# Applied Computational Economics

#### The University of Nottingham

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# Instructor

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# Structure

This class is taught in three parts.

- 1. Solving dynamic models with an emphasis on household behaviour (Spencer),
- 2. Solving dynamic models with an emphasis on firm behaviour (Sedlackek),
- 3. Machine learning techniques (Valente).

The primary objective of my part is for you to become comfortable with value function iteration as a computational tool. From lecture 1, it's really just a matter of applying more loops/bells and whistles. The format is

- (a)  $(30^{th}$  January): value function iteration and solving partial equilibrium models with representative agents,
- (b) (31<sup>th</sup> January): solving general equilibrium models (GE) with representative agents,
- (c)  $(13^{th}$  February): solving GE models with heterogeneity and idiosyncratic uncertainty,
- (d) (14<sup>th</sup> February): solving GE models with heterogeneity and aggregate uncertainty.

Each day we'll have lectures in the morning (scheduled for 10–13) and tutorials in the afternoon (scheduled 14–17).

### Assessment

The real value of my part of the class is learning the tools. The best way to acquire them is to **do the problem sets**. If you want to take the course for credit, you'll get an task at the conclusion of the model. My part would just be to replicate a paper.