





COLLEGE OF BUSINESS ADMINISTRATION

www.cba.csupomona.edu/

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The undergraduate and graduate programs of the College of Business Administration are accredited by AACSB, Association to Advance Collegiate Schools of Business. AACSB accreditation assures quality and promotes excellence and continuous improvement in undergraduate and graduate education for business administration.

The College of Business Administration provides eight subplans leading to the Bachelor of Science degree in Business Administration. It also provides curricula leading to the Master of Business Administration, the Master of Science in Business Administration, and the Master of Science in Accountancy. The Master of Science degree offers a subplan in Information Systems Auditing. Information concerning the master's curricula may be found in the graduate listings.

The undergraduate programs of study give the student an understanding of the social and economic environment in which we live and provide a common body of knowledge for all students who specialize in any business field. In addition, each subplan emphasizes, with additional course-work, specific areas of knowledge useful for the career paths served by that subplan. All students are encouraged to experiment and broaden their interests by selection of electives. It is the purpose of the College of Business Administration to develop in students the people, technical, and managerial competence necessary for successful performance in business, industry, government, and education.

The student assumes primary responsibility for meeting the educational requirements of the program. Through early studies in the Business Administration core courses, the student has an opportunity to evaluate a career decision and to adjust goals, if necessary. Undergraduate courses in business fundamentals and skills equip the student with marketable entry skills. The student may augment on-campus education through job experiences in business senior projects and internship programs for which the student will receive academic credit. General education courses are integrated throughout each program. Co-curricular opportunities related to the course of study include the Cal Poly Society of Accountants; American Marketing Association; American Production and Inventory Control Society; Delta Sigma Pi, a professional business fraternity; Finance Society; Latino Business Students Association; M.B.A. Association; Management Information Systems Student Association; Personnel and Industrial Relations Association; Pi Sigma Epsilon; American Society for Quality; International Facility Management Association; Society for Advancement of Management; Society of Law and Contracts; World Traders; Alpha Iota Delta, and Mu Kappa Tau, Beta Gamma Sigma, business honorary societies.

MISSION OF THE COLLEGE OF BUSINESS ADMINISTRATION

The College of Business Administration at Cal Poly Pomona is a diverse community of students, teacher-scholars, and staff committed to active learning through the application of theory to practice. The College partners with its stakeholders to develop individuals with the knowledge and skills to be successful and to contribute in a dynamic global business environment.

CENTER FOR ENTREPRENEURSHIP AND INNOVATION

The Center for Entrepreneurship and Innovation was formally established at the College of Business Administration in May 1996. CEI seeks to foster entrepreneurship in both the local and global community; to provide increasing entrepreneurial opportunities for Cal Poly Pomona students; and to deliver innovative entrepreneurship courses to graduate, undergraduate, and extension students. It provides a dynamic combination of education, research, and outreach programs to address the developing needs of entrepreneurs and growth companies. Entrepreneurial ventures and emerging firms are a leading source of new jobs in the United States.

CENTER FOR INFORMATION ASSURANCE (CIA)

The Center for Information Assurance (CIA) in the Cal Poly Pomona College of Business Administration (CBA) provides advanced research and knowledge in audit, security, and computer forensics.

Mission Goals and Objectives include the following:

1. To advance research and knowledge in computer forensics.
2. To foster relationships with professional associations and law enforcement agencies in the area of information assurance, audit, security, and computer forensics.
3. To promote teaching of secure coding practices.
4. To work with professional associations to promote security awareness.
5. To provide a resource for industry and community groups dealing with information security.

CENTER FOR PROMOTIONAL DEVELOPMENT

Assisting Future and Current Marketing Managers

The purpose of the Cal Poly Pomona Center for Promotional Development is to:

- Teach promotional strategy at both the undergraduate and graduate level.
- Help marketing managers of local emerging businesses to grow their business using promotional strategy that includes sound research, planning, measurement, and evaluation.
- Provide Cal Poly Pomona graduate and undergraduate students with a sponsored classroom/practicum experience in developing promotional strategy with a selected local emerging business.

Formerly the Center for Professional Sales Development, the Center name was changed in 1999 to the Center for Promotional Development. The current Center name reflects a broadening of the Center's mission. Mission scope has evolved from a sole focus on professional sales and sales management, to a comprehensive focus on the promotional mix.

The Center for Promotional Development is committed to working with students and marketing managers of emerging local businesses to help them acquire the promotional strategy skills necessary to build and grow a successful business.

INDUSTRIAL RESEARCH INSTITUTE FOR PACIFIC NATIONS (IRIPAC)

The Industrial Research Institute for Pacific Nations is a non-profit organization engaged in industrial and trade development research with a focus on Pacific Rim nations. The Institute is administered as the international research division of the College of Business Administration. Designed to support the advanced study of international business and to provide specialized educational opportunities for management personnel involved in the Pacific marketplace, the program offers the generation and coordination of research projects for university faculty and students, management and economic development seminars directed at better understanding of those doing business in the Pacific Rim, establishment of a reference and resource center, and publication of research papers.

THE REAL ESTATE RESEARCH COUNCIL (RERC)

The Real Estate Research Council of Southern California is the oldest non-profit real estate data organization in the United States. Founded in 1939, the RERC produces a quarterly publication, The Real Estate and Construction Report, which includes data on the economy and real estate markets in the seven urban Southern California counties, and presents the report at a quarterly luncheon. The senior real estate faculty direct students who participate in the data-gathering and analysis for the preparation of the quarterly report. Members of the RERC include major development companies, financial institutions, appraisers, investors, mortgage bankers, and other firms and individuals interested in Southern California real estate. RERC is coordinated by faculty in the Finance, Real Estate, and Law Department.

DEGREE PROGRAMS**MASTER OF SCIENCE IN ACCOUNTANCY****MASTER OF BUSINESS ADMINISTRATION (MBA)**

Emphases in:

- Accounting
- Contract Management
- Entrepreneurship
- Finance
- Management and Human Resources
- Information Management
- International Business
- Marketing
- Technology and Operations Management
- Real Estate

MASTER OF SCIENCE IN BUSINESS ADMINISTRATION

Subplan in:

- Information Systems Auditing

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION

Subplans in:

- Accounting
- Computer Information Systems
- E-Business
- Finance, Real Estate, and Law
- International Business
- Management and Human Resources
- Marketing Management
- Technology and Operations Management

Subplans offered by the following departments:

ACCOUNTING

- Accounting Department

COMPUTER INFORMATION SYSTEMS

- Computer Information Systems Department

E-BUSINESS

- Technology and Operations Management Department

FINANCE, REAL ESTATE, AND LAW

- Finance, Real Estate, and Law Department

INTERNATIONAL BUSINESS

- International Business and Marketing Department

MANAGEMENT AND HUMAN RESOURCES

- Management and Human Resources Department

MARKETING MANAGEMENT

- International Business and Marketing Department

TECHNOLOGY AND OPERATIONS MANAGEMENT

- Technology and Operations Management Department

MINORS

- Accounting
- Business
- Business Computer Programming
- Business Law
- Entrepreneurship and Small Business Management
- Fashion Merchandising
- Finance
- Contract Management
- General Management
- Human Resources Management
- International Business
- Logistics
- Managerial Computing
- Marketing Management
- Operations Management
- Quantitative Research (University Interdisciplinary Minor)
- Real Estate
- Total Quality Management (University Interdisciplinary Minor)

COURSES REQUIRED OF ALL BUSINESS ADMINISTRATION MAJORS

Each student who enrolls for a Bachelor of Science degree in Business Administration is required to select one of the eight subplans listed above. For all business majors, each student will be required to take the following courses:

REQUIRED CORE COURSES FOR MAJOR

Required of all students. A 2.0 cumulative GPA is required in core courses including subplan courses in order to receive a degree in Business Administration.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)

Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES FOR MAJOR

Introduction to Microcomputing	CIS	101 ¹	(4)
Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)

MICROCOMPUTER PROFICIENCY

All students in any College of Business Administration subplan, and all other students taking certain business courses, must demonstrate proficiency with specific microcomputer software packages. The proficiency must be demonstrated prior to taking any business course with the term “microcomputer proficiency” in the prerequisite list. Some business courses identify specific microcomputer packages in their prerequisite lists. In these cases, proficiency in the noted packages must be demonstrated prior to taking the course.

¹Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

COLLEGE-WIDE COURSES

COURSE DESCRIPTIONS

BUS 112 Success Strategies for Business Majors (4)

Learning techniques for freshmen and new transfer students in the business major to achieve academic and professional success. Emphasizes interaction with faculty advisors, the business community, and student organizations, career planning, and campus resources. 4 lectures/ problem-solving.

BUS 299/299A/299L Special Topics for Lower Division Students (1-4)

Individual or group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

BUS 401 Product Liability and Patents (4)

Product liability and the patent process will be covered in this class. This is an interdisciplinary course where the various ethical, technological, safety, economic tradeoff considerations are given to new products and ideas by the student. Case studies will be given to strengthen the students' understanding of how to apply these concepts. The use of computer software is required for classroom presentations. This course fulfills GE Areas C4 Humanities or D4 Social Science. Prerequisites: Completion of GE Area A and 2 lower division sub-areas in Area C or Area D. (Also listed as EGR 401)

BUS 445 Role of Design Professionals in Society (4)

The unique role of design professionals in society, and the associated privileges and responsibilities. Social, economic, historical, legal, and political aspects of professional practice, as well as ethics, social responsibility, regulatory requirements, professional liability, and the consequences of failures. 4 lecturediscussions. Fulfills GE Area D4. Prerequisites: Completion of all GE Area A, D1, D2, and D3 requirements. (Also listed as EGR 445)

BUS 461, 462 Senior Project (2) (2)

Selection and completion of a project under faculty supervision. Projects are designed to be individual or group efforts toward solving real-life problems in the community, such as Small Business Institute cases. Formal report is required. Minimum time commitment: 120 hours. Prerequisite: senior standing.

BUS 499/499A/499L Special Topics for Upper Division Students (1-4)

Individual or group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

BUSINESS MINOR

Many non-business students have expressed an interest in business courses that will better prepare them to enhance their non-business education in a business or government environment. The College of Business Administration has designed, in addition to the minors available within subplans, a broad-based schoolwide minor to meet these needs. The minor in Business provides a solid foundation in accounting and finance, and complements these with coverage of management, marketing, production, and business computer information systems. Non-business students desiring more information should contact the Student Services Center of the College of Business Administration. The student should formally enroll in the minor before taking courses. A Minor Advisor is available to assist students.

The student must complete the prerequisite and required courses to fulfill the requirements for a minor in Business.

Prerequisite Courses:

Introduction to Microcomputing	CIS	101 ¹	(4)
Freshman English 1	ENG	104	(4)

Required Courses:

Statistics With Applications	STA	120	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)
Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Management	MHR	301	(4)
Management Information Systems	CIS	310	(4)
Principles of Marketing Management	IBM	301	(4)
Operations Management	TOM	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)

¹Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

INTERNATIONAL STUDY OPPORTUNITIES

International Summer Study Tour

Every summer Cal Poly Pomona provides an opportunity for students to live and study abroad for six weeks. Students study in English the cultural, economic and political systems of the country and have an opportunity to visit business, technical, cultural and scenic locations in the various regions of the country.

Students earn 12 units of credit from the following courses: BUS 362 International Field Studies (4 units); BUS 432 The Use and Role of Technology in International Destinations (4 units); BUS 452 Political Economy and Business Practices in International Destinations (4 units); BUS 483 International Destinations and the United States: Cross-Cultural Analysis (4 units). Units may be used to satisfy major course requirements or to satisfy General Education requirements.

BUS 362 International Field Studies (4)

Direct field investigation and academic study of an international destination with attention to the central issues confronting a complex society. These issues include relationship and influence of the international destination's history on the present dynamics of its contemporary culture. 4 lectures/problems-solving. Instructional materials, activities, and facilities charges. Fulfills GE Area C4. Prerequisites: Completion of GE Area A and sub-areas C1, C2, and C3. (Also listed as CLS 362.)

BUS 432 The Use and Role of Technology in International Destinations (4)

Direct field investigation and academic study of productive processes and application of technology within an international destination. Barriers and incentives for new technology; decision-making; industry specific technology; and role of foreign countries as providers. Technology tradeoff: environment, employment, and currency reserves. Instructional materials, activities, and facilities charges. 4 lectures/problem solving. (Also listed as CLS 432.)

BUS 441, 442 Overseas Internship (1-8) (1-8)

Internships offered in an overseas setting to a group of students in any major who are interning in the same foreign country during the same quarter. Students will have their own individual internship assignment as well as participate in group learning sessions with the other students. Total credit limited to 8 units each. Prerequisite: Upper division standing and consent of instructor.

BUS 445 Role of Design Professionals in Society (4)

The unique role of design professionals in society, and the associated privileges and responsibilities. Social, economic, historical, legal, and political aspects of professional practice, as well as ethics, social responsibility, regulatory requirements, professional liability, and the consequences of failures. Course fulfills GE Synthesis D4. 4 lecture discussions. Prerequisites: Completion of all GE Area A, D1, D2, and D3 requirements. (Also listed as EGR 445)

BUS 452 Politics, Economics and Business Practice in International Destinations (4)

Direct field investigation and academic study of historical and current productive/political organization of an international destination. Economic objectives and planning. Business organization; incentives and decision making; and management. Course fulfills GE Synthesis D4. 4 lectures/problem-solving. Instructional materials, activities, and facilities charges. Prerequisites: Completion of GE Area A and sub-areas D1, D2, and D3. (Also listed as CLS 452.)

BUS 483 International Destinations and the United States: Cross-Cultural Analysis (4)

Examination of critical areas of U. S. and international cultures that provide insights and understanding of the comparative differences of these two civilizations; historical and contemporary differences. Course fulfills GE Interdisciplinary Synthesis C4 or D4. 4 lectures/problem solving. Instructional materials, activities, and facilities charges. Prerequisites: Completion of GE requirements in Area A and 2 lower division sub-areas in Area C or Area D. (Also listed as CLS 482.)

BUS 492 International Communications Consultancy Instruction (4)

Classroom instruction for institutional consultancy. Techniques for consulting with organizations/institutions. Integrates situation/content analysis, environmental scanning, representative speakers, content research, document preparation and writing, oral presentation of findings and recommendations. Organizations/institutions include: social, government, not-for-profit (art galleries, churches.)

London Quarter

The College of Business Administration; College of Letters, Arts, and Social Sciences; and the International Center sponsor a winter and/or spring quarter study and travel program in London. The program is open to students in all disciplines. The winter program offers academic credit for upper division courses offered in London and taught by Cal Poly Pomona faculty. Many of the courses are upper division GE courses. The spring program offers academic credit for an internship experience in London. The spring internship program is open to juniors and seniors in all disciplines. This is a unique opportunity that offers living, working, and learning, in an international setting. For more information contact the International Center.

Semester or Year Abroad

The College of Business Administration supports the concept of international education and encourages students to investigate opportunities for overseas study. Certain courses taken at CSU International Program study centers in foreign countries are equivalent to courses in the College of Business Administration and may be used to fulfill some of the degree requirements offered by the College and/or certain general education requirements. Students should consult the International Programs Bulletin, available at the International Center, a departmental advisor, or the campus International Programs Coordinator for more information.

CONTINUING EDUCATION IN BUSINESS

Many individual courses offered in the College of Business Administration provide practical learning opportunities to persons now employed in various career fields. By selecting courses that apply directly to a specific career, a person can enhance his or her professional capabilities, even though he or she may not be seeking a degree. Often, experience on-the-job is an adequate substitute for prerequisite courses so the student can enter upper division courses without completing preliminary courses. Many courses are available in the evening. Information about the Open University and Extended University courses in business can be obtained by contacting the office of the Dean of the College of the Extended University on campus. The College of Business Administration also provides credit or non-credit programs for business organizations on-site. Further information can be obtained by contacting the Student Services Center of the College of Business Administration.

To be eligible to take undergraduate courses in the College of Business Administration for degree credit, a person must be formally admitted to the University. Admission requirements are found in the front section of this catalog. Graduate courses and entrance requirements are listed in

the graduate section of this catalog.



ACCOUNTING

www.cba.csupomona.edu/acc

Nasrollah Ahadiat, Chair

Nancy Fan
Magdy S. Farag
Hassan Hefzi
Robert L. Hurt
Meihua Koo
Byunghwan Lee

Rose M. Martin
Ashok Natarajan
Hong S. Pak
Vicki S. Peden
David L. Rice
Anwar Y. Salimi

VISION STATEMENT

Our vision is to continue to be recognized as a center of outstanding accounting education.

MISSION STATEMENT

Our mission is excellence in accounting education through teaching, enhanced by research and service. We lead and encourage students and working professionals in developing their abilities to use and integrate accounting information with other information to make better decisions, to thrive in their careers, and to continue life-long learning.

ACCOUNTING EDUCATION PROGRAM

The Accounting Department provides an education for students who wish to be management professionals with a thorough knowledge of the essential concepts of accounting and a strong background for students desiring professional careers in public, private, government, and not-for-profit accounting. The students specializing in accounting may select courses which will prepare them specifically for one or more of these career fields.

