Exercise class 14

Introduction to Programming
and Numerical Analysis

Class 3 and 6
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Model project

Exam 2022

Now what...?

Feedback on model project

You made some very interesting model projects - good job!

Remember tat the focus in this course is **numerical analysis** - so make sure that you put most of your efforts there.

Don't be afraid to explain your **choice of numerical methods**. The more you put your skills on display, the better.

Be careful **not to rely too much on sympy and analytical derivations**! Ok to base your analysis on eg. derivations you've made by hand, but those cannot carry your project on their own.

If you choose to extend a model from this course, **be very explicit** in what your extension consists of and when you are "just" re-using code.

Exam 2022

Earlier exams have had three questions with subquestions, each from one of the different parts of the course:

1. **Data-questions** may provide you with a dataset to be cleaned, and asks you to produce certain plots and make certain analyses. Or you are presented with some econometric estimator and asked to implement it.
2. **Algorithm-questions** describe an algorithm in detail, often with pseudo-code, and asks you to implement it.
3. **Model-questions** present you with an economic model (potentially dynamic) to solve and simulate.

Tips for preparing

Make sure you have **perfected your projects** to the best of your ability. Good projects are insurance against a potentially bad exam!

Read through the lecture notebooks and problem sets and make sure you **understand the code**. Make note of each time a model is solved - maybe that may be relevant for the exam.

Look through and **solve previous exam sets** (all available in the course github).
Remember that the solution guides are very thorough - less is needed to pass the exam.

Tips for the exam

Read through all the questions and start by solving those that you feel **most confident** about.

Keep calm. If you get frustrated, take a short break, or move on to a different part of the exam.

If your code is not running correctly, and you don't know how to fix it, explain what you have done and how you think the problem could be solved - and **move on**.

If you are in a group, it can be a good idea to split up the problems and **solve individually and then proofread** each others code afterwards.

Tips for the exam

Re-use code from lectures and problem sets whenever possible - and be explicit when doing so.

You are allowed to use **AI tools** and assessed under the assumption that you do.

Now what...?

You are now equipped to deal with a massive class of economic problems.

You have a powerful tool to help you in your further studies - ie. to check your caluculations, perform data analysis or make beautiful visualizations.

And you can confidently add "Proficient Python user" to your resumé!

If you are interested in computational economics, I can recommend the following Master courses:

- Advanced Microeconometrics
- Dynamic Programming
- Household Behavior over the Life Cycle
- Advanced Macroeconomics: Heterogenous Agent Models

BEST OF LUCK WITH THE EXAM