

DEPARTMENT OF ECONOMICS

Mission Statement

The mission of the Department of Economics at The University of Texas at San Antonio is to offer courses and degree programs at both the undergraduate and graduate levels that provide students with the opportunity to gain the necessary theoretical and quantitative tools in economics such that they can understand and apply economics in their daily lives, seek advanced degrees in economics, pursue careers in the global marketplace, and engage in public policy-making. It is also the mission of the Department to provide an environment for its faculty and students to engage in research that will further the understanding of economics and enhance the reputation of the Department, the Carlos Alvarez College of Business, and the University.

The Department of Economics offers both a Bachelor of Arts degree and a Bachelor of Business Administration degree in Economics. Economics is a highly versatile major that assists students in pursuing a variety of careers, including positions in business, the public sector, the legal field, and politics, where knowledge of economics is a fundamental asset. The department also offers a minor in economics that is open to all majors in the University.

- B.B.A. degree in Economics (p. 1)
- B.A. degree in Economics (p. 3)

Bachelor of Business Administration Degree in Economics

The minimum semester credit hours for the Bachelor of Business Administration (B.B.A.) degree in Economics is 120, at least 39 of which must be at the upper-division level.

All candidates seeking this degree must fulfill the Core Curriculum requirements, the Common Body of Knowledge (CBK) requirements, and the degree requirements, which are listed below.

Core Curriculum Requirements (42 semester credit hours)

Students seeking the B.B.A. degree in Economics must fulfill University Core Curriculum requirements in the same manner as other students.

MAT 1053 and MAT 1133 should be used to satisfy the core requirement in Mathematics (020) and the core requirement in the Component Area Option (090). ECO 2023 should be used to satisfy the core requirement in Social and Behavioral Sciences (080).

MAT 1053, MAT 1133, and ECO 2023 may be used to satisfy both Core Curriculum requirements and Common Body of Knowledge (CBK) requirements.

All degrees in the Carlos Alvarez College of Business (ACOB) require 120 hours. If students elect to take a course that satisfies both a Core and ACOB requirement, students may need to take an additional course to meet the 120 hours.

Core Curriculum Component Area Requirements (<http://catalog.utsa.edu/undergraduate/bachelorsdegreeregulations/degree requirements/corecurriculumcomponentarearequirements/>)

First Year Experience Requirement	3
Communication	6

Mathematics	3
Life and Physical Sciences	6
Language, Philosophy and Culture	3
Creative Arts	3
American History	6
Government-Political Science	6
Social and Behavioral Sciences	3
Component Area Option	3
Total Credit Hours	42

Common Body of Knowledge (CBK)

All students seeking a B.B.A. degree in the Carlos Alvarez College of Business must complete the following Common Body of Knowledge (CBK) courses in addition to the Core Curriculum.

ACC 2013	Principles of Accounting I	3
ACC 2033	Principles of Accounting II	3
ECO 2013	Introductory Macroeconomics	3
ECO 2023	Introductory Microeconomics (satisfies Social and Behavioral Sciences Core Curriculum requirement)	3
FIN 3013	Principles of Business Finance	3
GBA 2013	Legal, Social and Ethical Issues in Business	3
IS 1403 or IS 1413	Business Information Systems Fluency Excel for Business Information Systems	3
IS 3003	Principles of Information Systems for Management	3
MAT 1053	Mathematics for Business (satisfies Mathematics Core Curriculum requirement; this course is not required for Actuarial Science majors) ¹	3
MAT 1133	Calculus for Business (satisfies Mathematics or Component Area Option Core Curriculum requirement; Actuarial Science majors must take MAT 1213 in lieu of MAT 1133)	3
MGT 3003	Business Communication and Professional Development	3
MGT 3013	Introduction to Organization Theory, Behavior, and Management	3
MGT 4893	Management Strategy (taken in semester of graduation)	3
MKT 3013	Principles of Marketing	3
MS 1023	Business Statistics with Computer Applications I (Actuarial Science majors must take STA 3003 in lieu of MS 1023)	3
MS 3043	Business Statistics with Computer Applications II (Actuarial Science majors must take STA 3513 in lieu of MS 3043)	3
MS 3053	Management Science and Operations Technology	3

Note: Students majoring in Actuarial Science, Economics, Finance, Operations and Supply Chain Management and Business Analytics are strongly encouraged to select IS 1413 Excel for Business Information Systems. IS 1413 is required for Accounting majors.