The accounting courses are taught in the framework of modern business complexity so that the students develop their decision-making skills in realistic environments and learn the wide range of ways in which the accountant's skills are used to effectively manage an enterprise.

PREREQUISITE CORE FOR UPPER DIVISION ACCOUNTING PROGRAM

Before enrolling in the upper-division courses in the Accounting Program, students in the accounting subplan are expected to have completed college-level courses in English, mathematics/statistics, economics, computers, business law, and introductory accounting.

Students must have earned a grade of "C" (2.0) or better in each of the 9 identified lower-division courses before registering for ACC 304. The identified courses are as follows:

ENG 104 and 105

FRL 201, MAT 125, STA 120

EC 201 and 202

ACC 207/207A and ACC 208/208A

Students in non-accounting majors/subplans are expected to have met the above requirements to the extent that the cited courses or their equivalents are included in the requirements of their major/subplan.

DEPARTMENT POLICY ON ACADEMIC DISQUALIFICATION

The Accounting Department may disqualify students at the end of any quarter if either: (1) their overall GPA, Cal Poly Pomona GPA, or their subplan GPA is below a 2.0 by 7 grade points or more; or (2) more than

one-third of the units taken during the past twelve-month period do not satisfy the degree requirements. Determination of the GPA in the subplan and proportion of courses taken to satisfy the degree requirements is the responsibility of the department.

The department adheres to all university policies including those regarding repeating courses. A course can be repeated no more than two times for a maximum of three attempts.

MICROCOMPUTER PROFICIENCY REQUIREMENT (see policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS	1011	(4)
Freshman English II	ENG	105	(4)
Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)

ACCOUNTING REQUIRED SUBPLAN/OPTION CORE COURSES

Introduction to Accounting Information Systems	ACC	304	(4)
Advanced Accounting Information Systems	ACC	305	(4)
Cost Accounting	ACC	307	(4)
Intermediate Accounting I	ACC	311	(4)
Intermediate Accounting II	ACC	312	(4)
Intermediate Accounting III	ACC	313	(4)
Auditing Theory	ACC	419	(4)
Introduction to Taxation	ACC	431	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Career Emphasis (12)
(See Department for list of career emphasis and electives)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 88 units.

Unrestricted Electives (0-12)

SUPPORT COURSES

The number of elective units depends on whether or not ENG 105, STA

120 or MAT 125, and EC 201 or EC 202 are used for General Education (see curriculum sheet for the subplan). If any of these courses are used for General Education, electives will be increased by four units per course up to the unit maximum of 16.

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GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

MINOR IN ACCOUNTING

The Accounting Department provides non-Accounting, undergraduate students with the opportunity to acquire accounting knowledge and skills by completing the requirements for the Minor in Accounting as outlined below. The purpose of the minor is (1) to develop marketable skills for persons with majors/subplans other than Accounting, (2) for those students majoring in technical fields that involve the direct or indirect use of the knowledge and skills of accounting, and (3) for those students who wish to gain a better understanding of accounting for personal use.

It is possible for students in most non-Accounting fields to complete the minor within the normal requirements of their degrees through careful planning and scheduling of their required and elective courses.

No courses in the minor program may be waived or substituted. The student is responsible for meeting the requirements of the minor program that are in effect at the date of signing the formal contract for the minor in Accounting. It is recommended that the contract be signed by the student before beginning the minor program.

For more information or to enroll in the minor, contact the Minor Coordinator of the Accounting Department.

COURSES IN MINOR

Required of all students.

CORE (30 Units):

Financial Accounting for Decision-Making	ACC 207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC 208/208A	(4/1)
Introduction to Accounting Information Systems	ACC 304	(4)
Cost Accounting	ACC 307	(4)
Intermediate Accounting	ACC 311	(4)
Intermediate Accounting	ACC 312	(4)
Intermediate Accounting	ACC 313	(4)

DIRECTED ELECTIVES (8 Units):

Select 8 units from the following list:

- ACC 403 Consolidation and Foreign Currency Accounting
- ACC 404 International Accounting
- ACC 405 e- Business Security, Risk Management and Control
- ACC 412 Advanced Cost Accounting
- ACC 413 Controllership
- ACC 418 Forensic Accounting

- ACC 419 Auditing Theory
- ACC 420 Advanced Auditing
- ACC 426 Accounting for Not-For-Profit Entities
- ACC 431 Introduction to Taxation
- ACC 432 Taxation of legal Entities

COURSE DESCRIPTIONS

ACC 200 Special Study for Lower Division Students (1-2)

Individual or group investigation, research, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

ACC 207/207A Financial Accounting for Decision Making (4/1)

Introduction to financial accounting and accounting information systems (AIS), including basic concepts, limitations, tools and methods. Use of AIS-generated information, including financial statements in decision making by investors, creditors, and other users external to the organization. 4 lectures/problem solving and 1 self-paced activity. For credit, both segments are to be successfully completed. Prerequisite: microcomputer proficiency.

ACC 208/208A Managerial Accounting for Decision Making (4/1)

Introduction to managerial accounting and accounting information systems (AIS), including basic concepts, limitations, tools and methods. Use of AIS-generated information to support the internal decision-making functions of an organization. 4 lectures/problem solving and 1 self-paced activity. For credit, both segments are to be successfully completed. Prerequisites: ACC 207.

ACC 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

ACC 304 Introduction to Accounting Information Systems (4)

Introduction to the use, design, and control of accounting information systems. Application of professional software packages to transaction analysis and preparation of financial statements. Exposure to breadth of accounting profession, career choices, and what accountants actually do at work. 4 lectures/problem-solving. Prerequisites: Minimum grade of C (2.0) in ACC 207/207A, ACC 208/208A, EC 201, EC 202, ENG 104, ENG 105, FRL 201, MAT 125, and microcomputer proficiency.

ACC 305 Advanced Accounting Information Systems (4)

Role, design, implementation, and management of the accounting information system as a subset of the management information system. Interface between accountants and computer specialists. Short case studies. 4 lectures/problem-solving. Prerequisites: Minimum grade of C (2.0) in ACC 304 and CIS 310.

ACC 307 Cost Accounting (4)

Cost accounting fundamentals; cost allocation; budget and standards; cost information for decision and control; decision models; cost information; cost behavior and analysis. 4 lectures/problem-solving. Prerequisites: minimum grade of C (2.0) in ACC 304.

ACC 311 Intermediate Accounting I (4)

FASB Conceptual Framework of Accounting from both conceptual and application perspectives. Decision-making skills in articulating accounting policies in business organizations. Researching accounting

questions, problems, and cases using the FASB Conceptual Framework. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in ACC 304 and a passing grade on the Graduation Writing Test.

ACC 312 Intermediate Accounting II (4)

Understanding GAAP in financial accounting topics of assets and liabilities excluding the topics to be covered in ACC 313. Emphasis on the application of concepts in FASB Conceptual Framework to the above topics. Decision-making and problem solving skills. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in ACC 311.

ACC 313 Intermediate Accounting III (4)

Understanding GAAP in financial accounting topics of equity, income tax, lease, pension, and post-retirement benefits, error analysis and cash flows. Emphasis on the application of concepts in FASB Conceptual Framework to the above topics. Decision-making and problem-solving skills. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in ACC 312.

ACC 400 Special Study for Upper-Division Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

ACC 403 Consolidation and Foreign Currency Accounting (4)

Analytical study and application of principles of consolidation, derivatives of financial instruments and foreign currency transactions and translation. 4 lecture/problem solving. Prerequisite: Minimum grade of C (2.0) in ACC 313.

ACC 404 International Accounting (4)

Examination and discussion of accounting theories, techniques, procedures, accounting standards and regulations used in other nations. Examination of contemporary practices prevailing in different parts of the world. Emphasis on multinational corporations, and their needs and practices. 4 lectures/problem-solving. Prerequisite: Minimum grade of C (2.0) in ACC 312. (Formerly IBM 404.)

ACC 405 e-Business: Security, Risk Management, and Control (4)

The roles of accounting in the design and maintenance of electronic commerce systems. Identifying and assessing the risks of insecure electronic commerce systems and formulating security conscious solutions. Role of internal controls in electronic business. 4 lectures/problem-solving. Prerequisites: Minimum grade of C (2.0) in ACC 208, EC 202, ENG 105, FRL 201, and one upper-division course in the student's emphasis.

ACC 412 Advanced Cost Accounting (4)

Advanced cost accounting techniques focusing on mathematical models and contemporary technology in cost accounting, including decision-making under uncertainty, use of linear regression in cost estimates, service department cost allocations using simultaneous equations, and stochastic cost-volume-profit analysis. 4 lectures/problem-solving. Prerequisite: minimum grade of C (2.0) in ACC 307.

ACC 413 Controllership (4)

Controller's role in private sector organizations. Importance of balancing accounting and management responsibilities in such areas as: customer profitability analysis, performance evaluation, transfer pricing and strategic investment planning. Cases and current literature. 4 lecture-problem solving. Prerequisite: minimum grade of C (2.0) in ACC 307.

ACC 418 Forensic Accounting (4)

Study of forensic accounting, a discipline that focuses on the procedures and techniques used in the prevention, investigation, and detection of occupational and financial statement fraud. Study of social, ethical, legal, and political considerations that surround fraud. 4 lectures/problem solving. Prerequisite: minimum grade of C (2.0) in ACC 311.

ACC 419 Auditing Theory (4)

Theory of auditing and its objectives; procedures and techniques to attain objectives; types of reports issued by auditors; professional responsibilities and ethics of auditors. 4 lectures/problem-solving. Prerequisites: minimum grade of C (2.0) in ACC 305, ACC 313, and TOM 302.

ACC 420 Advanced Auditing (4)

Application of auditing procedures and techniques; working paper development and preparation; use of computer auditing tools; extensive case analysis. 4 lectures/problem-solving. Prerequisite: minimum grade of C (2.0) in ACC 419.

ACC 424 Internal Auditing (4)

Objectives, principles, and methods of internal and operational auditing with special emphasis on examination and appraisal of internal controls in the various reporting systems. Problems of communication, delegation of authority, or organization. 4 lectures/problem-solving. Prerequisite: minimum grade of C (2.0) in ACC 305.

ACC 426 Government Accounting (4)

Technical elements of government accounting. Governmental, proprietary and fiduciary funds. Comprehensive Annual Financial Report. Fund-basis and government-wide financial statements. 4 lecture-problem solving. Prerequisites: minimum grade of C (2.0) in ACC 304 and ACC 311.

ACC 428 Management Control in Not-for-Profit Organizations (4)

In-depth study of processes of budgeting, planning, and controlling in governmental, hospital, and educational institutions. 4 lectures/problem-solving. Prerequisites: minimum grade of C (2.0) in ACC 307.

ACC 431 Introduction to Taxation (4)

Fundamental concepts of taxation with an emphasis on their application to tax planning for the largest sector of the economy, sole proprietorships and employees. 4 lectures/problem-solving. Prerequisites: minimum grade of C (2.0) in ACC 307 or ACC 311.

ACC 432 Taxation of Legal Entities (4)

Principles of taxation, with an emphasis on their application to tax planning for legal entities, such as corporations, partnerships, and limited liability companies, and real estate transactions. 4 lectures/problem-solving. Prerequisite: minimum grade of C (2.0) in ACC 431.

ACC 434 Service Learning in Taxation (2)

Tax return preparation under supervision for elderly and low income taxpayers, such as through the Internal Revenue Service Voluntary Income Tax Assistance Program. One 4 hour activity.

ACC 435 Tax Research and Communication (4)

Development of Web based tax research and ethical decision making capabilities, interpreting statutory, administrative, judicial, and

international law, administrative and judicial resolution of controversies, and communicating research results within an environment of planning and analysis. 4 seminars. Prerequisite: minimum grade of C (2.0) in ACC 431.

ACC 441, 442 Internship in Accounting (1-8) (1-8)

On-the-job training in accounting involving new university-level learning experiences. Experiences may be useful as a basis for senior projects. Total credit limited to 8 units each. Maximum of 4 units of Career Emphases may be satisfied by internship. Prerequisite: permission of the Director of the Internship Program, Accounting Department.

ACC 443 Internship in Public Accounting (4)

On-the-job training with a CPA firm in phases of auditing or public accounting. The experience must be new to the student. Analytical reports of work accomplished by each student are made periodically to the faculty coordinator. Units of college credit granted are dependent on departmental approval. Maximum of 4 units of Career Emphases may be satisfied by internship. Prerequisite: permission of the Director of the Internship Program, Accounting Department.

ACC 461 Senior Project (2)

Familiarization with probable sources of data and information for research-oriented projects: problem identification and analysis, research methodology, application of report writing tools and techniques. Project(s) must involve research and writing. Prerequisites: minimum grade of C (2.0) in ACC 312.

ACC 462 Senior Project (2)

Selection and completion in formal report form of one or more project(s) under faculty supervision. Project(s) are research-oriented and typical of problems which graduates may be required to solve in future occupations. Project(s) must involve library research and/or field study and writing. Prerequisite: Minimum grade of "C" (2.0) in ACC 461.

ACC 465 Accounting Theory and Research (4)

Study of the general frame of reference for the evaluation and development of sound managerial and financial accounting practices. Emphasis on the normative rather than the descriptive approach. Not a review of accounting professional pronouncements. Enhances analytical, research, judgmental, and communication skills of students. 4 seminars. Prerequisite: minimum grade of "C" (2.0) in ACC 419.

ACC 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.



COMPUTER INFORMATION SYSTEMS

www.cba.csupomona.edu/cis

Carlos Navarrete, Chair

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Zhongming Ma	Ralph Westfall
Daniel P. Manson	
Carlos Navarrete	

VISION STATEMENT

We provide our students with the education to become Information Technology leaders. Our cutting-edge, career-focused programs and learn-by-doing teaching will make our graduates recognized nationally for their outstanding Information Technology expertise, innovative problem-solving ability, and effective interpersonal and communication skills.

MISSION STATEMENT

The Computer Information Systems (CIS) Department educates students for successful careers as information technology professionals. The CIS program is recognized both regionally and nationally. Faculty have top academic credentials and industry experience and are committed to quality teaching and to working with students on relevant research that strengthens professional IT practice and teaching. In keeping with Cal Poly Pomona's unique polytechnic approach to education, CIS students learn both theory and current practice in a strong, common core and in specialized courses. Using a hands-on, learn-by-doing approach, students apply cutting-edge technologies and problem-solving approaches to course projects and real-world problems. The result is graduates who are ready to excel in the technology-driven business world.

MICROCOMPUTER PROFICIENCY REQUIREMENT (see policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC 207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC 208/208A	(4/1)
Management Information Systems	CIS 310	(4)
Legal Environment of Business Transactions	FRL 201	(4)
Managerial Finance I	FRL 300	(3)
Managerial Finance II	FRL 301	(3)
Principles of Marketing Management	IBM 301	(4)
Principles of Management	MHR 301	(4)
Multicultural Organizational Behavior	MHR 318	(4)
Operations Management	TOM 301	(4)
Managerial Statistics	TOM 302	(4)
Strategic Management	MHR 410	(4)
or Strategic Management	TOM 411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS 101 ¹	(4)
Introductory Calculus for Business	MAT 125	(4)

Statistics with Applications	STA 120	(4)
Principles of Economics	EC 201	(4)
Principles of Economics	EC 202	(4)

CIS REQUIRED SUBPLAN/OPTION CORE COURSES

Fundamentals of Computer Information Systems	CIS 231	(4)
Object-Oriented Programming with Java	CIS 234	(4)
Intermediate Java Programming for Business	CIS 304	(4)
Database Design and Development	CIS 305	(4)
Business Telecommunications	CIS 307	(4)
Interactive Web Development	CIS 311	(4)
Introduction to Systems Analysis and Design	CIS 315	(4)
Systems Development Project	CIS 466	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Each student will select 16 units from the following:

Programming with C++	CIS 284	(4)
Client/Server Applications Development	CIS 338	(4)
Data Modeling	CIS 345	(4)
Telecommunications Networks	CIS 347	(4)
Special Study for Upper Division Students	CIS 400	(2)
Rapid Systems Development	CIS 406	(4)
Advanced Object-Oriented Systems Analysis and Design	CIS 415	(4)
Broadband and Multimedia Networks	CIS 417	(4)
Multimedia Applications on the Web	CIS 421	(4)
Advanced Java Programming for Business	CIS 424	(4)
Mobile Communications and Wireless Networks	CIS 427	(4)
Information Systems Auditing	CIS 433	(4)
Fundamentals of Network Mgmt and Design	CIS 437	(4)
Internetworking with Linux	CIS 447	(4)
E-commerce Application Development	CIS 451	(4)
Network Security	CIS 467	(4)
Internet Security	CIS 471	(4)
Computer Forensics	CIS 481	(4)
Secure Web Applications	CIS 491	(4)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses from "Required Support", "GE", and "Unrestricted Electives" so that the total is at least 84 units.

