

### ECO3203:

#### **Intermediate Macroeconomics**

90990, Section 2, 3 Credit Hours

Department of Economics, College of Arts & Sciences

# **COURSE SYLLABUS**

Last Updated: 11/30/2021

This course is currently under construction. Any significant change to the syllabus will be announced.

Semester: Fall 2021

Class Meeting Days: Tuesdays and Thursdays Class Meeting Time: 3:30 pm to 4:45 pm

Class Meeting Location: CMC 130 Instructor: Diogo Baerlocher Office Location: CMC207D Office Hours: By appointment Email: baerlocher@usf.edu

### I. University Course Description

Determination of income, employment, prices, and interest rates. Aggregate demand and aggregate supply.

## **II.** Course Prerequisites

ECO 2013 and ECO 3101 or ECP 3703

### **III.** Course Purpose

The main goal of this course is to provide students with a critical perspective of macroeconomic events and tools to understand and propose macroeconomic policies. We use a modern approach where aggregate variables are determined by individual behavior (microeconomic based). The course is divided into two broad parts: economic growth and business cycles. Economic growth relates to the long-run trend of aggregate production, whereas business cycles are about the fluctuations around the long-run trend.

### IV. How to Succeed in this Course

Successful students in this class complete all readings and watch videos **BEFORE** attending classes. Lectures are designed to further and deepen the knowledge, concepts, and skills from the readings – not just repeat the information.

# V. Student Learning Outcomes

The course follows the textbook in providing specific learning objectives. Below, you can find the most important outcomes students are expected to achieve by the end of the semester:

- 1. Discuss how microeconomic principles are important in constructing useful macroeconomics models;
- 2. Use the Solow growth model to analyze the effects of changes in exogenous factors on income per worker, capital per worker, and the economy's growth rate;
- 3. Construct the real business cycle, explain how it matches the key business cycle facts, and use the model to analyze other problems;
- 4. Show how government policy both monetary and fiscal policy works in the New Keynesian sticky price model

# VI. Required Texts

- Williamson, Stephen, Macroeconomics, 6 ed. Boston, MA: Pearson, 2018)
- Access to spreadsheet software, i.e., Microsoft Excel

### VII. Grading Scale

Grading Scale (%)		
94-100	Α	
90 – 93	A-	
85 – 89	B+	
80 – 84	В	
75 – 79	B-	
70 – 74	C+	
65 – 69	С	
60 – 64	C-	
57 – 59	D+	
54 – 56	D	
50 – 53	D-	
0 – 49	F	

This scale is subjected to change at the instructor's discretion. Changes can only improve students' outcomes.

# VIII. Grade Categories and Weights

Assessment	Percent of Final Grade
Midterms 1 & 2	30% (each)
Graded Quizzes	40% (Average)
Final (optional)	30% (Replaces the lowest midterm)

## IX. Assignments

- Graded Quizzes: The best way to learn is by testing your knowledge right after lectures. The quizzes are intended to complement lectures helping students to test what they learned every week. Quizzes are short multiple-choice questions due on Fridays at 11:59 pm. The three lowest grades are dropped.
- Pre-Lecture Videos: Videos lectures will be available on the Saturday before each
  class. Students are expected to watch the videos before classes so that in class, we
  can focus on reinforcing main points and go over exercises.
- Pre-lecture Quizzes: One of the building blocks of learning is thinking about the
  problem beforehand. Students will answer a quiz on the topic before lectures
  every week. Pre-lecture quizzes are due on Thursdays at 3:30 pm. This quiz is not
  graded, however, you can only take the graded quiz after taking the pre-lecture
  quiz.
- Midterms and Final: Midterms and the final are in-class exams composed of multiple-choice and essay/mathematical questions. Multiple-choice questions are similar to questions in the quizzes, whereas essay/mathematical questions reflect discussions and exercises from lectures. All exams are individual and closed-book. Cheat sheets are not allowed. Students can use a calculator with no access to the internet.

