

**Coordinates:**

Time: 3:40pm - 5:00pm, Tuesdays and Thursdays  
 Location: Sproul Hall, room 1340

**Instructor:**

Christian Shelton  
 cshelton@cs.ucr.edu  
 office hours: Wednesdays 1-4pm, Engr II, 327

**Text:** *Artificial Intelligence: A Modern Approach, second edition* by Stuart Russell and Peter Norvig.

**Course Purpose:** This course is a targeted survey of modern problems, algorithms, and techniques in artificial intelligence. We will cover two major topics, search and learning.

**Tentative Class Schedule:**

week		Tuesday		Thursday		assigned	due
1	1/10	Intro, what is AI?	Ch 1-2	1/12	Uninformed Search	Ch 3	<b>PS 1</b>
2	1/17	Informed Search	Ch 4	1/19	Informed Search	Ch 4	
3	1/24	Adversarial Search	Ch 25	1/26	Path Planning	Ch 6	<b>PS 2</b> <b>PS 1</b>
4	1/31	Propositional Logic	Ch 7	2/2	SAT Solving	Ch 7	
5	2/7	Predicate Logic	Ch 8	2/9	Predicate Logic	Ch 9	<b>PS 3</b> <b>PS 2</b>
6	2/14	<b>Midterm</b>	Ch 3,4,6-9	2/16	Probability	Ch 13	
7	2/21	Prob. Reasoning	Ch 13	2/23	Learning	Ch 18	
8	2/28	Decision Trees	Ch 18	3/2	Emperical Risk	Ch 20	<b>PS 4</b> <b>PS 3</b>
9	3/7	Neural Networks	Ch 20	3/9	Error Bounds	Ch 18	
10	3/14	AI and the Real World		3/16	Other Topics		<b>PS 4</b>

————— **Final:** 3pm-6pm on March 23rd —————

**Course Work:** There will be four problem sets, one midterm, and one final exam for this course. The problem sets will have a mix of written questions and programming questions. C++ is the programming language of choice for this course. Some of the assignments will come with helper routines and classes in C++. Programming in a different language will make your life more difficult.

The problem sets must be completed individually. Discussion among students at a *very high* level is tolerated, but each member of the discussion must cite the other members on his or her problem set. As a rule of thumb, if during the discussion you write anything or read anything someone else wrote, it was too detailed. The use of any resource other than the text book, TAs, or instructors is prohibited. If in doubt, ask.

All assignments will be due on Fridays through the turn-in system. **Absolutely no late assignments will be accepted.** By enrolling in this course, you are agreeing to the problem set schedule above. It is your responsibility to schedule your time so that you can turn in the problem sets on time. Correspondingly, you must take the exams at the official time and place.

The midterm will be similar to the non-programming portions of the problem sets. The non-programming portions of the problem sets will not be worth as much as the programming portions, but they will be excellent preparation for the midterm and final. The final will be comprehensive, but mainly cover topics after the midterm.

**Cheating:** I have caught cheaters in the past. I will continue to pursue the maximum punishment (expulsion) for any students I find to have cheated.

**Sections:** For the first hour of the sections, the TAs will review the material from the past week and present new examples. The remainder of the time will be spent answering any questions you have.

**Grade:** Your grade will be based on the following percentages.

Problem Sets	15% each
Midterm	15%
Final	25%