Unrestricted Electives (0-8)

Department Policy on Academic Disqualification

The Computer Information Systems Department may disqualify students with a subplan in Computer Information Systems at the end of any quarter if either: (1) their overall GPA, Cal Poly Pomona GPA, or their subplan GPA is below a 2.0 by 7 grade points or more, or (2) more than one-third of the units taken during the past twelve-month period do not satisfy the degree requirements. Determination of the GPA in the subplan and proportion of courses taken to satisfy the degree requirements is the responsibility of the department.

Further, the department has an additional policy on satisfactory progress. Specifically, if students fail to complete a Computer Information Systems course required of all CIS students with a grade of C or better, they will have an advising hold placed on their records. For this purpose, a "W" does not count as a try, but a "U" does. To release the hold, students must see the Department's academic advisor. Students who do not achieve a grade of C or better in a required CIS course in two attempts (with the exception of CIS 466) will be disqualified from the CIS major.

SUPPORT AND ELECTIVE COURSES

The number of elective units depends on whether or not STA 120 or MAT 125 and EC 201 or EC 202 are used for General Education (see curriculum sheet for the subplan). If STA 120 or MAT 125 is used for General Education, electives will be increased by four units. If EC 201 or EC 202 is used for General Education, electives will be increased by four units.

¹Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

Prerequisites for CIS Elective Courses

Students must have earned a grade of "C" (2.0) or better in each of the courses listed below before registering for any elective course for which it is a prerequisite. The courses are: CIS 231, CIS 234, CIS 304, CIS 305, CIS 307, CIS 311, and CIS 315.

MINOR IN BUSINESS COMPUTER PROGRAMMING

The Computer Information Systems Department provides non-CIS students with the opportunity to acquire programming expertise in the area of business applications program development by completing the requirements for Minor in Business Computer Programming as outlined below. The purpose of this minor is (1) to develop marketable skills for people with majors/subplans other than Computer Information Systems, (2) for those students majoring in technical fields that involve the use of the computer, and (3) for those students who wish to gain a much better understanding of the computer for personal use.

For more information or to enroll in the minor, please contact the CIS department secretary in Building 98, Room C4-11, (909) 869-3235.

COURSES FOR MINOR (32 units)

Prerequisite Courses:

Introduction to Microcomputing	CIS	101	(4)
Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Principles of Management	MHR	301	(4)
Management Information Systems	CIS	310	(4)

Required Courses:

Fundamentals of Computer Information Systems	CIS	231	(4)
Object-Oriented Programming with Java	CIS	234	(4)
Intermediate Java Programming	CIS	304	(4)
Database Design and Development	CIS	305	(4)
Business Telecommunications	CIS	307	(4)
Interactive Web Development	CIS	311	(4)
Introduction to Systems Analysis and Design	CIS	315	(4)

Elective Courses (select two courses from the following):

Programming with C++	CIS	284	(4)
Client/Server Application Development with Visual Basic	CIS	338	(4)
Rapid Systems Development	CIS	406	(4)

JAVA Programming for Business	CIS	424	(4)
E-commerce Application Development	CIS	451	(4)
or Data Modeling	CIS	345	
or Advanced Object-oriented Systems Analysis and Design	CIS	415	

MINOR IN MANAGERIAL COMPUTING

The Computer Information Systems Department provides non-CIS students with the opportunity to acquire expertise in object-oriented analysis and programming concepts as they are applied in managerial World Wide Web application development. Students need to complete the requirements for a Minor in Managerial Computing as outlined below. The purpose of the minor is (1) to develop marketable skills for people with majors/subplans other than Computer Information Systems and (2) to give students a much better understanding of World Wide Web application development.

For more information or to enroll in this minor, please contact the CIS Department Secretary in Building 98, 4th floor, Room 11, (909) 869-3235.

COURSES FOR MINOR (32 units)

Prerequisite Courses:

Introduction to Microcomputing	CIS	101	(4)
Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Principles of Management	MHR	301	(4)
Management Information Systems	CIS	310	(4)

Required Courses:

Fundamentals of Computer Information Systems	CIS	231	(4)
Object Oriented Programming with Java	CIS	234	(4)
Intermediate Java Programming	CIS	304	(4)
Database Design and Development	CIS	305	(4)
Business Telecommunications	CIS	307	(4)
Interactive Web Development	CIS	311	(4)
Introduction to Systems Analysis and Design	CIS	315	(4)

Elective Courses (select two courses from the following list):

Client/Server Applications	CIS	338	(4)
Multimedia Applications on the Web	CIS	421	(4)
E-commerce Application Development	CIS	451	(4)

COURSE DESCRIPTIONS

CIS 100 Personal Cyber Wellness (2)

The development of cyber wellness from a personal perspective. Development of a community of lifelong learners and critical thinkers includes: policy guidelines, risk management, ethical and professional behavior, social engineering, identifying unusual activity, and minimizing attacks. Guest speakers. This is an online course. Mandatory credit/no credit grading basis. 2 lectures/discussion.

CIS 101 Introduction to Microcomputing (4)

Introduction to Microcomputing using personal computers and personal productivity software: Windows environment, word processing, spreadsheets, and presentations. Problem solving using software packages adopted by the College of Business Administration. Mandatory credit/no credit grading basis. 4 lectures/problem solving.

CIS 120 Fundamentals of Web Site Development (4)

Internet and Web computing fundamentals. Web site development framework, design elements, and design principles. Hypertext Markup Language (HTML) specifications. Hands-on demos and projects of

personal and business Web site development. Open only to non-CIS majors. Mandatory credit/no credit grading basis. 4 lectures/problem-solving.

CIS 121 Web Media 1 (2)

Introduction to Web media 1, using personal computers. Topics are Web audio recording and editing and blogging. This is an online course. Mandatory credit/no credit grading basis. 2 lectures/problem solving.

CIS 122 Web Media 2 (2)

Introduction to Web Media 2, using personal computers. Topics are Web based video recording, editing and production. This is an online course. Mandatory credit/no credit grading basis. 2 lectures/problem solving.

CIS 200 Special Study for Lower Division Students (1-2)

Individual or group investigation, research, studies or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter. Optional credit/no credit grading basis at the student's request.

CIS 231 Fundamentals of Computer Information Systems (4)

Computer Information Systems as an academic and professional discipline. Principles and techniques of systems development life cycle. Development of digital student portfolios through prototyping and client-developer interactions. Information systems careers and emerging trends in the IS field. 4 lectures/ problem solving. Prerequisites: microcomputer proficiency and a minimum grade of C (2.0) in STA 120 and ENG 104. May be taken a maximum of two times.

CIS 234 Object-oriented Programming with Java (4)

Introduction to computer programming of business information systems. Object concepts, programming, the Java language, and an integrated development environment. Business application projects. 4 lectures/problem-solving. Prerequisites: microcomputer proficiency and a minimum grade of C (2.0) in STA 120 and ENG 104. May be taken a maximum of two times.

CIS 284 Programming with C++ (4)

Foundations of C and C++. Language constructs emphasizing classes and object concepts. Operators, functions, arrays, structures, files, and classes. Business application projects. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 305.

CIS 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination. Prerequisite: permission of instructor.

CIS 304 Intermediate Java Programming for Business (4)

Data representation, inheritance, interfaces, data structures and matching algorithms. Graphics and file operations. Building business applications emphasizing complex sequence, iteration, and selection algorithms. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 234. May be taken a maximum of two times.

CIS 305 Database Design and Development (4)

Data modeling and normalization. Relational database design and development using entity relationship diagrams and CASE tools. Accessing and updating databases with SQL. Integrity and security issues. 4 lectures/problem solving. Prerequisites: a minimum grade of C (2.0) in CIS 234 and CIS 310. May be taken a maximum of two times.

CIS 307 Business Telecommunications (4)

Telecommunications link components and functions, concentrators, multiplexors, telecom protocols, OSI model, telecom regulations, integrated traffic on WAN's and LAN's, network applications. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in CIS 234, CIS 310, and MAT 125. May be taken a maximum of two times.

CIS 310 Management Information Systems (4)

Management and development of information systems in modern businesses from the customer and the MIS perspective. Information as a strategic asset. Acquisition, analysis, integration, presentation of internal and external information. Information management in international and multinational enterprises. Ethical, social impacts. 4 lectures/problem-solving. Prerequisites: ACC 207, ACC 207A, and Microcomputer proficiency.

CIS 311 Interactive Web Development (4)

Design and development of web applications for business. Principles and applications of modern website design. Use of client-side scripting for website dynamics and interactivity. Development of server-side scripts for three-tier web applications. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in CIS 304 and CIS 305.

CIS 315 Introduction to Systems Analysis and Design (4)

Introduction to object-oriented systems analysis and design using unified modeling language (UML). System development life cycle. Determination of information system requirements. Use cases, use case diagrams, domain models, interaction diagrams, and design class diagrams. 4 lectures/problem-solving. Prerequisites: Minimum grade of C (2.0) or better in CIS 304 and CIS 305. May be taken a maximum of two times.

CIS 338 Client/Server Applications Development (4)

Developing multi-tier business applications using Visual Basic and relational DBMS. Database updating using ODBC and SQL. Event-driven programming with graphical user interfaces. Practical problems requiring complex logic design incorporating classes, objects, and collections. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 311.

CIS 345 Data Modeling (4)

Designing large databases using advanced data modeling concepts. Producing quality data models which follow corporate business plans, policies, and strategies of the enterprise. Analyzing data components for effective utilization. Extracting from the database to create data warehouses. Use of data mining for decision-making. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 305.

CIS 347 Telecommunications Networks (4)

Analysis of hardware and software used in the design of local area networks. Analysis of transmission media, systems architectures, and cost/benefit tradeoffs. Analysis of specific vendor LAN's. Interconnectivity issues. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in CIS 307, CIS 305, and CIS 311.

CIS 400 Special Study for Upper Division Students (1-2)

Individual or group investigation, research, studies or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter. Optional credit/no credit grading basis at the student's request.

CIS 406 Rapid Systems Development (4)

Agile methods and practices supporting the agile philosophy using Extreme Programming. Emphasis on weekly prototyping approach to systems development and human/ergonomic factors in designing user interfaces. Use of 4GLs, user stories, project management tools, version control, coding standards, defect tracking and similar agile practices. 4 lectures/problem-solving. Prerequisites: CIS 311 and CIS 315.

CIS 415 Advanced Object-oriented Systems Analysis and Design (4)

Applying Unified Modeling Language to model complex business systems. Application of use cases in analysis and of patterns in design. Use of modeling tools and code generation. Written reports and case studies. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in CIS 305 and CIS 315.

CIS 417 Broadband and Multimedia Networks(4)

Hardware and software concepts regarding wide area and voice networks. Analog and digital systems and their interconnection. 4 lectures/problem-solving. Prerequisites: a minimum grade of C (2.0) in CIS 305 and CIS 307.

CIS 421 Multimedia Applications on the Web (4)

Design, development, publishing multimedia applications for business. Considerations for creation of graphical, photographic, video, sound, animation, multimedia authoring, virtual reality applications suitable for publication on WWW or other electronic media. Principles supporting critical analysis of multimedia design and content. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 311.

CIS 424 Advanced Java Programming for Business (4)

Java programming, review of language structure, typical development platform, and library of classes. Building applications for windows as well as applets and servlets for the web. Accessing web sites and databases using JDBC. 4 lectures/problem-solving. Prerequisite: a minimum grade of C (2.0) in CIS 311.

CIS 427 Mobile Communications and Wireless Networks

Fundamentals of mobile telecommunications and wireless network technology, regulation, standards, and management. Analysis of wireless local and wide area networks. Evaluation of service alternatives. Examination of emerging issues. 4 lectures/problem-solving. Prerequisites: a minimum grade of "C" (2.0) in CIS 305 and CIS 307.

CIS 433 Information Systems Auditing (4)

Fundamentals of Information Systems (IS) auditing. Understanding IS Audits, risk assessment and concepts, and techniques used in IS audits. Includes case studies. 4 lectures/problem-solving. Prerequisites: ACC 419 or a minimum grade of C (2.0) in CIS 307 and CIS 311.

CIS 437 Fundamentals of Network Management and Design (4)

Administering and tuning telecommunications networks. Analysis of network components, traffic, security, and failures in the network. An examination of regulatory and legal issues in the field. Analyzing and directing a telecommunications project. 4 lectures/problem-solving. Prerequisites: a minimum grade of "C" in CIS 305 and CIS 307.

CIS 441, 442. Internship in Information Systems (1-8)

Faculty-supervised on-the-job educational experiences in a real world data processing environment. Allocation of credit is dependent on the nature of the work done and the number of hours worked. Students usually receive pay for participation. Total credit limited to 8 units each. Prerequisite: permission of the internship coordinator.

CIS 447 Internetworking with Linux (4)

Fundamentals of multivendor network standards. Hardware and software technologies, design, installation, types of services, performance monitoring and management of Intra and Extranets. Integrating heterogeneous networks, securing them with the firewalls and emerging issues. 4 lectures/problem-solving. Prerequisite: a minimum grade of "C" (2.0) in CIS 305 and CIS 307.

CIS 451 E-commerce Application Development (4)

Analysis of e-commerce architecture, practice, technology, and trends. Hands-on design and development of e-commerce solutions for business. Internet marketing and management of e-commerce applications. 4 lectures/problem-solving. Prerequisite: a minimum grade of "C" (2.0) in CIS 311.

CIS 466 Systems Development Project (4)

Application of computer programming and implementation concepts to a comprehensive group project. Management planning, scheduling, and reporting required. Documentation to include programming, testing and users manuals. Oral and written presentations required for all team members. 4 lectures/problem-solving. Prerequisites: three CIS elective courses.

CIS 467 Network Security (4)

Fundamentals of network security in a business environment. Understanding IT Network Security Reviews, risk assessment and concepts, and techniques used in IT Network Security Reviews from a business perspective. Includes case studies. 4 lectures/problem-solving. Prerequisites: a minimum grade of "C" (2.0) in CIS 305 and CIS 307.

CIS 471 Internet Security

Introduction to computer security in networked systems. Security issues and policies with regard to hardware, software development, databases, operating systems and networks. Common attacks on systems will be covered. Vulnerability assessment tools and techniques for defending systems will be explored in various projects. Professional responsibilities. 4 lectures/problem solving. Prerequisites: a minimum grade of C (2.0) in CIS 305, CIS 307, and CIS 311.

CIS 481 Computer Forensics (4)

Introduction to computer forensics in networked systems. Legal issues regarding seizure and chain of custody. Technical issues in acquiring computer evidence. Popular file systems are examined. 4 lectures/problem solving. Prerequisite: a minimum grade of "C" (2.0) in CIS 305.

CIS 491 Secure Web Applications (4)

Fundamental design and development of hack-resilient Web applications. Analysis of Web application security models. Identification of Web application threats, vulnerabilities, and attacks. Formulation of strategies with implementation plan for countermeasures for secured Web applications. Development of appropriate security mechanisms in the logic, coding, testing, and debugging of Web applications. 4

lectures/problem-solving. Prerequisite: a minimum grade of "C" (2.0) in CIS 311.

CIS 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination. Prerequisite: permission of instructor.

E-BUSINESS

www.cba.csupomona.edu/tom

Abolhassan Halati, Chair

Henry Co
William J. Cosgrove
Robert W. Schaffer
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Ralph Westfall
Xiaohui Xu
Wenge Zu

THE PROGRAM

E-Business is about sharing information and conducting business transactions internally, and with customers, business partners, and suppliers. The "E" in E-Business means electronic networking technology. Technology allows E-Business to streamline internal and outward-reaching processes, with significantly less paperwork, and increased availability - 24/7 if necessary.

AIMS OF THE E-BUSINESS SUBPLAN

The E-Business subplan is designed to provide students:

- technological, business and interpersonal tools needed to add value to established and start-up organizations engaged in e-business.
- ability to address the needs of e-business stakeholders (i.e., customers, suppliers, and managers).
- ability to respond to the growing market demand for e-business professionals with the aforementioned knowledge, skills and abilities.
- option for individuals with an "e-business spirit" that prepares them for success in "start-up" or existing organizations developing e-business activities.
- unique tools and abilities required for ventures into the growing field of "high tech" or "Internet based" businesses and institutions.
- tools to develop effective Internet strategies for the non-profit or government sector.

Career Emphases In E-Business

Business students choosing the E-Business subplan will choose between three career emphases. These are: (1) Supply-Chain Management, (2) E-Commerce, and (3) Content Creation and Management. The career emphasis will dictate which electives students will take.

- **Supply-Chain Management:** Most organizations exist within a complex labyrinth of vendors, suppliers, customers, distributors, and business partners. Understanding and leveraging these supply chain relationships are key success factors in navigating an increasingly interconnected world. Students in the *Supply-Chain Management* emphasis learn the theory and practice of logistics management, the technologies and standards of collaborative commerce, and the use of information technology in every facet of the business process - planning, purchasing, production, transportation, storage and distribution, customer service, and more!
- **E-Commerce:** New business models are emerging in startups, and in existing companies struggling to survive. Students in the *E-Commerce* emphasis learn about utilizing electronic networking technologies for buying, selling and advertising, banking, etc.; creating a business plan and managing emergent ventures.

