# **Course Rubric CMSC 409**

# **Course Title Artificial Intelligence**

# **Syllabus**

**Catalog listing:** CMSC 409

**Course Level:** Undergraduate

**Prerequisites**: CMSC 401 and 403 and MATH 310

**Instructor:** Milos Manic, Ph.D.

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Classroom: E2214 Class website: Canvas

**Office Hours**: Thursdays, 10:45am-12:45pm (unless agreed differently)

## 1.0 - Overview (Catalog Course Description):

Covers problem spaces, problem-solving methods, game playing, knowledge representatives, expert systems, natural language understanding (From https://pubapps.vcu.edu/vcucourses/?m=detail&s=CMSC&c=409&t=201510)

#### 2.0 - Course Structure:

Lecture hours/week – 3 Lab hours/week – 0

### 3.0 - Course Goals

Upon successful completion of this course, the student will be able to apply various AI techniques to real world problems.

#### 4.0 - ABET Criteria Addressed:

6. Apply computer science theory and software development fundamentals to produce computing-based solutions.

### 5.0 - Major Topics Covered:

- Intro, definitions, history, ethics and difficult questions of future AI
- Artificial vs. biological intelligence
- Problem solving by AI, learning, decision making, prediction
- Knowledge, reasoning, representation
- Learning (agents, neural/machine, from examples, Q, reinforcement)
- Communicating, perceiving, reasoning (text, vision, perception, robotics)

# 6.0 - Textbook(s):

Stuart Russell and Peter Norvig, Artificial Intelligence: A Modern Approach, Prentice Hall, 2010.

### 7.0 - Class Schedule:

• Lecture: T R, 09:30am-10:45am, Zoom

#### 8.0 - Evaluation:

## **General Instructions:**

A (90 - 100) %

B (80 - 89) %

C (70 - 79) %

D (60 - 69) %

F (0-59) %

## **Grading:**

Category	% weight
Projects	45
Projects presentations and class activity	10
Final examination	45

Additional syllabus details available on Blackboard.