## University of Toronto Department of Economics ECO2021H-L0101 Macroeconomic Theory I (PhD) 2018-19 Professor Murat Alp Celik

**Lectures:** Tuesday 1:00-3:00pm, GE100; Thursday 1:00-3:00pm, GE100

**Tutorials:** Monday 11:00am-1:00pm, HS108.

Instructor: Murat Alp Celik, murat.celik@utoronto.ca, Office hr: Tue 3:00-4:00pm, GE229

TA: Frank Leenders, <a href="mail.utoronto.ca">frank.leenders@mail.utoronto.ca</a>, Office hr: Fri 10:00am-12:00pm, GE313

Course Description: This course is the second section of the first year PhD macroeconomics sequence. The main topics that will be covered are economic growth and technological change, with an emphasis on endogenous growth models. The goal of this course is to learn how to develop and employ a variety of quantitative models, and to learn about the seminal theoretical works in this field. The material will be studied from a theoretical point of view – i.e. we will focus less on empirical papers or heavy computation. By the end of the course, the aim is to be close to the frontier of knowledge on economic growth, allowing students to understand and evaluate current papers on endogenous growth, and incorporate their features into their own models. Continuous time optimization will also be covered in order to better facilitate the understanding of the models to be studied.

**Textbook:** We will use "Introduction to Modern Economic Growth" by Daron Acemoglu. Another book that might prove useful is "The Economics of Growth" by Philippe Aghion and Peter W. Howitt (optional).

**Grading and Exam Policy:** There will be a final exam on the last lecture of our section (February 14th, 2018 unless there is a change). The exam score will constitute the entire grade. I will occasionally assign some homework questions (primarily) from "Introduction to Modern Economic Growth" by Daron Acemoglu. Completing these is heavily encouraged, but doing so will not influence your grade. Class participation may affect your final grade in some special circumstances.

**Re-grading Policy:** Students who want to have their final exam regarded must contact me within two weeks of receiving the grade.

**Homework Problems:** Suggested sample problems will be assigned for the topics covered in class, but they will not be handed in or graded. Your TA will go over some of the problems and answer your questions during the tutorial hours.

**Office Hours:** Both I and Frank will hold office hours. See the first page for the times and locations.

**Contact Policy:** The preferred method of communication is in person, either with me or Frank during lectures, tutorials and office hours. If you need to contact me by e-mail, please make sure to identify yourself and use your utoronto.ca e-mail account. This is to prevent missing e-mails due to the spam filter.

Quercus (course website): This course uses the University's learning management system, Quercus, to post information about the course, including materials required to complete class activities and course assignments, share important announcements and updates, and foster academic discussion between learners. The site is dynamic and new information and resources will be posted regularly as we move through the term. The principal source of information about all course-related work will be the course site in Quercus, so please make it a habit to log in to the site on a regular if not daily basis. Please note that any grades posted within the Quercus Grade Centre are posted for your information only, so you can view and track your progress through the course. No grades are considered official, included any posted in Quercus at any point in the term, until they have been formally approved by the Course Instructor at the end of the course.

Academic Integrity: All students, faculty and staff are expected to follow the University's guidelines and policies on academic integrity. For students, this means following the standards of academic honesty when writing assignments, citing and using source material appropriately, collaborating with fellow students, and writing tests and exams. Ensure that the work you submit for grading represents your own honest efforts. Plagiarism—representing someone else's words as your own or submitting work that you have previously submitted for marks in another class or program—is a serious offence that can result in sanctions. Speak to me or your TA for advice on anything that you find unclear. Consult the Code of Behaviour on Academic Matters for a complete outline of the University's policy and expectations.

## **Preliminary List of Topics:**

This is a preliminary list of topics that I intend to cover:

- 1) Facts and Questions on Economic Growth and Development
- 2) The Malthusian Growth Model
- 3) The Solow Growth Model
- 4) Continuous Time Optimization
- 5) The Neoclassical Growth Model
- 6) The AK Model
- 7) Growth with Externalities
- 8) Expanding Variety Models
- 9) Schumpeterian Growth Models (Quality Ladder Models)
- 10) Economic Growth and Firm Dynamics
- 11) Directed Technological Change
- 12) Economic Growth and Competition