- **Content Creation and Management:** Using hands-on, learning-by-doing approach, students in the *Content Creation and Management* apply cutting-edge technologies and problem solving approaches to course projects and real-world problems. Students in this emphasis take courses that constitute the core requirements in our Computer Information System (CIS) subplan.

MICROCOMPUTER PROFICIENCY REQUIREMENT

(See policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS	1011	(4)
Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)

E-BUSINESS REQUIRED SUBPLAN/OPTION CORE COURSES

Introduction to Electronic Business	EBZ	301	(4)
E-business Customer Relationship Management	EBZ	303	(4)
E-business-enabled Supply Chain Management	EBZ	304	(4)
E-business Enterprise Resource Planning	EBZ	305	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

At least 32 units of additional courses (in consultation with an advisor) to provide more in-depth knowledge, skills, and abilities in a sub-area of emphasis. These areas of emphasis can be structured in several ways.

Elective Subplan/Option Core Courses (32)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 84 units.

Unrestricted Electives (0-8)

SUPPORT COURSES

¹Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved

college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

COURSE DESCRIPTIONS

EBZ 301 Introduction to Electronic Business (4)

Technology underpinnings for e-business, impact on other information systems within a business, impact on business design and strategy including how business strategy shapes and is now being shaped by threats and opportunities in e-business, impact on the industries and markets, direct marketing theory, business models for e-business. 4 lectures/problem-solving. Prerequisites: Successful completion of microcomputing proficiency exam or CIS 101, ENG 104 and STA 120 with a grade of C or better.

EBZ 302 E-business Technology (4)

Technologies used to support all aspects of electronic business. Concepts, vocabulary and tools of electronic business technology. Hands-on projects. 4 lectures/problem-solving. Prerequisite: TOM 301 and CIS 310 with a grade of C or better.

EBZ 303 E-business Customer Relationship Management (4)

Critical role of Life Time Value (LTV). Integration of management, sales, marketing, finance, operations, IT and ERP to create a true customer-centric focus. Business-to-Business (B2B) and Business-to-Consumer (B2C) markets. Development of 360-degree strategies to achieve a competitive advantage through quality customer relationships and long-term profitability. Benchmarking and financial metrics. 4 lectures/problem-solving. Prerequisites: TOM 301 with a grade of C or better.

EBZ 304 E-business-enabled Supply Chain Management (4)

Integration of internal company resources to work effectively with the external supply chain; e-business concepts and Web technologies to manage the supply chain; enhancement of company's overall performance through improved manufacturing capability, market responsiveness, and customer-supplier relationships. 4 lecture discussions. Prerequisites: Completion of TOM 301 with a grade of C or better.

EBZ 305 E-business Enterprise Resource Planning (4)

Automation and integration of corporate functions via enterprise resource technology software. Theory of and hands-on practice with ERP software. ERP implementation steps. 4 lecture discussions. Prerequisite: TOM 301 with a grade of C or better.

EBZ 441, 442 Internship in E-Business. (1-8) (1-8)

Faculty-supervised on-the-job educational experience in the e-Business environment. Allocation of up to 8 unit credits is dependent upon the nature of the work done, the level of responsibility and the number of hours worked. Prerequisite: permission of departmental internship coordinator.

EBZ 451 E-business Application Development (4)

Analysis of E-business architecture, practice, technology, and trends. Hands-on design and development of E-business solutions for business. Internet marketing and management for E business applications. 4 lectures/problem-solving. Prerequisites: TOM 301 and EBZ 302 with a grade of C or better; and CIS 310.

EBZ 466 E-business Practicum (4)

Capstone course for e-business curriculum. Practical, hands-on projects and/or applied research that integrates concepts and techniques. May also involve internships. Independent Study. Prerequisites: Completion of e-business core: EBZ 302, EBZ 303, EBZ 304, EBZ 305, EBZ 306, AND TOM 301 with a grade of C or better in each course.

EBZ 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination. Prerequisite: Consent of instructor.

FINANCE, REAL ESTATE, AND LAW

www.cba.csupomona.edu/frl

Shady Kholdy-Sabety, Chair

Ekaterina Chernobai
F. Philip Ghazanfari
Eric J. McLaughlin
Majed Muhtaseb
Paul Sarmas
Ahmad Sohrabian

Libo Sun
Lin Tan
John B. Wyatt III
N. Gregory Young
Wei Yu

MISSION STATEMENT

The FRL Department seeks to prepare undergraduate students in Finance, Real Estate, and Law and MBA students for careers in finance, real estate, and contract management with up-to-date curricula and instructional methods. In addition, the FRL Department provides all other students within the College of Business Administration and throughout the university with a variety of introductory and specialized courses in finance, real estate, business law, and contract management. The department is also committed to enhancing the intellectual capital of its faculty and maintaining strong links with business/government through research, writing, consulting, and participation in academic and professional meetings, and other development activities.

Students select one of the three emphasis areas that best meets their career objectives: Finance, Real Estate, or Business Law and Contract Management.

The Finance emphasis offers courses on the theory and methods of financial analysis and valuation, corporate financial management, the management of financial institutions, securities analysis, and multinational finance.

The Real Estate emphasis focuses on real estate brokerage, mortgage lending, residential and commercial appraising, and real property investment/development.

The Business Law Program offers two emphases: Business Law and Contract Management.

The Business Law emphasis serves both as a highly-relevant pre-law major that enhances student knowledge and preparation for the rigors of law school graduate education, and as a significant specialized complement to general business and corporate management education and in future employment. Courses introduce, among other major topics, the American legal system and business dispute resolution, financial law, international business law, and corporate law and regulation.

The Contract Management emphasis helps to prepare students for law school and for careers as contract administrators and contract cost and price analysts. Contract management courses emphasize the study of American sales law, government contract practices, and analysis of important court decisions.

The Department offers four minors: Finance, Real Estate, Business Law, and Contract Management to non-FRL students

The minor in Real Estate is formulated to qualify the student with the requisite courses to sit for the real estate broker's examination.

The minor in Finance is intended to complement other majors by providing non-finance majors with knowledge and skills in finance that enhance an individual's ability to function as a productive member of any business organization and assist the organization to achieve its goals.

The Minor in Business Law significantly enhances the student's knowledge of today's increasingly complex business, employment and regulatory environment. The minor offers important knowledge and insights concerning corporate law and regulation, international business law, real estate law and practice, and contract management and law, in addition to providing substantial benefits to students who may later attend law school.

The minor in contract management provides sufficient skills and understanding of the principles to enable students to successfully manage commercial contracts, apply contract cost/price techniques, and undertake contract negotiations.

Please contact the Department Chair in Building 66, Room 211 (909) 869-2350, or an FRL faculty advisor if you wish to explore any of the course offerings.

COURSE REQUIREMENT FOR THE FINANCE, REAL ESTATE, AND LAW PROGRAM

Students must complete and earn a grade of "C" (2.0) or better in each of the following courses before taking FRL 315, FRL 330, FRL 367, FRL 440 courses: ACC 207, ACC 207A, ACC 208, ACC 208A, EC 201, EC 202, ENG 104 (or ENG 102 & ENG 103), FRL 201, FRL 300, FRL 301, and STA 120.

Students must complete and earn a grade of "C" (2.0) or better in each of the following courses before taking FRL 306 course: ACC 207, ACC 207A, EC 201, FRL 201, FRL 300.

Students must complete and earn a grade of "C" (2.0) or better in FRL 301 and FRL 367 before taking FRL 440 course.

MICROCOMPUTER PROFICIENCY REQUIREMENT (policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC 207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC 208/208A	(4/1)
Management Information Systems	CIS 310	(4)
Legal Environment of Business Transactions	FRL 201	(4)
Managerial Finance I	FRL 300	(3)
Managerial Finance II	FRL 301	(3)
Principles of Marketing Management	IBM 301	(4)
Principles of Management	MHR 301	(4)
Multicultural Organizational Behavior	MHR 318	(4)
Operations Management	TOM 301	(4)
Managerial Statistics	TOM 302	(4)
Strategic Management	MHR 410	(4)
or Strategic Management	TOM 411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS 1011	(4)
Freshman English II	ENG 105	(4)
Statistics with Applications	STA 120	(4)
Introductory Calculus for Business	MAT 125	(4)
Principles of Economics	EC 201	(4)
Principles of Economics	EC 202	(4)

FRL REQUIRED SUBPLAN/OPTION CORE COURSES

Legal Environment of Business Organizations	FRL 302	(4)
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Fundamentals of Real Estate	FRL	306	(4)
Financial Institutions	FRL	315	(4)
Investment Analysis	FRL	330	(4)
Corporate Finance Theory	FRL	367	(4)
Evaluation of Financial Policy.	FRL	440	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Students must take four courses from their intended career emphasis (total of 16 units) in the FRL Department.

Career Emphasis in Finance and Real Estate (16 units)

Financial Derivatives	FRL	331	(4)
Business Forecasting and Financial Planning	FRI	363	(4)
Real Estate Appraisal	FRL	380	(4)
Real Estate Finance	FRL	383	(4)
Real Property Management	FRL	386	(4)
Financial Modeling	FRL	404	(4)
Financing Small Business	FRL	420	(4)
Seminar in Portfolio Management and Capital Market	FRL	433	(4)
Multinational Financial Management	FRL	453	(4)
Commercial Banking	FRL	460	(4)
Real Estate Market Analysis	FRL	483	(4)
Real Estate Investment Analysis	FRL	486	(4)
Urban Land Development	FRL	490	(4)

With the approval of a faculty advisor, finance students can select one course outside the finance area, either a course in the business law emphasis or a course from the departments of accounting and economics.

Career Emphasis in Business Law (16 units)

Contract Administration	FRL	325	(4)
Contract Aspects of the Uniform Commercial Code	FRL	326	(4)
Contract Case Study/Practical Application	FRL	327	(4)
Government Regulation of Business	FRL	401	(4)
Legal Implications of Financial Transaction	FRL	403	(4)
Legal Aspects of International Business	FRL	426	(4)
Real Estate Law and Practice	FRL	484	(4)

With the approval of a faculty advisor, law students can substitute one course from the other career emphasis. FRL 328 (Contract Cost/Price Techniques-Negotiation) will be offered through open-university when possible.

FRL students can satisfy one of the optional career-emphasis or elective courses by taking four units of internships (FRL 441/FRL 442).

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives is at least 92 units.

Unrestricted Electives. (0-16)

SUPPORT AND ELECTIVE COURSES

The number of elective units depends on whether or not ENG 105, STA 120 or MAT 125, and EC 201 or EC 202 are used for General Education (see curriculum sheet for the subplan). If any of these courses are used for General Education, electives will be increased by four units per course up to the unit maximum of 12.

¹Microcomputer proficiency must be demonstrated by satisfying one of

the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

MINORS

Four minors are offered to both non-FRL students and to FRL students. FRL students may not count courses taken in group A for the subplan toward the minor. Please contact the minor coordinator for more information.

MINOR IN FINANCE

Financial affairs play an important role in the efficiency and effectiveness of any organization. Knowledge and skill in finance enhance an individual's ability to function as a productive member of any organization and assist the organization to achieve its goals. Augmenting the skills of a non-finance business major/subplan with a minor in finance creates a synergetic effect. A Finance Minor complements the skills of a non-Finance student, and thus improves an individual's potential in the job market. The Finance, Real Estate, and Law Department offers a Minor in Finance that is available to non-Finance students. The requirements are listed below:

Prerequisite Courses:

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Introductory Calculus for Business	MAT	125	(4)
Statistics with Applications	STA	120	(4)
Microcomputer Proficiency			(4)

Required Courses:

Financial Institutions	FRL	315	(4)
Investment Analysis	FRL	330	(4)
International Financial Markets	FRL	353	(4)
or Multinational Financial Management	FRL	453	(4)

Directed Electives:

Select 3 of the following courses:

Business Forecasting and Financial Planning	FRL	363	(4)
Corporate Finance Theory	FRL	367	(4)
Real Estate Finance	FRL	383	(4)
Legal Implications of Financial Transactions	FRL	403	(4)
Financial Modeling	FRL	404	(4)
Financing Small Business	FRL	420	(4)
Seminar in Portfolio Management	FRL	433	(4)
Evaluation of Financial Policy	FRL	440	(4)
Commercial Banking	FRL	460	(4)

Please see one of the Finance Advisors to sign up for a Minor in Finance. Non-business students should consult with an advisor to discuss prerequisites for the above courses.

Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: (1) CIS 101; (2) microcomputer proficiency skills tests in word processing, spreadsheet, and presentation software; or (3) an approved college course.

MINOR IN REAL ESTATE

This minor prepares the student for a real estate career and for the real estate broker's examination course requirements. For Minor program requirements, see advisor.

Prerequisite Courses:

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)
Introductory Calculus for Business	MAT	125	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)

Required Courses:

Fundamentals of Real Estate	FRL	306	(4)
Real Estate Appraisal	FRL	380	(4)
Real Estate Finance	FRL	383	(4)
Real Estate Law and Practice	FRL	484	(4)

Select at least two of the following courses with approval of an advisor:

Real Estate Economics and Institutions	FRL	381	(4)
Real Property Management	FRL	386	(4)
Real Estate Market Analysis	FRL	483	(4)
Real Estate Investment Analysis	FRL	486	(4)
Urban Land Development	FRL	490	(4)

MINOR IN BUSINESS LAW

The Minor in Business Law significantly enhances the student's knowledge of today's increasingly complex business, employment and regulatory environment. The minor offers important knowledge and insights concerning corporate law and regulation, international business law, real estate law and practice, and contract management and law, in addition to providing substantial benefits to students who may later attend law school.

Required:

Legal Environment of Business Transactions	FRL	201	(4)
Legal Environment of Business Organizations	FRL	302	(4)

Select 4 courses from the following:

Law for Everyday Living	FRL	101	(4)
Contract Administration	FRL	325	(4)
Contract Aspects of the Uniform Commercial Code	FRL	326	(4)
Government Regulation of Business	FRL	401	(4)
Legal Implications of Financial Transactions	FRL	403	(4)
Legal Environment of Labor Relations	FRL	406	(4)
Entrepreneurial Law	FRL	407	(4)
Law for Accountants	FRL	408	(4)
E-commerce Law	FRL	410	(4)
Legal Environment of Marketing	FRL	419	(4)
Legal Aspects of International Business	FRL	426	(4)

Real Estate Law and Practice	FRL	484	(4)
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MINOR IN CONTRACT MANAGEMENT

This minor provides the student with a concept of contract administration. *Prerequisite: FRL 201.

Contract Administration	FRL	325	(4)
Contract Aspects of Uniform Commercial Code	FRL	326	(4)
Contract Case Study	FRL	327	(4)
Contract Cost Price	FRL	328*	(4)
Law for Accountants	FRL	408	(4)
Purchasing Management	TOM	434	(4)
or Legal Implications of Financial Transaction	FRL	403	(4)
or Legal Aspects of International Business	FRL	426	(4)

COURSE DESCRIPTIONS

FRL 100 Personal Money Management (4)

Major financial problems of the household in allocating resources and planning expenditures. Budgeting, housing, consumer protection, insurance, the use of credit, savings, and investments. Not open to finance majors. 4 lecture discussions.

FRL 101 Law for Everyday Living (4)

Legal principles which underlie ordinary transactions such as buying a house or a television, writing a check, getting married, taking out an insurance policy, joining a union, lending a car to a friend, signing a lease, and hundreds of everyday activities. Course fulfills GE Sub-area D3. 4 lecture discussions.

FRL 200 Special Study for Lower Division Students (1-4)

Individual or group investigation, research, studies or surveys of selected problems. Total credit limited to 4 units.

FRL 201 Legal Environment of Business Transactions (4)

Study of the adversary system, principles of American law, coverage of business-related torts and contracts, product liability, and real and personal property. Case analysis. 4 lecture presentations. Prerequisite: ENG 104.

FRL 270 Asset Protection and Insurance (4)

Introduction to corporate risk management and insurance. Institutional framework and analytical techniques for managing property and personnel loss exposures. Use of risk control and risk financing methods, including insurance, from viewpoint of business and family risk managers. 4 lectures/problem-solving.

FRL 299/299A/299L Special Topics for Lower Division Students (4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

FRL 300 Managerial Finance I (3)

First of the 2-course sequence in finance for College of Business Administration majors. Topics include the role of a financial manager; agency problems; financial statement analysis; financial planning; time value of money and discounted cash flow valuation; bonds, bond valuation, and interest rates; stocks, stock markets, and stock valuation; and capital budgeting techniques. 3 units Lecture/Problem Solving. Prerequisites: ACC 207/207A, EC 201, microcomputer proficiency, and minimum grade of "C" (2.0) in MAT 125.

FRL 301 Managerial Finance II (3)

Second of the 2-course sequence in finance for College of Business Administration majors. Topics include estimating cash flows for capital budgeting; historical relationship between risk and return; measuring risk of individual assets and portfolios; cost of capital and capital structure; dividend policy; short-term financial management; and international finance. 3 units Lecture/Problem Solving. Prerequisites: ACC 208/208A, EC 202, FRL 300, STA 120 and a minimum grade of "C" (2.0) in MAT 125.

