# **Business Management**

### School of Social Sciences, Business and Humanities

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#### **General Description**

Study in this area explores management theories, history, principles, and contemporary practices utilized in our increasingly global business environment. The program encompasses a variety of specialized areas including management, marketing, financial services, entrepreneurship, leadership and supervision, eBusiness, human resources, international trade, and community development.

#### **Career Options**

Below is a sample of the career options available for the business management or related major. Most require an associate degree, some require a bachelor's or graduate-level degree: administrator, manager, human resources, small business owner/operator, supervisor, office manager, and insurance professional. Many entry-level employment opportunities are available in retail or wholesale sales, business offices, financial institutions, schools, colleges, and local, state, and federal government.

Degree/Certificate Options Associate in Science Degree: Career/Technical	Major Code
eBusiness	02456
Entrepreneurship and Small Business	01156
Management	01151
Certificates of Achievement	
eBusiness—Intermediate	02457
Entrepreneurship and Small Business—Intermediate	01155
Financial and Investment Services Emphasis	B2027
Management—Intermediate	01153
<b>Certificates of Proficiency</b> eBusiness—Basic Entrepreneurship and Small Business—Basic	A2444 A2442
Management—Basic <b>Entrepreneurship Education</b> Automotive Technology Emphasis Event and Convention Planning Emphasis Landscape Construction Emphasis Recording Arts Emphasis Web Design Emphasis	01152 02192 02968 02193 02194 02339

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

## **ASSOCIATE IN SCIENCE DEGREE**

### Business

#### Career Technical (Major Code: 02456)

Designed to prepare students to work in the dynamic field of electronic business and commerce. The associate degree provides students with a broad range of the business knowledge and technical skills required to be competitive in the job market in the field of eBusiness.

	Total units	37-45
certificate		20-26
Plus the cou	rses required for the eBusiness—Intermediate	
LDR 149	Business Presentation Skills	
	OR	2
LDR 148	Business Presentation Skills—Bilingual (English/Spanish)	
LCIS 134	Microcomputer Database Software—Access	
	OR	1
CIS 133	Advanced Microcomputer Spreadsheets Software	
BUS 183	Business Mathematics	3
_BUS 177	Principles of International Business	
	OR	3
	Principles of Management	
BUS 152	Human Relations in Organizations (3)	
	OR	2-3
BUS 136	Diverse Workforce Management and Communication (2)	
BUS 121	Financial Planning and Money Management	
	OR	3
BUS 120	Introduction to Business	
LACCT 102	Principles of Accounting II—Managerial (4)	
	OR	3-4
FACCT 12	Computerized Accounting (3)	

To earn an associate degree, additional general education and graduation requirements must be completed. See page 49.

## Entrepreneurship and Small Business

Career/Technical (Major Code: 01156)

Designed for both prospective and current owners or managers of a small business. Emphasizes opportunities available in San Diego County for entrepreneurs and provides training in all aspects of the development of a successful small business enterprise.

ACCT 12	Computerized Accounting	3	
BUS 121	Financial Planning and Money Management	3	
BUS 150	Principles of Management		
	OR	3	
_BUS 177	Principles of International Business		
BUS 152	Human Relations in Organizations (3)		
	OR	2-3	
_BUS 136	Diverse Workforce Management and Communication (2)		
BUS 183	Business Mathematics	3	
CIS 133	Advanced Microcomputer Spreadsheet Software		
	OR	1	
_CIS 134	Microcomputer Database Software—Access		
LDR 148	Business Presentation Skills—Bilingual (English/Spanish)		
	OR	2	
LDR 149	Business Presentation Skills		
LDR 151	Human Resources and Labor Relations	3	
Plus the requ	Plus the required courses for the Entrepreneurship and		
Small Busine	Small Business—Intermediate certificate		

**Total units** 

To earn an associate degree, additional general education and graduation requirements must be completed. See page 49.

### Management

#### Career/Technical (Major Code: 01151)

Designed to provide students with key concepts in business management, including the areas of administration, management, marketing, finance, entrepreneurship, supervision, banking, small business, merchandising, international trade, accounting, and information systems. Explores the theories, history, principles, skills, practices, laws, ethics, and technologies governing the increasingly global business environment.

