Dept Number | CS 537 | Course Title | Advanced Topics in Expert Systems
Semester Hours | 3 | Course Coordinator | Shahram Rahimi
Catalog Description | This course is designed to provide students with advanced topics in expert systems theory. Topics covered include: knowledge representation, methods of inference, reasoning under uncertainty, and inexact reasoning (fuzzy logic). A practical introduction to expert systems programming serves to reinforce and clarify the theoretical concepts.

Textbooks

References

Course Learning Outcomes

Assessment of the Contribution to Program Outcomes

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Prerequisites by Topic

CS 330 or instructor consent

Major Topics Covered in the Course
1. The Representation of Knowledge
2. Methods of Inference
3. Reasoning under Uncertainty
4. Inexact Reasoning (Fuzzy Logic)
5. The Design of Expert Systems
6. Introduction to Expert Systems Programming
7. Modular Design and Execution Control
8. Efficiency in Rule-Based Languages
10. Class Project

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<th>Major Lab Assignments and Projects</th>
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**Tool 1. Assignments:**

WFF development using CLIPS: PO3

**Tool 2. Readings and Presentations**

Reading 1 & 2: PO5

**Tool 3. Final Exam:**

PO1, PO4

**Tool 4. Final Project:**

PO5, PO7