FRL 302 Legal Environment of Business Organizations (4)

Legal requirements of formation, operation and financing of partnerships, corporations and other business organizations. Consideration of the agency relationships and responsibilities of involved parties. Discussion of the economic, political, and regulatory environment. Case analysis. 4 lectures/problem-solving. Prerequisite: FRL 201.

FRL 306, Fundamentals of Real Estate (4 units)

This course provides a comprehensive introduction to the field of real estate. Students are introduced to concepts, principles, and methods related to real estate transactions and to different aspects of real estate decision-making. Topics include the legal aspects of real estate, investment analysis, sources and instruments of financing, market and feasibility analysis, appraisal, and development. 4 lectures/problem solving. Prerequisites: minimum grade of "C" (2.0) or better in ACC 207/A, FRL 201, EC 201, FRL 300 and MAT 125.

FRL 315 Financial Institutions and Markets (4)

Focuses on financial markets and institutional management from a microeconomics perspective. Relationship between financial institutions and financial markets and impact of government regulation and monetary policy. 4 lectures/problem-solving. Prerequisites: a minimum grade of "C" (2.0) in all of the following: ACC 207, ACC 207A, ACC 208, ACC 208A, EC 201, EC 202, ENG 104 (or ENG 102 and ENG 103), FRL 201, FRL 300, FRL 301, MAT 125, and STA 120.

FRL 325 Contract Administration (4)

Organization, procedures, and areas of application in contract administration. Designed to provide the student with knowledge and skills essential to accomplish the responsibility of contract administration. Provides a comprehensive approach to the interrelationship between contract administration and various functional disciplines. 4 lectures/problem-solving. Prerequisite: FRL 201.

FRL 326 Contract Aspects of the Uniform Commercial Code (4)

Transition from common law background to statutory contract law. Formation of sales contract under the UCC. Insight regarding policy considerations, legal remedies, and the mechanical requirements. 4 lectures/problem-solving. Prerequisite: FRL 201.

FRL 327 Contract Case Study/Practical Application (4)

Review of current and past cases in government and private contracting, using the case study method. Combined class textbook and library assignments. Cases, selected by areas briefed, discussed and reviewed. 4 lectures/problem-solving. Prerequisite: FRL 201.

FRL 328 Contract Cost/Price Techniques–Negotiation (4)

Cost/price techniques applicable to public and private prime/sub contracts including RFQ-RFP-IFB analysis, proposal preparation, estimating methodology, and pricing strategies. Analytical and

econometric techniques in preparing contracts. 4 lectures/problem-solving. Prerequisites: FRL 201 and FRL 301.

FRL 330 Investment Analysis (4)

Introduction to the behavior of security markets and individual investment policy. Quantitative and qualitative aspects of risk and return associated with investment decisions. Fundamental, technical, and random-walk approaches to valuation. 4 lectures/problem-solving. Prerequisites: a minimum grade of "C" (2.0) in all of the following: ACC 207, ACC 207A, ACC 208, ACC 208A, EC 201, EC 202, ENG 104 (or ENG 102 and ENG 103), FRL 201, FRL 300, FRL 301, MAT 125, STA 120, and TOM 302.

FRL 331 Financial Derivatives (4)

This course covers financial derivatives, particularly futures, options, and swaps. Students will learn the basic mechanics and cash flows of these instruments; how the markets operate; what factors affect their price; how one can formulate strategies to use such instruments for hedging, speculation and arbitrage. 4 lectures/problem-solving. Prerequisites: FRL 330 and a minimum grade of "C" (2.0) in MAT 125.

FRL 353 International Financial Markets (4)

Institutional overview of structure and application function of international financial markets and their applications. International financial systems, capital flows, foreign exchange risk measurement and management, Eurocurrency markets, Asian currency markets, international capital markets, international banking, international debt crisis, and export-import financing. This course is not open to FRL majors. 4 lectures/problem-solving. Prerequisites: FRL 301 and a minimum grade of "C" (2.0) in MAT 125.

FRL 363 Business Forecasting and Financial Planning (4)

Various forecasting techniques as they relate to finance and real estate issues. Smoothing methods, decomposition methods, correlation analysis, regression analysis, seasonal models, Box-Jenkins methodology, and managing the forecasting process. Use of microcomputer to aid calculations. Individual projects. 4 lectures/problem-solving. Prerequisites: FRL 301, TOM 302, and a minimum grade of "C" (2.0) in MAT 125.

FRL 367 Corporate Finance Theory (4)

Capital budgeting under uncertainty, capital structure, cost of capital, and specialized financial decision tools. Emphasis on operational techniques through cases, problems, and computer applications. 4 lectures/problem-solving. Prerequisites: ENG 105 and a minimum grade of "C" (2.0) in all of the following: ACC 207, ACC 207A, ACC 208, ACC 208A, EC 201, EC 202, ENG 104, (or ENG 102 and ENG 103), FRL 201, FRL 300, FRL 301, MAT 125, and STA 120.

FRL 380 Real Estate Appraisal (4)

Examines principles and techniques of real property valuation, emphasizing urban properties. Applications via specific problem-solving assignments and the preparation of appraisal reports and market analysis. Satisfies educational requirement for the real estate broker's license. 4 lecture/problem-solving. Prerequisites: FRL 306, one of the following: FRL 301, CE 301, or ETT 305, and a minimum grade of "C" (2.0) in MAT 125.

FRL 383 Real Estate Finance (4)

Instruments of real estate financing and their use; analytic factors in financing and investment decision-making; analysis of the various

institutions which are sources of real estate financing. Satisfies educational requirement for the real estate broker's license. Case analysis. 4 lectures/problem-solving. Prerequisites: FRL 301, FRL 306, and a minimum grade of "C" (2.0) in MAT 125.

FRL 386 Real Property Management (4)

General practices and legal aspects of property management. Establishing rental schedules, tenant billing, rent collection, lease clauses, lease negotiations, purchasing procedures related to repairs and maintenance, and property management accounts for apartments, office buildings, industrial properties, and shopping centers. 4 lecture discussions. Prerequisite: FRL 380.

FRL 400 Special Study for Upper Division Students (1-4)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units. Optional credit/no credit grading basis at the student's request.

FRL 401 Government Regulation of Business (4)

The study of the regulation of business, government. Antitrust, trade regulation, labor and employment law, privacy, safety, environmental and consumer legislation. 4 lectures/problem-solving. Prerequisite: FRL 201.

FRL 403 Legal Implications of Financial Transactions (4)

An analysis of the legal structure, rationale, and implication of commercial transactions involving secured transactions, negotiable instruments and credit. 4 lectures. Prerequisite: FRL 201.

FRL 404 Financial Modeling

Financial Modeling covers standard financial models in the areas of valuation, sales forecast, capital budgeting, leasing versus buying, portfolio analysis, and Monte Carlo simulation. The aim in each case has been to explain clearly and concisely the implementation of the models using Excel. Although students will make extensive use of Excel, no prior experience is necessary. 4 lecture discussions. Prerequisites: FRL 301, FRL 367, and a minimum grade of "C" (2.0) in MAT 125.

FRL 406 Legal Environment of Labor Relations (4)

Application of labor and employment law in the United States. Legal rights and remedies available to labor unions, employees, and management. 4 lectures. Prerequisite: FRL 201.

FRL 407 Entrepreneurial Law (4)

A practical preventive law course emphasizing the legal consideration involved in small business planning, operation, and dissolution. Particular attention to liability of small business owners and managers, and the legal alternatives available to a financially-distressed business. 4 lectures. Prerequisite: FRL 201.

FRL 408 Law for Accountants (4)

Legal responsibilities of accountants; fundamental business law principles as applied in commercial transactions. The law of commercial paper, secured transactions, bankruptcy, agency, partnerships, corporations and securities. 4 lectures/problem-solving. Prerequisites: ACC 208 and FRL 201.

FRL 410 E-commerce Law (4)

Examination of intellectual property, torts, contracts, constitutional

rights and issues, taxation, online signatures, online securities offerings, security, and computer crimes among cyberspace issues. Also reviewed will be the law perspective relative to set up an ebusiness. 4 lecture discussions. Prerequisite: FRL 201.

FRL 419 Legal Environment of Marketing (4)

Application of laws relevant to the marketing process and assessment of the legal problems growing out of marketing strategies. Hypothetical case analysis. 4 lecture discussions. Prerequisite: FRL 201 or IBM 301.

FRL 420 Financing Small Business (4)

Financial problems and strategies paramount to small firms. Various financing sources including venture capitals. Funding techniques and financial package evaluation. 4 lectures/problem-solving. Prerequisites: FRL 301 and a minimum grade of "C" (2.0) in MAT 125.

FRL 426 Legal Aspects of International Business (4)

Legal factors affecting organizations involved in international business transactions. Sales, bills of exchange, patents, obligations and liabilities of cargo carriers, political risks, and credit insurance. 4 lecture discussions. Prerequisite: FRL 201.

FRL 433 Seminar in Portfolio Management and Capital Markets (4)

Developing and valuing alternative portfolio selection models for individual and institutional use. Examination of non-traditional investments. 4 seminars. Prerequisites: FRL 330 and a minimum grade of "C" (2.0) in MAT 125.

FRL 440 Evaluation of Financial Policy (4)

A seminar course in finance utilizing comprehensive cases to simulate the role of the financial manager. 4 seminars. Prerequisites: Minimum grade of "C" (2.0) or better in all of the following: ACC 207, ACC 207A, ACC 208, ACC 208A, EC 201, EC 202, ENG 104 (or ENG 102 and ENG 103), FRL 201, FRL 300, FRL 301, MAT 125, STA 120, and FRL 367. Graduate credit not available.

FRL 441, 442 Internship in Finance (1-4) (1-4)

On-the-job training or internship with a business to gain new learning experience. Student submits periodic reports to faculty coordinator and receives one unit of credit for 120 hours of training. Four units of Internship in Finance can be applied to Group A. Total credit limited to 8 units in both classes. Prerequisite: permission of the FRL coordinator of internships. Graduate credit not available.

FRL 453 Multinational Financial Management (4)

Foreign exchange markets, foreign exchange risk management, multinational working capital management, foreign investment analysis and multinational capital budgeting, international diversification, cost of capital and capital structure of the multinational firm, political risk management, and international taxation. 4 lectures/problem-solving. Prerequisites: FRL 301 and a minimum grade of "C" (2.0) in MAT 125.

FRL 460 Commercial Banking (4)

Functional and operational aspects of commercial banks. Emphasis on the principles and practices used in asset management, liability management, and liquidity management. Group analysis using case problems and/or computer simulations. 4 lecture discussions. Prerequisites: FRL 315 and a minimum grade of "C" (2.0) in MAT 125.

FRL 461, 462 Senior Project (2) (2)

Selection and completion of a project under faculty supervision. Projects typical of problems which graduates must solve in their fields of employment. Formal report is required. Prerequisite: senior standing. Required minimum of 120 hours.

FRL 463 Seminar in Finance (4)

Study and discussion by students of recent developments in the student's major field. 4 lectures. Prerequisites: FRL 306, FRL 315, FRL 330, and senior standing.

FRL 470 Risk Management and Insurance (4)

Insurance and risk management for corporations, government, and individuals. Application of risk retention, loss control and insurance methods to life, health, liability, and property risks. Social insurance, auto and workers compensation, employment benefits, and pensions. 4 lectures/problem-solving.

FRL 483 Real Estate Market Analysis (4)

Analyze and collect urban economic and real estate data to prepare market demand studies for use in real estate investment analysis and feasibility studies for development projects. Satisfies educational requirement for the real estate broker's license. 4 lectures/problem-solving. Prerequisites: EC 201, EC 202, and FRL 306.

FRL 484 Real Estate Law and Practice (4)

Rights and liabilities surrounding the acquisition, possession, and transfer of real property: easements, deeds, zoning, mortgages, foreclosure, landlord and tenant relationships. Satisfies educational requirement for the real estate broker's license. 4 lecture discussions. Prerequisites: FRL 201, FRL 306, and a minimum grade of "C" (2.0) in MAT 125.

FRL 486 Real Estate Investment Analysis (4)

Techniques for analyzing real estate investments in post-development phase projects. Integration of market analysis, appraisal methods, real estate tax law and traditional financial analysis techniques to evaluate the risk-return characteristics of investment positions in real properties. Satisfies educational requirement for real estate broker's license. 4 lectures/problem-solving. Prerequisites: FRL 306 and a minimum grade of "C" (2.0) in MAT 125.

FRL 490 Urban Land Development (4)

Examines processes of developing real properties of various types, emphasizing the approval process, site selection, market and feasibility studies, financial analysis, and project/building design. Applications through cases and/or other assignments. Satisfies educational requirement for the real estate broker's license. 4 lectures/problem-solving. Prerequisite: FRL 380.

FRL 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

INTERNATIONAL BUSINESS AND MARKETING

www.cba.csupomona.edu/ibm

Two subplans are offered in the International Business and Marketing Department, International Business and Marketing Management.

James E. Swartz, Chair, International Business and Marketing

Frank Bryant	Richard S. Lapidus
Helena Czepiec	Xin (Cindy) Liu
Tarique Hossain	Jun Myers
Jing Hu	Juanita P. Roxas
Jae Min Jung	Debbora T. A. Whitson

MISSION STATEMENT

The mission of the International Business and Marketing Department is to prepare students for specialized careers in either international business or marketing management. This preparation gives both undergraduate and graduate students practical learning experiences in such courses as international marketing, marketing management, professional selling, advertising, buyer behavior, market research, retailing, industrial marketing, brand management, and transportation and distribution management. In addition, the mission of the Department is to give non-majors a solid foundation in the application of business principles to the marketing of goods and services in international and domestic markets. To achieve excellence in both teaching and course content for an increasingly diverse and multinational student body, the Department's faculty undertakes programs of basic research, applied scholarship, and instructional development; it also forges and maintains strong links with the business community, both local and global.

INTERNATIONAL BUSINESS SUBPLAN

The International Business subplan provides students a solid grounding in the principles of business management as well as interdisciplinary specialization in areas required to understand and react to today's globalized markets. The objectives of this subplan are twofold: to provide students with the business knowledge and skills essential for careers in international business; and to provide them with an understanding and appreciation of the culture, language, economics, politics, and history of other parts of the world, with particular emphasis on a geographic area in which the student has a special career interest. The curriculum requires completion of the business core which provides to all business majors a foundation in the theory and practice of modern business management. In addition, the International Business subplan requires completion of a minor in a functional area of business (e.g. accounting, finance, management, etc.) or, as an alternative to a minor in business, an option in International Studies directed electives or a foreign language.

Each student should work closely with the program advisor in identifying career goals and selecting course work most appropriate for goal attainment. The International Business subplan involves the completion of requirements in each of the following areas:

1. Core Courses in Major required of all Business majors
2. International Business required courses
3. Support and Elective courses
4. Functional Specialization
5. General Education

1MICROCOMPUTER PROFICIENCY REQUIREMENT (see policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS	1011	(4)
Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)

INTERNATIONAL BUSINESS REQUIRED SUBPLAN/OPTION CORE COURSES

Legal Aspects of International Business	FRL	426	(4)
or International Financial Markets	FRL	353	(4)
or Multinational Financial Management	FRL	453	(4)
Special Study for Lower Division Students (Section 02 for IB majors)	IBM	200	(2)
Principles of Global Business	IBM	300	(4)
International Marketing	IBM	414	(4)
International Exporting	IBM	416	(4)
Global Business Problems	IBM	480	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Functional Specialization (20)
Student must complete 20 units within an area of study approved by an advisor.

Elective Subplan/Option Core Courses (20)

ELECTIVE SUPPORT COURSES

Select an additional 2-4 units not used in Functional Specialization:

International Trade Theory and Policy	EC	404	(4)
Economic Geography	GEO	312	(4)
Strategy in International Marketing	IBM	415	(4)
International Logistics	IBM	429	(4)
International Business Agreements and Negotiation	IBM	436	(4)
International Business Cases: Operations	TOM	437	(4)
Internship in Marketing	IBM	441	(1-4)
(2-unit internship recommended)			
Consumer Behavior in the International Arena	IBM	470	(4)

Select one of the following not used in Functional Specialization:

International Financial Markets	FRL	353	(4)
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Multinational Financial Markets	FRL	453	(4)
International Comparative Management	MHR	451	(4)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from “Required Support”, “Elective Support”, “GE”, and “Unrestricted Electives” is at least 90 units.

Unrestricted Electives	(0-8)
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SUPPORT AND ELECTIVE COURSES

The number of elective units depends on whether or not STA 120 and EC 201 or EC 202 are used for General Education (see curriculum sheet for the subplan). If STA 120 is used for General Education, electives will be increased by four units. If EC 201 or EC 202 is used for General Education, electives will be increased by four units.