¹ Students may elect to substitute MAT 1093 Precalculus for MAT 1053 Mathematics for Business. Students electing to take MAT 1093 will need to meet prerequisites or achieve satisfactory performance on a placement examination. Visit UTSA Testing Services for more information regarding math placement exams.

In addition to the Core Curriculum requirements and requirements from the Carlos Alvarez College of Business Common Body of Knowledge (CBK), all candidates for the degree must complete the following degree requirements.

Gateway Course

Students pursuing the B.B.A. degree in Economics must successfully complete the business math gateway course MAT 1053 (TCN MATH 1324) or equivalent with a grade of "C-" or better in no more than two attempts. A student who is unable to successfully complete this course within two attempts, including dropping the course with a grade of "W" or by taking an equivalent course at another institution, will be required to change their major outside of business. **Upon the second failed attempt students will be changed to undeclared and will not be eligible for any Bachelor of Business Administration (B.B.A) degree or a Bachelor of Arts in Economics degree.**

Code	Title	Credit Hours
MAT 1053	Mathematics for Business	3

Degree Requirements

Code	Title	Credit Hours
A. Major Requirements		33

ECO 2013	Introductory Macroeconomics	
ECO 2023	Introductory Microeconomics ¹	
ECO 3013	Intermediate Microeconomics	
ECO 3053	Intermediate Macroeconomics	
ECO 3113	Introduction to Mathematical Economics	
ECO 3123	Introduction to Econometrics	
15 semester credit hours of upper-division Economics electives		

B. Support Work		45
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Business Common Body of Knowledge (51 SCH) (9 SCH satisfy core curriculum requirements and additional 3 SCH satisfy the major requirement) ²

C. Free Electives		9
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9 semester credit hours of free electives

Recommendations:

To help satisfy the Free Electives requirement, students are recommended to complete one of the Focus Options listed in the tables below. ³

Students interested in pursuing a Ph.D. in Economics or Finance should inform the chair of the Economics department.

Total Credit Hours	87
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¹ ECO 2023 may also be used to satisfy Core requirement in Social and Behavioral Sciences.

² Semester credit hours for ECO 2013 and ECO 2023 count toward the Major requirement.

³ If applicable, a course appearing under a focus option may be counted toward Major or Support Work requirements and not as a free elective. Note that an individual focus option may not exhaust the semester credit hours available for free electives. Semester credit hours required to achieve the total of 120 semester credit hours for the degree can be completed by way of one or more focus options, or by using any other combination of free electives.

Focus Options

A Focus Option is a pathway of courses connected by a theme, to support the degree planning of a student. One or more Focus Options may be pursued to help satisfy the Free Electives requirement.

If applicable, a course appearing under a focus option may be counted toward the Major or Support Work requirements instead of the Free Elective requirement. Completion of a Focus Option may not exhaust the semester credit hours available for free electives. Focus Options will not appear on the transcript or diploma.

Code	Title	Credit Hours
Focus Option 1, Quantitative Economics and Analytics		21
ACC 2013	Principles of Accounting I ¹	
MS 3043	Business Statistics with Computer Applications II ¹	
or STA 3003	Statistical Methods and Applications	
Two of the following: ²		
ECO 4413	Game Theory	
ECO 4513	Industrial Organization	
ECO 4553	Public Economics	
ECO 4583	Labor Economics	
ECO 4813	Seminar on Research in Economics	
One of the following:		
STA 4133	Introduction to Programming and Data Management in SAS	
STA 4233	Introduction to Programming and Data Management in R	
MS 3083	Data Management for Business Analytics	
Two of the following:		
MS 3073	Business Intelligence and Analytics	
MS 3313	Statistical Modeling for Business Analytics	
MS 4373	Data Mining for Business Analytics	
STA 3313	Statistical Sampling	
STA 3333	Introduction to Data Science and Analytics	
STA 4143	Data Mining and Predictive Modeling	
Focus Option 2, Business Competency		9
Complete a Business Competency. Students are recommended to select Analytics or Modeling. ³		

¹ Semester credit hours for ACC 2013 and MS 3043 may be counted toward the Support Work requirement, as part of the Common Body of Knowledge.

² Semester credit hours of ECO courses may be counted toward the Major requirement.

³ Semester credit hours for ECO 3123 are counted toward the Major requirement.

Course Sequence Guide for B.B.A. Degree in Economics

This course sequence guide is designed to assist students in completing their UTSA undergraduate business degree requirements. This is a term-by-term sample course guide. Students must satisfy other requirements in their catalog and meet with their academic advisor for an individualized degree plan. Progress within this guide depends upon such factors as course availability, individual student academic preparation, student time management, work obligations, and individual financial considerations. Students may choose to take courses during Summer terms to reduce course loads during long semesters.

