MICROBIOLOGY COURSE DESCRIPTIONS

MICR R100—Principles of Microbiology  3 units
Prerequisites: BIOL R120 or both ANAT R101 and PHSO R101.
3 hours lecture weekly
This course is an introduction to the structure, metabolic activities, utility
and pathogenicity of bacteria, fungi, algae, protozoa and viruses. The topics
will include distribution, metabolism, molecular genetics, biotechnology,
immunity, cancer, probiotics and the physical/chemical methods used
in control of microbes and cellular pathogens. The principles of disease
transmission, prevention and immunity will also be presented. The diversity
of the microbial world and its applications to improving human health and
quality of life are emphasized. Field trips may be required. Course is offered
Pass/No Pass (P/NP) at student’s option.
Transfer credit: UC, CSU

MICR R100L—Principles of Microbiology Lab  2 units
Prerequisites: MICR R100 or concurrent enrollment.
6 hours lab weekly
This is a laboratory course designed for biological science majors and
students interested in the health science professions. The exercises are
intended to give the students experience in the manipulation of microorganisms
and exposure to current microbial techniques. Topics covered will include
microscopy methods, prokaryotic and eukaryotic cell structure, microbial
metabolism, genetics, recombinant DNA, and biotechnology. Field trips may
be required. Course is offered Pass/No Pass (P/NP) at student’s option.
Transfer credit: UC, CSU

PHYSIOLOGY COURSE DESCRIPTIONS

PHSO R101—Human Physiology  5 units
Prerequisites: ANAT R101 and CHEM R110 or CHEM R104 and MATH R014 and
ENGL R096.
3 hours lecture, 6 hours lab weekly
This course emphasizes principles of cellular and systemic functions of
the human body. Lecture topics include scientific method, basic inorganic
and organic chemistry, solute as well as water transport and balance,
homeostatic mechanisms, and functions of the major organ systems. This
course emphasizes demonstrations and techniques of commonly utilized
laboratory equipment. Laboratory topics will primarily consist of analysis,
interpretation and evaluation of data gathered relating to homeostatic
mechanisms, functions of the major organ systems and disease. Experiments
reinforce material presented in lecture. Field trips may be required.
Transfer credit: UC, CSU

BUSINESS

The Business program offers a variety of courses in business leading to
the degrees of Associate in Arts and Science and Certificates in Business
and Business Management. In addition to the major coursework, which
emphasizes business and accounting practices, the business program
combines studies in computer information systems and meets the needs of
students targeting careers that meld knowledge of business and information
systems.

For more information, contact:
Robert Cabral, rcabral@vcccd.edu
(805) 986-5800, ext. 1981

CAREER OPPORTUNITIES

A.A./Certificate Level
Assistant Manager
Management Trainee
Sales Representative
Sales Trainee
Finance Operations
Buyer
Market Research Assistant
Fashion Director
Manufacturer Representative

B.A. Level
Sales Executive/Sales Management
Human Resource Manager
Small Business Owner
Small Business Manager
Advertising Manager
Manufacturers Representative
International Business Management

FACULTY

Full-Time
Ed Bassey
Robert Cabral

Part-Time
Josepha Baca
Sandy Iverson
Larry Kennedy
Dennis Polen
BUSINESS ADMINISTRATION

Associate in Science for Transfer*

The Associate in Arts in Business Administration for Transfer (Business Administration AS-T) is intended for students who plan to complete a bachelor’s degree in a similar major at a CSU campus. Students completing this degree are guaranteed admission to the CSU system, but not to a particular campus or major. See page 59 for additional information.

*Submitted for State Chancellor’s Approval.

The following is required for all AA-T or AS-T degrees:

1. Minimum of 60 CSU-transferable semester units.
2. Minimum grade point average (GPA) of at least 2.0 in all CSU-transferable coursework. While a minimum of 2.0 is required for admission, some majors may require a higher GPA. Please consult with a counselor for more information.
3. Completion of a minimum of 18 semester units in an “AA-T” or “AS-T” major as detailed in the Course and Program Descriptions section of the catalog. All courses in the major must be completed with a grade of C or better or a “P” if the course is taken on a “pass-no pass” basis (title 5 § 55063).
4. Certified completion of the California State University General Education-Breadth pattern (CSU GE Breadth) (see page 64 for more information); OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern (see page 70 for more information).
5. Complete requirements in residency. For students in the Ventura County Community College District, a minimum of 12 units must be completed in residency at the college granting the degree.

