MATH 1MP, Introduction to mathematical/scientific programming

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This is an *approximate* and *preliminary* schedule for the course. It is guaranteed to change.

See http://bbolker.github.io/math1mp/ for lecture notes, assignments, etc..

week 1: basics

- W Jan 4 introduction to the course; introduction to Python; editors and workflows
- F Jan 6 data types; logical operations; string operations; regular expressions
- M Jan 9 lists; indexing and slicing

week 2: flow control

- W Jan 11 conditionals, loops
- F Jan 13 flow control; while
- M Jan 16 flow charts

week 3: debugging etc.

- W Jan 18 debugging
- F Jan 20 testing
- M Jan 23 benchmarking/profiling/optimization: Euclidean algorithm

week 4: functions and modules

- W Jan 25 functions and scoping
- F Jan 27 importing modules, Roman numeral examples
- M Jan 30 more Roman numeral examples

week 5: more function examples/reviews

- W Feb 1 function examples
- F Feb 3 . . . continued
- M Feb 6 . . . continued

week 6: plotting; tuples and dictionaries

- W Feb 8
- F Feb 10
- M Feb 13

week 7:

- W Feb 15
- F Feb 17 **midterm test** (in class)

midterm recess

week 8: floating point

week 9: numeric computation cont.

week 10: symbolic computation

week 11 misc sci comp

week 12 symbolic computation

week 13 last week