

## 3.0.2 Module 3 Roadmap

### Looking Ahead

In this module, you will learn how to use the programming language Python to:

- Create scripts that read, write, and store data from files or in arrays.
- Perform mathematical operations.
- Use decision statements, logical operations for complex comparisons, and repetition statements to run code more than once.
- Produce screen outputs.

Throughout this module, you will need to apply your knowledge of variables, arrays, conditionals, and loops, as well as install and use new software.

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### What You Will Learn

By the end of this module, you should be able to:

- Navigate to folders on your computer using the command line.
- Read and extract data from CSV files.

- Determine the difference between Python data types, like integers, floating-point decimal numbers, and strings.
- Perform mathematical operations using data types.
- Declare variables using different data types.
- Create and use data structures like lists, tuples, and dictionaries.
- Create and use decision and repetition statements.
- Create and use Boolean and logical operators.
- Write data to an output file and print the file.

## Planning Your Schedule

Here's a quick look at the lessons and assignments you'll cover in this module. You can use the time estimates to help pace your learning and plan your schedule.

- Introduction to Module 3 (15 minutes)
- Get Started with the Command Line and Python (1 hour)
- Python Practice (3 hours)
- Open the Election Results (30 minutes)
- Get Started with File Processing (3 hours)
- Analyze the Election Data (2 hours)

**Unit  
Assessment  
Complete**



**Unit: Python  
Data Analysis**

**Module 3:  
PyPoll**

Use the power of Python to automate the vote-counting process for a local election.



**Module 4:  
PyCitySchools**

- Finalize the Election Results (1 hour)
- Application (5 hours)

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