## BACHELOR OF ARTS IN Economics

## **Declaring the Major and Undergraduate Advising**

Students can declare economics as a major by submitting an online request (https://registrar.sfsu.edu/change\_major\_minor/). The department requires that all majors meet with an Economics advisor (https://cob.sfsu.edu/economics/advising/) each fall. Advisors counsel students on the selection of Economics courses. It is recommended that students also meet an undergraduate advisor in the Student Success center (https://cob.sfsu.edu/resources/undergraduate-advising/) to review their GE and other university requirements. **Students who do not complete mandatory advising will not be able to register for the spring semester**.

## **Program Learning Outcomes**

- a. In the program, students will acquire knowledge of current economic theory and thought needed to examine a particular economic issue or event. They will also develop an understanding of the role played by economic institutions, as well as how public policy can affect economic and social outcomes.
- b. In the program, students will master the ability to collect, process, interpret, analyze, and draw conclusions from economic information and economic data using appropriate quantitative methods.
- c. In the program, students will develop and expand on skills necessary to effectively communicate economic ideas both orally and in writing to a wide audience.

## Economics (B.A.) – 42 Units Minimum

- Majors must take the core courses for a letter grade and earn a minimum grade of C- in each. (CR/NC grading is not allowed for core courses.)
- ECON 690GW is the capstone course and must be taken in the senior year.

### Core Courses (24-27 Units)

Code	Title	Units
ECON 101	Introduction to Microeconomic Analysis	3
ECON 102	Introduction to Macroeconomic Analysis (formerly ECON 100)	у З
ECON 301	Intermediate Microeconomic Theory	3
ECON 302	Intermediate Macroeconomic Theory	3
Select One:		3
ECON 311	Statistical Methods and Interpretation	
DS 212	Business Statistics	
MATH 124	Elementary Statistics	
ECON 312	Introduction to Econometrics	3
ECON 690GW	Senior Seminar: Economic Inquiry and Analysis - GWAR	3
Select One: <sup>1</sup>		3-6
DS 110	Calculus with Business Applications	
MATH 107 & MATH 108	Mathematics for Business Calculus I and Mathematics for Business Calculus II	

MATH 110	Business Calculus
MATH 226	Calculus I <sup>1</sup>

We strongly recommend taking MATH 226 for students interested in pursuing a graduate degree in economics or related fields.

### **Upper-Division Electives (18 Units)**

Economics majors are required to take six upper-division elective courses in economics. There are over 20 elective courses, including some crosslisted courses with other programs, offered each year. These elective courses can be taken in any order as long as the prerequisites are met.

Code	Title	Units
ECON 400	Economic and Social History of the United States	3
ECON 450	Health Economics	3
ECON/HIST/ LABR 474	History of Labor in the United States	3
ECON 500	Money and Banking	3
ECON 505	Public Economics	3
ECON/LABR 510	Labor Economics	3
ECON/LABR 511	Collective Bargaining	3
ECON 520	Industrial Organization	3
ECON 540	Economics of Gender	3
ECON 541	Economics of LGBTQ Issues	3
ECON 550	Environmental Economics	3
ECON 560	Economics of Growth	3
ECON 605	Seminar: History of Economic Thought	3
ECON 611	International Trade Theory and Policy	3
ECON 612	International Finance and Macroeconomics	3
ECON 616	Experimental Economics and Game Theory	3
ECON 618	Economic Inference: Methods and Applications	3
ECON 620	Economic Development	3
ECON/I R 635	Economics of Globalization	3
ECON 640	Health Economics Analysis and Research	3
ECON/ENVS/FIN 651	Student Managed Fund in Environmental, Social and Governance (ESG) Investments	3
ECON 675	Natural Resource Economics	3
ECON 680	Applied Economics and Data Analysis with R	3
ECON 699	Independent Study	3

Upon prior advisement, students may apply a maximum of two courses taken outside the Economics department to the elective requirement. Non-Economics courses approved by the department are included in the list of elective options below. Students should keep in mind that non-Economics courses may require additional prerequisites that are not met in the Economics degree or consent of the instructor.

