

ECONOMICS (BS)

Offered at: San Luis Obispo Campus

Economics is the study of how people choose to use resources. Economics is a way of thinking, and students can apply this way of thinking to nearly any aspect of the world. The undergraduate curriculum in economics is designed to:

- provide a firm grounding in modern economic theory;
- instill the capacity for independent thought about economic policies and problems;
- develop the capacity for quantitative research, and
- provide basic descriptive knowledge about the US and the world economy.

An undergraduate major in economics opens many possibilities for employment. Many large firms, including banks, other financial institutions, and manufacturing companies, accept economists in substantial numbers. There are also many opportunities for employment in government at the state, federal, or international levels. In addition, a growing number of research and consulting firms employ large numbers of economists in such areas as forecasting, industry analysis, and litigation.

An undergraduate economics training also provides excellent preparation for business school, the study of law, or for pursuing doctoral studies in economics, business and public policy.

A typical undergraduate major in economics has three choices to concentrate. First, they can either choose to focus on general curriculum in economics, or they can choose to concentrate on data science. Alternatively, they can choose one of the BUS major concentrations.

Concentrations

General Curriculum in Economics

Offered at: San Luis Obispo Campus

The General Curriculum in Economics consists of at least 6 units of 3000-4000 level (upper division) ECON courses plus 15 units of any upper-division courses.

Accounting

Offered at: San Luis Obispo Campus

The accounting concentration prepares students for careers in public accounting (tax, audit and advisory), private industry, government, and not-for-profit organizations. Faculty build curriculum with the industry in mind to give students a thorough knowledge of accounting and tax laws along with the confidence to use those skills in leading a business toward success. The program is built upon a commitment to career readiness that empowers students to Learn by Doing through working with clients, tackling complex tax cases, and serving the community.

Consumer Packaging

Offered at: San Luis Obispo Campus

The Consumer Packaging Concentration offers an excellent pathway for Business Administration majors interested in entering the dynamic and rapidly evolving packaging industry. This sector is being transformed by global manufacturing growth, increasingly complex customer-supplier relationships, and advances in packaging technology.

Innovations in value chain management, product development, and sustainable packaging solutions are central to these industry shifts. Drawing insights from a wide range of established and emerging sectors—including food and beverage, cosmetics and personal care, consumer goods, automotive, healthcare, and electronics—this concentration prepares students to:

1. Conceptualize innovative packaging systems tailored to specific customer requirements.
2. Validate designs through data analysis and customer insights.
3. Develop a comprehensive understanding of various packaging materials and the associated testing equipment.
4. Execute both qualitative and quantitative marketing analyses for diverse products.
5. Explore critical considerations for package design, such as inclusivity, sustainable practices, and prevailing industry trends.
6. Consider intricate supply chain management and logistics considerations.

Economics for Data Science

Offered at: San Luis Obispo Campus

Emphasizes the skills needed to analyze market data in fast-paced industries such as manufacturing, financial services, and advertising, and provides the technical training required to engage in consulting. There is also a continued need for quantitative analysis by lawyers, accountants, engineers,

health service administrators, urban planners, and local, national, and international government agencies. The concentration prepares students for jobs that entail forecasting, data analysis and quantitative economics, and provides a solid foundation for graduate study in economics and business.

Entrepreneurship

Offered at: San Luis Obispo Campus

The goal of the Entrepreneurship concentration is to empower students to create economic and social value either for a startup or as part of a high-performing entrepreneurial team within an existing organization. Students in the Entrepreneurship concentration will acquire the tools, develop the skills, and cultivate the mindset of an entrepreneur. Entrepreneurship concentration comprises a carefully-curated set of required and elective courses, leading to a hands-on, balanced and interdisciplinary approach to entrepreneurial leadership that is applicable in for-profit and non-profit contexts; local and global settings; and service-, product-, or technology- based companies.

