COMP 5640, Intelligent and Interactive Systems

Credit hours: 3 lecture
Contact hours: 3 lecture

Catalog Description: Theory and design of intelligent and interactive software; treatments of intelligent agents and human-computer interaction.

Prerequisites: COMP 3270
Corequisites: None

Selected Elective Course (CSCI, SWEN, WIRS)

Instructor or Course Coordinator: Dr. Hari Narayanan

Required Textbook

Course Outcomes
The student will be able to
• appreciate the history and relevance of artificial intelligence to computer science applications.
• apply the theory and concepts of artificial intelligence.
• apply algorithms and search techniques for problem solving.
• apply propositional and first order logic
• implement programming solutions for artificial intelligence and intelligent user interface problems.

Topics Covered
• Introduction to Artificial Intelligence (1.5 hours)
• Intelligent Agents (3 hours)
• Search (6 hours)
• Introduction to Evolutionary Computation (4 hours)
• Introduction to Genetic Algorithms (4 hours)
• Adversarial Search (4 hours)
• Propositional Logic (4 hours)
• First Order Logic (6 hours)
• Machine Learning (6 hours)
• Intelligent User Interfaces (4.5)
• Exams (2 hours)

Course Requirements
• Homework assignments (10%)
• Lab projects (20%)
• Research paper (10%)
• Midterm exam 1 (15%)
• Midterm exam 2 (20%)
• Final exam (25%)

Syllabus prepared: Spring 2016