This is why I commit to Python and rely on it to help me succeed.

First, Python is supported by the school's UNIX lab machines. Python 2.7 is supported by default on lab machines, and there is the option to install Python 3.4 if necessary[1]. Python has a command line interface that allows execution via a single command without code changes[2]. The *sys* library provides argv and argc to read in command line arguments[3]. The *sys* library also provides stdin, stdout, and stderr (standard input, output, and error). We can create and interact with TCP/IP sockets with the *sockets* module[4]. Python supports modular programming, as it allows programmers to import external packages, libraries, and modules from a specified scope or namespace[5]. We can also create our own modules for use throughout our codebase[6]. The *json* module allows for encoding and decoding of json strings in Python[7]. Python has an *__import__* function that allows for .py files to be loaded at runtime[8]. We can test our code using the *unittest* module[9]. To determine how extensive our testing is, the *coverage* API can report statistics for what was covered or missed in terms of code execution[10]. Python has its own IDE, PyCharm, that provides support for exploratory programming by including error highlighting and fixes, smart code navigation, and safe refactoring[11]. It includes a console for running commands in without having to recompile the program.

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[1] http://it.eecs.northwestern.edu/faqs/2017/10/25/updated-software.html
[2] https://docs.python.org/2/using/cmdline.html
[3] https://docs.python.org/2/library/sys.html
[4] https://docs.python.org/2/library/sys.html#module-sys
[5] https://docs.python.org/2.0/ref/import.html
[6] https://docs.python.org/3/tutorial/modules.html
[7] https://docs.python.org/2/library/json.html
[8] https://docs.python.org/3/library/functions.html#__import__
[9] https://docs.python.org/2/library/unittest.html
[10] https://coverage.readthedocs.io/en/v4.5.x/api.html#api
[11] https://www.jetbrains.com/pycharm/features/