Students transferring to a CSU campus that does accept the Business Administration AS-T will be required to complete no more than 60 units after transfer to earn a bachelor’s degree (unless the major is a designated “high-unit” major at a particular campus). This degree may not be the best option for students intending to transfer to a particular CSU campus or to university or college that is not part of the CSU system. Students should consult with a counselor when planning to complete the degree for more information on university admission and transfer requirements.

The following CSU campuses have designated at least one major as “similar” to the Business Administration AS-T. Some campuses may also require or recommend specific course selections from choices within the AS-T. Please see a counselor for a comprehensive list of these designated majors and areas of emphasis/options within the Business Administration major.

- California State University, Bakersfield
- California State University, Channel Islands
- California State University, Chico
- California State University, Dominguez Hills
- California State University, East Bay
- California State University, Fresno
- California State University, Fullerton
- Humboldt State University
- California State University, Long Beach
- California State University, Los Angeles
- California Maritime Academy
- California State University, Northridge
- California State Polytechnic University, Pomona
- Sacramento State University
- California State University, San Bernardino
- San Francisco State University
- San José State University
- California State Polytechnic University, San Luis Obispo
- Sonoma State University
- California State University, Stanislaus

REQUIRED CORE COURSES (15 UNITS):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT R101</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACCT R102</td>
<td>Managerial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>BUS R111A</td>
<td>Business Law</td>
<td>3</td>
</tr>
<tr>
<td>ECON R101</td>
<td>Principles of Macroeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECON R102</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
</tbody>
</table>

LIST A - SELECT ONE OF THE FOLLOWING COURSES (4 UNITS):

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH R105</td>
<td>Introductory Statistics</td>
<td>4</td>
</tr>
<tr>
<td>MATH R106</td>
<td>Business Calculus</td>
<td>4</td>
</tr>
</tbody>
</table>

LIST B - SELECT TWO COURSES WITH NO MORE THAN ONE COURSE FROM EACH CATEGORY (6-7 UNITS):

1. Mathematics
   - Any course from List A not already chosen | 4

2. Business Courses (no more than one course from this category)
   - BUS R120 Introduction to Business | 3
   - BUS R140 Business Communication | 3

3. Business Information Systems (no more than one course from this category)
   - CAOT R122 Microsoft Office | 3
   - CIS R100 Introduction to Computer Information Systems | 3

Total Required Major Units: 25-26

CSU General Education or IGETC Pattern: 38-41
Double-Counted Units: (9)
Electives (CSU transferable units needed to reach 60): 2-6

Degree Total: 60
◆ BUSINESS

Associate in Arts Degree

This program is designed for students interested in transferring to a four-year college or university to complete a bachelor’s degree in Business, Business Administration, Management, Economics, Accounting, and other Business-related majors such as Marketing. The courses in the Associate Degree listed below are the most commonly required lower-division courses in these majors at both CSU and UC campuses as well as independent colleges and universities. Business-related majors are popular at all university campuses and impacted at many, making admission into these programs competitive. At some universities, admission preference may be given to students who have completed all lower-division major requirements prior to transfer. Requirements vary by campus and are subject to change. Students are advised to refer to the official articulation agreements on assist.org for the most current requirements of their intended transfer institution and should work with a counselor to create a transfer plan.

**REQUIRED COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT R101</td>
<td>3</td>
</tr>
<tr>
<td>ACCT R102</td>
<td>3</td>
</tr>
<tr>
<td>ECON R101</td>
<td>3</td>
</tr>
<tr>
<td>ECON R102</td>
<td>3</td>
</tr>
</tbody>
</table>

**choose one information technology course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAOT R122</td>
<td>3</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>CIS R100</td>
<td>3</td>
</tr>
</tbody>
</table>

**Choose one mathematics course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH R106</td>
<td>4</td>
</tr>
<tr>
<td>OR</td>
<td></td>
</tr>
<tr>
<td>MATH R120</td>
<td>5</td>
</tr>
</tbody>
</table>

**Choose one additional major preparation course:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS R111A</td>
<td>3</td>
</tr>
<tr>
<td>BUS R140</td>
<td>3</td>
</tr>
<tr>
<td>MATH R105</td>
<td>4</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS** 22-24

To complete the Associate Degree, students must also meet requirements in general education, competency, units, scholarship, and residency. Refer to Education Pathways - Earn an Associate Degree section in this catalog for specific information.