FUNCTIONAL SPECIALIZATION

Students must complete any minor or at least 20 units within an approved area of study in the College of Business Administration or in a foreign language, international agricultural business management, economics, geography, anthropology, history, Latin American Studies, political science, or public administration.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

MINOR IN INTERNATIONAL BUSINESS

Students from both business and non-business majors/subplans who have an interest in pursuing careers related to international business may complete the Minor in International Business. The purpose of the minor is to provide sufficient knowledge and expertise in international business for students to successfully apply the specialties of their fields to international careers.

To enroll in the minor or for more information about it, see the International Business Minor Advisor. Students are responsible for meeting the requirements of the minor program in effect when the formal contract for the Minor in International Business is signed. The contract should be signed before coursework in the minor is begun.

The minor is comprised of required and directed elective courses. Most students already in the College of Business Administration will be able to take the required courses with at most one additional prerequisite course in addition to those required in their fields. Students from outside the College of Business Administration must complete a number of courses in Business and Economics before courses required in the International Business Minor can be taken, but may have satisfied the directed elective requirements through their degree major coursework.

Required Courses:

Principles of Microeconomics	EC	201	
or Principles of Macroeconomics	EC	202	(4)
Principles of Global Business	IBM	300	(4)
Principles of Marketing	IBM	301	(4)
International Marketing Management	IBM	414	(4)

Select 8 units from the following:

International Financial Markets	FRL	353	(4)
Strategy in International Marketing	IBM	415	(4)
International Exporting	IBM	416	(4)
Legal Aspects of International Business	FRL	426	(4)
International Business Agreements and Negotiation	IBM	436	(4)
International Business Cases: Operations	TOM	437	(4)
International Trade Theory and Practice	EC	404	(4)
International Logistics	IBM	429	(4)
International Comparative Management	MHR	451	(4)
Multinational Financial Markets	FRL	453	(4)
Consumer Behavior in the International Arena	IBM	470	(4)
Global Business Problems	IBM	480	(4)

MARKETING MANAGEMENT SUBPLAN

The marketing management subplan is designed to give students an understanding of the factors both within the firm and in the external environment that affect the development and implementation of plans to serve the firm’s markets and to attain the firm’s economic goals. Emphasis is placed on determining market needs and decision-making concerning the product, pricing, promotion and distribution strategies required to meet those market needs.

Through proper selection of courses, with advisor approval, each student will develop and complete an individualized program of courses that will prepare him or her for a specialized career field within the field of marketing management. The specialized fields from which the student will choose are: (1) advertising/promotion, (2) international marketing, (3) marketing research, (4) general marketing, (5) retail management, (6) interactive management, (7) product/brand management, (8) entertainment/sports marketing, (9) e-commerce, and (10) professional selling/sales management.

MICROCOMPUTER PROFICIENCY REQUIREMENT (see policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES

Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)
General Psychology	PSY	201	(4)

MARKETING REQUIRED SUBPLAN/OPTION CORE COURSES

Special Study for Lower Division Students (Section 01 for MKT majors)	IBM	200	(2)
Marketing Analysis and Control	IBM	320	(4)
Marketing Research I	IBM	408	(4)
International Marketing Management	IBM	414	(4)
Buyer Behavior	IBM	411	(4)
Marketing Problems	IBM	421	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Select a minimum of 22 units of courses with advisor approval (22)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 88 units.

Unrestricted Electives (0-12)

SUPPORT AND ELECTIVE COURSES

The number of elective units depends on whether or not STA 120 and EC 201 or EC 202 and PSY 201 are used for General Education (see curriculum sheet for the subplan). If any of these courses are used for General Education, electives will be increased by four units per course up to the unit maximum of 12.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

QUANTITATIVE RESEARCH MINOR

The Quantitative Research Minor is an interdisciplinary program which can be taken by students majoring in any field other than Mathematics. Its purpose is to prepare students to conduct quantitative analysis in their chosen discipline. Students acquire practical experience using statistics, principles of experimental design, survey and data analysis techniques. This minor is particularly suited for students in the Marketing subplan. A full description of this minor is included in the "University Programs" section of this catalog.

MINOR IN MARKETING MANAGEMENT

Students enrolled in other academic programs, especially those outside of the College of Business Administration, may broaden their intellectual base and increase their opportunities for employment by completing an academic minor in Marketing Management. This minor is designed to supplement student studies in other major fields. Many non-business majors find opportunities for application of the knowledge and academic preparation they have obtained in their major field in the marketing of goods, services, and ideas where a knowledge and understanding of marketing principles and practices is a prerequisite for success.

It is possible for students majoring in most other fields to complete the minor in marketing management within the normal requirements of their degree through careful planning and scheduling of their required courses.

The attainment of a minor in Marketing Management is accomplished by appropriate selection, timely scheduling and satisfactory completion of specifically designated courses and electives totaling a minimum of 24

quarter units as outlined below:

Required courses for Business majors:

Principles of Economics	EC	201 or 202	4
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and completion of 20 units from list of courses below.

Required courses for non-business majors:

Principles of Economics	EC	201 or 202	4
Principles of Marketing Management	IBM	301	4

and completion of 16 units from list of courses below.

Select 16 or 20 units, depending on major, from the following list of courses:

Marketing Strategy	IBM	302	(4)
Professional Selling	IBM	306	(4)
Promotional Strategies	IBM	307	(4)
Retail Management	IBM	308	(4)
Field Sales Management	IBM	310	(4)
Marketing Analysis and Control	IBM	320	(4)
Marketing of Services	IBM	316	(4)
Interactive Marketing	IBM	326	(4)
Sales Promotion	IBM	327	(4)
Special Study for Upper Division Students	IBM	400	(2)
Product and Brand Management	IBM	402	(4)
Electronic Commerce	IBM	403	(4)
Advertising Management	IBM	405	(4)
Ethical Issues in Marketing	IBM	406	(4)
Industrial Marketing	IBM	407	(4)
Marketing Research I	IBM	408	(4)
Marketing Research II	IBM	409	(4)
Marketing for Small Business Organizations	IBM	410	(4)
Buyer Behavior	IBM	411	(4)
International Marketing Management	IBM	414	(4)
Strategy in International Marketing	IBM	415	(4)
International Exporting	IBM	416	(4)
Legal Environment of Marketing	FRL	419	(4)
Marketing Problems	IBM	421	(4)
International Logistics	IBM	429	(4)
Management of Marketing Channels	IBM	431	(4)
Evaluating Advertising Effectiveness	IBM	433	(4)
Advanced Professional Selling	IBM	435	(4)
International Business Agreements and Negotiations	IBM	436	(4)
Internship in Marketing	IBM	441	(4)
Advertising Media Analysis and Planning	IBM	443	(4)
Retailing Problems	IBM	447	(4)
Consumer Behavior in the International Arena	IBM	470	(4)
Marketing the Movies	IBM	491	(4)
Sports Marketing	IBM	492	(4)
Special Topics for Upper Division Students	IBM	499	(4)

MINOR IN FASHION MERCHANDISING

This interdisciplinary minor is designed for students who seek careers in the fashion industry. The minor provides students with a background in both fashion and business to better prepare them to seek employment in manufacturing or retailing. The minor in Fashion Merchandising is administered jointly by the Department of International Business and Marketing and the College of Agriculture.

The attainment of a minor in Fashion Merchandising is accomplished by appropriate selection, timely scheduling and satisfactory completion of specifically designated courses and electives totaling a minimum of 35 quarter units as follows:

Completion of the following courses is required:

Apparel Design Analysis	AMM	210	(4)
Fashion Industry	AMM	101	(4)
Apparel Importing and Exporting	AMM	357	(3)
Principles of Marketing Management	IBM	301	(4)
Marketing Internship	IBM	441/2	(4)
Select two courses from Group A			(8)
Select two courses from Group B or C			(8)

GROUP A

Culture, People, and Dress	AMM	108	(4)
Fashion Promotion	AMM	230	(4)
Apparel Product Analysis	AMM	380/380A(2/1)	

GROUP B

Professional Selling	IBM	306	(4)
Retail Management	IBM	308	(4)
Retailing Problems	IBM	447	(4)

GROUP C

Principles of Global Business	IBM	300	(4)
International Marketing Management	IBM	414	(4)
International Marketing of Food and Fiber Products	IA/ABM	330	(4)
Strategy in International Marketing	IBM	415	(4)

COURSE DESCRIPTIONS

IBM 200 Special Study for Lower Division IB and MKT Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter. IBM 200-01 is for MKT students; IBM 200-02 is for IB students.

IBM 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

IBM 300 Principles of Global Business (4)

Introduction to business, globalization, country differences, theories of international trade and investment, monetary systems and foreign exchange. Presentation of the roles of various functional areas in a business firm, impact of international trade and economic development. 4 lecture discussion.

IBM 301 Principles of Marketing Management (4)

Principles, concepts, and institutions involved in facilitating the exchange of goods and services. Analysis of markets, the marketing environment, and the marketing variables of product, price, promotion, and distribution. Introduction to marketing strategy and international marketing. Ethical issues. Computer applications. 4 lecture discussions.

IBM 302 Marketing Strategy (4)

Analysis, planning, implementation and control of marketing strategy. Target market, product, distribution, promotion, and pricing decisions necessary to accomplish the firm's objectives. Emphasis on application of analytical techniques to improve decision-making in a dynamic marketplace. 4 lecture discussions. Prerequisite: IBM 301.

IBM 306 Professional Selling (4)

Focus on professional selling within the context of relationship

marketing. Emphasis on precision selling process. Team presentations. 4 lecture/problem-solving. Prerequisite: IBM 301.

IBM 307 Promotional Strategies (4)

Fundamentals of marketing communication. Promotional strategy development: advertising messages and media, personal selling, sales promotion, publicity, packaging, branding, and display. Promotional budgets. Development of communication strategies for new product, industrial, retail, and services marketing. 4 lecture discussions. Prerequisite: IBM 301.

IBM 308 Retail Management (4)

Examination and evaluation of changing concepts of retailing from a management viewpoint. Philosophy of modern management and measures of retail productivity. Individual student field projects. 4 lectures/problem-solving. Prerequisite: IBM 301.

IBM 310 Field Sales Management (4)

Analysis of the field sales manager as a professional marketing tactician in a marketing-oriented firm. Emphasis on both theoretical and applied approaches to effectively managing a field sales force. 4 lecture discussions. Prerequisite: IBM 301.

IBM 316 Marketing of Services (4)

Concepts, practices, and development of strategies involved in marketing of services. External environmental and internal control factors as applied to professional, financial, educational, entertainment, health care, governmental, religious, research, media, and other organizations, institutions, and/or agencies. 4 lecture discussions. Prerequisite: IBM 301.

IBM 320 Market Analysis and Control (4)

Market identification and diagnosis. Market analysis based on available data; applications for planning and control. Extensive use of computer models, with emphasis on current microcomputer software application packages. 4 lectures/problem-solving. Prerequisites: IBM 200, IBM 301, TOM 302, and MAT 125.

IBM 326 Interactive Marketing (4)

Role of interactive marketing in marketing strategy to gain a competitive advantage. Exploration of all forms and uses by entrepreneurs, manufacturers, wholesalers, retailers, politicians, not-for-profit and service organizations. 4 lectures problem-solving. Prerequisite: IBM 307.

IBM 327 Sales Promotion (4)

Role of sales promotion in marketing strategy. Study of numerous incentives designed to increase sales or achieve other specific marketing objectives directed toward sales force, intermediaries, and consumers. Design of sales promotion plans. 4 lecture discussions. Prerequisite: IBM 307.

IBM 400 Special Study for Upper Division Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

IBM 402 Product and Brand Management (4)

Planning, implementation, and control of marketing strategy for a specific product, product line, or brand. Analysis of market needs and the macro-environment; developing marketing plans involving product, price, promotion, and distribution decisions to market a specific product or

brand. 4 lecture discussions. Prerequisite: IBM 301.

IBM 403 Electronic Commerce (4)

Study of the Internet, its culture and procedures from a marketing perspective. Using the Internet for customer contact, customer service, order-taking, and marketing research. Promotion and distribution considerations. Issues in the creation of successful WWWsites. On-line experience and projects with real organizations. 4 lectures/problem-solving. Prerequisite: IBM 301.

IBM 405 Advertising Management (4)

Integrated Brand Communications Management. This course focuses on the strategic aspects of integrated brand communications. Content includes: the concept of brands, marketing communication tools, campaign strategy, creating customer loyalty, creating customer value, and campaign evaluation. Lecture-discussion, case analysis and discussion, written projects, and oral presentations. Prerequisite: IBM 307.

IBM 406 Ethical Issues in Marketing (4)

The morality and immorality of modern marketing practices. Ethical theories as applied to such marketing-related issues as bribery, marketing to countries engaging in morally questionable practices, deceptive advertising, and invasion of privacy. 4 lectures/problem-solving. Prerequisites: IBM 301.

IBM 407 Industrial Marketing (4)

Study of the environment in which industrial products are marketed to industrial firms, governments and institutions. Emphasis on industry structure, government and industrial buying behavior as each affects product, pricing, promotion and distribution decisions. Analysis of specific case problems. 4 lectures/problem-solving. Prerequisite: IBM 301.

IBM 408 Marketing Research I (4)

Theoretical and analytical foundations of marketing research. Topics covered include analysis of internal and external secondary data, marketing software packages, approaches to primary research, and research applications to marketing problems. 4 lectures/problem-solving. Prerequisites: IBM 320 and TOM 302.

IBM 409 Marketing Research II (4)

The research process as an aid to decision-making in marketing. Application of techniques in research design, data collection, sampling, computer-aided data analysis, and report writing to contemporary marketing research problems. 4 lectures/problem-solving. Prerequisite: IBM 408.

IBM 410 Marketing for Small Business Organizations (4) (formerly MKT 404)

Methods by which a small business organization with limited resources can analyze the profit opportunities within its market area. Special emphasis on developing and evaluating a written marketing plan for a small business organization. 4 lectures/problem-solving. Prerequisite: IBM 301.

IBM 411 Buyer Behavior (4)

Various factors that affect the consumer during the pre-purchase, purchase, and post-purchase decision-making process. Emphasis upon a thorough understanding of the consumer to facilitate the development of effective marketing strategy. 4 lecture discussions. Prerequisite: IBM

301 and PSY 201.

IBM 414 International Marketing Management (4)

Planning and organizing for international marketing operations. Distinctive characteristics, environmental influences, and emerging trends in overseas markets. Management practices and problems of adapting American marketing concepts and methods. 4 lecture discussions.. Prerequisite: IBM 301.

IBM 415 Strategy in International Marketing (4)

Alternative methods and strategies in the decision areas of product development, promotional programs, distribution channel determination, and pricing. Opportunities, key issues, and applications to ensure a firm's survival and success in the international arena. 4 lectures/problem-solving. Prerequisite: IBM 414.

IBM 416 International Exporting (4)

Principles, strategies, and mechanics of exporting to foreign nations. Political, legal, cultural, and economic environments affecting export operations. Corporate programs and policies, involvement levels, financing, pricing, promotion, and distribution strategies. Latin America, European Community, Pacific Rim specifics. Import trade mechanics. 4 lecture discussions. Prerequisite: IBM 414.

IBM 421 Marketing Problems (4)

Application of marketing theory to contemporary marketing problems. Emphasis on the techniques of successful marketing decision-making. A problems approach to developing student's ability to integrate all major areas of marketing. 4 lectures/problem-solving. Prerequisites: IBM 408, and 411.

IBM 429 International Logistics (4)

Integration of cultural, functional and strategic aspects of global logistics. Ocean, air and surface carriers and systems, international sourcing, financial aspects of sales and payments, roles of government and intermediaries, infrastructure issues. Logistics as a tool for integrative international operations. 4 lecture discussions. Prerequisite: IBM 301.

IBM 431 Management of Marketing Channels (4)

Development, design, selection, and administration of marketing channel systems. Sources and resolution of channel conflicts. Channel relationships, communication, functional performance, and strategy planning. Analysis of selected case problems. 4 lecture discussions. Prerequisites: IBM 301.

IBM 433 Evaluating Advertising Effectiveness (4)

Development of criteria to analyze the strategic and creative elements of advertising campaigns. Application of criteria to judge effective versus ineffective advertising in all major media: magazine, newspaper, outdoor, radio, television, and internet. Production of a 30-second television commercial. 4 lectures/problem-solving. Prerequisites: IBM 307, IBM 411.

IBM 435 Advanced Professional Selling (4)

Analysis of the sales representative as a professional marketing tactician in a market-oriented firm. Emphasis on applied and theoretical approaches utilized to effectively manage a sales territory. Analysis of sales representatives in different industries. 4 lectures/problem-solving. Prerequisite: IBM 306.

IBM 436 International Business Agreements and Negotiation (4)

Integrating perspectives from various fields of study contributing to international agreements and the negotiating process. Exploring insights and applications related to business agreements, diplomacy, and negotiation of strategies in marketing/selling situations. 4 lectures/problem-solving. Prerequisite: IBM 414.

IBM 441, 442 Internship in Marketing (1-8) (1-8)

Faculty-supervised on-the-job educational experience in the real-world marketing management environment. Allocation of unit credit is dependent upon the nature of the work done, the level of responsibility, and the number of hours worked. Total credit limited to 8 units, with a maximum of 4 units per quarter for IBM 441. Total credit limited to 8 units, with a maximum of 4 units per quarter. Prerequisite: permission of departmental internship coordinator.