	Total units	43-44
Plus the re	quired courses for the Management Intermediate cer	tificate 31–32
LDR 151	Human Resources and Labor Relations	3
_LDR 149	Business Presentation Skills	
	OR	2
LDR 148	Business Presentation Skills—Bilingual (English/Spanish)	
_CIS 134	Microcomputer Database Software—Access	
	OR	1
CIS 133	Advanced Microcomputer Spreadsheets Software	
_BUS 121	Financial Planning and Money Management	3
BUS 177	Principles of International Business	3

To earn an associate degree, additional general education and graduation requirements must be completed. See page 49.

## CERTIFICATES

50-56

### eBusiness—Basic

**Certificate of Proficiency** Career/Technical (Major Code: A2444)

Designed to introduce students to the field of electronic commerce with a focus on the business and organizational aspects of the field.

		Total units	7-10
	CIS/LIB 151	Research Using the Internet	1
	CL 120	Computer Literacy (1)	
		OR	1 - 4
		Processing (4)	
I	CIS 101	Introduction to Computers and Information	
	BUS 143	eStrategic Business Planning	2
	BUS 134	eBusiness I: Principles of Electronic Commerce	3

Recommended Electives: BUS 148, 149.

### BeBusiness—Intermediate

Certificate of Achievement

Career/Technical (Major Code: 02457)

Designed to prepare students to work in the dynamic field of electronic business and commerce. Builds upon the combined knowledge and technical skills students have acquired in creating and maintaining a strong business presence on the Web.

ACCT 7	Basic Business Bookkeeping (3)	
	OR	3-4
ACCT 101	Principles of Accounting I (4)	
BUS 140	Business Law/The Legal Environment of Business	3
BUS 142	Business Ethics—Corporate and Personal	1
BUS 144	Advertising and Promotional Strategy (1)	
	OR	1-3
_BUS 174	Modern Promotion and Marketing Practices (3)	
BUS 211	Communication in Business and Industry	
	OR	3
_BUS 212	Business Communication	
BUS 290– 293	Work Experience in Business I–IV (2–4)	2
Plus the cour	rses required for the eBusiness—Basic certificate	13–16
	Total units	26-32

Note: It is recommended that students complete the eBusiness— Basic certificate program plus half of the courses required for the eBusiness—Intermediate certificate program prior to enrolling in BUS 290–293.

### Entrepreneurship and Small Business— Basic

Certificate of Proficiency

Career/Technical	(Major	Code:	A2442)
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Designed for both the prospective and the current owner/manager of a small business. Emphasizes basic concepts in bookkeeping, law, and operations management for a small business, as well as the advertising and selling of products and services.

2
1
1 - 4
1
3
3
2

### Entrepreneurship and Small Business— Intermediate

Certificate of Achievement

Career/Technical (Major Code: 01155)

Designed for both prospective and current owners or managers of a small business. Emphasizes further development of skills learned in the basic program to enhance the concepts of bookkeeping, law, small business operations management, and the promotion and sale of products and/or services.

ACCT 7	Basic Business Bookkeeping OR	3
ACCT 12	Computerized Accounting	-
BUS 120	Introduction to Business	
	OR	3
_BUS 134	eBusiness I: Principles of Electronic Commerce	
BUS 140	Business Law/The Legal Environment of Business	3
BUS 142	Business Ethics—Corporate and Personal	1
BUS 144	Advertising and Promotional Strategy (1)	
	OR	1-3
BUS 147	Successful Selling Techniques (1)	
	OR	
_BUS 174	Modern Promotion and Marketing Practices (3)	
BUS 145	Financial Management for Small Business	1
BUS 211	Communication in Business and Industry	
	OR	3
_BUS 212	Business Communication	
BUS 290– 293	Work Experience in Business I–IV (2–4)	2
	Plus the required courses for the Entrepreneurship	and
	Small Business—Basic certificate	13–16
	Total units	30-35

Note: It is recommended that students complete the Entrepreneurship and Small Business—Basic certificate plus half of the courses required for the Entrepreneurship and Small Business— Intermediate certificate prior to enrolling in BUS 290–293.

