1. **Course number and name:** CSCI 5430 Artificial Intelligence

2. **Credits and contact hours:** 3 credit, 3 contact

3. **Instructor’s or course coordinator’s name:** Robert Cook, PhD

4. **Text book, title, author and year:** Programming Game AI by Example, Mat Buckland
   a. **Other supplemental materials:** None

5. **Specific course information**
   a. **Brief description of the content of the course (Catalog Description):** Introduction to different paradigms for creating software that can reason, access a knowledge base, handle uncertainty, learn, communicate, perceive and act. Graduate students will be given an extra assignment determined by the instructor that undergraduates will not be required to do.
   
   **Prerequisites:** A minimum grade of “C” in CSCI 3230 and CSCI 5330
   
   b. **Indicate whether a required, elective, or selected elective course in the program:** Elective course for BS-CS.

6. **Specific goals for the course**
   a. **Specific outcomes of instruction, ex. The student will be able to explain the significance of current research about a particular topic:**
      - Not a required course. It is not used to assess student outcomes
   
   b. **Student Outcomes**
      
      N/A

7. **Brief list of topics to be covered**
   - Math and Physics
   - Computer Games
   - State-Driven Agents and Scripting
   - Steering Behaviors
   - Simple Soccer
   - Graph Search and Eval
   - Artificial Life
   - Raven
   - Path Planning and A*
   - Agents
   - Decision Trees
   - Natural Language Processing
   - Computer Vision