Course Description: This is the second course of the first-year sequence in macroeconomic analysis at the Ph.D. level. The objective of the course is to provide you with the necessary economic, computational, and mathematical tools to read, understand, and replicate the current academic research in macroeconomics. The course is also meant to provide a broad overview of macroeconomic theories and issues so that even if you do not go on to specialize in macroeconomics, you will have a well-rounded knowledge of it.

The main focus of the course is on learning the basic models used in macroeconomics and economic dynamics. We will use economic growth as our guiding theme, but many of tools you will learn are used in other areas of (macro)economics. In the first part of the course we will study deterministic models of economic growth under perfect competition. The second part of the course introduces you to the modern literature on economic growth, which is based on imperfect competition.

Learning Outcomes: You will learn key models in macroeconomists’ toolbox. By the end of the course, you should be able to analyze macroeconomic phenomena and economic policies and their repercussions using the typical tools employed by macroeconomists today. Also, you will be able to read and solve the models presented in books and papers. Finally, you should be able to build and solve models for your research.

Text: The main textbook for the course is Introduction to Modern Economic Growth by Daron Acemoglu. Additionally, we will use sections of Economic Dynamics: Theory and Computation by John Stachurski.

If you are serious about macroeconomics I encourage you to read the following textbook:

Software: Macroeconomists have been using computational tools for some years now. So it will be useful to learn to code some models in the computer. For this purpose download and install the Continuum Anaconda or Enthought Canopy/Python Distributions. Also, learn some basic Python at CodeAcademy.com The course will use Python as its programming language.

Course Requirements:

Reading: I highly recommend that you read the material before coming to class. This will increase your understanding of the various subjects we will cover and allow you to ask questions about what you do not fully understand. Additionally, reading ahead will allow you to have enough time to process the material.
Attendance: Although attendance is not obligatory (and does not affect your grade directly), I do recommend that you keep absences to a minimum. Most students do benefit from coming to class and participating in it, which is reflected in better grades (indirect effect). You are responsible for all academic work performed or required during your absence, regardless of the reason.

Homework: Homework is essential to your understanding of the material covered in class. Homework will consist of two parts. First, you are encouraged/required to do all the exercises of the chapters we cover in the book. These exercises are not graded and do not count towards your grade, but will help you master the material. Additionally, I will assign problem sets with selected exercises to be handed in prior to class on specified dates. These problem sets will be graded and count towards your grade.

There will be no makeup exams. If you know you will have to miss an exam, please contact me before the exam to let me know you will miss it. If you miss it due to an emergency, proper documentation has to be provided. I will review the documentation and confirm its legitimacy. Any fraud will be severely punished. You cannot miss more than one exam. The comprehensive final exam will take the place of any midterm you have missed. If you miss the final exam, the average of both midterms will take its place in the grading.

Disability Accommodations: Students needing academic accommodations for a disability must first be registered with Disability Accommodations & Success Strategies (DASS) to verify the disability and to establish eligibility for accommodations. Students may call 214-768-1470 or visit http://www.smu.edu/alec/dass to begin the process. Once registered, students should then schedule an appointment with the professor to make appropriate arrangements.

Religious Observance: Religiously observant students wishing to be absent on holidays that require missing class should notify their professors in writing at the beginning of the semester, and should discuss with them, in advance, acceptable ways of making up any work missed because of the absence. (See University Policy No. 1.9.)

Excused Absences for University Extracurricular Activities: Students participating in an officially sanctioned, scheduled University extracurricular activity should be given the opportunity to make up class assignments or other graded assignments missed as a result of their participation. It is the responsibility of the student to make arrangements with the instructor prior to any missed scheduled examination or other missed assignment for making up the work. (University Undergraduate Catalogue)

Honor Code: All work undertaken and submitted in this course is governed by the University’s honor code. If any student is unclear about the University’s honor policy – either in general or its particular application in this course – please contact your instructor immediately.

Exams: There will be three scheduled exams, two midterms and the final exam. The dates for the exams are provided on the attached course outline schedule. There will be NO MAKEUP EXAMS OR MAKEUP QUIZZES. If for any reason, you cannot take an exam, you need to see me BEFORE the day of the exam, to let me know why you cannot take the exam as scheduled. You must take your exam with your class in the course’s section in which you are registered (failure to do so will result in getting a zero in that exam).
Grading Criteria:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Chapters / Dates</th>
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<tbody>
<tr>
<td>Homework</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Midterm I</td>
<td>25%</td>
<td>Ch.1-6 March 7</td>
</tr>
<tr>
<td>Midterm II</td>
<td>25%</td>
<td>Ch.7-10 April 18</td>
</tr>
<tr>
<td>Final Exam</td>
<td>35%</td>
<td>Thursday, MAY 9 3:00 - 6:00 PM</td>
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Tentative Course Outline:

I. Economic Growth (Solow model)
   a. Acemoglu Ch.1-4 (2 required)
   b. Stachurski Ch 1,2
   c. Barro and Sala-i-Martin Ch.1.1-1.2
   d. Romer Ch. 1

II. Economic Growth (Ramsey)
   a. Acemoglu Ch. 5-8 (required)
   b. Romer Ch. 2.1-2.7
   c. Barro and Sala-i-Martin Ch.2-3
   d. Blanchard and Fischer Ch. 4.5

III. Overlapping Generation Models of Growth, Money, and Prices
   a. Acemoglu Ch. 9 (required)
   b. Romer Ch.2.8-2.12
   c. Blanchard and Fischer Ch. 3-4
   d. Samuelson JPE Vol.66(6) 1958
   e. Balasko JET1980

IV. Endogenous Growth I: Human Capital and Economic Growth, AK models
   a. Acemoglu Ch. 10 (required)
   b. Romer Ch. 3
   c. Barro and Sala-i-Martin Ch. 4, 5

V. Endogenous Growth II: Technological Change
   a. Acemoglu Ch. 11-15 (required)
   b. Barro and Sala-i-Martin Ch. 6-7

VI. Stochastic Growth and its applications
    a. Acemoglu Ch. 16-17 (required)
    b. Stachurski Ch 5, 6,

VII. Technology Diffusion, Trade, and Interdependencies
     a. Acemoglu Ch. 18-19 (required)
     b. Barro and Sala-i-Martin Ch. 8

VIII. Special Topics

The dates and information provided in this document are for information and planning purposes only. The dates are subject to change based on the material covered and unexpected circumstances that require changing the schedule.