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

Letter Graded

## Classroom Protocols

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- Regular attendance is an integral part of the learning process.
- Please arrive to class on time and make sure your cell phones are silent during the lecture.
- Class time will be spent in interactive lecture.
- You are required to bring your wireless laptop to class. Your laptop must remain closed except for designated activities.
- We will use in-class short quizzes to allow everyone to participate, gather feedback, and check understanding of the material.

## Program Information

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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)

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The focus of this course will be to introduce students to the breadth of topics in artificial intelligence, learn the principles, and develop hands-on experience in applying them. At the successful completion of the course, the students will be able to:

1. Understand AI terminology, problem areas, and possibilities.
2. Understand and apply A\* algorithm to find solutions nodes in state space.
3. Explain various search algorithms such as BFS and DFS.
4. Explain informed vs uninformed search.
5. Explain hillclimbing.
6. Understand and apply constraint satisfaction.
7. Explain alpha-beta pruning.
8. Translate sentences in first-order logic into CNF.
9. Find proofs using resolution.
10. Explain planning.
11. Explain learning algorithms such as linear classifiers and Naive Bayes.
12. Create learning algorithms using Neural Nets.

## Course Materials

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# Artificial Intelligence: A Modern Approach

Stuart Russell, Peter Norvig

Pearson

4th

0134610997

[Online at Pearson](#)

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# Course Schedule

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Topics