Recommended Four-Year Academic Plan

First Year

Fall		Credit Hours
AIS 1233	AIS: Business (core)	3
ECO 2023	Introductory Microeconomics (core, CBK, and major) ¹	3
MAT 1053 or MAT 1093	Mathematics for Business (core and CBK) ¹ or Precalculus	3
WRC 1013	Freshman Composition I (core)	3
American History (core)		3
Credit Hours		15

Spring

WRC 1023	Freshman Composition II (core)	3
MAT 1133 or MAT 1213	Calculus for Business (core and CBK) ¹ or Calculus I	3
ECO 2013	Introductory Macroeconomics (CBK and major)	3
IS 1413	Excel for Business Information Systems (CBK)	3
Language, Philosophy & Culture (core)		3
Credit Hours		15

Second Year

Fall		Credit Hours
ECO 3113	Introduction to Mathematical Economics (major)	3
MS 1023	Business Statistics with Computer Applications I (CBK)	3
ACC 2013	Principles of Accounting I (CBK)	3
IS 3003	Principles of Information Systems for Management (CBK)	3
American History (core)		3
Credit Hours		15

Spring

ECO 3013	Intermediate Microeconomics (major)	3
MS 3043	Business Statistics with Computer Applications II (CBK)	3
ACC 2033	Principles of Accounting II (CBK)	3
FIN 3013	Principles of Business Finance (CBK)	3

Government-Political Science (core)	3
Credit Hours	15

Third Year

Fall		Credit Hours
ECO 3053	Intermediate Macroeconomics (major)	3
ECO 3123	Introduction to Econometrics (major)	3
MGT 3003	Business Communication and Professional Development (CBK)	3
Creative Arts (core)		3
Government-Political Science (core)		3
Credit Hours		15

Spring

MS 3053	Management Science and Operations Technology (CBK)	3
GBA 2013	Legal, Social and Ethical Issues in Business (CBK)	3
Upper-division economics elective (3XXX or 4XXX level) (major)		3
Focus option or elective (free elective)		3
Life & Physical Sciences (core)		3
Credit Hours		15

Fourth Year

Fall		Credit Hours
MKT 3013	Principles of Marketing (CBK)	3
MGT 3013	Introduction to Organization Theory, Behavior, and Management (CBK)	3
Upper-division economics elective (3XXX or 4XXX level) (major)		3
Upper-division economics elective (3XXX or 4XXX level) (major)		3
Focus option or elective (free elective)		3
Credit Hours		15

Spring

MGT 4893	Management Strategy (CBK)	3
Upper-division economics elective (3XXX or 4XXX level) (major)		3
Upper-division economics elective (3XXX or 4XXX level) (major)		3
Focus option or elective (free elective)		3
Life & Physical Sciences (core)		3
Credit Hours		15
Total Credit Hours		120

¹ Carlos Alvarez College of Business students should take MAT 1053 (or MAT 1093), MAT 1133 (or MAT 1213), and ECO 2023 to satisfy both Core Curriculum and CBK requirements.

Bachelor of Arts Degree in Economics

The minimum semester credit hours for the Bachelor of Arts (B.A.) degree in Economics is 120, at least 39 of which must be at the upper-division level.

All candidates seeking this degree must fulfill the Core Curriculum requirements and the degree requirements, which are listed below.

Core Curriculum Requirements (42 semester credit hours)

Students seeking the B.A. degree in Economics must fulfill University Core Curriculum requirements in the same manner as other students.

MAT 1053 (or MAT 1093) and MAT 1133 (or MAT 1213) should be used to satisfy the core requirement in Mathematics (020) and the core requirement in the Component Area Option (090). ECO 2023 should be used to satisfy the core requirement in Social and Behavioral Sciences (080).

All degrees in the Carlos Alvarez College of Business require 120 hours.