### X. Grade Dissemination

You can access your scores at any time using "Grades" in Canvas.

## XI. Course Schedule

#### XI.1. Tuesdays:

For most of the weeks, there will be no in-class lectures on Tuesdays. The class time should be used by students to watch the video lectures and answer the pre-lecture quiz. However, there will be in-class lectures only on the following Tuesdays:

- Week 1: August 24th First-day attendance
- Week 6: September 28th Review session for midterm 1
- Week 12: November 9th Real Business Cycle continued (No class on Thursday)
- Week 13: November 16th Review session for midterm 2
- Week 15: November 30th The New-Keynesian Model (Last day on classes on Thursday: extra credit quiz, instructor evaluation, and wrap up.)

# XI.2. Tentative Outline:

Week (Date – Monday)	Topics and Learning Objectives
Week 1 (Aug 23)	<ul> <li>What is Macroeconomics? (Chapter 1)</li> <li>State the two focuses of study in macroeconomics, the key differences between microeconomics and macroeconomics, and the similarities between microeconomics and macroeconomics.</li> <li>Explain the key features of trend growth and deviations from trend in per capita gross domestic product in the United States from 1900 to 2014.</li> <li>Explain why models are useful in macroeconomics.</li> <li>Discuss how microeconomic principles are important in constructing useful macroeconomics models.</li> <li>Explain why there is disagreement among macroeconomists, and what they disagree about.</li> </ul>
Week 2 (Aug 30)	<ul> <li>The Representative Consumer and The Supply of Labor (Chapter 4)</li> <li>List the properties of the representative consumer's preferences, and explain why it is useful to assume these properties.</li> <li>Construct the representative consumer's budget constraint.</li> <li>Show how the consumer optimizes given his or her budget constraint to determine labor supply and consumption.</li> <li>Determine the effects of changes in the representative consumer's environment on his or her choices</li> </ul>
Week 3 (Sept 6)	<ul> <li>The Representative Firm and The Demand for Labor (Chapter 4)</li> <li>List the properties of the production function, and explain why it is useful to assume these properties.</li> <li>Show how the representative firm optimizes given its production technology to determine labor demand and output.</li> <li>Determine the effects of changes in the representative firm's environment on its labor demand and output choices.</li> </ul>
Week 4 (Sept 13)	<ul> <li>The Heart of Macroeconomics: General Equilibrium (Chapter 5)</li> <li>Define and construct a competitive equilibrium for the closed-economy one-period macroeconomic (CEOP) model.</li> <li>Show that the competitive equilibrium and the Pareto optimum for the CEOP model are the same thing.</li> <li>Analyze and interpret the effects of changes in exogenous variables in the CEOP model.</li> <li>Analyze the effects of a distorting labor income tax in the simplified CEOP model.</li> </ul>
Week 5 (Sept 20)	<ul> <li>It is NOT factor accumulation: The Solow Growth Model (Chapter 7)</li> <li>Construct the competitive equilibrium in the Solow growth model.</li> <li>Use the Solow growth model to analyze the effects of changes in exogenous factors on income per worker, capital per worker, and the economy's growth rate.</li> <li>List the facts about growth in real GDP, employment, the capital stock, and total factor productivity in the United States over the period 1950-2014.</li> <li>Determine the Solow residual and growth rates in real GDP, capital stock,</li> </ul>

