MORAINE PARK
TECHNICAL COLLEGE
1-800-472-4554 | TTY/VP. Use Relay/VRS

IT - DATA (156)

156-102 - AI Fundamentals
New course in the Artificial Intelligence Data Specialist program.
3 Credit hours
36 Lecture hours
36 Lab hours

156-107 - Data Modeling
This course will cover the principles and techniques of data modeling, a critical process in designing and implementing databases and data warehouses. Students will learn how to create conceptual, logical, and physical data models, and how to use data modeling tools and techniques to represent complex data structures. The course will also cover data modeling for different types of databases, including relational, NoSQL, and graph databases. (Prerequisite: 156-112 Predictive Analytics)
3 Credit hours
36 Lecture hours
36 Lab hours

156-110 - Data Visualization and Reporting
This course will focus on the techniques and tools used for data visualization and reporting, essential skills for communicating data insights effectively. Students will learn how to create various types of visualizations, such as charts, graphs, and maps, using different visualization tools and libraries. The course will also cover the principles of effective data storytelling and report design.
3 Credit hours
36 Lecture hours
36 Lab hours

156-112 - Predictive Analytics
This course will focus on the techniques and tools used for predictive analytics, a branch of AI that uses data to make predictions about future events. Students will learn how to collect, clean, and analyze data, build predictive models, and evaluate the performance of these models. The course will cover various predictive modeling techniques, including regression, classification, and time series analysis. Real-world examples and case studies will be used to illustrate the concepts and techniques. (Prerequisite: 101-138 Data Management, Analysis and Reporting)
3 Credit hours
36 Lecture hours
36 Lab hours

156-114 - Business Apps for AI
This course will explore the various applications of AI in business, including customer relationship management, marketing, finance, and operations. Students will learn how to identify business problems that can be solved using AI, select the appropriate AI tools and techniques, and implement AI solutions in a business setting. The course will also cover the challenges and opportunities associated with AI adoption in business. (Prerequisite: 156-102 AI Fundamentals)
3 Credit hours
36 Lecture hours
36 Lab hours

156-116 - Natural Language Processing
This course will delve into natural language processing (NLP), a field of AI that focuses on enabling computers to understand and process human language. Students will learn about the fundamental concepts and techniques in NLP, including text preprocessing, sentiment analysis, machine translation, and chatbot development. The course will also cover the latest advancements in NLP, such as transformer models and large language models. (Prerequisite: 152-108 Introduction to Programming)
3 Credit hours
36 Lecture hours
36 Lab hours

156-118 - AI Capstone
This course is a capstone project designed to allow students to apply their AI knowledge and skills to solve a real-world problem. Students will work in teams to define a project scope, collect and analyze data, develop an AI solution, and present their findings. The course will provide students with hands-on experience in the entire AI project lifecycle, from problem definition to solution deployment.
3 Credit hours
36 Lecture hours
36 Lab hours