Wharton County Junior College

Administrative Master Syllabus

Course Information

Course Title	Artificial Intelligence (AI) History, Theory and Platforms
Course Prefix, Num. and Title	ITAI 1370 - Artificial Intelligence (AI) History, Theory and Platforms
Division	Technology and Business
Department	Computer Science
Course Type	WECM Course
Course Catalog Description	An overview of the history, theories, and platforms of Artificial Intelligence (AI), which are the essential areas of AI, including machine learning, neural networks, natural language processing, open source software, and algorithm development. Review of different computer hardware, networking, cloud distribution, operating systems, and software for AI.
Pre-Requisites	None
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours: Lab/Other Hours	3:2:2
Equated Pay Hours	3
Lab/Other Hours Breakdown: Lab Hours	2
Lab/Other Hours Breakdown: Clinical Hours	0
Lab/Other Hours Breakdown: Practicum Hours	0
Other Hours Breakdown	0

Approval Signatures

Title	Signature	Date
Department Head:	Muna Saqer, Comp Sci and IT&N Program Director	11/20/2025
Division Chair:	David Kucera, Technology & Business Division	11/20/2025
VPI:	Leigh Ann Collins Digitally signed by Leigh Ann Collins Date: 2026.05.01 13:09:21 -05'00'	

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Additional Course Information

Topical Outline: Each offering of this course must include the following topics (be sure to include information regarding lab, practicum, and clinical or other non-lecture instruction).

- An overview of the history, theories, and platforms of Artificial Intelligence (AI)
- Recognize Fundamental concepts of data science and artificial intelligence (AI)
- Understand essential areas of AI, machine learning, neural networks, natural language processing, open source software, and algorithm development
- Examination of different computer hardware, networking, cloud distribution, operating systems, and software for AI

Course Learning Outcomes:

Learning Outcomes – Upon successful completion of this course, students will:

- Illustrate the distinctions between machine learning and artificial intelligence by providing several examples.
- Explain the meaning, process, and structure of neural networks, deep learning, and machine learning.
- Articulate an ethical framework from which the responsible advancement of artificial intelligence can be pursued by composing an essay on one of the significant issues confronting societies.
- Outline artificial intelligence's functions across various computing platforms, including IoT devices, robots, traditional corporate networks, and the internet.
- Grasp the concept of prompt engineering for various generative tools utilized in content creation, encompassing text, images, audio, and video.

Methods of Assessment:

- Individual Projects
- Group Projects
- Lab Assignments
- Tests and Quizzes
- Final Exam

Required text(s), optional text(s) and/or materials to be supplied by the student:

- Artificial Intelligence: A Modern Approach, 4th edition by Stuart Russell and Peter Norvig, Publisher: Pearson, ISBN: 9780136042594, or a similar title

Suggested Course Maximum:

20

List any specific or physical requirements beyond a typical classroom required to teach the course.

- Computer (64-bit CPU) equipped with 16 GB RAM, and one TB or better hard drive for each student and the same for the instructor.
- The instructor's machine needs two network interface cards (one to connect to the WCJC network and one to connect to student PCs).
- Data projector
- Microsoft Windows, the current version (64-bit) operating system software for each PC (students and instructors)

- Microsoft Office suite for each PC (students and instructors)
- Antivirus software for each PC

Course Requirements/Grading System: Describe any course specific requirements such as research papers or reading assignments and the generalized grading format for the course.

Assignments.....20-30%
Labs 20-30%
Tests and Final Exam.....30-50%

Grade System:
90-100% ..... =A
80-89% ..... =B
70-79% ..... =C
60-69% ..... =D
Below 60%.... =F

Curriculum Checklist:

☐**Administrative General Education Course** (from ACGM, but not in WCJC Core) – No additional documents needed.

☐**Administrative WCJC Core Course**. Attach the Core Curriculum Review Forms

- ☐Critical Thinking
- ☐Communication
- ☐Empirical & Quantitative Skills
- ☐Teamwork
- ☐Social Responsibility
- ☐Personal Responsibility

☒**WECM Course** -If needed, revise the Program SCANS Matrix and Competencies Checklist