



Course Description

CAI2820C | Artificial Intelligence Applications Solutions | 3.00 credits

A lower division course for students majoring in Applied Artificial Intelligence (AI). Students will demonstrate competence to scope, acquire/explore data, model, evaluate, and deploy an AI/machine learning solution in a team environment. Students will create and present a code or no-code AI solution. Must be taken during the last semester before graduation. Prerequisites: CAI2300C and CAI2840C.

Course Competencies:

Competency 1: The student will display effective communication and team building skills in an AI project by:

1. Selecting the project team members and defining their respective roles and responsibilities
2. Developing a mechanism for clear and consistent communication among team members
3. Setting clear goals and objectives to monitor the team's ongoing effectiveness

Competency 2: The student will successfully formulate project requirements and a statement of work by:

1. Determining project purpose and the scope of work to be conducted
2. Planning the project deliverables and the respective timeline with milestones
3. Selecting quantifiable criteria that must be met for the work to be acceptable and approved
4. Delivering a formal report following the assigned format and style
5. Presenting their project to the college community
6. Describing the importance of security technologies, processes and practices appropriate for the project

Competency 3: The student will develop AI solutions to satisfy project requirements by:

1. Applying Human-Centered Design, Socially Responsible Computing, and Design Thinking to develop and implement an AI solution
2. Using the AI project lifecycle process: problem definition, data acquisition, data exploration and visualizations, model development, evaluation, and deployment
3. Implementing an AI solution demonstrating the use of Dashboards, Data Visualization, and the design of Machine Learning Models
4. Documenting each lifecycle phase following the assigned format and style
5. Using AI models to solve common industry applications (Supervised, Unsupervised and Reinforce Learning)

Competency 4: The student will articulate issues related to AI projects by:

1. Assessing the unique attributes and diverse nature of AI solutions
2. Examining recent trends affecting AI applications
3. Exploring ethical considerations and the potential pitfalls of implementing AI solutions in society

Learning Outcomes:

- Communicate effectively using listening, speaking, reading, and writing skills
- Use quantitative analytical skills to evaluate and process numerical data
- Solve problems using critical and creative thinking and scientific reasoning
- Formulate strategies to locate, evaluate, and apply information
- Create strategies that can be used to fulfill personal, civic, and social responsibilities
- Demonstrate knowledge of ethical thinking and its application to issues in society
- Use computer and emerging technologies effectively