Financial Management

Offered at: San Luis Obispo Campus

The Finance Area offers Financial Management (FM) and Real Estate Finance (REF) concentrations. Both provide a rigorous, coherent, real-world, and up-to-date curriculum to prepare students for rewarding careers. The FM concentration is a Chartered Financial Analyst (CFA®) Institute Affiliate Program and a CFP® Board Registered Program, enabling our students to pursue both designations. Finance is a diverse and rapidly evolving field that encompasses a wide range of career paths—from managing corporate finance and advising individual clients to building models for global investment firms and developing technology-driven financial solutions. To help students better prepare for the demands of the modern finance industry, the FM concentration offers three optional specializations focusing on Financial Analytics, Financial Management, and Financial Planning and Wealth Management.

Information Systems and Analytics

Offered at: San Luis Obispo Campus

The Information Systems and Analytics (ISA) Concentration prepares students to enter the exciting world of information technology in business. Students learn to integrate key ISA concepts and technologies through coursework in database systems, application development, systems analysis and design, infrastructure and security management, and business analytics. The ISA faculty develop students for professional careers by focusing on teamwork, strong interpersonal skills, turning theory into practice, and employing state-of-the-art technologies in the classroom. ISA graduates are in high demand by recruiters because of their ability to apply an understanding of technology to problems while maintaining a focus on the business context. ISA graduates enjoy exciting career opportunities as analytics specialists, social media and web application developers, business consultants, IT infrastructure designers, business analysts, project managers, and data/database administrators, among many others.

Management and Human Resources

Offered at: San Luis Obispo Campus and Allan Hancock College

The Management and Human Resources (MHR) concentration prepares students for general leadership and management positions, and careers in more specific Human Resources (HR) positions. The HR portion of the curriculum prepares students to hit the ground running as an HR generalist and in specific HR functions such as recruitment, staffing, compensation and training and development. The Management portion of the curriculum prepares students for entry-level leadership and management positions, such as management training programs in large corporations, management consulting, and managerial positions in family businesses and other small organizations. Students will develop management skills such as leadership, organizational design, development, and change, global management, and negotiation.

Marketing Management

Offered at: San Luis Obispo Campus

The Marketing Management concentration is a conscious balance between the technical rigors of data analysis, the nuances of creative strategy, and the subtleties of relationship management with clients and consumers.

Through hands-on student projects, graduates gain experience and confidence needed to lead in an ever-changing marketing environment. From market research to marketing strategies, students have an array of opportunities to provide data-driven guidance, critical thinking, and creativity for all kinds of situations and organizations.

As a discipline with broad applications, the Marketing Management concentration offers flexible career paths and work styles. Graduates are in demand for positions in market research and analytics; business development and sales; and marketing communications, advertising, digital and product marketing.

Real Estate Finance

Offered at: San Luis Obispo Campus

The Real Estate Finance concentration provides a program of study that focuses on emerging trends and issues in real estate markets. Students in the Real Estate Finance concentration learn to apply finance, economics, and computational techniques to real estate markets and projects with the major goal of producing rigorous price and investment analysis. In addition to quantitative methods, students are exposed to institutional details and current practice of the real estate industry through case study classes, industry guest speakers, field trips, professional licensing, and real estate competitions. The program prepares real estate professionals for private and public sector jobs in fields such as real estate brokerage, acquisition analysis, property appraisal, residential and commercial development finance, corporate asset management, mortgage lending, and real estate capital markets.

Program Learning Objectives

1. Apply economic reasoning to evaluate everyday problems.
2. Demonstrate correct use of economic analyses to evaluate specific business proposals, economic policy proposals and current events.
3. Recognize the role of assumptions about the structure of the economy as well as ethical assumptions in arguments made for and against economic policy issues.
4. Describe how to use empirical evidence to evaluate an economic argument.
5. Summarize statistical methodology and interpret statistical evidence.
6. Conduct appropriate statistical analysis of data, and explain the statistical problems involved.
7. Communicate effectively about specific economics issues.
8. Identify and examine diverse perspectives when evaluating business, economic and social policy reform.
9. Utilize the tools of economics to evaluate economic and social policies based on equity, efficiency, and sustainability.

Concentrations

Accounting

1. Prepare journal entries that measure and record the impact of financial transactions on the firm.
2. Analyze and prepare financial reports.
3. Explain effects of transactions on income statements and balance sheets.
4. Recognize the ethical dimensions and tax related implications for transactions.

