



ISACA Artificial Intelligence (AI) Fundamentals Exam Prep

UWF Florida Cybersecurity Training Program
Offered by the University of West Florida Center for Cybersecurity

Course Overview

Course Dates: October 21-November 1, 2024

Duration: 2 weeks

Estimated Time Commitment: 10-15 hours per week

Instructional Hours: 15 contact hours

Delivery Format: Asynchronous online

Target Audience: IT and Cybersecurity managers and practitioners

Required Prerequisites / Background: Working knowledge of computers

CEUs: 1.5, **CPEs:** 18

Course Instructor(s):

Instructor	Email Address
Dr. Guillermo Francia, III	gfranciaiii@uwf.edu

Course Description

The ISACA exam prep course utilizes a hybrid learning approach to help students build an understanding of AI concepts, principles, and uses. Students will learn how to utilize essential software and algorithms to leverage AI's applications and potential to automate complex tasks and processes. The course also covers Machine Learning, resource requirements for AI adoption, and AI associated risks including its ethical implications.

The ISACA AI Fundamentals exam prep course is a hybrid learning approach to help you build an understanding of AI concepts, principles and uses. In the course, you will learn how to utilize essential software and algorithms to leverage AI's applications and potential to streamline your career by automating complex tasks. The course covers AI principles, concepts, and potential uses, essential software and algorithms for AI applications, and AI associated risks including its ethical requirements.



NIST NICE Cybersecurity Workforce Framework Mapping

The course addresses cybersecurity competency areas and work roles as identified in NIST's Special Publication 800- 181 rev 1, National Initiative for Cybersecurity Education (NICE) Cybersecurity Workforce Framework available at <https://nvlpubs.nist.gov/nistpubs/SpecialPublications/NIST.SP.800-181r1.pdf>.

Cybersecurity Competency Areas:

- AI Security

Cybersecurity Work Roles and Categories:

- Data Analysis (IO-WRL-001)
- Knowledge Management (IO-WRL-003)
- System Security Analysis (IO-WRL-006)

GRADING

The course is designed as examination preparation. Students should complete all assignments and take time to review any incorrect answers. Non-credit course students shall receive a grade of either complete or incomplete at the conclusion of the course. Participants must earn a total of 70% or higher on graded assessments to earn a course completion grade.

Students must register to take the certification exam during the first 10 days of the course and report their exam date(s) to their instructor. Students shall take the certification exam(s) within one week of course end date to receive a course completion certificate and digital badge. Each student will receive a voucher to take the exam and students who do not pass on the first attempt will be provided with additional resources and a second voucher.

Grading Scheme:

Assignment	Percentage of Grade
Exam Registration <ul style="list-style-type: none"> • Register for the ISACA AI Fundamentals Exam • Submit Exam Date(s) to the instructor • Due no later than the 6th business day of the course. 	15%
CompTIA Certification Exam <ul style="list-style-type: none"> • Sit for ISACA Fundamentals of AI Exam • Submit Candidate Score Reports from the exam to the instructor. 	10%



<ul style="list-style-type: none"> • Due no later than five business days after the course ends 	
Assignment Completion <ul style="list-style-type: none"> • Labs • Quizzes • Practice Questions 	75%
Total	100%

Course Outline

Modules and Lessons	Assessment
Module 1: Overview and Introduction to AI <ul style="list-style-type: none"> ○ Introduction and Objectives ○ Overview ○ Machine and AI Learning ○ AI Reasoning, Problem Solving, and Perception ○ Natural Language Processing 	Knowledge Check / Quiz
Module 2: Expert Systems and AI Reasoning <ul style="list-style-type: none"> ○ Introduction and Objectives ○ Expert Systems ○ Types of Reasoning ○ Robotics Process Automation 	Knowledge Check / Quiz Lab
Module 3: Machine Learning <ul style="list-style-type: none"> ○ Introduction and Objectives ○ Machine Learning Overview ○ Statistical Sampling ○ Statistical Modeling ○ Classification ○ Clustering ○ Learning Methods and Tools ○ Neural Networks 	Knowledge Check / Quiz Lab
Module 4: Resource Requirements for Adopting AI <ul style="list-style-type: none"> ○ Introduction and Objectives ○ Adopting AI ○ Stakeholder Education ○ Governance and Roles 	Knowledge Check / Quiz



Module 5: AI Use, Risks, and Ethics

- Introduction and Objectives
- AI Applications
- Consumer Uses of AI
- Potential Risks of AI
- AI Ethics

Knowledge Check / Quiz