

FINAL EXAM INFO. The exam is closed book and closed notes. The ‘‘lectures’’ portion of the web site includes more specific information on the relevant readings from Russell and Norvig.

**** USE LECTURE NOTES AS A STUDY GUIDE! ****

Topics covered from Russell and Norvig:

Part I --- AI

Part II --- PROBLEM SOLVING

e.g.

- the various search techniques
- uninformed / informed / game playing
- constraint satisfaction problems
- genetic algorithms (not in Part II of R&N)

Part III --- KNOWLEDGE REPRESENTATION

e.g.

- propositional / first-order logic
- syntax / semantics
- inference (resolution / unification / skolemizing)

Part IV --- PLANNING

e.g.

- planning as search-based problem-solving
- planning in situation calculus
- STRIPS language
- partial-order planning

Part VI --- LEARNING

e.g.

- k-nearest neighbor (not in R&N)
- genetic algorithms
- decision tree learning
- information gain
- generalization
- overfitting
- cross-validation
- best-current hypothesis

- PAC-learning
- sample complexity (how many examples?)
- neural network learning
- structure of networks
- perceptron learning
- backpropagation
- linearly separable
- reinforcement learning
- temporal difference rule