COSC 6368 (Fall 2017)

Review List Final Exam on December 7, 2p

The final exam is scheduled for Thursday, December 7, **2p** in **MH 160**—the classroom we had our midterm exam in. The exam will take 115 minutes and is open-books but the use of computers is not permitted!

Relevant Slide Sets, pasted from the COSC 6368 Website, that are relevant for the midterm exam:

2017 AI Planning Slides: [PL2](http://www2.cs.uh.edu/~ceick/ai/PL2.pptx) (Blythe, Ambile, Gil (USC) with additions by Dr. Eick); *also suggest to read the 11 pages of Chapter 10 of the textbook (see below)*

2017 Machine Learning Transparencies:

* [Quick Introduction to Machine Learning](http://www2.cs.uh.edu/~ceick/ai/6368-ML-Intro.pptx).
* Reinforcement Learning: [RL1](http://www2.cs.uh.edu/~ceick/ai/RL1.pptx) (Introduction to Reinforcment Learning), [RL3](http://www2.cs.uh.edu/~ceick/ai/kaelbling-rl.pdf) (Kaelbling's RL Survey Article: read sections 1, 2, 3, 4.1, 4.2, 8.1 and 9 discussed in the lecture)
* Decision Trees: [DT1](http://www2.cs.uh.edu/~ceick/ai/Eick_DT.pptx) (Dr. Eick's Introduction to Decision Trees, [DT2](http://www2.cs.uh.edu/~ceick/ai/russel18.pdf) (Russel Decision Tree Slides; only the first 6 transparencies will be used)
* Neural Networks: [NN1](http://www2.cs.uh.edu/~ceick/ai/russel20.pdf) (Russel's Introduction to Neural Networks), [NN2](http://www2.cs.uh.edu/~ceick/ai/nn.pptx) (Dr. Eick's additional NN slides), [A Short Introduction to Deep Learning](http://www2.cs.uh.edu/~ceick/ai/Fabio_DL.pdf) (by Fabio Gonzalez, National University of Colombia)

2017 Decision Making and Reasoning in Uncertain Environment Transparencies

[Review Probability Theory](http://www2.cs.uh.edu/~ceick/ai/Probability-Review.pptx)

[Dr. Eick's Transparencies on "Naive Bayesian Classifiers"](http://www2.cs.uh.edu/~ceick/bayes.ps) (only transparencies 1 & 13 will be used in the lectures)

Russel's [Introduction to Belief Networks](http://www2.cs.uh.edu/~ceick/ai/chapter14a.pdf) (transparencies 1-6, 8-9 and 29 will be covered in class)

Dr. Eick's [Computations in and with Belief Networks](http://www2.cs.uh.edu/~ceick/ai/Bbn.pptx) (to be covered in the lecture) Transparencies

**Tentative Weights of the main topics in the final exam**: Planning (about 10%), Decision Making in Uncertain Environment (about 25%), Machine Learning (the remainder of 100%).

Relevant material from the Russel textbook (Third Addition):

Chapter 10: pages 366-376 (suggest to read those pages)

Chapter 13: pages 480-499 (only if you are very weak in Probability Theory; the exam will not ask any specific questions about things that are discussed in the book but not in the transparencies)

Chapter 14: 510-517

Chapter 17: 645-658

Chapter 18: 693-707, 727-737

Chapter 21: 830-845, 853

Material that was discussed in class that is relevant for the final exam (but not necessarily is discussed in the textbook):

**Read Kaelbling's RL Survey Article:** sections 1, 2, 3, 4.1, 4.2, 8.1 and 9 are relevant

Another hint: Going through Homework2 and the problems discussed in Review2 on Nov. 30 will be helpful, as 60+% of the final exam problems will be similar to those problems!