Core Curriculum Component Area Requirements (<http://catalog.utsa.edu/undergraduate/bachelorsdegreeregulations/degerequirements/corecurriculumcomponentarearequirements/>)

First Year Experience Requirement	3
Communication	6
Mathematics	3
Life and Physical Sciences	6
Language, Philosophy and Culture	3
Creative Arts	3
American History	6
Government-Political Science	6
Social and Behavioral Sciences	3
Component Area Option	3
Total Credit Hours	42

Gateway Course

Students pursuing the B.A. degree in Economics must successfully complete the business math gateway course MAT 1053 (TCCN MATH 1324) or equivalent with a grade of "C-" or better in no more than two attempts. A student who is unable to successfully complete this course within two attempts, including dropping the course with a grade of "W" or by taking an equivalent course at another institution, will be required to change their major outside of business. **Upon the second failed attempt students will be changed to undeclared (UND) and will not be eligible for any Bachelor of Business Administration (B.B.A) degree or a Bachelor of Arts in Economics degree.**

Code	Title	Credit Hours
MAT 1053	Mathematics for Business	3

Degree Requirements

In addition to the Core Curriculum requirements, all candidates for the degree must complete the following degree requirements.

Code	Title	Credit Hours
A. Major Requirements		33
ECO 2013	Introductory Macroeconomics	
ECO 2023	Introductory Microeconomics ¹	
ECO 3013	Intermediate Microeconomics	
ECO 3053	Intermediate Macroeconomics	
ECO 3113	Introduction to Mathematical Economics	

ECO 3123	Introduction to Econometrics	
15 semester credit hours in upper-division Economics electives		
B. Support Work		9
Option 1.		
MAT 1053	Mathematics for Business	
MAT 1133	Calculus for Business	
Option 2. Quantitative pathway ²		
MAT 1093	Precalculus	
MAT 1213	Calculus I	
and		
STA 3003	Statistical Methods and Applications	
or MS 3043	Business Statistics with Computer Applications II	
C. Free Electives		45
45 semester credit hours of free electives, of which 12 semester credit hours must be at the upper-division level		
Recommendations:		
To help satisfy the Free Electives requirement, students are recommended to complete one or more of the Focus Options listed in the tables below. ³		
Students may consider completing a minor in a quantitative discipline such as Statistics, Mathematics, or Computer Science, or a minor in a related social science such as Political Science, Sociology, or Psychology.		
Students interested in pursuing a Ph.D. in Economics or Finance should inform the chair of the Economics department as soon as possible. To be a competitive candidate for admission to a Ph.D. program, students are strongly recommended to complete the Economics Pre-Ph.D. Focus Option (see below). A minor in Mathematics is also advisable.		
Total Credit Hours		87

¹ ECO 2023 may also be used to satisfy Core requirement in Social and Behavioral Sciences.

² Students considering a quantitative pathway through the degree should consider choosing MAT 1093 and MAT 1213.

³ If applicable, a course appearing under a Focus Option may be counted toward Major or Support Work requirements and not as a free elective. Note that an individual focus option may not exhaust the semester credit hours available for free electives. Semester credit hours required to achieve the total of 120 semester credit hours for the degree can be completed by way of one or more focus options, or by using any other combination of free electives.

Focus Options

A Focus Option is a pathway of courses connected by a theme, to support the degree planning of a student. One or more Focus Options may be pursued to help satisfy the Free Electives requirement.

If applicable, a course appearing under a focus option may be counted toward the Major or Support Work requirements instead of the Free Elective requirement. Completion of a Focus Option may not exhaust the semester credit hours available for free electives. Focus Options will not appear on the transcript or diploma.

Code	Title	Credit Hours
Focus Option 1, Quantitative Economics and Analytics 27		
ACC 2013	Principles of Accounting I	
ECO 3253	Economics of Public and Social Issues ¹	
STA 3003 or MS 3043	Statistical Methods and Applications ² Business Statistics with Computer Applications II	
One of the following:		
STA 4243	Data Exploratory Methods with Python	
IS 2053	Programming I	
Two of the following: ¹		
ECO 4413	Game Theory	
ECO 4513	Industrial Organization	
ECO 4553	Public Economics	
ECO 4583	Labor Economics	
ECO 4813	Seminar on Research in Economics	
One of the following:		
STA 4133	Introduction to Programming and Data Management in SAS	
STA 4233	Introduction to Programming and Data Management in R	
MS 3083	Data Management for Business Analytics	
Two of the following:		
MS 3073	Business Intelligence and Analytics	
MS 3313	Statistical Modeling for Business Analytics	
MS 4373	Data Mining for Business Analytics	
STA 3313	Statistical Sampling	
STA 3333	Introduction to Data Science and Analytics	
STA 4143	Data Mining and Predictive Modeling	
Code	Title	Credit Hours
Focus Option 2, Human and Social Well-being 24		
Two of the following:		
SOC 1013	Introduction to Sociology	
GES 2623	Human Geography: People, Place, Culture	
PSY 1013	Introduction to Psychology	
Four of the following: ¹		
ECO 3233	Health Economics and Policy	
ECO 3253	Economics of Public and Social Issues	
ECO 3413	Environmental Economics	
ECO 3513	Economics of Migration	
ECO 4233	Behavioral Economics and Finance	
ECO 4303	Development Economics	
ECO 4553	Public Economics	
ECO 4583	Labor Economics	
Four of the following, with no more than two from the same department:		
GES 3533	Geography of Local Economic Activity	
GES 3573	Urban Planning and Development	
GES 3613	Conservation of Resources	
GES 3633	Geography of Globalization and Development	

