Introduction to Simulation and Modeling

Student Survey
Introduction Questionnaire

Please fill out this survey. Your answers will help steer the class in the right direction.

§1 About You

Name: _____
Email: _____
Major: _____
College Year: _____
I am taking this class for credit: yes☐ no☐.

§2 Motivation

What are you hoping to get out of this class?

_____

_____

§3 Background

3.1 Programming

Which programming languages do you know?

	Never heard of it	Heard of it	Used it at most a couple of times	Used it a lot	Expert
Python	☐	☐	☐	☐	☐
Matlab	☐	☐	☐	☐	☐
R	☐	☐	☐	☐	☐
Java	☐	☐	☐	☐	☐
C	☐	☐	☐	☐	☐
C++	☐	☐	☐	☐	☐
Fortran	☐	☐	☐	☐	☐
Perl	☐	☐	☐	☐	☐

3.2 Programming Tools and Concepts

These are tools and concepts that will be used in this class. Whether or not I lecture on their usage depends on how you answer these questions.

	Never heard of it	Heard of it	Used it at most a couple of times	Used it a lot	Use it always
shell (command line)	☐	☐	☐	☐	☐
debugger	☐	☐	☐	☐	☐
profiler	☐	☐	☐	☐	☐
git (version control system)	☐	☐	☐	☐	☐
other version control system _____	☐	☐	☐	☐	☐
unit tests / test-driven development	☐	☐	☐	☐	☐

3.3 Numerical background

- I know what "over-" and "under-flow" are (when talking about floating-point) yes☐ no☐.

3.4 Python packages

	Never heard of it	Heard of it	Used it at most a couple of times	Used it a lot	Expert
NumPy	☐	☐	☐	☐	☐
SciPy	☐	☐	☐	☐	☐
matplotlib	☐	☐	☐	☐	☐
scikit-learn	☐	☐	☐	☐	☐
IPython	☐	☐	☐	☐	☐
pandas	☐	☐	☐	☐	☐

3.5 OS usage

I will be using the following operating system primarily for the course:

☐ Windows

☐ Linux (Any particular distribution? _____)

☐ Mac OS X

☐ Other Unix variant (Which? _____)

3.6 Math Background

List all of the math courses you have taken in college, including statistics ___

_____

_____

How well do you understand the following mathematical concepts?

	Never studied	Could use some review	Studied it	Expert
Derivatives	☐	☐	☐	☐
Integration	☐	☐	☐	☐
Mathematical Optimization	☐	☐	☐	☐
Matrix Multiplication	☐	☐	☐	☐
Matrix Inversion	☐	☐	☐	☐
Solving Systems of Equations	☐	☐	☐	☐
Probability Distributions	☐	☐	☐	☐

§4 Interests

4.1 Special Topics

What you are interested in will drive a lot of the content of the course. I will try to incorporate your suggested interests in the tutorials and the lab sessions, so this is your chance to let me know if you have any specific programming or scientific domain interests. This can really be anything, but some large topics of interest might be: engineering, finance, economics, physics, text mining, image recognition, environmental science, etc.

_____

If you have other ideas later, you can always tell me about it by email.

§5 Comments

Please add any other comments you feel might be helpful.