Consumer Packaging

1. Conceptualize innovative packaging systems tailored to specific customer requirements.
2. Validate designs through data analysis and customer insights.
3. Develop a comprehensive understanding of various packaging materials and the associated testing equipment.
4. Execute both qualitative and quantitative marketing analyses for diverse products.
5. Explore critical considerations for package design, such as inclusivity, sustainable practices, and prevailing industry trends.
6. Consider intricate supply chain management and logistics issues.

Economics for Data Science

1. Apply economic reasoning to evaluate everyday problems.
2. Demonstrate correct use of economic analyses to evaluate specific business proposals, economic policy proposals and current events.
3. Recognize the role of assumptions about the structure of the economy as well as ethical assumptions in arguments made for and against economic policy issues.
4. Describe how to use empirical evidence to evaluate an economic argument.
5. Summarize statistical methodology and interpret statistical evidence.
6. Conduct appropriate statistical analysis of data, and explain the statistical problems involved.
7. Communicate effectively about specific economics issues.
8. Identify and examine diverse perspectives when evaluating business, economic and social policy reform.
9. Utilize the tools of economics to evaluate economic and social policies based on equity, efficiency, and sustainability.

Entrepreneurship

1. Demonstrate entrepreneurial discovery skills (questioning, observing, experimenting, associating, and networking) and the ability to generate new insights that impact a startup's business model.
2. Contribute to the creation or iteration of a startup's business model.

Financial Management

1. Distinguish among various financial intermediaries and markets.
2. Apply time value of money concepts.
3. Formulate and explain the relationship between risk-return tradeoff.

4. Synthesize data using appropriate visualization and statistical techniques.
5. Apply knowledge of advanced methods in financial data science to extract and report insights from financial data in various forms.
6. Employ discipline knowledge and skills orally and in written form in a professional manner.

Information Systems and Analytics

1. Develop business computer applications that implement basic programming constructs.
2. Apply concepts and techniques associated with relational database design and development.
3. Demonstrate technical skills in managing information systems infrastructure and addressing security issues.
4. Apply concepts and techniques associated with data analytics in the business environment.
5. Demonstrate interpersonal and teamwork skills required for information systems professionals.

Management and Human Resources

1. Describe how organizations function as social systems.
2. Apply theory to develop and change organizations.
3. Apply basic skills in human resources management.
4. Demonstrate interpersonal skills required for HR and managerial roles.

Marketing Management

1. Assess the role of marketing in a business enterprise.
2. Apply consumer behavior concepts to marketing.
3. Describe and apply the strategic marketing planning and execution process.
4. Identify the roles of advertising, sales promotion, and personal selling in integrated marketing communication.
5. Collect, evaluate, and apply primary and secondary customer data to solve marketing problems.

Real Estate

1. Evaluate physical real estate (land and building analysis).
2. Evaluate real estate as a security (REITs, securitization).
3. Produce investment analysis for real estate.
4. Assess risk related to real estate.
5. Conduct market and best use analysis (zoning and build code requirements).
6. Explain the role of leverage and taxes.

Degree Requirements and Curriculum

In addition to the program requirements on this page, students must also satisfy requirements outlined in more detail in the Minimum Requirements for Graduation (<https://catalog.calpoly.edu/academic-standards-policies/general-requirements-bachelors-degree/#generaleducationtext>) section of this catalog, including:

- 40 units of upper-division courses
- 2.0 GPA
- Graduation Writing Requirement (GWR)
- U.S. Cultural Pluralism (USCP)

Note: No Major, Support or Concentration courses may be selected as credit/no credit. In addition, no more than 12 units of cooperative or internship courses can count towards your degree requirements.

Code	Title	Units
MAJOR COURSES		
Select from the following: (4B) ¹		6
ECON 2001 & ECON 2021	Survey of Economics and Using Big Data to Solve Economic and Social Problems	
ECON 2030 & ECON 2040	Microeconomics and Macroeconomics	
ECON 3015 & 3015A	Programming for Economics and Analytics and Programming for Economics and Analytics Project	4
ECON 3021	Econometrics	4
ECON 3030	Intermediate Microeconomics	4
ECON 3040	Intermediate Macroeconomics	4