GES 3733	Urban and Regional Analysis
POL 3483	International Political Economy
POL 3553	The Welfare State in Comparative Perspective
POL 3633	Political Economy
POL 3763	Globalization
PSY 2533	Social Psychology
PSY 2563	Cognitive Psychology
PSY 3203	Industrial and Organizational Psychology
SOC 3193	The Sociology of Work and Occupations
SOC 3283	Poverty

Code	Title	Credit Hours
Focus Option 3, Economics Pre-Ph.D. 27		
MAT 1213	Calculus I ²	
MAT 1223	Calculus II	
MAT 2213	Calculus III	
MAT 2233	Linear Algebra	
STA 3003	Statistical Methods and Applications ²	
STA 3513	Probability and Statistics	
STA 3523	Mathematical Statistics for Inference	
IS 2053	Programming I	
ECO 4813	Seminar on Research in Economics ¹	

Code	Title	Credit Hours
Focus Option 4, Economics and Machine Learning/Artificial Intelligence 18		
MAT 1213	Calculus I ²	
MAT 1223	Calculus II	
ECO 4413	Game Theory ¹	
One of the following:		
CS 1083	Programming I for Computer Scientists	
IS 2053	Programming I	
One of the following:		
CS 2713	Computer Programming in C	
IS 2063	Programming II	
One of the following:		
CS 3793	Artificial Intelligence	
CS 4253	Machine Learning	
CS 4263	Deep Learning	
IS 4043	Natural Language Processing	

Code	Title	Credit Hours
Focus Option 5, Business Competency 9		
Complete a Business Competency. Students are recommended to select Analytics or Modeling. ³		

¹ Semester credit hours for ECO courses may be counted toward the Major requirement.

² Semester credit hours for STA 3003 and MAT 1213 may be counted toward the Support Work requirement.

³ Semester credit hours for ECO 3123 are counted toward the Major requirement.

Course Sequence Guide for B.A. Degree in Economics

This course sequence guide is designed to assist students in completing their UTSA undergraduate business degree requirements. This is a term-by-term sample course guide. Students must satisfy other requirements in their catalog and meet with their academic advisor for an individualized degree plan. Progress within this guide depends upon such factors as course availability, individual student academic preparation, student time management, work obligations, and individual financial considerations. Students may choose to take courses during Summer terms to reduce course loads during long semesters.

Recommended Four-Year Academic Plan

First Year

Fall		Credit Hours
AIS 1233	AIS: Business	3
WRC 1013	Freshman Composition I (core)	3
MAT 1053 or MAT 1093	Mathematics for Business (core and support work) ¹ or Precalculus	3
ECO 2023	Introductory Microeconomics (core and major) ¹	3
American History (core)		3
Credit Hours		15

Spring

ECO 2013	Introductory Macroeconomics (major)	3
WRC 1023	Freshman Composition II (core)	3
MAT 1133 or MAT 1213	Calculus for Business (core and support work) ¹ or Calculus I	3
Language, Philosophy & Culture (core)		3
Government-Political Science (core)		3
Credit Hours		15

Second Year

Fall		Credit Hours
ECO 3113	Introduction to Mathematical Economics (major)	3
STA 3003	Statistical Methods and Applications (support work)	3
Focus option or elective (free elective)		3
American History (core)		3
Life & Physical Sciences (core)		3
Credit Hours		15

Spring

ECO 3013	Intermediate Microeconomics (major)	3
Life & Physical Sciences (core)		3
Focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Credit Hours		15

Third Year

Fall		Credit Hours
ECO 3053	Intermediate Macroeconomics (major)	3
ECO 3123	Introduction to Econometrics (major)	3
Focus option or elective (free elective)		3
Creative Arts (core)		3
Government-Political Science (core)		3
Credit Hours		15