### **Financial and Investment Services Emphasis**

Certificate of Achievement

Career/Technical (Major Code: B2027)

Designed to provide students with a basic understanding of financial services and investments which is required for a wide variety of positions in the financial services industry. Covers banking services, including loans, deposit accounts, lines of credit, sales or inventory financing, certificates of deposit, cash management, and mutual funds as well as investment principles, including markets, stock and bonds, investment funds, and insurance investments.

	Total units	20
Plus the required courses for the Management—Basic Certificate		10
BUS 183	Business Mathematics	3
BUS 145	Financial Management for Small Business	1
BUS 123	Introduction to Investments	3
BUS 121	Financial Planning and Money Management	3

Total units

### Management—Basic

Certificate	of Proficiency	

Career/Technical (Major Code: 01152	2)
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Designed to provide students with continued study in key concepts and practices of business management, including marketing, finance, entrepreneurship, supervision, banking, small business, merchandising, international trade, accounting, and information systems.

BUS 140 BUS 150	Business Law/The Legal Environment of Business Principles of Management	3 3
BUS 152	Human Relations in Organizations (3)	2
	OR	2-3
BUS 136	Diverse Workforce Management and Communication (2)	
BUS 120	Introduction to Business	3

### Management—Intermediate

Certificate of Achievement

Career/Technical (Major Code: 01153)

Designed to provide students with continued study in key concepts and practices of business management, including marketing, finance, entrepreneurship, supervision, banking, small business, merchandising, international trade, accounting, and information systems.

ACCT 101	Principles of Accounting I	4
BUS 142	Business Ethics—Corporate and Personal	1
BUS 174	Modern Promotion and Marketing Practices	3
_BUS 183	Business Mathematics	3
BUS 211	Communication in Business and Industry	
	OR	3
_BUS 212	Business Communication	
BUS 290–29	3	
	Work Experience in Business I–IV (2–4)	2
CIS 101	Introduction to Computers and Information Proces	sing 4
Plus the requ certificate	uired courses for the Management—Basic	11-12
	Total units	31-32

program prior to enrolling in BUS 290-293.

Note: It is recommended that students complete the Management-Basic certificate program plus half of the courses required for the Management—Intermediate certificate

### **Entrepreneurship Education**

### Career/Technical

#### **Common Core Courses**

Prepares students with the understanding of entrepreneurship and small business management which includes developing, planning, organizing, and operating. Provides students interested in self-employment and those working within small firms with the knowledge and skills to foster small business. Entrepreneurship training contributes to the student's financial independence, career success, and the world's economy. Linking entrepreneurship education with program specific areas, prepares students from a wide spectrum of disciplines with the practical tools to build and maintain small businesses or to work successfully within a small business.

#### **Common Core**

	Total units	9
	Small Business	3
BUS 149	Entrepreneurship Operating and Managing a	
BUS 148	Developing and Starting a New Business	3
BUS 145	Financial Management for Small Business	1
BUS 143	eStrategic Business Planning	2

#### Total units

#### Plus completion of one of the following certificates of emphasis:

- Automotive Technology
- · Event and Convention Planning
- Landscape Construction
- Recording Arts
- Web Designer

### **Automotive Technology Emphasis**

**Certificate of Proficiency** 

Career/Technical (Major Code: 02192)

Prepares students for self-employment and work within small companies in the business aspects of the automotive industry. Builds on their industry education in automotive repair. Expands their education in entrepreneurship and small business management. Contributes to the student's financial independence, career success, and the world's economy. Prepares them to own businesses in the automotive industry or for positions in business management, sales, and customer service.

	Total units	15
Plus the Common Core courses for Entrepreneur Education		9
AT 102	Automotive Science and Basic Mechanics	3
AT 101	Introduction to Basic Automotive Service	3

#### Total units

### **Event and Convention Planning Emphasis**

Certificate of Proficiency

#### Career/Technical (Major Code: 02968)

Prepares students for self-employment and work within small businesses in the dynamic hospitality industry. Builds on their industry education in event and convention planning, event marketing, and corporate project management. Expands their education in entrepreneurship and small business management. Contributes to the student's financial independence, career success, and the world's economy. Prepares them for private practice or for key roles within event management firms.

