DATA AND ANALYTICS FOR BUSINESS PROFESSIONALS CERTIFICATE

Data & analytics overview

Program description:

This course will be an overview of:

- Data science as a discipline
- Data and analytics evolution
- Data & analytics process
- Business intelligence and reporting

Learning objectives:

After completing this course, the learner should be able to:

- Define big data and business analytics
- Describe the evolution of big data and analytics
- Explain components of business analytics and reporting
- Describe data & analytics process
- Describe the various data types
- Describe the characteristics of big data

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	None
Knowledge level:	Basic
Advance preparation:	None

Data analytics process

Program description:

This course will be an overview of:

- Business engagement
- Data & analytics process
- Problem formulation
- Key performance indicators
- Analyzing data
- Evolving insights

Learning objectives:

After completing this course, the learner should be able to:

- Apply business engagement strategies to a project
- Formulate business problem
- Identify creditable data sources
- Describe data & analytics process

Instructional delivery methods/ course format:	On-Demand
Credit(s):	2
Field of study:	Information Technology
Prerequisites:	Data & analytics overview
Knowledge level:	Basic
Advance preparation:	None

Big data challenges

Program description:

This course will be an overview of:

- Business data challenges
- Quality of data
- Innovation that sparks opportunity
- Customer challenges and opportunities
- Data scientist role as an innovator

Learning objectives:

After completing this course, the learner should be able to:

- Recognize data challenges from a business perspective
- Identify opportunities to improve data challenges
- Describe data challenges that arise for a data professional
- Explain role of data scientist in addressing data challenges and opportunities
- Define business customer data challenges and approach for shaping opportunities to collect and share data

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1.5
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic
Advance preparation:	None

Democratization of data

Program description:

This course will be an overview of:

- Business view of data
- Data democratization
- Data visualization and business intelligent tools
- Customer centric data strategies for socializing data within business

Learning objectives:

After completing this course, the learner should be able to:

- Explain business view of data democratization
- Describe benefits, goal and characteristics of data democratization in action
- Identify drivers of data democratization
- Explain business view of socializing data and appropriate strategies and tools

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic
Advance preparation:	None

Introduction to data visualization

Program description:

This course will be an overview of:

- Data visualization principles and techniques
- Human and visual perception characteristics
- Information visualization strategies

Learning objectives:

After completing this course, the learner should be able to:

- Define data visualization and approaches
- Apply basic visualization principles
- Identify human perception characteristics
- Evaluate visualization results
- Effectively communicate design decisions and strategies

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic
Advance preparation:	None

Data and storytelling

Program description:

This course will be an overview of:

- Data storytelling
- Creative storytelling using data
- Narratives to insights
- Setting context through storytelling

Learning objectives:

After completing this course, the learner should be able to:

- Explain data storytelling as an enabler for shaping context and meaning of data
- Create a compelling story to insights using creative strategies
- Use narratives as an approach for shaping data story
- Apply the three levels of visualization

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic
Advance preparation:	None

Data management

Program description:

This course will be an overview of:

- Data and ethics
- Code of conduct for data scientist
- Data security and protection
- Culture of innovation and trust needed for an ethical environment
- Drivers for creating an innovative culture

Learning objectives:

After completing this course, the learner should be able to:

- Define organizational culture that supports innovation and ethical use of data
- Identify ethical standards as a data scientist
- Define code of conduct for data scientists
- Identify drivers for creating an innovative culture

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic
Advance preparation:	None

Ethical use of data

Program description:

This course will be an overview of:

- Data Management
- Data Governance
- Data Collection Controls
- Data Strategy

Learning objectives:

After completing this course, the learner should be able to:

- Explain purpose of data governance and stewardship
- Describe components of a data management plan & evolution
- Describe data collection activities and controls
- Explain value of data as a strategic asset

Instructional delivery methods/ course format:	On-Demand
Credit(s):	1
Field of study:	Information Technology
Prerequisites:	• Data & analytics overview • Data analytics process
Knowledge level:	Basic/Intermediate
Advance preparation:	None