



Administrative Master Syllabus

Course Information

Course Title	Introduction to Data Science and Artificial Intelligence (AI)
Course Prefix, Num. and Title	DSAI 1371 - Introduction to Data Science and Artificial Intelligence (AI)
Division	Technology and Business
Department	Computer Science
Course Type	WECM Course
Course Catalog Description	Introduction to data science and artificial intelligence (AI) principles with a practical emphasis on problem solving. Includes an introduction to data-driven decision making, the AI project life cycle, privacy, bias, ethics, and professional expectations.
Pre-Requisites	None
Co-Requisites	None

Semester Credit Hours

Total Semester Credit Hours (SCH): Lecture Hours:	3:2:2
Lab/Other Hours	
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:		

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).

- Recognize principles of data science and artificial intelligence (AI)
- Access and manage data
- Define data infrastructure management processes and solutions
- Identify the project life cycle, privacy, bias, ethics, and professional expectations
- Understand data-driven decision making

Course Learning Outcomes:

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

- Define and explain fundamental concepts within data science and AI, including the data science workflow, basic machine learning principles, and the role of AI in real-world applications
- Making Sense of Data Through Visualization
- Data wrangling and preprocessing
- Understanding Uncertainty, Probability, and Variability
- Collect, explore, clean, and manipulate data

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:

- Data Science For All, 1st edition, Publisher: Pearson, ISBN: 9780135311189, 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



Wharton County Junior College

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