Spring

Upper-division ECO elective (3XXX or 4XXX level) (major)		3
Upper-division ECO elective (3XXX or 4XXX level) (major)		3
Upper-division focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Credit Hours		15

Fourth Year

Fall		Credit Hours
Upper-division ECO elective (3XXX or 4XXX level) (major)		3
Upper-division ECO elective (3XXX or 4XXX level) (major)		3
Upper-division focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Credit Hours		15

Spring

Upper-division ECO elective (3XXX or 4XXX level) (major)		3
Upper-division focus option or elective (free elective)		3
Upper-division focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Focus option or elective (free elective)		3
Credit Hours		15
Total Credit Hours		120

¹ Carlos Alvarez College of Business students should take MAT 1053 (or MAT 1093), MAT 1133 (or MAT 1213), and ECO 2023 to satisfy Core Curriculum requirements.

Minor in Economics

The Minor in Economics is open to all majors in the University. All students pursuing the Minor in Economics must complete 18 semester credit hours.

Code	Title	Credit Hours
A. Required courses		6
ECO 2013	Introductory Macroeconomics	
ECO 2023	Introductory Microeconomics	
B. Upper-division economics courses		12
Select 12 additional semester credit hours of upper-division economics courses		
Total Credit Hours		18

To declare a Minor in Economics, obtain advice, and seek approval of substitutions for course requirements, students must consult their academic advisor.

Economics (ECO) Courses

ECO 2003. Economic Principles and Issues. (3-0) 3 Credit Hours. (TCCN = ECON 1301)

A nontechnical introduction to economic concepts such as scarcity, costs and benefits, supply and demand, trade, employment, and growth, with applications to current economic issues and policies. This course is designed for nonbusiness majors and cannot be applied toward a degree in the Carlos Alvarez College of Business. May be applied toward the core curriculum requirement in Social and Behavioral Sciences. Generally offered: Fall, Spring, Summer. Course Fees: BISP \$10; BTSI \$15.41; DL01 \$75; LRB1 \$15.41; LRC1 \$12.

ECO 2013. Introductory Macroeconomics. (3-0) 3 Credit Hours. (TCCN = ECON 2301)

Economic analysis at the national level, including the determination of aggregate income and employment, operation of the domestic and international monetary systems, short-term income fluctuations, and long term economic growth. Course Fee: BISP \$10; BTSI \$15.41; DL01 \$75; LRB1 \$46.23.

ECO 2023. Introductory Microeconomics. (3-0) 3 Credit Hours. (TCCN = ECON 2302)

Prerequisite: Placement into a college-level mathematics course. An introduction to the economic theory of decision making by consumers and business firms; an analysis of the domestic and international market systems and their roles in allocating goods and services; and problems of market failure. May be applied toward the core curriculum requirement in Social and Behavioral Sciences. Generally offered: Fall, Spring, Summer. Course Fees: BISP \$10; BTSI \$15.41; DL01 \$75; LRB1 \$15.41; LRC1 \$12.

ECO 3013. Intermediate Microeconomics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2023, and MAT 1133, or their equivalents, with a grade of "C-" or better. The study of price determination in and the welfare implications of various market structures through the development of the preference theory of consumer behavior and the profit maximization theory of producer behavior. The role and welfare impact of externalities and of government actions are also examined. (Formerly titled "Theory of Price." Credit cannot be earned for both "Theory of Price" and "Intermediate Microeconomics.") Generally offered: Fall, Spring. This course has Differential Tuition.

ECO 3033. Economics of Managerial Decisions. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2013, ECO 2023, and MAT 1133, or their equivalents, with a grade of "C-" or better. Managerial economic decisions in firms and related entities. Topics include demand analysis, least-cost production, profit strategy, the influence of various market structures on the firm, advanced issues in pricing, and the impact of the international sector. Generally offered: Fall, Spring. This course has Differential Tuition.

ECO 3053. Intermediate Macroeconomics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2013, ECO 2023, and MAT 1053, or their equivalents, with a grade of "C-" or better. Analysis of the measurement, determination, and control of aggregate economic activity such as national income, output, employment, interest rates, inflation, and exchange rates. The roles of monetary and fiscal policy and their relation to income and employment, short-term income fluctuations, and long-term growth are also explored. This course has Differential Tuition. Course Fee: DL01 \$75.

ECO 3113. Introduction to Mathematical Economics. (3-0) 3 Credit Hours.

