

DATA ANALYTICS - TOOLS AND TECHNIQUES INTERMEDIATE, ONE-YEAR TECHNICAL CERTIFICATE

Curriculum Code #6652

Effective May 2026

This one year technical certificate prepares students to apply the tools and techniques used in data analytics and assist a data scientist.

The process of data analysis is taught in the context of data from manufacturing (IoT), marketing, finance and other sources. Lorain County Community College has articulation agreements with colleges and universities including programs offered by the Lorain County Community College's University Partnership.

First Year

Fall Semester		Hours
CISS 121	MICROCOMPUTER APPLICATIONS I	3
DATA 110	INTRODUCTION TO DATA ANALYTICS	4
DATA 130	ETHICAL AND LEGAL FRAMEWORK OF BIG DATA ²	3
ENGL 161	COLLEGE COMPOSITION I	3
MTHM 168	STATISTICS	3
SDEV 101	INTRODUCTION TO THE LCCC COMMUNITY ³	1
Hours		17
Spring Semester		
CISS 143	DATABASE DESIGN AND IMPLEMENTATION ¹	3
CISS 212	SPREADSHEET APPLICATIONS ¹	3
CYBR 220	PYTHON SCRIPTING AND PROGRAM CONCEPTS	3
PHLY 171	INTRODUCTION TO LOGIC	3
PSYH 151	INTRODUCTION TO PSYCHOLOGY	3
Hours		15
Total Hours		32

¹ Indicates that this course needs to be taken concurrently with another course.

² Indicates that this course requires a prerequisite.

³ A student must register for the orientation course when enrolling for more than six credit hours per semester or any course that would result in an accumulation of 12 or more credit hours.

Students will need to obtain InfoSec accounts for some courses.

Program Contact(s):

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For information about admissions, enrollment, transfer, graduation and other general questions, please contact your advising team

(<https://www.lorainccc.edu/admissions-and-enrollment/advising-and-counseling/>).

Credit for Prior Learning (PLA) options may be available for your program. For more information, please visit our website: www.lorainccc.edu/PLA (<http://www.lorainccc.edu/PLA>)

Program Learning Outcomes

1. Understand the benefits and privacy issues with using Big Data.
2. Identify the industry-standard tools used to mine large data sets for relationships and other insights.
3. Interpret visualization techniques to discover useful information within large data sets.
4. Understand the purpose of machine learning and related artificial intelligence algorithms in analyzing large data sets.