ECON 3050	The Economics of Equity and Social Welfare	4
ECON 4460	Applied Senior Project	4
Economics and Project Electives		
Select from the following: ²		12
ECON 4010 & 4010A	Mathematical Economics and Mathematical Economics Project	
ECON 4011 & 4011A	Optimization in Julia for Economics and Data Science and Julia for Data Analysis Project	
ECON 4012 & 4012A	Probability Models for Economic Decisions and Probability Models for Economic Decisions Project	
ECON 4013 & 4013A	Experimental and Behavioral Economics and Experimental and Behavioral Economics Project	
ECON 4021 & 4021A	Advanced Econometrics and Advanced Econometrics Project	
ECON 4024 & 4024A	Applied Forecasting and Applied Forecasting Project	
ECON 4025 & 4025A	Causal Machine Learning for Economics and Causal Machine Learning for Economics Project	
ECON 4031 & 4031A	Industrial Organization and Industrial Organization Project	
ECON 4042 & 4042A	Monetary Economics and Monetary Economics Project	
ECON 4043 & 4043A	International Monetary Economics and International Monetary Economics Project	
ECON 4052 & 4052A	Public Finance and Public Policy and Public Finance and Public Policy Project	
ECON 4053 & 4053A	Labor Economics and Labor Economics Project	
ECON 4055 & 4055A	Urban Economics and Urban Economics Project	
ECON 4061 & 4061A	International Trade Theory and International Trade Project	
ECON 4071 & 4071A	Environmental Economics and Environmental Economics Project	
ECON 4072 & 4072A	Economics of Energy and Resources and Economics of Energy and Resources Project	
ECON 4073 & 4073A	Economics of Land and Water and Economics of Land and Water Project	

General Curriculum in Economics or Concentration

(See General Curriculum in Economics and list of Concentrations below) 20-22

SUPPORT COURSES

BUS 2207 or BUS 2214	Legal Responsibilities of Business ³ Financial Accounting	3
MATH 1264	Calculus for Data Science I (2) ¹	4
MATH 1265	Calculus for Data Science II	4
STAT 1510	Statistics I	3
Select from the following:		3
BUS 1342	Financial Institutions ⁴	
BUS 2215	Managerial Accounting ⁵	
BUS 3343	Quantitative Methods in Finance ⁶	
BUS 3346	Principles of Marketing ⁷	
BUS 3387	Organizational Behavior ⁸	
BUS 3391	Information Systems ⁹	
Select any 3000-4000 level ECON course ¹⁰		

GENERAL EDUCATION (GE)

(See GE program requirements below)	37
FREE ELECTIVES	
Free Electives ¹¹	2-4
Total Units	120

- ¹ Required in Major or Support; also satisfies General Education (GE) requirement.
- ² Lecture and activity courses should be taken in the same term.
- ³ BUS 2214 is required for Accounting, Management and Human Resources, and/or Information Systems Management concentrations or additional coursework might be needed to complete the concentration.
- ⁴ Required course for students pursuing the Entrepreneurship concentration.
- ⁵ Required course for students pursuing the Accounting concentration.
- ⁶ Required course for students pursuing Financial Management and/or Real Estate Finance concentrations.
- ⁷ Required course for students pursuing Marketing Management and/or Consumer Packaging concentrations.
- ⁸ Required course for students pursuing Management and Human Resources concentration.
- ⁹ Required course for students pursuing Information Systems and Analytics concentration.
- ¹⁰ Option for students pursuing the General Curriculum in Economics or Economics in Data Science concentration.
- ¹¹ If a General Education (GE) course is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.

Concentrations

General Curriculum in Economics

The General Curriculum in Economics consists of at least 6 units of 3000-4000 level (upper division) ECON courses plus 15 units of any upper-division courses.