Prerequisites: Completion of ECO 2013, ECO 2023, and MAT 1133, or their equivalents, with a grade of "C-" or better. Systematic approach to economic analysis using algebra and calculus; modeling and treatment of optimizing behavior with applications to micro and macro economics; emphasis on understanding and application of analytical techniques. Generally offered: Fall, Spring. This course has Differential Tuition. Course Fee: DL01 \$75.

ECO 3123. Introduction to Econometrics. (3-0) 3 Credit Hours.

Prerequisites: Completion of MAT 1133, and one of STA 1053 or STA 3003 or MS 1023, or their equivalents, and with a grade of "C-" or better. An introduction to statistical techniques for estimating economic relationships, testing economic theories, and evaluating government and business policy. Major topics include causal inference in the analysis of non-experimental data and implementing common econometric methods in statistical software. (Formerly titled "Introduction to Econometrics and Business Forecasting.") Generally offered: Fall, Spring. This course has Differential Tuition.

ECO 3163. Evolution of Economic Thought. (3-0) 3 Credit Hours.

Prerequisite: Completion of one of the following: ECO 2003, ECO 2013, ECO 2023, or the equivalent, with a grade of "C-" or better. Development of economic theories, models, and schools of thought from the birth of market economies to the present, with an emphasis on the historical, institutional, and social forces shaping economic thinking and public policy. This course has Differential Tuition. Course Fee: BISP \$10; BTSI \$15.41; LRB1 \$15.41.

ECO 3183. Economic History of the United States. (3-0) 3 Credit Hours.

Prerequisite: Completion of one of the following: ECO 2003, ECO 2013, ECO 2023, or the equivalent, with a grade of "C-" or better. The growth and development of the American economy from colonial times to the present; emphasis on applying a variety of economic concepts to a topical study of the economic forces that shaped the country's history. This course has Differential Tuition.

ECO 3193. International Economics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2003 or ECO 2023, or the equivalent, with a grade of "C-" or better. Principles of international trade; significance of geographic, economic, social, and political influences; current problems in international trade and payments; tariffs and commercial policy; and the role of international organizations. (Formerly titled "The International Economy.") Generally offered: Fall, Spring. This course has Differential Tuition.

ECO 3213. Economics of Antitrust and Regulation. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2003 or ECO 2023, or the equivalent, with a grade of "C-" or better. Theory and practice of governmental regulation, deregulation, and privatization; economic, legal, and ethical concerns regarding private-sector output; and pricing as influenced by public policy and marketing structure. This course has Differential Tuition.

ECO 3223. Sports Economics. (3-0) 3 Credit Hours.

Prerequisite: ECO 2023. The course examines the impact of the sports industry on the U.S. and other global economies. The emphasis is given to the topics related to sport economics in the areas of industrial organization, public finance, and labor markets. Current sports-related economic policy issues are also addressed. This course has Differential Tuition.

ECO 3233. Health Economics and Policy. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2003 or ECO 2023, or the equivalent, with a grade of "C-" or better. The course examines and analyzes the ever-changing role of healthcare and its impact on the economy and society. Social issues with respect to healthcare in the U.S. and world markets are analyzed using economics principles. Current healthcare related topics are addressed. This course has Differential Tuition.

ECO 3253. Economics of Public and Social Issues. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2003 or ECO 2023, or the equivalent, with a grade of "C-" or better, or consent of instructor. A seminar on applying economic reasoning and models to a wide variety of public, ethical, and social issues. This course has Differential Tuition.

ECO 3313. Money and Banking. (3-0) 3 Credit Hours.

Prerequisite: ECO 2013 and MAT 1053, or their equivalents. A study of money, the financial system, interest rates, commercial and central banking, monetary theory and policy implementation by the Federal Reserve, and resultant economic impacts both nationally and internationally. (Credit cannot be earned for both ECO 3313 and FIN 3313.) This course has Differential Tuition. Course Fee: DL01 \$75.

ECO 3413. Environmental Economics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2023 and MAT 1053, or their equivalents, with a grade of "C-" or better. Economic principles applied to environmental problems. Topics include benefit-cost analysis of environmental policies, valuation of environmental goods and services, pollution control, natural resource management, and climate change. (Formerly ECO 4273. Credit cannot be earned for both ECO 3413 and ECO 4273.) This course has Differential Tuition.

ECO 3513. Economics of Migration. (3-0) 3 Credit Hours.

Prerequisite: ECO 2023, or the equivalent. An exploration of motives to migrate and the resulting socio-economic effects on migrants and the origin and destination countries. The design and implementation of immigration policies are also analyzed. Both theoretical models and empirical findings form the basis of study. This course has Differential Tuition.

