

## BS Economics Major AY 20-21 Assessment Report

Assessment Report for AY 2020-2021

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### Mission Statement

No recent changes

*“With a particular focus on international issues of globalization and poverty, the mission of our department is to equip undergraduate and graduate students with the character and rigorous intellectual foundation in economics to help our students foster a more just and humane world and to carry out a research agenda that contributes at the highest levels to micro and macroeconomics issues related to poverty, economic growth, and globalization. “*

### Program Learning Outcomes

No recent changes to PLO’s

#### 1. Economic literacy

Students will engage in the systematic study of foundational economic concepts and relate them to economic problems and phenomena faced by people and firms.

#### 2. Economic theory

Students will use mathematical models, relational diagrams, and optimization techniques from microeconomic and macroeconomic theory to analyze real-world economic problems and generate testable predictions about economic phenomena.

#### 3. Empirical economics

Students will apply quantitative statistical analysis and experimental methods to conduct data-driven inference, interpret figures and statistical tables, test theories, and identify causal relationships.

#### 4. Economic citizenship

Students will employ economic reasoning and quantitative techniques to evaluate and critique economic policies, arguments, and social problems, with a particular emphasis on the role economics plays in advancing human well-being for the poor and disadvantaged.

## Curricular Map\*

**University of San Francisco  
College of Arts and Sciences  
Department of Economics  
Curriculum Map**

I = Concept Introduced  
C = Comprehensive Coverage of Concept  
A = Applications of Concept

<b>Courses in Economics Major</b>	<b>PLO #1: Economic literacy</b>	<b>PLO #2: Economic theory</b>	<b>PLO #3: Empirical economics</b>	<b>PLO #4: Economic citizenship</b>
<b>Foundation Courses</b>				
ECON 111 Principles of Microeconomics	I	I	I	I
ECON 112 Principles of Macroeconomics	I	I	I	I
ECON 120 Economic Methods	A	C	C & A	I
ECON 311 Intermediate Microeconomics	C	C		A
ECON 312 Intermediate Macroeconomics	C	C	I	C
ECON 320 Econometrics	C	C	C	C

<b>Courses in Economics Major</b>	<b>PLO #1: Economic literacy</b>	<b>PLO #2: Economic theory</b>	<b>PLO #3: Empirical economics</b>	<b>PLO #4: Economic citizenship</b>
<b>Elective Courses</b>				
ECON 230 Environmental Economics	I	I	I	I
ECON 280 The Global Economy	I & A	I & A	I & A	C
ECON 300 U.S. Economic History	C	I	I	A
ECON 306 Economies of Modern Europe	A	I	C	A
ECON 318 Game Theory	A	C		A
ECON 350 Money and Banking	C	I	I	I
ECON 365 Behavioral Economics	C	C & A		C & A
ECON 370 International Economics	C	C & A		C & A
ECON 372 Development Economics	C	C & A	C	A

<b>Courses in Economics Major</b>	<b>PLO #1: Economic literacy</b>	<b>PLO #2: Economic theory</b>	<b>PLO #3: Empirical economics</b>	<b>PLO #4: Economic citizenship</b>
<b>Elective Courses</b>				
ECON 415 Mathematics for Economists	A	A		
ECON 416 Special Topics in Mathematics for Economists	A	A		
ECON 424 Internet Data Sources	I	I	A	A
ECON 451 Monetary Economics	A	C & A	A	A
ECON 455 Options and Futures	A	A		
ECON 463 Experimental Economics	C&A	A	C&A	C&A
ECON 465 Law and Economics	C	C & A		C & A
ECON 471 International Finance	A	A	CC	A
ECON 476 Natural Resource Economics and Development Policy	A	C	C	C
ECON 477 International Political Economy	A	A	A	A

<b>Courses in Economics Major</b>	<b>PLO #1: Economic literacy</b>	<b>PLO #2: Economic theory</b>	<b>PLO #3: Empirical economics</b>	<b>PLO #4: Economic citizenship</b>
<b>Capstone Courses</b>				
ECON 425 Senior Seminar in Financial Econometrics	A		A	C
ECON 427 Senior Seminar in Applied Econometrics	A		A	C

*\*ECON 473 Development Microeconomics should be added to the curricular map.*

### **Assessment Schedule**

<b>Year</b>	<b>PLO Assessed with Direct Methods</b>
AY 2017-18 (First Year of New PLO's)	PLO #3 Empirical Economics
AY 2018-19	PLO #2 Economic Theory
AY 2019-20	Alternate Remote Reflections Report
AY 2020-21	PLO #1 Economic Literacy
AY 2021-22 (Projected)	PLO #4 Economic Citizenship

### **Description of Direct Assessment Methodology**

#### ***BS ECON MAJOR***

The outcome being assessed this year is PLO #1 Economic Literacy (“Students will engage in the systematic study of foundational economic concepts and relate them to economic problems and phenomena faced by people and firms.”).