	employment, and the Solow residual from data on real GDP, capital stock, and employment.
Week 6 (Sept 27)	Midterm 1 (covers weeks 1 to 5)  • Tuesday: Review Session  • Thursday: Exam in class
Week 7 (Oct 4)	<ul> <li>Aggregate Consumption (Chapter 9)</li> <li>Construct a consumer's lifetime budget constraint and preferences in the two-period model, and solve his or her optimization problem.</li> <li>Show how the consumer responds to changes in his or her current income, future income, and the market real interest rate.</li> <li>Construct the government's present-value budget constraint.</li> <li>Show how a competitive equilibrium is constructed in the two-period model.</li> </ul>
Week 8 (Oct 11)	<ul> <li>Ricardian Equivalence &amp; Aggregate Investment (Chapters 9 &amp; 11)</li> <li>Explain the Ricardian Equivalence Theorem.</li> <li>Discuss how the Ricardian Equivalence Theorem helps us understand the burden of the government debt.</li> <li>Explain the decisions made by the representative consumer in the real intertemporal model.</li> <li>Explain the decisions made by the representative firm in the real intertemporal model.</li> <li>Show how the firm's investment decision is structured, and determine how changes in the environment faced by the firm affect investment.</li> </ul>
Week 9 (Oct 18)	Real Intertemporal Model (Chapter 11)  Construct the output supply curve.  Construct the output demand curve.  Show how a competitive equilibrium is determined in the real intertemporal model.
Week 10 (Oct 25)	<ul> <li>Money, Money Neutrality &amp; Monetary Policy (Chapter 12)</li> <li>Explain the functions of money, and how money is measured.</li> <li>Construct the monetary intertemporal model.</li> <li>Derive the Fisher relation.</li> <li>Construct a competitive equilibrium in the monetary intertemporal model, and carry out equilibrium experiments using the model.</li> <li>Demonstrate that money is neutral in the monetary intertemporal model.</li> <li>List the factors that can shift money demand, and show how a shift in money demand affects economic variables in the monetary intertemporal model.</li> <li>Show how conventional monetary policy is ineffective in a liquidity trap, and explain unconventional monetary policies.</li> </ul>
Week 11 (Nov 1)	<ul> <li>The Real Business Cycle Model (Chapters 3 &amp; 13)</li> <li>Construct the real business cycle, explain how it matches the key business cycle facts, and use the model to analyze other problems.</li> <li>Show how the real business cycle model could be consistent with the observed comovements of money and output.</li> <li>Discuss criticisms of the real business cycle model.</li> </ul>

Week 12 (Nov 8)	The Real Business Cycle Model Continued (Chapter 13)  • THURSDAY: VETERANS DAY HOLIDAY; NO CLASSES
Week 13 (Nov 15)	Midterm 2 (covers weeks 7 to 12)  • Tuesday: Review Session  • Thursday: Exam in class
Week 14 (Nov 22)	Happy Thanksgiving!
	The New-Keynesian Model (Chapter 14)
	<ul> <li>Construct the New Keynesian model with sticky prices.</li> </ul>
	Demonstrate that money is not neutral in the New Keynesian model.
	• Show how government policy – both monetary and fiscal policy – works in the
Week 15	New Keynesian sticky price model.
(Nov 29)	Show the implications of the New Keynesian model for what we should see in
	the data, assuming optimal monetary policy.
	Construct a liquidity trap equilibrium in the New Keynesian model, and show
	how negative interest rate policy works.
	Explain the criticisms of New Keynesian models.

<sup>\*</sup> Note: The Schedule is subject to revision

### XII. Standard University Policies

Policies about disability access, religious observances, academic grievances, academic integrity and misconduct, academic continuity, food insecurity, and sexual harassment are governed by a central set of policies that apply to all classes at USF. These may be accessed at: <a href="https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx">https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx</a>

#### XIII. Covid-19 Procedures

All students must comply with university policies and posted signs regarding COVID-19 mitigation measures, including wearing face coverings and maintaining social distancing during in-person classes. Failure to do so may result in dismissal from class, referral to the Office of Student Conduct and Ethical Development, and possible removal from campus.

Additional details are available on the University's Core Syllabus Policy Statements page: <a href="https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx">https://www.usf.edu/provost/faculty/core-syllabus-policy-statements.aspx</a>

# XIV. Course Policies: Grades (as applicable)

**Late Work Policy**: There are no make-ups for quizzes, discussions, or projects. Late assignments receive a penalty of 15% per day. For example, if the assignment is due on

Sunday, but it is submitted late on Tuesday, there is two-days penalty, i.e., a 30% deduction in the final grade.