Accounting

Code	Title	Units
REQUIRED COURSES		
BUS 3319	Data Analytics and Accounting Information Systems	3
BUS 3320	Federal Income Taxation for Individuals	3
BUS 3321	Intermediate Accounting I	3
BUS 3322	Intermediate Accounting II	3
BUS 3323	Financial Statement Auditing	3
Accounting Electives		
Select from the following:		6
BUS 4424	Advanced Data Analytics in Accounting	
BUS 4425	Advanced Managerial Accounting with Data Analytics	
BUS 4426	Taxation of Corporations and Partnerships	
BUS 4427	Advanced Financial Reporting	
BUS 4428	Independent Study in Accounting	
Total Units		21

Consumer Packaging

Code	Title	Units
REQUIRED COURSES		
BUS 3396	Consumer Insights	3
BUS 4418	Marketing Research	3
ITP 2234	Packaging Design Fundamentals	3
ITP 3330	Packaging Fundamentals ¹	3
ITP 3334	Structural Packaging Design	3
ITP 4475	Distribution Packaging Dynamics	3
Approved Electives		
Select from the following: ¹		3
ITP 2241	Industrial and Packaging Materials ²	
ITP 3304	International Supply Chains	

ITP 3341	Packaging Polymers and Processing
ITP 3371	Supply Chain Management in Manufacturing and Services
ITP 4408	Fiber-Based Packaging
ITP 4409	Packaging Machinery and Processes
ITP 4411	Packaging Sustainability
ITP 4414	Packaging Laws and Regulations
ITP 4430	Healthcare Packaging

Total Units **21**

¹ Courses taken to meet a major course requirement cannot be double-counted in the concentration.

² CHEM 1120 is recommended for those pursuing the Consumer Packaging concentration to fulfill GE Area 5A & 5C.

Economics for Data Science

Code	Title	Units
REQUIRED COURSES		
Select from the following: ¹		4
ECON 4010 & 4010A	Mathematical Economics and Mathematical Economics Project	
ECON 4011 & 4011A	Optimization in Julia for Economics and Data Science and Julia for Data Analysis Project	
Select from the following: ¹		4
ECON 4021 & 4021A	Advanced Econometrics and Advanced Econometrics Project	
ECON 4024 & 4024A	Applied Forecasting and Applied Forecasting Project	
ECON 4025 & 4025A	Causal Machine Learning for Economics and Causal Machine Learning for Economics Project	4
Approved Electives		
Select from the following: ¹		9
BUS 4469	Foundations of Financial Technology	
ECON 4011	Optimization in Julia for Economics and Data Science	
ECON 4011A	Julia for Data Analysis Project	
ECON 4012	Probability Models for Economic Decisions	
ECON 4012A	Probability Models for Economic Decisions Project	
ECON 4021	Advanced Econometrics	
ECON 4021A	Advanced Econometrics Project	
ECON 4024	Applied Forecasting	
ECON 4024A	Applied Forecasting Project	
IME 3302	Operations Research and Management	
MATH 2031	Transition to Advanced Mathematics	
MATH 2270	Special Topics	
MATH 2341	Linear Analysis	
MATH 2621	Introduction to Mathematical Optimization	
MATH 3152	Advanced Linear Algebra	
MATH 3351	Differential Equations and Boundary Value Problems	
MATH 4342	Nonlinear Dynamical Systems	
MATH 4352	Partial Differential Equations	
MATH 4911	Game Theory	
Total Units		21

¹ If a course is taken to meet a Major or Support requirement, it cannot be double-counted as an Elective for the concentration.

Entrepreneurship

Code	Title	Units
REQUIRED COURSES		
BUS 3310	Introduction to Entrepreneurship	4
BUS 3330	Funding and Managing Startup Companies	4
ITP 4406	Business-to-Business Complex Solutions Selling	3
BUS 4447 or BUS 4488	Defining and Building Technology Startups Building a Startup Skill Set	4
Approved Electives		
Select from the following: ^{1,2}		6-8
BUS 3311 or BUS 4312	Managing Technology in the International Legal Environment Entrepreneurship Law	
BUS 3313	Customer Development	
BUS 4408	Innovation and Entrepreneurship Through Disruptive Technologies	
BUS/COMS 4458 or BUS 2234	Solving Big World Challenges Introduction to Design Thinking	
BUS 4489 & 4489A	Negotiation and Negotiation Project	
ITP 3326 or ITP 3371	Product Design and Development Supply Chain Management in Manufacturing and Services	
ITP 4428	Commercialization of Innovation	
Total Units		21

¹ Units in excess of total will be applied towards major's free electives.

² Courses taken to meet a major course requirement cannot be double-counted in the concentration.

