Introduction to Artificial Intelligence
CS 156

Spring 2026   Section 01   In Person   3 Unit(s)   01/22/2026 to 05/11/2026   Modified 02/06/2026

👤 Contact Information

Instructor: Dr. Sayma Akther

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Office Hours:

TuTh 9:30AM - 10:30AM (MH 213)

💻 Course Description and Requisites

Basic concepts and techniques of artificial intelligence: problem solving, search, deduction, intelligent agents, knowledge representation. Topics chosen from logic programming, game playing, planning, machine learning, natural language, neural nets, robotics.

Prerequisite(s): CS 146 (with a grade of "C-" or better); Allowed Majors: Computer Science, Data Science, Computer Science and Linguistics, Applied and Computational Mathematics or Software Engineering; or instructor consent.
Grading: Letter Graded

Cross-listed with SE 156. Computer Science is responsible for scheduling.

✳ Classroom Protocols

To ensure a positive and productive learning environment, here are some important points to keep in mind:
Materials and Updates
Find course materials on Canvas at http://sjsu.instructure.com
Regularly check MySJSU and your email for updates.

Recording and Privacy
Recording any class activities, including lectures, is only allowed with the instructor's permission.

You are not permitted to share or distribute class recordings.

Instructor-generated materials (like syllabi, lectures, and presentations) are protected by copyright.

Violation may result in referral to Student Conduct and Ethical Development office.

Respectful Behavior

Treat your fellow classmates with respect and kindness.

Avoid interruptive or disruptive behavior during class.

Limit electronic device usage to relevant learning activities.

The full code of conduct is available on Canvas.

Plagiarism and Cheating

If a student is found engaging in academic dishonesty on a homework assignment, they will receive a **zero** for that assignment. If a student is caught cheating on an exam, they will receive a **failing grade (F)** for the course. In accordance with **University Policy F15-7**, the instructor is required to report all instances of cheating or plagiarism to the university.

📋 Program Information

Diversity Statement - At SJSU, it is important to create a safe learning environment where we can explore, learn, and grow together. We strive to build a diverse, equitable, inclusive culture that values, encourages, and supports students from all backgrounds and experiences.

📊 Course Learning Outcomes (CLOs)

After studying "Introduction to Artificial Intelligence," a student should be able to demonstrate the following Course Learning Outcomes:

1.Advanced Theoretical Knowledge: Demonstrate a comprehensive understanding of core AI concepts,including machine learning, deep learning, neural networks, reinforcement learning, and naturallanguage processing.

2.Critical Analysis and Problem Solving: Critically analyze complex problems and develop AI-basedsolutions. This includes the ability to identify appropriate AI methodologies and tools for specifi cproblems.

3.Research Skills: Conduct independent research in AI, demonstrating the ability to review, critique, andsynthesize AI literature and current research fi ndings.

4.Practical Application and Implementation: Apply AI theories and techniques to real-world scenarios,including the development of AI models and systems using programming languages like Python, R, orJava.

5.Ethical and Social Implications: Understand and articulate the ethical, legal, and social implications ofAI technologies, including issues like bias, privacy, and the impact on employment.

6.Innovation and Creativity: Show the ability to innovate in the fi eld of AI, including designing newalgorithms, models, or approaches to solve novel problems.

7.Interdisciplinary Knowledge: Integrate knowledge from other disciplines such as psychology,neuroscience, mathematics, and computer science to enhance AI applications.

8.Communication Skills: Effectively communicate complex AI concepts and research fi ndings to bothtechnical and non-technical audiences.

9.Project Management and Teamwork: Demonstrate the ability to manage AI projects, including workingeffectively in teams, and coordinating interdisciplinary efforts.

10.Continual Learning and Adaptation: Show an ability to engage in lifelong learning in the fi eld of AI,adapting to its rapid advancements and changing technologies.

These Course Learning Outcomes reflect the knowledge and skills a student is expected to gain fromstudying Introduction to Artificial Intelligence

📘 Course Materials

Artificial Intelligence: A Modern Approach" by Stuart Russell and Peter Norvig

This is a comprehensive text that covers a wide range of AI topics and is often considered a standard inuniversity courses.