**Missed Work Policy**: There are no make-ups for quizzes or projects. If a student misses a quiz or exam without a valid reason (validity to be determined by the instructor), the missed assignment receives a zero score.

**Extra Credit Policy**: There is only one extra credit assignment in the form of an end-of-semester quiz covering all material. The additional points are worth up to five extra points to be added to the "Midterm 2" portion of the semester grade. You cannot earn higher than 100% on the "Midterm 2" portion of the grade; any points over 100% are not counted.

**Final Exams Policy**: The final exam will replace the lowest midterm exam only for midterms in which the student scored above 20%. Note that students cannot use the final exam to make up for a missed midterm.

# XV. Course Policies: Technology and Media

**Email**: The preferred mean of communication between the students and the instructor is the Canvas Inbox message. The instructor checks its inbox once a day during weekdays. Therefore, keep in mind that it may take up to 24hrs to receive a reply.

Canvas: This course will be offered via USF's learning management system (LMS), Canvas. If you need help learning how to perform various tasks related to this course or other courses being offered in Canvas, please view the following videos or consult the Canvas help guides. You may also contact USF's IT department at (813) 974-1222 or help@usf.edu.

**Remote Learning:** Teams lecture streaming and/or video and audio recordings of class lectures may be part of the classroom activity. The video and audio recordings are used for educational use/purposes and only may be made available to all students presently enrolled in the class. For purposes where the recordings will be used in future class sessions/lectures, any type of identifying information will be adequately removed.

### XVI. Course Policies: Moving online (if necessary)

External circumstances may force us to have the course in an online format. If that is the case, video lectures will be posted on canvas, and students will follow the pre-determined order on completing assignments. Namely, Pre-lecture quizzes first, then watch lectures, then complete graded quizzes. Deadlines will become flexible within a week. Exams should be answered only during a pre-determined one hour and 30 minutes time interval. The exams will be open-book but still individual. Students found communicating with

other students and/or websites that enable cheating, such as course hero, will receive a zero and will be penalized according to the academic integrity policy.

#### XVII. Course Policies: Student Expectations (as applicable)

**Course Hero Policy:** The <u>USF Policy on Academic Integrity</u> specifies that students may not use websites that enable cheating, such as by uploading or downloading material for this purpose. This does apply specifically to CourseHero.com – any use of this website (including uploading materials) constitutes a violation of the academic integrity policy.

**End of Semester Student Evaluations:** All classes at USF make use of an online system for students to provide feedback to the University regarding the course. These surveys will be made available at the end of the semester, and the University will notify you by email when the response window opens. Your participation is highly encouraged and valued.

**Turnitin.com:** In this course, turnitin.com will be utilized. Turnitin is an automated system which instructors may use to quickly and easily compare each student's assignment with billions of web sites, as well as an enormous database of student papers that grows with each submission. Accordingly, you will be expected to submit all assignments in both hard copy and electronic format. After the assignment is processed, as instructor I receive a report from turnitin.com that states if and how another author's work was used in the assignment. For a more detailed look at this process visit http://www.turnitin.com.

#### XVIII.Important Dates to Remember

Add a short statement that describes that all the dates and assignments are tentative, and can be changed at the discretion of the professor. Be sure to get the newest dates from the Registrar: <a href="https://www.usf.edu/registrar/calendars/">https://www.usf.edu/registrar/calendars/</a>

Drop/Add Deadline: Friday, Aug 27th 2021
Midterm 1: Thursday, Sept 30th 2021
Withdrawal Deadline: Friday, Oct 29th 2021
Midterm 2: Thursday, Nov 18th 2021

Fall Break: Monday, Nov 22nd – Sunday, Nov 28th 2021 Final Examination: Thursday, Dec 9<sup>th</sup> from 12:30 pm to 2:30 pm