# Survivor's Manual for CIS 4210/5210

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This course investigates algorithms to implement resource-limited knowledge-based agents which sense and act in the world. Topics include, search, machine learning, probabilistic reasoning, natural language processing, knowledge representation and logic. After a brief introduction to the language, programming assignments will be in Python.

— Description of CIS 4210/5210 in course catalog

Exams in CIS 4210/5210 are closed book but allow one double sided paper as a cheat sheet.

## §1 Midterm

Takes place on October 10.

Statistics from Fall 2024 iteration (out of 52 points):

• Mean: 36.15

• Median: 36.27

• Max: 50.27

• Upper Quartile: 41.45

• Lower Quartile: 31.61

• Low: 18.11

#### §1.1 List of Content

#### **Topic**

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Module 1: Rational Agents + Python Knowledge

Module 2: Uninformed Search

Module 3: Informed Search

Module 4: Games and Adversarial Search

Module 5 - Constraint Satisfaction Problems

Module 6 - Logical Agents

#### §1.2 Test Specific Strategies

## §2 Final

Takes place on December 18.

**Statistics from Fall 2024 iteration** (out of points):

- Mean:
- Median:
- Max:
- Upper Quartile:
- Lower Quartile:
- Low:

## §2.1 List of Content

Module 7 - MDPs Module 8 - Reinforcement Learning Module 9 - Probabilities and Language Models Module 10 - Bayes' Nets Module 11 - Naive Bayes and Perceptrons Module 12 - Neural Nets Module 13 - NLP

#### **Topic**

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## §2.2 Test Specific Strategies