

- Understand the **expectations, resources, and policies** associated with 15-110
- Define the essential components of computer science, **algorithms** and **abstraction**
- **Follow steps** provided by an algorithm to perform specific tasks
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- Recognize and use the basic **data types** in programs
- Interpret and react to basic **error messages** caused by programs
- Use **variables** in code and trace the different values they hold
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- Understand how different **number systems** can represent the same information
- Translate **binary numbers** to decimal, and vice versa
- Interpret binary numbers as abstracted types, including **colors** and **text**
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- Identify the **inputs, returned value, and side effects** of a function call
- Write new functions by identifying an algorithm's **steps, input, output, and side effects**
- Recognize the difference between local and global **scope**
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- Recognize that the process of **tokenizing, parsing, and translating** converts Python code into instructions a computer can execute
- Interpret and trace basic **bytecode** instructions
- Recognize how the different types of **errors** are raised at different points in the Python translation process