AI DATA SPECIALIST

Overview

AI Data Specialist Associate of Applied Science Degree

Program Code: 10-156-4

For more information: wctc.edu/ai-spec *(*https://www.wctc.edu/academics/programs/ai-data-specialist/*)*

Develop the data and programming skills necessary to acquire, analyze and prepare data for use in machine learning algorithms. Create models for predictive analytics, image recognition/computer vision and natural language processing, evaluate results and implement the models in a production environment. Navigate ethical concerns as they relate to AI.

The minimum required course grades and program grade point average (GPA) for students under this catalog are:

Core Courses = C
General Studies Courses = C
Program GPA = 2.0

Learning Outcomes

Program Outcomes

1. Communicate with stakeholders.
2. Acquire data from a variety of common data sources.
3. Transform data to meet business and technical needs.
4. Evaluate machine learning models.
5. Implement AI solutions.
6. Examine the various applications of AI in industry.
7. Navigate the ethical implications of various types of AI solutions.

Critical Life Skills

To help our students prepare for success in a workplace and society that is **increasingly global, multicultural and collaborative**, we provide curricular and co-curricular opportunities to develop critical life skills. WCTC is committed to teaching all students the following skills:

- **Communication:** Demonstrate appropriate communication.
- **Critical Thinking/Problem Solving:** Demonstrate critical thinking skills to analyze situations and solve problems.
- **Relationships:** Demonstrate effective interpersonal skills.
- **Self-management:** Demonstrate responsible and respectful behavior.

Required Courses

Listed below are the required courses for the program. To view the recommended sequence for taking courses click on the plan of study tab(s) above. Work with your Academic Advisor to design a program plan!

View your **Program Matrix** to find out when each course will be offered (term and time of day).

Code	Title	Credits
Core Courses:		
107-137	Internship - IT	1
150-190	Network Fundamentals	2
152-101	Python Programming	1
156-102	Advanced SQL	3
156-107	Data Modeling	2
156-108	Intro to Databases & Reporting	1
156-109	Intro to SQL	2
156-110	Data Visualization & Reporting	2
156-111	Intro to Data Analytics	2
156-112	Predictive Analytics	2
156-113	Python Data Manipulation	2
156-114	Business Applications of AI	3
156-115	Computer Vision	2
156-116	Natural Language Processing	2
156-117	Big Data Engineering	3
156-118	AI Capstone	4
664-150	Industrial Data Acquisition	3
664-158	Operational Tech Applications	2
605-133	Intro to Operational Tech	2
General Studies:		
801-136	English Composition 1	3
Approved Substitute: 801-223		
801-197	Technical Reporting	3
804-133	Math & Logic	3
Approved Substitute: 804-118		
804-189	Introductory Statistics	3
809-143	Microeconomics	3
Approved Substitutes: 809-195 OR 809-287		
809-198	Intro to Psychology	3
Approved Substitute: 809-199		
890-108	Employment Success	1
Total Credits		**60**

Full-Time, Fall Start Plan

First Year

Fall Term 1		**Credits**
156-108	Intro to Databases & Reporting	1
605-133	Intro to Operational Tech	2
804-133	Math & Logic	3
	Credits	**6**
Fall Term 2		
156-109	Intro to SQL	2
156-114	Business Applications of AI	3
156-107	Data Modeling	2
	Credits	**7**
Spring Term 1		
156-102	Advanced SQL This course runs 16 weeks.	3
156-110	Data Visualization & Reporting	2
152-101	Python Programming	1
801-136	English Composition 1	3
	Credits	**9**
Spring Term 2		
150-190	Network Fundamentals	2
156-113	Python Data Manipulation	2
	Credits	**4**

Summer Term		
804-189	Introductory Statistics	3
809-198	Intro to Psychology	3
	Credits	**6**
Second Year		
Fall Term 1		
156-111	Intro to Data Analytics	2
664-158	Operational Tech Applications	2
801-197	Technical Reporting	3
	Credits	**7**
Fall Term 2		
156-112	Predictive Analytics	2
156-115	Computer Vision	2
664-150	Industrial Data Acquisition	3
	Credits	**7**
Winter Interim		
890-108	Employment Success	1
	Credits	**1**
Spring Term 1		
156-117	Big Data Engineering This course runs 16 weeks.	3
156-118	AI Capstone	4
809-143	Microeconomics	3
	Credits	**10**
Spring Term 2		
156-116	Natural Language Processing	2
	Credits	**2**
Summer Term		
107-137	Internship - IT	1
	Credits	**1**
	Total Credits	**60**