Financial Management

Code	Title	Units
REQUIRED COURSES ¹		
BUS 3411	Finance Practicum	1
BUS 3431	Security Analysis and Portfolio Management	4
BUS 3438	Corporate Finance	4
BUS 3441 or BUS 3440	Financial Modeling and Analytics in Python or R Financial Modeling and Visualization in Excel	4
Select one track from the following: ²		9-11
Financial Analytics Track		
BUS 4442	Introduction to Futures and Options	
BUS 4468	Blockchain in Finance ³	
BUS 4469	Foundations of Financial Technology ³	
ECON 3015	Programming for Economics and Analytics	
ECON 3021 or STAT 3430	Econometrics Applied Regression Analysis	
Financial Management Track		
BUS 3443	Case Studies in Finance	
BUS 4439	Fixed Income Securities Market	
BUS 4434	Real Estate Finance	
BUS 4442	Introduction to Futures and Options	
BUS 4448	Mergers and Acquisitions ⁴	
ECON 3015	Programming for Economics and Analytics	
ECON 3021 or STAT 3430	Econometrics Applied Regression Analysis	
Financial Planning and Wealth Management Track		

BUS 3443	Case Studies in Finance
BUS 4434	Real Estate Finance
BUS 4437	Retirement and Estate Planning ⁵
BUS 4445	Risk Management and Insurance Planning ⁵
ECON 3021	Econometrics
or STAT 3430	Applied Regression Analysis

Total Units
22

- ¹ All students need an approval from the finance chair to enroll in the Financial Management concentration.
- ² Courses taken to meet a major course requirement cannot be double-counted in the concentration. Units in excess of total will be applied towards major's free electives.
- ³ Highly recommended for students in the Financial Analytics track.
- ⁴ Highly recommended for students in the Financial Management track.
- ⁵ Highly recommended for students in the Financial Planning and Wealth Management track.

Information Systems and Analytics

Code	Title	Units
REQUIRED COURSES		
BUS 3392	Business Application Development	3
BUS 3393	Database Systems in Business	3
BUS 3394	Systems Analysis and Design	3
BUS 3399	IT Infrastructure and Security Management	3
BUS 4497	Business Analytics	3
Select from the following:		3
BUS 3392A	Business Application Development Project	
BUS 3393A	Database Systems in Business Project	
BUS 3394A	Systems Analysis and Design Project	
BUS 3399A	IT Infrastructure and Security Management Project	
BUS 4497A	Business Analytics Project	
Approved electives		
Select from the following:		3
BUS 3395	Information Systems Project Management	
BUS 4486	Social Media Text Mining	
BUS 4490	Data Visualization	
BUS 4492	Technology-Supported Collaboration	
BUS 4493	User Experience Analysis and Design	
BUS 4496	Software Testing	
BUS 4498	Directed Topics in Information Systems	
BUS 4499	Data Communications and Networking	

Total Units
21

Management and Human Resources

Code	Title	Units
REQUIRED COURSES		
BUS 3384	Human Resources Management	3
BUS 3388	Training, Developing, and Managing Employees	3
BUS 4477	Management Consulting, Change, and Development	3
BUS 4489	Negotiation	3
Select from the following:		3
BUS 3384A	Human Resources Management Project	
BUS 3388A	Training, Developing, and Managing Employees Project	
BUS 4477A	Change Management Project	
BUS 4489A	Negotiation Project	

Approved Electives

Select from the following: ^{1, 2}		6-7
BUS 3310	Introduction to Entrepreneurship	
BUS 3380	Work and Wellbeing	
BUS 3382	Leadership and Organizations	
BUS 4430	Internship/Cooperative Education	
BUS 4475	Rewarding and Compensating Employee Performance	
BUS 4476	Leading Social Innovation	
BUS 4480	People Analytics	
BUS 4481	Advanced Topics in Management and Human Resources	
BUS 4490	Data Visualization	
BUS 4492	Technology-Supported Collaboration	
BUS 4497	Business Analytics	

Total Units **21**

¹ Courses taken to meet a major course requirement cannot be double-counted in the concentration.

² Units in excess of total will be applied towards major's free electives.