		Total units	15
Plus the Common Core courses for Entrepreneur Education		9	
	EVNT 157	Corporate Event Project Management	
		OR	3
ſ	EVNT 155	Event Marketing	
_	EVNT 154	Introduction to Event and Convention Planning	3

Total units

### Landscape Construction Emphasis

#### Certificate of Proficiency

Career/Technical (Major Code: 02193)

Prepares students for self-employment and work within small businesses in the landscape industry. Builds on their industry education in project estimating, sprinkler system repair, and working with concrete, masonry, and wood. Expands their education in entrepreneurship and small business management. Contributes to the student's financial independence, career success, and the world's economy. Prepares them to work for others and after passing the state contractor's examination, to own their own landscape construction business.

LNT 91	Sprinkler System Maintenance: Sprinklers, Pipes, and Backflow Devices	1
LNT 92	Sprinkler System Maintenance: Valves and Wiring	1
LNT 125	Landscape Construction: Concrete and Masonry Skills	1
LNT 126	Landscape Construction: Fence, Deck, and Lumber Skills	1
LNT 127	Landscape Construction: Sprinkler Installation	1
LNT 131	Landscape Contracting and Estimating	3
Plus the Common Core courses for Entrepreneur Education		9
	Total units	17

### **Recording Arts Emphasis**

Certificate of Proficiency

Career/Technical (Major Code: 02194)

Prepares students for self-employment and work within small businesses in the dynamic entertainment industry. Builds on their recording industry technical education in recording arts and recording techniques. Expands their education in entrepreneurship and small business management. Contributes to the student's financial independence, career success, and the world's economy. Prepares them for business ownership or key roles within the audio recording and sound mixing fields.

	Total units	17
Plus the Common Core courses for Entrepreneur Education		9
MUS 152	Advanced Recording Techniques	2
RA&T 12	0 Recording Techniques	3
MUS 151/ 7	ΓELE 151/	
MUS 150/ RA&T 11	0 Music Business/Career Overview	3

### Web Designer Emphasis

**Certificate of Proficiency** 

Career/Technical (Major Code: 02339)

Prepares students for self-employment and work in small businesses in any industry that relies on websites for marketing. Builds on their industry education in web design and usability. Expands their education in entrepreneurship and small business management. Contributes to the student's financial independence, career success, and the world's economy. Prepares them for business ownership and key roles in web design or maintenance positions.

CIS 123	Web Publishing With Dreamweaver	6
CIS 162	Web Site Universal Design	2
Plus the Common Core courses for Entrepreneur Education		9
	8	

Total units

# Chemistry

# School of Mathematics, Science, and Engineering

Dean Janet Mazzarella, M.A., Office 215A, 619-482-6344 Faculty David R. Brown, Ph.D.; David Hecht, Ph.D.; Tinh-Alfredo V. Khuong, Ph.D.; Jacquelyn Thomas, M.S. Department Chair Tinh-Alfredo V. Khuong, Ph.D.

#### **General Description**

Chemistry is a physical science that focuses on the composition, structural properties, reaction of substances, and the means by which matter is converted from one form to another. This discipline explores the fundamentals of organic and inorganic matter, chemical structure and reactivity, qualitative and quantitative analyses, laboratory procedures that include strong emphasis on modern instrumental methods, research methodologies, and quantum mechanics.

#### **Career Options**

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Below is a sample of the career options available to the chemistry major. A few require an associate in science degree, some require a bachelor's degree, and most require a graduate-level degree: high school or college teacher, analytical chemist, biochemist, polymer chemist, medical doctor, dentist, laboratory technician, and technical sales representative. Entry-level career opportunities are available in biotechnology, biomedical instrumentation, diagnostics, immunochemistry, pharmaceuticals, basic research, and environmental control agencies.

#### **Degree/Certificate Options**

#### Major Code

Associate in Science Degree: Transfer Preparation Chemistry

01530

Consult with a counselor to develop a Student Education Plan (SEP), which lists the courses necessary to achieve your academic goal.

Note: See also Pharmaceutical and Laboratory Science, page 239.

#### Web sites for chemistry majors:

SDSU:http://www.chemistry.sdsu.eduUCSD:http://www.chemistry.ucsd.eduCSU, San Marcos:http://www.csusm.edu/chemistryArticulation:http://www.assist.org

