Conduct for review of possible violations of the Code of Student Conduct.

Additional Infractions

The School of Engineering keeps a record of all infractions reported by its faculty. If upon receiving a notification it is determined that the student has one or more prior violations of the AHP, the School will inform the instructor who reported the new violation. The additional violation will immediately lead to a failing grade (F) for the course. The student will be informed in writing and will not be allowed to withdraw from the class. According to CSE Policy, students should note that even the first infraction in a class may lead to a failing grade if after reporting it is determined that the student had been previously sanctioned for one or more infractions in other classes. Students will have the right to appeal the instructor's decision as per AHP 802.00.A.

Resources

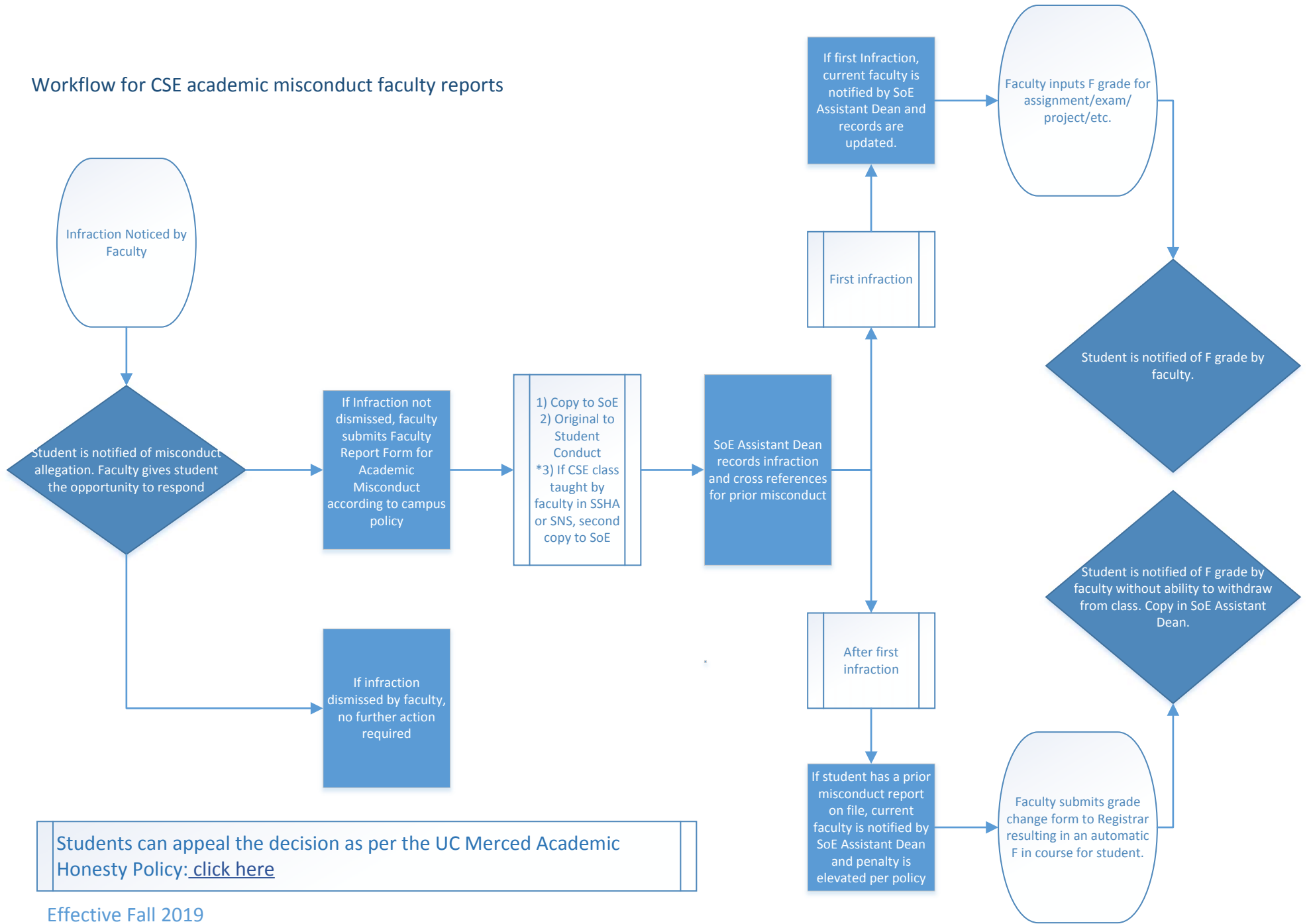
If in doubt, students are encouraged to seek guidance from the faculty, advisors, and the Office of Student Conduct. Additional resources can be found on:

<http://studentconduct.ucmerced.edu/>

<https://ombuds.ucmerced.edu/>

https://eecs.ucmerced.edu/sites/eecs.ucmerced.edu/files/page/documents/computer_science_department_policy_on_academic_honesty_fall_2019.pdf

Workflow for CSE academic misconduct faculty reports



Students can appeal the decision as per the UC Merced Academic Honesty Policy: [click here](#)

Effective Fall 2019

See full Policy [HERE](#)