Deep Learning" by Ian Goodfellow, Yoshua Bengio, andAaron Courville

This book is essential for understanding the fundamentals of deep learning, a key subset of AI.

☰ Course Requirements and Assignments

Quizzes and Participation Exercise (5%)

- Participation credit is awarded to students who are present and actively engaged in discussions.

Assignments/Homework (15%)

- Weekly or bi-weekly assignments based on lecture content and hands-on exercises.
- **Late Submission Policy:** Marks will be **gradually deducted** over time for late submissions.

Exam (50%)

- A mid-term and final exam.

Project (30%)

- Part 1: Project Presentation (10%)
- Part 2: AI Model Development & Application (20%)

✔ Grading Information

A+	97 and above
A	93-96
A-	90-92
B+	87-89
B	83-86
B-	80-82
C+	77-79
C	73-76
C-	70-72
D+	67-69
D	63-66
D-	60-62
F	Below 60

🏛 University Policies

Per [University Policy S16-9 (PDF) (http://www.sjsu.edu/senate/docs/S16-9.pdf)](http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g. learning assistance, counseling, and other resources) are listed on the [Syllabus Information (https://www.sjsu.edu/curriculum/courses/syllabus-info.php)](https://www.sjsu.edu/curriculum/courses/syllabus-info.php) web page. Make sure to visit this page to review and be aware of these university policies and resources.

📅 Course Schedule

The schedule may change with advance notice and will be announced on Canvas.

Week	Date	Day	Topic	Activities
1	Jan 22	Thu	Course Introduction	Overview of syllabus and expectations

Week	Date	Day	Topic	Activities
2	Jan 27	Tue	Lecture: Introduction to AI, Discuss AI history, applications, and key concepts	In Class Activity
	Jan 29	Thu	Agent, Environment	In Class Activity
3	Feb 3	Tue	Search Problem 1	**Python 1**
	Feb 5	Thu	Search Problem 2	**Homework 1** Project Group Announcement
4	Feb 10	Tue	Games1	
	Feb 12	Thu	Adversarial Search	**Homework 1 Submission** Group formation and discussion
5	Feb 17	Tue	Constraint Satisfaction Problems	**Homework 2 Assigned**
	Feb 19	Thu	Markov Networks and Bayesian Networks 1	Finalize project schedule

Week	Date	Day	Topic	Activities
6	Feb 24	Tue	Markov Networks and Bayesian Networks 2	Homework 2 Submission
	Feb 26	Thu	Machine Learning 1	In Class Activity
7	Mar 3	Tue	Machine Learning 2	Mid Project Demo
	Mar 5	Thu	Machine Learning 3	Mid Project Demo
8	Mar 10	Tue	Machine Learning 4	Mid Project Demo
	Mar 12	Thu	Machine Learning 5	Mid Project Demo
9	Mar 17	Tue	Deep Learning 1	In Class Activity
	Mar 19	Thu	Deep Learning 2	
10	Mar 24	Tue	Deep Learning 3	Homework 3 Assigned
	Mar 26	Thu	Python 2	
11	Mar 31	Tue	Spring Recess - No class	
	Apr 2	Thu	Spring Recess- No class	Homework 3 Submission

Week	Date	Day	Topic	Activities
12	Apr 7	Tue	AI model 1	Homework 4 Assigned
	Apr 9	Thu	AI model 2	In Class Activity
13	Apr 14	Tue	AI model 3	In Class Activity
	Apr 16	Thu	AI model 4	In Class Activity
14	Apr 21	Tue	Final project evaluations	Homework 4 Submission
	Apr 23	Thu	Final project evaluations	
15	Apr 28	Tue	Final project evaluations	
	Apr 30	Thu	Final project evaluations	
16	May 5	Tue	Lecture	
	May 7	Thu	Review	
Finals	TBA	—	Final Exam	Covers full course content