ECO 4233. Behavioral Economics and Finance. (3-0) 3 Credit Hours.

Prerequisites: Completion of ECO 2013, ECO 2023, and MAT 1133, or their equivalents, with a grade of "C-" or better. This course introduces the behavioral concepts and theories. Topics include prospect theory, biases in probabilistic judgment, and nudge theory. Issues on how to apply these behavioral concepts to real life, focusing on improving decision making in health, financial wealth, and happiness are addressed. This course has Differential Tuition.

ECO 4303. Development Economics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 2013 and ECO 2023, or their equivalents, with a grade of "C-" or better. Specific economic problems of developing countries and national groupings; basic approaches to economic development; major proposals for accelerating development; role of planning; and trade, aid, and economic integration. (Formerly titled "Economics of Developing Countries.") This course has Differential Tuition. Course Fee: DL01 \$75.

ECO 4413. Game Theory. (3-0) 3 Credit Hours.

Prerequisite: ECO 3013 and MAT 1133, or their equivalents, with a "C-" or better. A study of strategic decision-making in interactive situations, with an emphasis on economics and business applications, including oligopolies, pricing, bargaining, and incentive contracts. The strategic role of commitment, credibility, unpredictability, and pre-emption are explored. This course has Differential Tuition.

ECO 4513. Industrial Organization. (3-0) 3 Credit Hours.

Prerequisites: Completion of ECO 3013 and MAT 1133, or their equivalents, with a grade of "C-" or better. Theory and empirical evidence relating to the structure of industry and its effect on firms' conduct and performance, as well as the role of government policy and regulation on market competition and performance. (Formerly ECO 3263. Credit cannot be earned for both ECO 4513 and ECO 3263.) This course has Differential Tuition.

ECO 4553. Public Economics. (3-0) 3 Credit Hours.

Prerequisite: Completion of ECO 3013 and MAT 1133, or their equivalents, with a grade of "C-" or better. Role of government in the economy, externalities and public goods, efficiency and equity analysis of taxation, incentives within government, fiscal federalism, discrimination and inequality, public policy issues. (Formerly ECO 3273. Credit cannot be earned for both ECO 4553 and ECO 3273.) This course has Differential Tuition.

ECO 4583. Labor Economics. (3-0) 3 Credit Hours.

Prerequisites: ECO 3013 and MAT 1133, or their equivalents, with a grade of "C-" or better. Application of microeconomic theory to wage and employment determination in labor markets. Theoretical and empirical evaluation of current and proposed labor market regulations such as minimum wages, taxes, and universal basic income. This course has Differential Tuition.

ECO 4813. Seminar on Research in Economics. (3-0) 3 Credit Hours.

Prerequisite: ECO 3013, ECO 3053, ECO 3123, and a major grade point average of 3.0 or higher, or consent of instructor and department chair. A seminar exploring the essential steps in the practice of research in economics: critical reading of existing literature, formulation of the research question, development of models or empirical strategies, writing of the research paper, and presentation of research findings. This course has Differential Tuition.

ECO 4913. Independent Study. (0-0) 3 Credit Hours.

Prerequisites: A 3.0 Carlos Alvarez College of Business grade point average, permission in writing (form available) from the instructor, the Department Chair, and the Dean of the College. Independent reading, research, discussion, and/or writing under the direction of a faculty member. May be repeated for credit, but not more than 6 semester credit hours of independent study, regardless of discipline, will apply to a bachelor's degree. This course has Differential Tuition.

ECO 4933. Internship in Economics. (0-0) 3 Credit Hours.

Prerequisites: 12 semester credit hours of upper-division economics, a 2.5 UTSA grade point average, and permission in writing from the instructor, the Department Chair, and the Dean of the Carlos Alvarez College of Business (see academic advisor for required forms). This opportunity for work experience in research or applied economics may be undertaken either in private business or a public agency; opportunities are developed in consultation with the faculty advisor and Department Chair and require approval of both. May be repeated once for credit (for a total of 6 semester credit hours), provided they are with different organizations. This course has Differential Tuition.

ECO 4953. Special Studies in Economics. (3-0) 3 Credit Hours.

Prerequisite: Consent of instructor, Department Chair, and Dean of the College. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Studies may be repeated for credit when topics vary, but not more than 6 semester credit hours, regardless of discipline, will apply to a bachelor's degree. This course has Differential Tuition.