COSC 4368 (Spring 2020)

Review List Midterm2 Exam on Monday, April 13, 1-2 p

The exam will take 60 minutes and is open-books and notes and will be a multiple choice exam.

Relevant slide shows, pasted from the COSC 4368 Website ,that are relevant for the Midterm2 exam:

* 2020 Teaching Material Evolutionary Computing (**EC**): EC1: [Introduction to Evolutionary Computing](http://www2.cs.uh.edu/~ceick/ai/EC1.pptx) and EC2:[Example: Using EC to Solve Travelling Salesman Problems](http://www2.cs.uh.edu/~ceick/ai/EC2.pptx), [Eiben-Smith Introduction to EA](http://www2.cs.uh.edu/~ceick/ai/Eiben-Smith-EC.pdf) (they call 'EC': 'EA'!), [April 6 EA-paper Walkthrough Notes](http://www2.cs.uh.edu/~ceick/ai/EA-Walkthrough-Notes.docx).
* 2020 Machine Learning Transparencies:
	+ Reinforcement Learning: [RL1](http://www2.cs.uh.edu/~ceick/ai/RL1.pptx) (Introduction to Reinforcment Learning),
	+ Neural Networks: [NN1](https://www.bing.com/videos/search?q=neural+network+video&view=detail&mid=54402D363ABB8903202F54402D363ABB8903202F&FORM=VIRE) ([3blue1brown](https://www.3blue1brown.com/): *What is a Neural Network?* (will show the first 12:30 of this video)), [NN2](http://www2.cs.uh.edu/~ceick/ai/NN2019.pptx) (Dr. Eick's NN slides), [NN3](http://www2.cs.uh.edu/~ceick/ai/russel20.pdf) (Russel's Introduction to Neural Networks, not covered in the lecture, but you might take a look at it).
	+ [Support Vector Machines](http://www2.cs.uh.edu/~ceick/ai/SVM.pptx) ([Review of the SVM lecture](http://www2.cs.uh.edu/~ceick/ai/SVM-Review.docx); added on March 24, 2020).
* 2020 Game Theory Slides: [G1](http://www2.cs.uh.edu/~ceick/ai/G1.pptx): Introduction to Gametheory (USC Economics slide show by Shivendra Awasthi (???)

Composition of the exam: 45-60% machine learning 35-45% evolutionary computing, 8-16% Game theory

Reading Material:

SVM Wikipedia Page: <https://en.wikipedia.org/wiki/Support-vector_machine>

Eiben-Smith EC Article (used in walkthrough)

Relevant material from the Russel textbook (Third Edition):

Chapter 17: 645-651, 666-670 674-676

Chapter 18, 694-697 727-737 744-748

Chapter 21: 830-831, 836-845 850-853.