BM 443 Advertising Media Analysis and Planning (4)

Principles and practices of advertising and media analysis and planning. Strengths and weaknesses of media alternatives, budgeting procedures, media-client planning, and buying interaction, negotiation with media sales personnel. 4 lectures/problem-solving. Prerequisites: STA 120 and IBM 307.

IBM 447 Retailing Problems (4)

Application of marketing theory to contemporary retailing problems. Identification of potential markets and development of effective research techniques in retail organizations. Integration of current marketing plans and strategies with the techniques of successful retail decision-making. 4 lectures/problem-solving. Prerequisite: IBM 308.

IBM 461, 462 Senior Project (2) (2)

Selection and completion of a project under faculty supervision. Projects typical of problems which graduates must solve in their fields of employment. Formal report is required. Prerequisite: senior standing. Required minimum of 120 hours. Non-Marketing majors only.

IBM 470 Consumer Behavior in the International Arena (4)

A cross-cultural examination of consumption behavior across international boundaries. This course will study the contradictions in cultural values and behavior that affect purchase, and how marketers adjust their strategies to accommodate. 4 lectures/problem solving. Prerequisites: IBM 301, IBM 411.

IBM 480 Global Business Problems (4)

Capstone course integrating international marketing, international finance, and international management strategy into an overall international business strategy. Prerequisites: IBM 300, IBM 414; completion of or concurrent enrollment in MHR 410 or TOM 411.

IBM 491 Marketing the Movies (4)

An overview of the business of cinema. Product budgeting and planning, distribution strategies, target market analysis, research prior to, during, and after launch, promotional considerations, product placement and co-op challenges, advertising the product, international issues, the after market including home, retail and cable/satellite release. Major project involving a leading film studio. 4 units. Lecture/problem-solving. Prerequisites: Upper division standing; IBM 307.

IBM 492 Sports Marketing (4)

An analysis into the \$400 billion industry of sport in the United States

from a marketing management perspective. The evolution of the business of sport, the rise of marketing, marketing strategies and principles as applied to various forms of sport, promotional considerations. The relationship among the integrated marketing communications team, including sales management, marketing management, public and community relations, employing both direct and indirect forms of messaging. Major project involving a leading sports organization. 4 units. Lecture/problem-solving. Prerequisites: Upper division standing; IBM 307.

IBM 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

For a complete list of remaining courses in the International Business Subplan, please refer to the catalog listings under the appropriate departments.

MANAGEMENT AND HUMAN RESOURCES

www.cba.csupomona.edu/mhr

Jeanne A. Almaraz, Interim Chair

Stanley C. Abraham	LianLian Lin
James C. Bassett	Olukemi O. Sawyerr
Deborah V. Brazeal	Nirmal K. Sethia
Cedric Dawkins	Mansour Sharifzadeh
Kevin Farmer	Shanthi Srinivas
Carlos B. Gonzalez	G. Ross Waters
Carol L. Jones	Cheryl R. Wyrick

MISSION STATEMENT

The department's mission is consonant with and supportive of the College of Business Administration mission statement. With its special emphases on teaching undergraduates and focusing on applied research and instructional development, the MHR Department also seeks prominence within domestic and international communities in teaching and life-long learning.

The teaching strengths of the department's faculty, which are embedded in the courses, include the capacity for critical thinking, skills for working with people, ability to respond creatively to changes, making ethical choices, managing diversity, strategic management, and applying the theories and concepts learned to design practical and innovative solutions. These strengths address leading-edge knowledge and education.

This subplan provides students with the opportunity to pursue an emphasis in one of several areas: general management, entrepreneurship and small business management, human resources management and not-for-profit management.

Department advisors strive to provide programs that meet the educational needs of students who have the following career goals:

1. General manager in a private or public organization of any size.
2. Manager of a small or medium-sized business. (This program is designed specifically for people who plan to own and operate their own businesses.)
3. Human resources or personnel manager in a private or public organization.
4. Manager of a not-for-profit organization.

All department programs are designed to provide maximum flexibility in selecting an area of specialty. For example, a freshman can pursue the department curriculum for two years before making a career goal decision. In fact, after two years of study, the student can change to any of the business administration subplans without loss of academic credits. It is important that students entering Cal Poly Pomona for the first time seek the help of an advisor to ensure that their individual programs are in their own best interest.

1MICROCOMPUTER PROFICIENCY REQUIREMENT (see policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-MakingACC 207/207A(4/1)

Managerial Accounting for Decision-MakingACC	208/208A(4/1)
Management Information SystemsCIS	310 (4)
Legal Environment of Business TransactionsFRL	201 (4)
Managerial Finance IFRL	300 (3)
Managerial Finance IIFRL	301 (3)
Principles of Marketing ManagementIBM	301 (4)
Principles of ManagementMHR	301 (4)
Multicultural Organizational BehaviorMHR	318 (4)
Operations ManagementTOM	301 (4)
Managerial StatisticsTOM	302 (4)
Strategic ManagementMHR	410 (4)
or Strategic ManagementTOM	411 (4)

REQUIRED SUPPORT COURSES

Introduction to MicrocomputingCIS	1011 (4)
Introductory Calculus for BusinessMAT	125 (4)
Statistics with ApplicationsSTA	120 (4)
Principles of EconomicsEC	201 (4)
Principles of EconomicsEC	202 (4)

MHR REQUIRED SUBPLAN/OPTION CORE COURSES

Human Resources ManagementMHR	311 (4)
Introduction to EntrepreneurshipMHR	320 (4)
Communication for ManagementMHR	324 (4)
Emerging Issues in ManagementMHR	452 (4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

Select four (4) units from:
 Internship in Business ManagementMHR 441,442 (2-4)
 or Senior ProjectMHR 461, 462 (2)(2)

One career-emphasis program selected with approval of advisor. Students who take the Microcomputer Proficiency Skills Test must complete 32 units(28-32)

Elective Subplan/Option Core Courses(32-36)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Elective Subplan/Option", "Required Support", "GE", and "Unrestricted Electives" is at least 116 units.

Unrestricted Electives(0-8)

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

MINORS IN MANAGEMENT AND HUMAN RESOURCES

The Management and Human Resources Department offers the following minors. The purpose of these minors is to develop marketable skills in one's chosen field. Also, those students majoring in fields such as engineering or science may wish to develop adjunct skills that may prove to be complementary to their major course of study. Please see the Minors Coordinator, Management and Human Resources Department, if

you are interested in enrolling in one of these minors. Students should formally enroll in the minor before taking any courses in the minor. See Department Chair for details.

MINOR IN GENERAL MANAGEMENT

This minor provides students with an opportunity for a broader course of study in business and management.

Required Courses (21 units)

Financial Accounting for Decision-Making	ACC	207/207A	4/1
Principles of Management	MHR	301	(4)
Organizational Behavior	MHR	318	(4)
Leadership	MHR	450	(4)
International Comparative Management	MHR	451	(4)

Electives—Select one course (4 units) from the following:*

First-line Management	MHR	313	(4)
Management for Non-for-Profit Organizations	MHR	319	(4)
Introduction to Entrepreneurship	MHR	320	(4)
Communication for Management	MHR	324	(4)
Training and Development	MHR	405	(4)
Strategies for Men and Women in Management	MHR	406	(4)
Advanced Organizational Behavior	MHR	438	(4)
Emerging Issues in Management	MHR	452	(4)

*Students with a subplan in International Business need to take an additional 12 units from the lower list to fulfill the requirements for their functional specialization.

MINOR IN HUMAN RESOURCES MANAGEMENT

This minor provides students with an opportunity to develop their capability to manage other employees and provides introductory background in the human resource/personnel field.

Required Courses (20 units):

Human Resources Management	MHR	311	(4)
Staffing-Planning, Recruiting & Selection	MHR	411	(4)
Employee Compensation Plans	MHR	413	(4)
Human Resources Information Mgmt	MHR	415	(4)
Employee Benefits and Services	MHR	416	(4)

Electives—Select one course (4 units) from the following:

Principles of Management	MHR	301	(4)
Organizational Behavior	MHR	318	(4)
Training and Development	MHR	405	(4)
Strategies for Men and Women in Management	MHR	406	(4)
Management Union Relations	MHR	421	(4)
Emerging Issues in Management	MHR	452	(4)

MINOR IN ENTREPRENEURSHIP AND SMALL BUSINESS MANAGEMENT

This minor provides students with an introductory background needed to start and operate a small business.

Required Courses (20 units):

Introduction to Entrepreneurship	MHR	320	(4)
Creativity and Entrepreneurship	MHR	321	(4)
Creating a Business Plan	MHR	423	(4)
Emergent Ventures	MHR	425	(4)
Family Business	MHR	427	(4)

Electives—Select one course (4 units) from the following:

Fundamentals of Real Estate	FRL	306	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Financing Small Business	FRL	420	(4)
Professional Selling	IBM	306	(4)
Principles of Management	MHR	301	(4)
Organizational Behavior	MHR	318	(4)
Management for Not-for-profit Organizations	MHR	319	(4)
Advanced Organizational Behavior	MHR	438	(4)
Leadership	MHR	450	(4)
Financial Accounting for Decision-Making	ACC	207/207A	4/1
Managerial Accounting for Decision-Making	ACC	208/208A	4/1

COURSE DESCRIPTIONS

MHR 200 Special Study for Lower Division Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

MHR 201 Leveraging Yourself Toward MHR Careers (2)

This course is designed for students new to MHR. It includes research and discussion of MHR options and careers, self-assessments in relation to career decisions, navigation of the MHR program, and the development of both an academic career plan and the creation of a co-curricular portfolio, which may grow to include campus involvement opportunities, internships, personal development, and international work/study. 2 lectures.

MHR 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination. Prerequisite: Permission of instructor.

MHR 301 Principles of Management (4)

Survey of the history of management and review of significant management literature. Practical applications of management theories to problems in planning, organizing, and controlling business activity. Ethical considerations. 4 lecture discussions.

MHR 311 Human Resources Management (4)

Establishment of human resources objectives and requirements in the organization. Recruiting, testing, interviewing, screening, and selection of employees. Employee counseling, training, development, promotion, recreation, insurance, and retirement programs. Case studies. 4 lecture discussions. Prerequisite: MHR 301.

MHR 313 First-line Management (4)

Analysis of the unique position of the supervisor in complex organizations; the application of theory and practice in solving problems and ethical considerations at the first level of management. 4 lectures/problem-solving.

MHR 318 Organizational Behavior (4)

Introductory experiences in the basics of organizational behavior. Organizational socialization, teamwork leadership, group dynamics, problem-solving, and ethics as they apply to the manager in a multi-cultural economic and political environment. 4 lecture discussions. Prerequisite: junior standing.

MHR 319 Management of Not-for-Profit Organizations (4)

Methods, theory, and institutional knowledge for managing not-for-profit organizations. Problems and issues in policy, organization, program, personnel, and budget unique to not-for-profit organizations. 4 lecture discussions.

MHR 320 Introduction to Entrepreneurship (4)

An introduction to the characteristics of an entrepreneur and the knowledge required to start a business. Exploration of resources and support available to the entrepreneur. Students develop a business opportunity-assessment, focusing on industry, product/service, competition, target market, and location. 4 lecture/problem-solving. Prerequisite: ENG 104.

MHR 321 Creativity and Entrepreneurship (4)

Exploring techniques and exercises to facilitate the creative thinking process. How to realize and nurture an entrepreneurial mindset to perceive opportunities. Designing an innovation with the potential for commercialization. An integration of financial analysis with opportunity recognition. 4 lectures/problem-solving.

MHR 324 Communication for Management (4)

Basic communications objectives of organizations. Types of communication used for decision-making, their nature, capabilities, and limitations. Using computers for communications. Practice in improving written communications, using the approved style manual. Presentations. 4 lectures/problem-solving. Prerequisite: ENG 104 and microcomputer proficiency.

MHR 400 Special Study for Upper Division Students (1-2)

Individual or group investigation, research, studies, or surveys of selected problems. Total credit limited to 4 units, with a maximum of 2 units per quarter.

MHR 401 Career Design (2)

This course combines lectures, exercises, and individual assignments to teach principles and practical tools for sorting out career options, developing professional skills and developing a personalized plan for the future. Prerequisites: MHR 201, MHR 311, MHR 320, MHR 324.

MHR 405 Training and Development (4)

Theory and applications of employee training and development. How rapid changes in technology, market conditions, and business practices make training a growing management function. Determining training needs, selecting methods, planning programs, and evaluating results. 4 lectures/problem-solving. Prerequisite: junior standing.

MHR 406 Men, Women, and Management (4)

Attitudes regarding male/female roles in management positions discussed in seminar and small group format. Current literature, popular and scholarly, reviewed and evaluated. Three short papers required on current issues. 4 seminars.

MHR 409 Business Education Management (4)

Methods and techniques for stimulating enthusiasm for learning in teaching business courses. Course and lesson design, and presentations for office education courses in keyboarding, word processing, computer applications, etc. Preparation for becoming professional business educators. 4 lectures/problem-solving.

MHR 410 Strategic Management (4)

Seminar in strategy formulation and implementation. A capstone experience integrating all business functions and requiring evaluation of strategic outcomes from ethical as well as economic viewpoints. Case analysis and computer-simulation or computer-based analysis. 4 seminars. Prerequisites: ACC 207/207A, ACC 208/208A, MHR 301, MHR 318, IBM 301, FRL 201, FRL 300, FRL 301, CIS 310, TOM 301, and TOM 302.

MHR 411 Human Resources Staffing, Planning, Recruiting and Selection (4)

Theory and practical applications in organizational planning, recruiting and selection processes and systems used in staffing organizations. This course will cover multiple tools, techniques and activities important to matching organizational human resources requirements and specifications with applicant abilities and motivations. 4 lecture presentations. Prerequisites: MHR 311.

MHR 413 Employee Compensation Plans (4)

The goals and external/internal organizational considerations that affect planning and administering compensation in organizations. Evaluation of race and sex discrimination in pay, and comparable job worth. Job evaluation, performance appraisal systems, and gainsharing. 4 lecture presentations. Prerequisite: MHR 311.

MHR 415 Human Resource Information Management (4)

Emerging approaches to the management of human resources information in hiring, compensation/benefits, skills inventory, employee records, and training. Automated and manual systems compared. Student presentations on proposed and operational human resource information systems. Microcomputer exercises and 4 lectures/problem-solving. Prerequisite: MHR 311.

MHR 416 Employee Benefits and Services (4)

In-depth examination of policy and design of important economic security plans for protecting employees against on-the-job accidents; prepayment, health maintenance, and preferred provider coverages; structure and implementation of pre-retirement and retirement plans administered by human resource managers. 4 lecture presentations. Prerequisite: MHR 311.

MHR 421 Management Union Relations (4)

Development of management-union relations in the United States: the continuously changing roles and relationships of labor, management, and government through collective bargaining, arbitration, and legislation. Review of trends affecting productivity and the labor force. 4 lecture discussions. Prerequisite: MHR 311 or HRT 350.

MHR 423 Creating A Business Plan (4)

Development of a business plan, including managerial philosophies and capabilities for a new business. Learning to integrate financials, marketing and operations for a new business. Identifying growth industries in the new millennium, with special attention to Southern California economy. 4 lectures/problem-solving. Prerequisite: MHR 320.

MHR 425 Emergent Ventures (4)

Managerial knowledge, skills and capabilities needed for rapidly growing or emergent businesses. Identifying the growth industries, products and services with highest potential for southern California's 21st Century. Managing the problems of growing companies including the transition from entrepreneurial to professional management. 4 lectures/problem-solving. Prerequisite: MHR 320.

MHR 426 Social Entrepreneurship (4)

A course to develop skills toward creative and innovative entrepreneurial approaches to societal problems. Examination of profit oriented ventures with a social mission seeking self-sustainability or profitability. Textbook, required readings, speakers and case studies will be utilized. Prerequisite: junior or senior standing.

MHR 427 Family Business (4)

Business, personal and interpersonal issues associated with family-owned/managed firms are explored; competitive strengths/weaknesses in family-owned firms, dynamics of family interactions and the business culture; conflict resolution; estate planning, planning for succession. 4 lecture presentations.

MHR 438 Advanced Organizational Behavior (4)

Application of human processes used to achieve goals in the organization. Group experiences whereby students gain insights into their own leadership styles, integrate their styles with managerial functions and the organization. Case studies, problem-solving exercises, and complex organizational simulations. 4 lectures/problem-solving. Prerequisite: MHR 318.

MHR 441, 442 Internship in Business Management (2) (4)

On-the-job training in business management involving new, collegiate-level learning experiences. Prerequisite: consent of internship coordinator. MHR 441 is a 2-unit section that can be repeated up to four times for a total of 8 units; MHR 442 is a 4-unit section that can be repeated twice for a total of 8 units.

