



# Rhodes College

## Artificial Intelligence for Computer Science COMP 465

Syllabus  
Fall 2007

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### Basic Info:

- Monday, Wednesday 2:00 pm - 3:15 pm
- Olendorf 420

### Instructor:

- Betsy Williams
  - Office: Olendorf 420
  - Office Phone: 901.843.3791
  - Email: [williamsb@rhodes.edu](mailto:williamsb@rhodes.edu)

### Office Hours:

- **MW 3:15-4:15, T 9:00-11:00**
- By appointment

### Book:

- The course textbook is S. Russell and P. Norvig. "Artificial Intelligence: A Modern Approach".

### Course webpage:

- <http://www.rhodes.edu/mathcs/faculty/williams/Fall2007/cs465>

### Course Objectives:

- To introduce you to some of the basic theory and practical techniques in artificial intelligence.
- In particular, this course will teach you about:
  - Reactive systems;
  - Search;
  - Knowledge representation;
  - Machine learning;
  - Planning; and
  - Software agents.
- At the end of this course, the student will be able to:
  - Formulate and assess problems in artificial intelligence.
  - Assess the strengths and weaknesses of several methods for representing knowledge.
  - Assess the strengths and weaknesses of several AI algorithms in areas such as heuristic search, game search, logical inference, statistical inference, decision theory, planning, machine learning, neural networks, and natural language processing.
  - Implement software solutions to a wide-variety of problems generally considered to require artificial intelligence.

### Workload:

- It is important to stay current with the material. You should be prepared to devote regular weekly hours to this course. Do not wait to the last minute to start your programming assignments.

### Projects:

- Coursework will consist of several substantial assignments broken into checkpoints. Assignments will have both programming and written components. Programming will be in Python. You should be prepared to do regular work each week to keep up with the material and the assignments

- There will be a total of five late days that you can use without penalty, two of which can be used for any assignment.
- Assignments should be emailed to me [williamsb@rhodes.edu](mailto:williamsb@rhodes.edu) on the day they are due (before 11:59 pm). Projects received after 11:59 pm on the date due are considered late.
- **LATE** programs (when all late days are used up) will not receive credit. (If a genuine emergency situation prevents you from turning it, please see me and we will work something out.)
- You are allowed to use the course textbook and the course notes for these programs. The use of any other material to solve the problem sets is forbidden.
- Collaboration: You are expected to work individually on assigned programs. However, You are allowed encouraged to discuss high-level details of the programs. If group work is allowed, it will be mentioned explicitly in the assignment.
- Due dates (subject to change):
  - MadMaze – 9/7
  - Pacman I – 9/19
  - Packman II – 9/28
  - GridCraze – 10/20
  - Battleship I – 10/29
  - Battleship II – 11/12
  - Battleship III – 11/19
  - Battleship IV -- 11/27
  - Classification – 12/5

#### Recommended Exercises:

- I will suggest exercises form the book that you may find useful. They will not be turned in for a grade, and you are encouraged to work with your classmates on these exercises.

#### Exams:

- There will be one midterm and one final exam:
  - Midterm: Wednesday, Oct. 3, in class.
  - Final Exam: Tuesday, Dec. 11, 8: 30 am
- These exams will be open-notes, open-book, and closed-neighbor
- Make-up exams will only be given in extreme circumstances.

#### Grade Breakdown:

- 65 % Assignments
- 15 % Midterm
- 20 % Final

#### Grade Assignments:

- Grading is based on the below scale:
  - **A** : [93%, 100%]
  - **A-** : [90%, 93%]
  - **B+** : [87%, 90%]
  - **B** : [83%, 87%]
  - **B-** : [80%, 83%]
  - **C+** : [77%, 80%]
  - **C** : [73%, 77%]
  - **C -** : [70%, 73%]
  - **D** : [65%, 70%]
  - **D-** : [60%, 65%]
  - **F** : [ 0%, 60%]
- For borderline cases, I may take into account participation, and/or attendance, and improvement during the semester.

**Attendance:**

- Attendance is expected for each class as material that is not covered in the book may appear in class. If your attendance deteriorates you will be referred to the dean and asked to drop the course. Attendance and participation may also be considered when assigning a final grade.

**Special Accommodation:**

- If you are in need of special accommodations, please register with the Office of Student Disability Services (<http://www.rhodes.edu/disability>) as soon as possible so that all necessary arrangements can be made.

**Scholastic Behavior**

- Plagiarism, cheating, and similar anti-intellectual behavior are serious violations of academic ethics and will be correspondingly penalized. If you are concerned about a possible violation of this kind, please talk with me. I understand the pressure that students may experience while at Rhodes, and I will try to help as best as I can.

**Important Dates**

- Drop Add Ends: 8/28/2007
- Extended Drop Period ends: 9/12/2007
- Pass Fail Period Ends: 9/12/2007
- Withdrawal Period Ends: 10/26/2007