

Below you will find more information about your midterm exam. First a couple notes for individual sections:

In-person students (Section 01): exam will take place in room HH 002,
Online students (Section 02): I understand that you responded to Mr. Charles Scott (scott@iit.edu) and made necessary arrangements to take your exam. For some of you it will mean joining in-person section students in HH 002. If you haven't contacted Mr. Scott yet, this is last call. Follow his instructions,
Beacon students (Section 03): please follow information and instruction provided to you through the Lumina system.

All the rules below apply to all three sections, unless noted otherwise:

exam will take place during our regular lecture time slot (11:25 AM - 12:40 PM CST | total: 75 minutes) on Thursday (October 13, 2022) [Beacon students: consult Lumina communication],
midterm exam is pen and paper,
exam is closed book,
exam is closed notes, but you are allowed to have ONE double-sided letter-sized sheet of notes,

NOTE: propositional logic equivalence rules/laws will be provided to you on your exam sheets. No need to put it on your cheat sheet!

NO electronic devices are allowed (please put your phones away back to your pockets, bags, etc.). That includes calculators. Remaining time will be displayed on the projector screen,

NO communication is allowed. Please approach me if you need clarification,
seating: there should be at least one space empty between students if possible,
bring a spare pen just in case.

Best regards,

Jacek

Below is your midterm exam scope (in relation to textbook chapters and lectures). Exam will be pen and paper. NO programming will be involved, however you are expected to understand algorithms to work out solutions by hand.

Chapter 2 Intelligent Agents (and corresponding lecture slides):

Section 2.1: understand the terminology and concepts.

Section 2.2: understand the terminology and concepts.

Section 2.3: understand the terminology and concepts. Be comfortable with the PEAS description and environment properties. Expect similar problem(s) as the one in Written Assignment #01. Your justifications will need to be solid.

Section 2.4: understand the differences between different agent types and how they affect your design choices. You may be asked to pick the best agent type for some

problem and justify your answer.
Go through the chapter summary.

Chapter 3 Solving Problems by Search (and corresponding lecture slides):

Section 3.1: understand the terminology and concepts. Be comfortable with defining a search problem.
Section 3.2: go through examples to solidify your understanding of search problem design.
Section 3.3: understand the terminology and concepts.
Section 3.4: understand the terminology and concepts / algorithms. Ignore sections 3.4.4 and 3.4.5 for the exam.
Section 3.5: understand the terminology and concepts / algorithms. Go through the examples. You might be asked to solve a search problem by hand. Ignore sections 3.5.3, 3.5.4, 3.5.5, and 3.5.6 for the exam.
Section 3.6: review the introduction to this section.
Go through the chapter summary.

Chapter 5 Adversarial Search and Games (and corresponding lecture slides):

Section 5.1: understand the terminology and concepts.
Section 5.2: understand the terminology and concepts. You may be asked to solve an adversarial problem by hand using Min-Max and alpha-beta pruning. Ignore section 5.2.2.
Go through the chapter summary.

Chapter 6 Constraint Satisfaction Problems (and corresponding lecture slides):

Section 6.1: understand the terminology and concepts. You may be asked to formally define a constraint satisfaction problem.
Section 6.2: understand the terminology and concepts. You may be asked to apply techniques from this chapter. Ignore sections 6.2.4 and 6.2.5.
Section 6.3: understand the terminology and concepts. You may be asked to apply techniques from this chapter. Ignore sections 6.3.3 and 6.3.4.
Go through the chapter summary.

Chapter 7 Logical Agents (and corresponding lecture slides) [This is still ahead of us | Written Assignment #02 will cover some of it]:

Section 7.1: understand the terminology and concepts.
Section 7.2: Go through the example provided.
Section 7.3: understand the terminology and concepts.
Section 7.4: understand the terminology and syntax of propositional logic. You may

be asked to apply techniques from this chapter (simplification, evaluation, deduction, truth tables, etc.).

Section 7.5: understand the terminology and inference / theorem proving in propositional logic. You may be asked to apply inference rules to some problem (including conversion to the CNF form).

Go through the chapter summary.

This should give you enough time to prepare.

If you need clarification or additional review in class or otherwise, please let me know.

Best regards,

Jacek