

## **Faculty of Computing and Information Technology**

Department of Computer Science



Spring 2018

# **CPCS-433 Syllabus**

### **Catalog Description**

**CPCS-433** Artificial Intelligence Topics **Credit:** 3 ( Theory: 3, Lab: 0, Practical: 0)

**Prerequisite:** CPCS-331 **Classification:** Elective

The objective of this course is to explore recent topics related to Artificial Intelligence and the latest advances in this field.

#### **Class Schedule**

Meet 50 minutes 3 times/week or 80 minutes 2 times/week Lab/Tutorial 90 minutes 1 times/week

### **Textbook**

David Callear, , "Prolog Programming for Students", Burns & Oates;(2001-01)

**ISBN-13** 9780826454966 **ISBN-10** 0826454968

### **Grade Distribution**

### **Topics Coverage Durations**

| Topics                          | Weeks |
|---------------------------------|-------|
| Overview of intelligent systems | 1     |
| Expert systems                  | 2     |
| Evolutionary computation        | 3     |
| Fuzzy logic                     | 3     |
| Neural networks                 | 2     |
| Natural language processing     | 2     |
| Recent trends in AI             | 1     |

#### **Last Articulated**

### **Relationship to Student Outcomes**

| a | b | c | d | e | f | g | h | i | j | k |
|---|---|---|---|---|---|---|---|---|---|---|
| X | X |   |   |   |   |   |   |   | X |   |

### **Course Learning Outcomes (CLO)**

By completion of the course the students should be able to

- 1. To be able to identify the AI fields of application. ()
- 2. To be familiar with the expert systems methodology. ()
- 3. To understand the mathematical foundations of Neural Networks. ()
- 4. To understand the mathematical foundations of Fuzzy Logic. ()
- 5. To be familiar with the hybrid expert systems. ()
- 6. To be able to develop an AI system in one of the following areas, Disease Diagnosis and Treatment, Automatic plotting, Pattern Processing ()

### **Coordinator(s)**