

# **CAP-5602 Introduction to Artificial Intelligence**

## **Catalog Description**

Presents the basic concepts of AI and their applications to game playing, problem solving, automated reasoning, natural language processing and expert systems. (3 credits)

## **Prerequisites**

COP 3530 - Data Structures

## **Type**

Elective for MSCS, Ph.D. in CS, MS in CS for current CS undergraduate students (4+1 Program).

## **Course Objectives**

At the end of the course the students will be able to

1. write reasonably complex programs in an AI language like LISP or prolog,
2. be familiar with the basic concepts and methods of AI,
3. use these concepts to solve basic AI problems.

## **Topics**

learn an AI language (LISP, prolog, or another AI language)

intelligent agents

problem solving

games

constraint satisfaction

classical planning

learning

natural language processing

other topics like automated reasoning, neural nets, expert systems, image processing, or robotics, at the discretion of the instructor

## **Textbook**

Stuart Russell and Peter Norvig Artificial Intelligence: A Modern Approach, Third Edition (Prentice Hall, 2010)

## **Last Update**

Alex Pelin 5/20/2013