◆ BUSINESS MANAGEMENT

Associate in Science Degree

Certificate of Achievement

This program will prepare students for management positions within an organization. These positions would include responsibilities for formulating and implementing policies, long-range planning, and overseeing the work of other levels within the organization.

**REQUIRED COURSES:**

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT R101</td>
<td>3</td>
</tr>
<tr>
<td>ACCT R102</td>
<td>3</td>
</tr>
<tr>
<td>BUS R111A</td>
<td>3</td>
</tr>
<tr>
<td>BUS R120</td>
<td>3</td>
</tr>
<tr>
<td>BUS R121</td>
<td>3</td>
</tr>
<tr>
<td>BUS R122</td>
<td>3</td>
</tr>
<tr>
<td>BUS R132A</td>
<td>3</td>
</tr>
<tr>
<td>BUS R140</td>
<td>3</td>
</tr>
<tr>
<td>PSY R102A</td>
<td>3</td>
</tr>
</tbody>
</table>

Complete one of the following courses:

<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS R103</td>
<td>3</td>
</tr>
<tr>
<td>BUS R125</td>
<td>3</td>
</tr>
<tr>
<td>CIS R100</td>
<td>3</td>
</tr>
<tr>
<td>COMM R101</td>
<td>3</td>
</tr>
<tr>
<td>ECON R101</td>
<td>3</td>
</tr>
<tr>
<td>ECON R102</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL REQUIRED UNITS** 33

To complete the Certificate of Achievement, students must also meet requirements in scholarship and residency. Refer to Education Pathways - Earn a Certificate of Achievement section in this catalog for specific information.

To complete the Associate Degree, students must also meet requirements in general education, competency, units, scholarship, and residency. Refer to Education Pathways - Earn an Associate Degree and the A.A. or A.S. Degree in Specific Majors sections of this catalog.

**PROGRAM STUDENT LEARNING OUTCOMES**

Upon successful completion of the Business Management program students will be able to:

- Write clearly and accurately in a variety of management contexts and formats while checking, editing, and revising their written work for correct information, appropriate emphasis, form, style, and grammar.
- Apply rules and principles to management situations.
- Demonstrate personal conduct that reflects an ethical understanding of complex business management, economic and social issues.
- Demonstrate collaboration skills by working effectively with others in group settings - both inside and outside the classroom.
- Acquire skills for employment in management and leadership positions in a variety of public and private organizations.

Oxnard College - Announcement of Courses 2013 - 2014 111
## COURSE DESCRIPTIONS

*(Accounting courses can be found on page 89)*

### BUS R001—Preparation for Accounting 3 units
3 hours lecture weekly
This course covers the accounting cycle, including journalizing, posting, trial balance, worksheets, adjusting and closing entries, payroll and financial statements. Field trips may be required. (Formerly also ACCT R001). Course is offered Pass/No Pass (P/NP) at student’s option.

### BUS R030—Concepts in Business Math 3 units
3 hours lecture weekly
This course provides a review of math fundamentals and relates math principles and operations to business oriented problems such as payroll, invoicing, financial statements and ratios, markups and markdowns, and interest. Business math is required for the following certificate and degree programs: Accounting, Retail Management, and Administrative Assistant. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option.