Marketing Management

Code	Title	Units
REQUIRED COURSES		
BUS 3396 & 3396A	Consumer Insights and Consumer Insights Project	4
BUS 4418 & 4418A	Marketing Research and Marketing Research Project	4

Approved Electives

Select from the following: ¹		12
BUS 3347	Professional Selling Skills	
BUS 4421 & 4421A	Marketing Analytics and Marketing Analytics Activity	
BUS 4423 & 4423A	Digital Marketing and Digital Marketing Activity	
BUS 4430	Internship/Cooperative Education ²	
BUS 4450 & 4450A	Current Topics in Marketing and Current Topics in Marketing Activity	
BUS 4451 & 4451A	New Product Development and Launch and New Product Development and Launch Project	
BUS 4453 & 4453A	Digital and New Media Marketing and Digital and New Media Marketing Project	
BUS 4454 & 4454A	Marketing Projects and Marketing Projects Activity	
BUS 4455 & 4455A	Marketing Strategy and Marketing Strategy Project	
BUS 4457 & 4457A	Integrated Marketing Communications and Integrated Marketing Communications Project	

Total Units **20**

¹ Courses taken to meet a major course requirement cannot be double-counted in the concentration.

² This course does not have an activity. Marketing requires this course to be four units.

Real Estate Finance

Code	Title	Units
REQUIRED COURSES ^{1, 2}		
BUS 3431	Security Analysis and Portfolio Management	4

BUS 3440	Financial Modeling and Visualization in Excel	4
BUS 4434	Real Estate Finance	4
Approved Electives		
Select from the following: ³		9
BUS 3441	Financial Modeling and Analytics in Python or R	
BUS 3443	Case Studies in Finance	
BUS 4409	Law of Real Property and Real Estate	
BUS 4439	Fixed Income Securities Market	
BUS 4469	Foundations of Financial Technology	
CM 4475	Real Property Development Principles ⁴	
ECON 3021	Econometrics	
ECON 3039	Microeconomics for Business and Public Policy	
ECON 4055	Urban Economics	
Total Units		21

¹ All students need an approval from the finance department chair to enroll in the concentration.

² All students enrolled in the concentration are recommended to pursue a minor with the CAED department. The most popular minor is the Real Estate Property Development minor.

³ Courses taken to meet a major course requirement cannot be double-counted in the concentration.

⁴ Highly recommended for students concentrating in real estate finance. This course also counts toward the real estate development minor.

General Education (GE) Requirements

General Education (GE) Requirements

- 43 units required, 6 of which are specified in Major and/or Support.
- If any of the remaining 37 Units is used to satisfy a Major or Support requirement, additional units of Free Electives may be needed to complete the total units required for the degree.
- See the complete GE course listing (<https://catalog.calpoly.edu/academic-standards-policies/general-requirements-bachelors-degree/#generaleducationtext>).
- A grade of C- or better is required in one course in each of the following GE Areas: 1A (English Composition), 1B (Critical Thinking), 1C (Oral Communication), and 2 (Mathematics and Quantitative Reasoning).

Lower-Division General Education

Area 1	English Communication and Critical Thinking	
1A	Written Communication	3
1B	Critical Thinking	3
1C	Oral Communication	3
Area 2	Mathematics and Quantitative Reasoning	
2	Mathematics and Quantitative Reasoning (3 units in Support) ¹	0
Area 3	Arts and Humanities	
3A	Arts	3
3B	Humanities: Literature, Philosophy, Languages other than English	3
Area 4	Social and Behavioral Sciences (Area 4 courses must come from at least two different course prefixes.)	
4A	American Institutions (Title 5, Section 40404 Requirement)	3
4B	Social and Behavioral Sciences (3 units in Major) ¹	0
Area 5	Physical and Life Sciences	
5A	Physical Sciences	3
5B	Life Sciences	3
5C	Laboratory (may be embedded in a 5A or 5B course)	1
Area 6	Ethnic Studies	
6	Ethnic Studies	3
Upper-Division General Education		
Upper-Division 2/5	Mathematics and Quantitative Reasoning or Physical and Life Sciences	3

Upper-Division 3	Arts and Humanities	3
Upper-Division 4	Social and Behavioral Sciences (Area 4 courses must come from at least two different course prefixes.)	3
Total Units		37

¹ Required in Major or Support; also satisfies General Education (GE) requirement.

Coming soon