Code	Title	Units
ACCT 301	Intermediate Financial Accounting I	3
DS 311	Technologies in Data Analytics	3
DS 312	Data Analysis with Computer Applications	3
DS 408	Computer Simulation	3
DS 412	Operations Management	3
DS 612	Data Mining with Business Applications	3
DS 624	Quality Management	3

FIN 350	Business Finance	3
FIN 536	International Finance	3
GEOG 603	Introduction to Geographic Information Systems	3
GEOG 604	Environmental Data Science	3
I R 312	Introduction to International Political Economy	4
ISYS 363	Information Systems for Management	3
MATH 227	Calculus II	4
MATH 228	Calculus III	4
MATH 245	Elementary Differential Equations and Linear Algebra	3
MATH 324	Probability and Statistics with Computing	3
MATH 325	Linear Algebra	4
MATH 338	Introduction to SAS	3
MATH 376	Ordinary Differential Equations I	3
MATH 400	Numerical Analysis	3
MATH 424	Introduction to Linear Models	3
MATH 440	Probability and Statistics I	3
MATH 441	Probability and Statistics II	3
MATH 448	Introduction to Statistical Learning and Data Mining	3

#### **Complementary Studies**

Bachelor of Arts students must complete at least 12 units of Complementary Studies outside of the primary prefix for the major. (**Note:** Students may not use an alternate prefix that is cross-listed with the primary prefix for the major.)

Students who complete two majors or a major and a minor automatically complete the Complementary Studies requirement. Alternatively, students in the Economics major can meet with a major advisor to determine which courses will satisfy the Complementary Studies requirement. Consult with your major advisor for assistance.

Students who have earned AA-T or AS-T degrees and are pursuing a similar B.A. degree at SF State are required to fulfill the Complementary Studies requirement as defined by the major department. Students should consult with a major advisor about how transfer units and/or SF State units can best be applied to this requirement in order to ensure degree completion within 60 units.

#### **General Education Requirements**

Requirement	Course Level	Units	Area Designation
Oral	LD	3	A1
Communication			
Written English	LD	3	A2
Communication			
Critical Thinking	LD	3	A3
Physical Science	LD	3	B1
Life Science	LD	3	B2
Lab Science	LD	1	B3
Mathematics/	LD	3	B4
Quantitative			
Reasoning			
Arts	LD	3	C1
Humanities	LD	3	C2
Arts or	LD	3	C1 or C2
Humanities			

Social Sciences	LD	3	D1
Social Sciences: US History	LD	3	D2
Lifelong Learning and Self- Development (LLD)	LD	3	E
Ethnic Studies	LD	3	F
Physical and/or Life Science	UD	3	UD-B
Arts and/or Humanities	UD	3	UD-C
Social Sciences	UD	3	UD-D
SF State Studies			
Courses certified as meeting the SF State Studies requirements may be upper or lower division in General Education (GE), a major or minor, or an elective.			
American Ethnic and Racial Minorities	LD or UD	3	AERM
Environmental Sustainability	LD or UD	3	ES
Global	LD or UD	3	GP
Perspectives			

Note: LD = Lower-Division; UD = Upper-Division.

## First-Time Student Roadmap (4 Year)

The roadmaps presented in this Bulletin are intended as suggested plans of study and do not replace meeting with an advisor. For a more personalized roadmap, please use the Degree Planner (https:// registrar.sfsu.edu/degreeplanner/) tool found in your <u>Student Center</u>.

First-Time Student Roadmap (http://bulletin.sfsu.edu/colleges/business/ economics/ba-economics/roadmap-i-ii-eng/)

## **SF State Scholars**

The San Francisco State Scholars program provides undergraduate students with an accelerated pathway to a graduate degree. Students in this program pursue a bachelor's and master's degree simultaneously. This program allows students to earn graduate credit while in their junior and/or senior year, reducing the number of semesters required for completion of a master's degree.

SF State Scholars Roadmap (http://bulletin.sfsu.edu/colleges/business/ economics/ba-economics/scholars-roadmap/)

## Transfer Student Roadmap (2 Year)

For Students with an AA-T in **Economics**. <u>ECON ADT Roadmap (http://bulletin.sfsu.edu/colleges/business/</u> <u>economics/ba-economics/adt-roadmap/</u>)

## This degree program is an approved pathway ("similar" major) for students earning the ADT in Economics

California legislation SB 1440 (2009) mandated the creation of the Associate Degree for Transfer (ADT) to be awarded by the California Community Colleges. Two types of ADTs are awarded: Associate in Arts for Transfer (AA-T) and Associate in Science for Transfer (AS-T).

