The final is comprehensive, but will focus a bit more heavily on material post-Exam 2. The new learning objectives thus are:

Chapter 10: Students should be able to: resume,,

O1: □ Create a new simple class from scratch with an appropriate constructor that defines new attributes for the class.

O2: □ Write getter and setter methods to retrieve or manipulate class attributes.

O3: □ Define a dunder method so that instances of the class are printed nicely to the screen.

O4: □ Create objects which are instances of a custom defined class.

O5: □ Use receiver syntax to call class methods on an instance.

Chapter 11: Students should be able to: resume,,

O6: □ Add, remove, and change key/value pairs in an existing dictionary.

O7: □ Access or lookup values corresponding to different keys in a dictionary.

O8: □ Iterate through a dictionary.

O9: □ Create a Python set object with a non-zero number of valid elements.

O10: □ Utilize built-in methods for set objects to compare or check membership.

Chapter 12: Students should be able to: resume,,

O11: □ Choose appropriate data structures for a given type of information

O12: □ Comfortably nest data structures within others to model and store more complicated data

O13: □ Retrieve or select specific information from within a nested data structure

O14: □ Read JSON data from an external file into native Python data types

O15: □ Use a provided ADT, given its documentation

O16: □ Utilize a data structure to make a program or piece of a program data-driven, wherein the provided data structure dictates the flow of the program.

O17: □ Convert a data structure from an *external format* as it is written in some text file to an *internal format* using some hierachical combination of custom or built-in objects.