

ARTIFICIAL INTELLIGENCE
[As per Choice Based Credit System (CBCS) scheme]
(Effective from the academic year 2016 -2017)

SEMESTER – V

Subject Code	15CS562	IA Marks	20
Number of Lecture Hours/Week	3	Exam Marks	80
Total Number of Lecture Hours	40	Exam Hours	03

CREDITS – 03

Course objectives: This course will enable students to

- Identify the problems where AI is required and the different methods available
- Compare and contrast different AI techniques available.
- Define and explain learning algorithms

Module – 1

**Teaching
Hours**

What is artificial intelligence?, Problems, Problem Spaces and search, Heuristic search technique

8 Hours

TextBook1: Ch 1, 2 and 3

Module – 2

Knowledge Representation Issues, Using Predicate Logic, Representing knowledge using Rules,

8 Hours

TextBook1: Ch 4, 5 and 6.

Module – 3

Symbolic Reasoning under Uncertainty, Statistical reasoning, Weak Slot and Filter Structures.

8 Hours

TextBook1: Ch 7, 8 and 9.

Module – 4

Strong slot-and-filler structures, Game Playing.

8 Hours

TextBook1: Ch 10 and 12

Module – 5

Natural Language Processing, Learning, Expert Systems.

8 Hours

TextBook1: Ch 15,17 and 20

Course outcomes: The students should be able to:

- Identify the AI based problems
- Apply techniques to solve the AI problems
- Define learning and explain various learning techniques
- Discuss on expert systems

Question paper pattern:

The question paper will have TEN questions.

There will be TWO questions from each module.

Each question will have questions covering all the topics under a module.

The students will have to answer FIVE full questions, selecting ONE full question from each module.

Text Books:

1. E. Rich , K. Knight & S. B. Nair - Artificial Intelligence, 3/e, McGraw Hill.

Reference Books:

1. Artificial Intelligence: A Modern Approach, Stuart Russell, Peter Norving, Pearson Education 2nd Edition.

1. Dan W. Patterson, Introduction to Artificial Intelligence and Expert Systems – Prentice Hal of India.
2. G. Luger, "Artificial Intelligence: Structures and Strategies for complex problem Solving", Fourth Edition, Pearson Education, 2002.
3. Artificial Intelligence and Expert Systems Development by D W Rolston-Mc Graw hill.
4. N.P. Padhy "Artificial Intelligence and Intelligent Systems", Oxford University Press-2015



H/O. D.

Dept. Of Computer Science & Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225