1. Monday Sept 8: Administrivia, What is “Artificial Intelligence”?  
2. Wednesday Sept 10: Part I: Problem-Solving as Search  
   – Course theme: What is “Game AI”?; Uninformed search  
3. Monday Sept 15: Heuristic search;  
   – Application in Game AI: How to Achieve Lightning-Fast A* (graduate presentation)  
4. Wednesday Sept 17: Constraint satisfaction problems and backtracking search  
5. Monday Sept 22: (continued); Application in Game AI: Constraint Satisfaction from Theory to Practice (Rogue-Like Level Population) (graduate presentation and video)  
6. Wednesday Sept 24: Local search  
7. Monday Sept 29: Part II: Knowledge Representation and Reasoning  
   – Logic for formal knowledge representation: Propositional logic review  
8. Wednesday Oct 1: Reasoning in propositional logic  
   Assignment 1 due
10. Wednesday Oct 8: Ontological engineering (2/2): An OWL Tutorial (continued); Groupwork on Assignment 2 question: Representing a fantasy domain in OWL

Monday Oct 13: Thanksgiving Holiday
12. Monday Oct 20: (continued); Inference in belief networks
13. Wednesday Oct 22: Reasoning under uncertainty:
   – Applications in Game AI: Fuzzy Logic; Bayesian Networks; Hidden Markov Models (3 graduate presentations)

Assignment 2 due
15. Wednesday Oct 29: Planning with uncertainty: Decision networks (1/2)
17. Wednesday Nov 5: Part III: Learning
   – Overview of Machine Learning
18. Monday Nov 10: Decision Trees
19. Wednesday Nov 12: Application in Game AI: Platforming MOBA Bots for AWESOMENAUTS using Decision Trees (graduate presentation and video)
   Assignment 3 due
20. Monday Nov 17: Applications in Game AI: Neural Networks: Constructing Adaptive AI using Knowledge-Based NeuroEvolution; Genetic Algorithms: Evolving the Perfect Troll; Reinforcement Learning in Games (3 graduate presentations)
21. Wednesday Nov 19: Guest lecture: Research in Applied Machine Learning; (possibly additional graduate presentations)
22. Monday Nov 24: Part IV: Communication
   – Overview of Natural Language Processing; Some applications
23. Wednesday Nov 26: Application in Game AI: Storytelling in FAÇADE (demo)
   Monday Dec 1: Assignment 4 due