Note: no specific degree is required for admission as an upper-division student. However, the ADT includes specific guarantees related to admission and graduation and is designed to clarify the transfer process and strengthen lower-division preparation for the major.

An ADT totals 60 units and in most cases includes completion of all lower-division General Education requirements and at least 18 units in a specific major. (The Biology, Chemistry, and Environmental Science AS-T degrees defer 3 units in lower-division GE area C and 3 units in lowerdivision GE area D until after transfer.) Students pursuing an ADT are guaranteed admission to the CSU if minimum eligibility requirements are met, though not necessarily to the CSU campus of primary choice.

Upon verification that the ADT has been awarded prior to matriculation at SF State, students are guaranteed B.A. or B.S. completion in 60 units if pursuing a "similar" major after transfer. Determinations about "similar" majors at SF State are made by faculty in the discipline.

Degree completion in 60 units cannot be guaranteed when a student simultaneously pursues an additional major, a minor, certificate, or credential.

A sample advising roadmap for students who have earned an ADT and continue in a "similar" major at SF State is available on the Roadmaps tab on the degree requirements page for the major. The roadmap displays:

- How many lower-division units required for the major have been completed upon entry based on the award of a specific ADT;
- Which lower-division requirements are considered complete upon entry based on the award of a specific ADT;
- How to complete the remaining 60 units for the degree in four semesters.

Students who have earned an ADT should seek advising in the major department during the first semester of attendance.

# General Advising Information for Transfer Students

- a. Before transfer, complete as many lower-division requirements or electives for this major as possible.
- b. The following courses are not required for admission but are required for graduation. Students are strongly encouraged to complete these units before transfer; doing so will provide more flexibility in course selection after transfer.
  - a course in U.S. History
  - · a course in U.S. & California Government

For information about satisfying the requirements described in (1) and (2) above at a California Community College (CCC), please visit http:// www.assist.org (http://assist.org). Check any geographically accessible CCCs; sometimes options include more than one college. Use ASSIST to determine:

- Which courses at a CCC satisfy any lower-division major requirements for this major;
- Which courses at a CCC satisfy CSU GE, US History, and US & CA Government requirements.

Remedial courses are not transferable and do not apply to the minimum 60 semester units/90 quarter units required for admission.

Additional units for courses that are repeated do not apply to the minimum 60 units required for upper-division transfer (for example, if a course was not passed on the first attempt or was taken to earn a better grade).

Before leaving the last California Community College of attendance, obtain a summary of completion of lower-division General Education units (IGETC or CSU GE Breadth). This is often referred to as a GE certification worksheet. SF State does not require delivery of this certification to Admissions, but students should retain this document for verifying degree progress after transfer.

Credit for Advanced Placement, International Baccalaureate, or College-Level Examination Program courses: AP/IB/CLEP credit is not automatically transferred from the previous institution. Units are transferred only when an official score report is delivered to SF State. Credit is based on the academic year during which exams were taken. Refer to the University Bulletin in effect during the year of AP/IB/CLEP examination(s) for details regarding the award of credit for AP/IB/CLEP.

Students pursuing majors in science, technology, engineering, and mathematics (STEM) disciplines often defer 6-9 units of lower-division General Education in Areas C and D until after transfer to focus on preparation courses for the major. This advice does not apply to students pursuing associate degree completion before transfer.

# Transferring From Institutions Other Than CCCs or CSUs

Review SF State's lower-division General Education requirements. Note that, as described below, the four basic skills courses required for admission meet A1, A2, A3, and B4 in the SF State GE pattern. Courses that fulfill the remaining areas of SF State's lower-division GE pattern are available at most two-year and four-year colleges and universities.

Of the four required basic skills courses, a course in critical thinking (A3) may not be widely offered outside the CCC and CSU systems. Students should attempt to identify and take an appropriate course no later than the term of application to the CSU. To review more information about the A3 requirement, please visit bulletin.sfsu.edu/undergraduate-education/ general-education/lower-division/#AAEL.

Waiting until after transfer to take a single course at SF State that meets both US and CA/local government requirements may be an appropriate option, particularly if transferring from outside of California.