The student work products being used for assessment are the capstone research papers produced in both ECON 425 (Financial Econometrics Capstone) taught in Fall 2020 and ECON 427 (Applied Econometrics Capstone) taught in Spring 2021. All BS ECON majors are required to take at least one of these courses, and all students enrolled are ECON majors. In both cases, the assignment asks students to use advanced empirical methods to investigate foundational economic concept of their choosing. Data collection, model specification and estimation, and finally hypothesis testing and interpretation are utilized by the students with the goal of applying a combination of empirical modeling, programming skills, and economic theory to “real world” foundational economic concepts and outcomes. Empirical results are then interpreted in the context of policy implications and existing research literature.

The result is a paper of no less than 15 pages, as well as a class presentation, which shows each step of the analysis and conclusion. Examples of student work (with names redacted) are available upon request.

#### Rubric

The rubric applied breaks up the elements of the PLO being assessed into component parts, each of which is directly assessed using the associated element of the student work product

(eight parts of the exam question). The requirement to achieve the given level (Inadequate, Introductory, Developing, Mastery) are clearly articulated within the rubric.

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PLO #1 Component	Mastery of Knowledge Score =4	Developing Knowledge Score = 3	Introduction Knowledge Score = 2	Inadequate Knowledge Score=1
Recognition of Foundational Concept	Student uses existing literature and previous course knowledge to find an empirical question which addresses an open question in the literature. Mastery requires evidence of extensive research into existing literature.	Student has a solid understanding of how their topic relates to the wider literature. Topic is appropriate for empirical study.	Student has a limited understanding of how their topic relates to other economic issues.	Student shows little or no understanding of how their topic relates to other economic issues. Topic may not be appropriate for empirical study (data may not be available, etc.)
Systematic Study of Foundational Concept Using Empirical Methods	Student uses appropriate data and empirical methods to meaningfully explore concept. Clearly links hypothesis begin tested to underlying concept.	Student shows solid understanding of appropriate methods, how to utilize methods, and interpret results.	Student understands the elements of appropriate empirical methods, displays rudimentary understanding of how to utilize and interpret findings.	Student fails to display understanding of methods and results.
Communicate Relationship between systematic study and “real-world” outcomes	Student fully understands and communicates the context of their findings within the existing literature. Able to give examples of policy and/or	Student shows solid understanding of the implications of their results. Place in literature not fully developed.	Student shows rudimentary understanding of how their results relate to outcomes and policy. Relevant policy literature not cited.	Student fails to clearly draw useful conclusion from empirical study.

	outcome implications			
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### Results

Below are the frequency tables associated with student outcomes based on the rubric above. Assessment was completed by course instructor Michael Jonas.

#### ECON 425 FALL 2020 (19 Students)

PLO #1 Component	Mastery of Knowledge Score =4	Developing Knowledge Score = 3	Introduction Knowledge Score = 2	Inadequate Knowledge Score=1
Recognition of Foundational Concept	11/19	3/19	3/19	1/19
Systematic Study of Foundational Concept Using Empirical Methods	8/19	4/19	4/19	3/19
Communicate Relationship b/w systematic study and “real-world” outcomes	9/19	5/19	3/19	2/19
Overall	9/19 (47%)	4/19	3/19	3/19

#### ECON 427 SPRING 2021 (15 Students)

PLO #1 Component	Mastery of Knowledge Score =4	Developing Knowledge Score = 3	Introduction Knowledge Score = 2	Inadequate Knowledge Score=1
Recognition of Foundational Concept	4/15	6/15	2/15	3/15
Systematic Study of Foundational Concept Using Empirical Methods	5/15	5/15	4/15	1/15
Communicate Relationship b/w systematic study and “real-	4/15	6/15	4/15	1/15

world” outcomes				
Overall	4/15 (27%)	7/15	3/13	1/15

### Conclusions and Closing the Loop

While recognizing that the economics capstone is a very challenging course, we were somewhat disappointed in the small percentage of students meeting the Mastery criteria overall for PLO 1 based on the empirical project. Based on past undergraduate assessments of other PLO’s, we had expected at least 50% of students to meet the mastery level of attainment.

Upon reflection and consultation with department faculty, it has been decided that the issue likely lies in the ambitious curriculum in terms of quantity of empirical models covered, at the expense of time dedicated to a broader discussion of appropriate research design and examples of successful analysis. Therefore, beginning with ECON 427 in Spring, the number of specific models, and the associated programming content, will be scaled back by approximately 20%, and replaced by additional seminar speakers and research examples. This will shift the balance from technical skills, which evidence from previous assessment shows our students are able to master to a large extent, to broader discussion that incorporates more material across multiple prerequisite courses and corresponds with our PLO 1 goal.

Discussion of this information should be bolstered in prior prerequisite courses as well, beginning with the first principles courses ECON 111 and 112. How best to adjust curriculum in the “pipeline” leading up to the capstone courses will be a topic of discussion within the department heading into the Spring semester.