Data Literacy and Ethics Course Syllabus

WESTERN GOVERNORS UNIVERSITY

Data Literacy and Ethics

Hello, and welcome!

Data is all around us. When you search online, order takeout through an app, or use your card at a checkout, data is created. For business, data is the backbone of operations. From creating and storing customer records to using data for guided decision-making, organizations rely on data for their success. To act on this data, they turn to professionals who understand data, know how to effectively analyze and interpret it, and can provide valuable insights.

This course introduces you to the fundamental concepts of data literacy and ethics. You will learn what data is, and what it isn't, the stages of the data lifecycle, and what makes quality data. You will examine misleading data visualizations and how intentional or unintentional design choices can lead to business harm. You will explore core statistical concepts and become familiar with data ethics and fairness. This foundational knowledge will prepare you to turn raw data into meaningful insights.

We invite you to take a minute to learn about the course by reviewing the information that follows. This way, you will be better able to understand the expectations of the course as a whole. Then you can determine how to manage your time and efforts as you navigate through it.

You are in the right place. You belong here. You can do this!

Course Description and Competencies

WHAT TO EXPECT

In this course, you will work through three modules of material. Each module is broken down into smaller units. These units will give you an overview of data literacy and ethics. You will examine data quality, analysis, visualizations, and ethical principles.

Throughout this course, you will find readings and a variety of interactive elements. These include videos, study resources, and ungraded practice tests to help deepen your understanding of the content. Engaging with these activities reinforces new learning. It also complements the knowledge you bring to this area of study.

This course covers the following competencies:

1. The student explains data and attributes of data quality.
2. The student analyzes data and data visualizations.
3. The student applies ethical principles to data analysis.

Assessment

You must achieve a ranking of **Competent** on the assessment to pass the course. You may attempt the assessment two times before additional support is necessary. If you require further attempts, please contact your Course Instructor or Student Experience Specialist.

◆ **1** final project ◆ **3** competency units

Course Outline

Module	Upon completion of this module, you will be able to:
What Is Data?	A. Identify data, data formats, and business data sources. B. Describe the stages of the data lifecycle. C. Evaluate data quality. D. Identify deceptive design choices.
Fundamentals of Data Literacy	A. Explain measures of central tendency. B. Distinguish between correlation and causation. C. Identify patterns from charts and graphs. D. Identify ways to compare data. E. Describe types of analytics.
Data Ethics in Practice	A. Identify principles and standards of data ethics. B. Describe privacy, informed consent, and regulations in data practice. C. Identify types of bias. D. Describe how bias impacts data analysis. E. Identify fairness and fairness metrics.

Technology Requirements

We want to be sure you have the tools to succeed! Review the Computer System and Technology Requirements to learn about the technology you'll need. If you have questions about your setup, contact support@academy.wgu.edu.

You will need Adobe Acrobat Reader DC. If you haven't already, download this free software. You may encounter an interactive form that contains fields that you can select or fill in. Review how to fill in a PDF form.

Key Contacts

Certificate Connect

Check out this online community to take advantage of course resources, including videos and tips from your educators. You can ask and answer questions, provide feedback on your progress, and interact with fellow students. You will find this platform in the Student Resources section of the course. Log on and do some exploring!

Technical Support

If you encounter technical issues, be sure to contact the Help Desk. Just submit a Support Request for assistance.

Program Support

Do you have questions about your account? Student Support has answers. They can help with billing, switching courses, and other requests. You can contact them at (888) 320-0540 or support@academy.wgu.edu.

Accommodations

WGU provides compliant and accessible learning experiences. If you require accommodation, please contact us at the start of the course. You can email support@academy.wgu.edu or call (888) 320-0540. We are committed to ensuring that all students with disabilities have equal access to WGU's services and materials. We strive to use best practices for accessibility. Our goal is to conform to existing U.S. laws. These include the Americans with Disabilities Act and Section 504 and Section 508 of the Rehabilitation Act. Our learning management system (LMS) platform is Open edX. Open edX's commitment to accessible content is published on their Website Accessibility Policy.