MHR 450 Leadership (4)

Experiences and discussions involving the complexity of leadership. A study and survey of the history and progression of leadership research for gaining awareness of the challenges of leadership. A non-traditional approach to learning leadership concepts by simulating actual experiences. 4 lecture discussions. Prerequisite: Minimum grade of C (2.0) in ENG 104.

MHR 451 International Comparative Management (4)

From a comparative perspective, exploring opportunities and challenges facing multinational companies, the role of culture in international management, social responsibility and ethics under international context, cross-border strategy development, global coordinating and monitoring systems, and global workforce management. 4 lecture presentations. Prerequisite: MHR 301.

MHR 452 Emerging Issues in Management (4)

Exploration of contemporary issues; cases and problems facing management in multicultural and international environments. Examination of the environment of business in a global economy with specific emphasis on business-government relations, ethics, and managing for the future. 4 lecture presentations. Prerequisite: senior standing.

MHR 461, 462 Senior Project (2) (2)

Selection and completion of a project under faculty supervision. Projects typical of problems which graduates must solve in their fields of employment. Formal report required. Prerequisite: senior standing. Courses are to be taken concurrently. Required minimum of 135 hours.

MHR 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total

credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

TECHNOLOGY AND OPERATIONS MANAGEMENT

www.cba.csupomona.edu/tom

Abolhassan Halati, Chair

Henry C. Co
William J. Cosgrove
Kazem Darbandi
Jeffery L. Guyse
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John Knox
Arundhati Kumar
Rhonda L. Rhodes
Xiaohui Xu
Wenge Zhu

The operations function of a business is responsible for planning, coordinating, and supervising the production and distribution of the services and goods provided by the organization. The student in the Technology and Operations Management subplan will learn the concepts and skills needed to manage the operations function and to help business achieve continuous improvement in productivity and in the quality of services and goods produced.

MISSION STATEMENT

The Technology and Operations Management Department aims to provide an education to its students that will enable them to become successful managers in the business world of the 21st century. Through its curriculum, the department concentrates on helping students develop competencies in critical thinking, technical and business integration skills.

To prepare students for managerial positions in the 21st century, the department focuses on the role of technology and scientific management methods. Heavy emphasis is placed on the study of computer applications for helping managers plan, analyze information, make decisions, and communicate,

SPECIALIZATIONS

The subplan prepares the graduate for careers managing service and manufacturing operations in small and large companies, national and international businesses, not-for-profit institutions, and government. Students in the Technology and Operations Management subplan are provided a broad background to the field, after which they choose one of the following areas of specialization:

Service Operations Management

The Service Operations Management area of emphasis focuses on the improvement of service organizations through the understanding of business strategies, processes, technology, and change. The subjects which make up the core of this area are: operations analysis and problem-definition, computer-aided decision-making, project management, quality management, forecasting, capacity planning, and scheduling. Heavy emphasis is placed on the design, presentation, and communication of information using the computer.

Supply Chain Management

A Supply Chain is a network of facilities that procure raw materials, transform them into intermediate goods and then final products, and deliver the products to customers through a distribution system. Supply Chain Management is the management of flow of materials, information, and funds across the entire supply chain. Students in this area will develop knowledge of important business processes such as customer relationship management, customer service management, demand management, order fulfillment, service and manufacturing flow management, supplier relationship management, returns management, and business information flow processes.

Management of Technology

The Management of Technology area of emphasis focuses on the planning, development, and implementation of technological capabilities. Coursework in this area will provide students with an integrated view of the principal aspects of technology management. Students will gain knowledge and skills in the following core areas: identification and evaluation of technological operations, implementation of new technologies, management of information technology, management of collaborative research, and management of technology-transfer activities.

MICROCOMPUTER PROFICIENCY REQUIREMENT

(See policy statement in College of Business Administration introductory section)

REQUIRED CORE COURSES

Required of all business majors. A 2.0 cumulative GPA is required in core courses including subplan courses for the major in order to receive a degree in the major.

Financial Accounting for Decision-Making	ACC	207/207A	(4/1)
Managerial Accounting for Decision-Making	ACC	208/208A	(4/1)
Management Information Systems	CIS	310	(4)
Legal Environment of Business Transactions	FRL	201	(4)
Managerial Finance I	FRL	300	(3)
Managerial Finance II	FRL	301	(3)
Principles of Marketing Management	IBM	301	(4)
Principles of Management	MHR	301	(4)
Multicultural Organizational Behavior	MHR	318	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)
Strategic Management	MHR	410	(4)
or Strategic Management	TOM	411	(4)

REQUIRED SUPPORT COURSES

Introduction to Microcomputing	CIS	1011	(4)
Statistics with Applications	STA	120	(4)
Introductory Calculus for Business	MAT	125	(4)
Principles of Economics	EC	201	(4)
Principles of Economics	EC	202	(4)

TECHNOLOGY AND OPERATIONS MANAGEMENT REQUIRED SUBPLAN/OPTION CORE COURSES

Required of all Technology and Operations Management students:

Management Science	TOM	315	(4)
Production Management	TOM	332	(4)
Quality Management	TOM	401	(4)
E-business-Enabled Supply Chain Management	EBZ	304	(4)

ELECTIVE SUBPLAN/OPTION CORE COURSES

At least 28 units of additional courses from the list of Technology & Operations Management Directed Electives. (see TOM advisor for approval).

Elective Subplan/Option Core Courses (28)

UNRESTRICTED ELECTIVES

Select a sufficient number of courses so that the total from "Required Support", "GE", and "Unrestricted Electives" is at least 88 units.

Unrestricted Electives..... (0-12)

SUPPORT AND ELECTIVE COURSES

The number of elective units depends on whether or not STA 120 or MAT 125 and EC 201 or EC 202 are used for General Education (see curriculum sheet for the subplan). If STA 120 or MAT 125 is used for General Education, electives will be increased by four units. If EC 201 or EC 202 is used for General Education, electives will be increased by four units.

¹Microcomputer proficiency must be demonstrated by satisfying one of the following three alternatives: 1) CIS 101, 2) microcomputer proficiency skills test in Word, Excel, and PowerPoint, or 3) an approved college course. There are no units associated with the microcomputer proficiency skills test. If the test is passed, then electives in subplan selected may be increased by 4 units.

GENERAL EDUCATION REQUIREMENTS

(Required of all students)

Students should consult the catalog website www.csupomona.edu/~academic/catalog/ for current information regarding this requirement. See the list of approved courses under General Education Requirements, Areas A through E.

SPECIAL POLICIES

Technology and Operations Management students are strongly encouraged to complete STA 120 by the end of their sophomore year and to complete TOM 301 and TOM 302 by the end of the first quarter of their junior year because one or more of these courses are prerequisite to each of the department's required or specialization courses.

MINORS

MINOR IN LOGISTICS

The Logistics Minor is the only program of its kind in the California State University system. The Logistics Minor was developed to allow Business Administration majors or students majoring in non-business programs to gain the knowledge and skills needed to gain employment in the field of transportation, warehousing, logistics, planning, materials management, and physical distribution. In addition to the job opportunities that are available in the domestic arena, openings also exist in the international arena. Demand greatly exceeds supply both nationally and internationally for logistics managers.

Prerequisites:

Elementary Statistics with Applications	STA	120	(4)
Principles of Marketing Management	IBM	301	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)

Core Requirements (16 units)

Logistics Management	TOM	309	(4)
Transportation Systems and Traffic Management	TOM	319	(4)
Purchasing Management	TOM	434	(4)
Supply Chain Design, Analysis, and Representation	TOM	425	(4)
or E-business-enabled Supply Chain Mgmt	EBZ	304	(4)

Directed Electives (12 units)

Select 12 additional units from the following list of courses: (Each elective must be outside the student's subplan department.)

Operations Technologies and Strategies	TOM	420	(4)
Decision Support and Expert Systems	TOM	350	(4)
Quality Management	TOM	401	(4)

ERP-Applications in Operations	TOM	418	(4)
Project Management	TOM	436	(4)
Operations Management in Services	TOM	453	(4)
E-business Customer Relationship Management	EBZ	303	(4)
Industrial Marketing	IBM	407	(4)
International Marketing	IBM	414	(4)
International Exporting	IBM	416	(4)
Management of Marketing Channels	IBM	431	(4)

Total core and elective units required: 28

MINOR IN OPERATIONS MANAGEMENT

The Operations Management minor is designed to allow students in other business subplans or students majoring in non-business programs to gain the necessary analytical and information technology skills for effective and efficient management of the business processes involved in production and delivery of goods and services. This includes any kind of organization from service firms to modern manufacturing and not-for-profit organizations. With more than 50% of all jobs in operations or a related field such as purchasing, logistics and distribution, supply chain management, inventory control, production management, manufacturing or service quality control, and project management, the minor will substantially enhance students' career opportunities and growth potential.

Requirements

Prerequisites (12 units)

Statistics With Applications	STA	120	(4)
Operations Management	TOM	301	(4)
Managerial Statistics	TOM	302	(4)

Core Requirements (16 units)

Production Management	TOM	332	(4)
Quality Management	TOM	401	(4)
Supply Chain Design, Analysis, and Representation	TOM	425	(4)
or E-business-enabled Supply Chain Management	EBZ	304	(4)
Operations Management in Services	TOM	453	(4)

Directed Electives Courses (8 Units)

Select two:

Logistics Management	TOM	309	(4)
Transportation Systems and Traffic Management	TOM	319	(4)
E-business Enterprise Resource Planning	EBZ	305	(4)
Simulation Modeling and Analysis	TOM	419	(4)
Production Management	TOM	432	(4)
Purchasing Management	TOM	434	(4)
Project Management	TOM	436	(4)

Total Core and Elective Units Required..... (24)

COURSE DESCRIPTIONS

TOM 103 Business and Its Environment (4)

American business system in its economic, social, political, national, and international environment. Coverage of the major activities of business and the key institutions influencing its service to society. Participation in a computerized competitive business simulation. 4 lectures/problem-solving.

TOM 200 Special Study for Lower Division Students (1-4)

Individual or group investigation, research, studies, or surveys of selected problems. A variable number of units, from 1 to 4, is allowed in any quarter. Maximum total credit is limited to 4 units.

TOM 299/299A/299L Special Topics for Lower Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

TOM 301 Operations Management (4)

Fundamental concepts of operations including: productivity, quality control and total quality management, new product and process development, forecasting, inventory management, supply chain management, project management, operations strategy, and computer applications. 4 lectures/problem-solving. Prerequisites: STA 120 or equivalent, and microcomputer proficiency.

TOM 302 Managerial Statistics (4)

Theory and application of managerial statistics: data collection, confidence interval estimation of mean and proportion, one and two-sample hypothesis testing of mean and proportion, one-way and two-way Chi-square testing, simple regression, and multiple regression. Use of computers. 4 lecture/problem-solving. Prerequisites: STA 120 or equivalent, MAT 125 or equivalent, and microcomputer proficiency.

TOM 309 Logistics Management (4)

Logistics strategy and planning, logistics chain customer service, order processing and information systems, transport decisions and vehicle routing, procurement, storage and handling, logistics organization and control. 4 lectures/problem solving. Prerequisite: TOM 301.

TOM 315 Management Science (4)

Introduction to deterministic quantitative decision analysis, modeling, and problem-solving. Linear programming model formulation, solution, sensitivity analysis transportation, assignment, transshipment, integer models, network models; application of computers in deterministic modeling. 4 lectures/problem-solving. Prerequisite: STA 120 or equivalent, and microcomputer proficiency.

TOM 319 Transportation Systems and Traffic Management (4)

Analysis of competitive alternative modes, systems, rates, services, and regulations as prerequisite to transport purchase decisions. Organization, operations, and management of the firm's traffic department. Impact of present and proposed transportation and environmental developments on industrial and carrier operations. 4 lectures/problem solving. Prerequisite: TOM 301.

TOM 320 Management of Technology (4)

The planning, development, and implementation of technological capabilities to shape and accomplish the strategic and operational objectives of a business organization. Topics of study include: dimensions, life cycle, and diffusion of technology; technological forecasting and environmental monitoring, role of technology in strategic management; managing change, assessment, justification, and financing new technology; and management of new technology-based firms. 4 lectures/problem-solving. Prerequisite: MHR 301.

TOM 332 Production Management (4)

Application of quantitative methods to problems in production and operations management, including facility location, design of operations and work systems, job simplification, queuing systems, scheduling,

motion and time study. 4 lectures/problem-solving. Prerequisite: TOM 301, or concurrent enrollment in TOM 301.

TOM 350 Decision Support and Expert Systems (4)

Computer-based information systems for semi-structured business problems; database, dialogue management, and model-base subsystems; design and implementation of decision support and expert systems; introduction to artificial intelligence and expert systems. 4 lectures/problem-solving.

TOM 400 Special Study for Upper Division Students (1-4)

Individual or group research, studies, or surveys, of selected problems. A variable number of units from one to four is allowed in any quarter. Maximum total credit is limited to 4 units.

TOM 401 Quality Management (4)

Quality history, definitions, philosophies, awards, ISO 9000. Quality in manufacturing and services. Customer focus, process management, cost of quality, statistical thinking. Six Sigma: principles, DMAIC, and DFSS. Process improvement methods and tools. Statistical process control. 4 lectures/problem-solving. Prerequisite: STA 120 or STA 309 or equivalent.

TOM 411 Strategic Management (4)

Simulated experience in integration of the business functions utilizing computer-based management games; develops concepts of management strategy and policy for competitive excellence and ethical operations; total quality management. Cases in management strategy. Analytical techniques as applied to business cases. 4 seminars. Prerequisite: ACC 207/207A, ACC 208/208A, MHR 301, MHR 318, IBM 301, FRL 300, FRL 301, CIS 310, TOM 301, and TOM 302.

TOM 419 Simulation Modeling and Analysis (4)

Computer simulation of manufacturing and service operations. Model development with a simulation software package; statistical output analysis; model verification and validation; and applications of simulation in manufacturing operations, transportation systems, and layouts for service organizations such as banks and hospitals. 4 lectures/problem-solving. Prerequisite: TOM 302.

TOM 420 Operations Technologies and Strategies (4)

Contemporary supply chain management technologies (including but not limited to technologies for supply chain visibility, facility design, transportation and logistics, materials management, warehousing and distribution); innovative use of technology for competitive advantage; structural and infrastructural policies and systems in operations strategy decisions, team-based case study and learn-by-doing exercises. Prerequisite: TOM 301.

TOM 425 Supply Chain Design, Analysis and Representation (4)

Examination of how operational models are developed to facilitate supply chain design. Introductory supply chain basics, components, metrics, cost tradeoffs, and principles. Optimization models and decision theory are utilized to face emerging supply chain decisions. Computer software emphasis. 4 lectures/problem-solving. Prerequisite: TOM 301 and microcomputer proficiency.

TOM 432 Production and Distribution Management (4)

Manufacturing planning and control, distribution-center operations, storage and handling, order-picking and replenishment, receiving and dispatch, distribution-center management and information, warehouse

management system, item tracking, customer service. 4 lectures. Prerequisite: TOM 301.

TOM 434 Purchasing Management (4)

Examines activities directed to securing the materials, supplies, equipment and services required for the proper and efficient functioning of a business, including related planning and policy issues. 4 lectures/problem-solving. Prerequisite: TOM 301.

TOM 436 Project Management (4)

Study of CPM (critical path method), PERT (program evaluation and review technique) and other techniques for planning sequences of responsibilities to accomplish complex projects. Monitoring allocation of resources within rigid time and cost constraints. Use of computers. 4 lectures/problem-solving. Prerequisite: TOM 301.

TOM 441, 442 Internship in Operations Management (1-8)

On-the-job training in business management involving new, collegiate-level learning experiences. Experiences may be useful as a basis for senior projects. A maximum of 8 units may be applied to the 44 unit directed elective requirement. Total credit limited to 8 units each course. Prerequisite: consent of internship coordinator.

TOM 453 Operations Management in Services (4)

Introduction to fundamental concepts of operations management in services. Service strategy and development. Quality management in service operations. Service location problems. Facility design and process flows. Managing capacity and demand. Technology in services. Prerequisite: TOM 301.

TOM 460 Project Design and Development (4)

Problem solving in a business environment. Problem identification and selection. Preparation of project proposals, including problem statement, data collection procedures, selection of analysis techniques. Types of projects (laboratory, field, survey, ex post facto). Ethical issues. Presentation of summary proposals. 4 seminars. Prerequisites: TOM 301, TOM 302, TOM 315, TOM 332, TOM 401.

TOM 461 Senior Project (3)

Selection and completion of a project under faculty supervision. Projects typical of problems which graduates must solve in their fields of employment. Formal report is required. Minimum time commitment: 120 hours. Prerequisite: TOM 460. Corequisite: TOM 463.

TOM 463 Undergraduate Seminar (1)

Student presentation of project status reports, and discussion of recent developments in carrying out their senior projects. 2 seminars. Prerequisite: TOM 460. Corequisite: TOM 461.

TOM 499/499A/499L Special Topics for Upper Division Students (1-4)

Group study of a selected topic, the title to be specified in advance. Total credit limited to 8 units, with a maximum of 4 units per quarter. Instruction is by lecture, laboratory, or a combination.