### BUS R103—Business Mathematics 3 units
Advisories: MATH R011.
3 hours lecture weekly
This course utilizes mathematical operations to solve practical business application problems. Topics include percents with applications, cash and trade discounts, markup and markdowns, payroll, present value, annuities, installment buying, mortgages, stocks, bonds. A review of basic mathematics will be covered as needed. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option. Transfer credit: CSU

### BUS R104—Business English 3 units
3 hours lecture weekly
This course develops competency in the fundamentals and mechanics of college-level business communications skills, including grammar, sentence structure, punctuation, and written expression. These English and communication competencies will include practical writing applications such as business letters, memos, and compositions on assigned topics. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option. Transfer credit: CSU

### BUS R111A—Business Law 3 units
3 hours lecture weekly
This course is an introduction to the legal process. Topics include sources of law and ethics, contracts, torts, agency, criminal law, business organizations, and judicial and administrative processes. A general review of law as it relates to businesses, individuals and society will be covered. Fundamental legal principles pertaining to business transactions will be covered. Field trips may be required. Transfer credit: CSU, UC

### BUS R120—Introduction to Business 3 units
3 hours lecture weekly
This course is a survey in business providing a multidisciplinary examination of how culture, society, economic systems, legal, international, political, financial institutions, and human behavior interact to affect a business organization’s policy and practices within the U.S. and a global society. The course will demonstrate how these influences impact the primary areas of business including: organizational structure and design; leadership, human resource management, organized labor practices; marketing; organizational communication; technology; entrepreneurship; legal, accounting, financial practices; the stock and securities market; and therefore affect a business’ ability to achieve its organizational goals. Field trips may be required. Transfer credit: CSU, UC

### BUS R121—Introduction to Management 3 units
3 hours lecture weekly
This transfer course examines the basic management functions of a business organization and middle management’s responsibilities in planning, organizing, directing, controlling, coordinating, and executing the organizations’ goals and objectives. Techniques of decision-making with emphasis on recent advances in areas directly related to management are also introduced. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option. Transfer credit: UC, CSU

### BUS R122—Human Resource Management 3 units
3 hours lecture weekly
This course examines the concepts of human resource organization and management including finance, operation, and compliance with federal government regulations, internal organization and the personnel practices including collective bargaining, of the organization as an employer and its role with employees. Field trips may be required. Transfer credit: CSU

### BUS R125—Personal Finance 3 units
3 hours lecture weekly
This course provides a review of math fundamentals and relates math principles and operations to business oriented problems such as payroll, invoicing, financial statements and ratios, markups and markdowns, and interest. Business math is required for the following certificate and degree programs: Accounting, Retail Management, and Administrative Assistant. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option. Transfer credit: CSU

### BUS R130—Sales Management 3 units
3 hours lecture weekly
This course provides an overview of the principles of wholesale and specialty selling, with emphasis on the techniques of selling. Areas emphasized are sales personality, sales planning, securing prospects, counseling buyers, handling objections, and learning public relations. Field trips may be required. Transfer credit: CSU

### BUS R132A—Marketing 3 units
3 hours lecture weekly
Marketing from the viewpoint of the manager includes discussion on the aspects of market research, product development, promotion, advertising, channels of distribution, international and web marketing. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option. Transfer credit: CSU

### BUS R140—Business Communications 3 units
Prerequisites: ENGL R101. Advisory: Word-processing skills.
3 hours lecture weekly
This course applies the principles of ethical and effective communication to the creation of letters, memos, emails, and written and oral reports for a variety of business situations. The course emphasizes planning, organizing, composing, and revising business documents using word processing software for written documents and presentation-graphics software to create and deliver professional-level oral reports. This course is designed for students who already have college-level writing skills. Field trips may be required. Transfer credit: CSU, C-ID: BUS 115.
BUS R189—Topics in Business 1-3 units
Lecture and/or lab hours as required by unit formula
Specialized topics designed to inform or update interested persons in various disciplines within the field of business. Unit credit determined by length of courses. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option.
Transfer credit: CSU

BUS R198A-Z—Short Courses in Business 1-3 units
Lecture and/or lab hours as required by unit formula
Short courses in businesses provides courses in selected areas of business to meet specific needs of the college or the community when those needs are not met by regular course offerings. Unit credit will be determined by length of course. Field trips may be required. Course is offered Pass/No Pass (P/NP) at student’s option.
Transfer credit: CSU

CHEMISTRY

Chemistry is the science that deals with the composition, structure, and properties of matter and with the changes matter undergoes. There are many different employment opportunities open to chemists. A chemist can work in a laboratory or research environment asking questions and testing hypotheses with experiments. Another possibility for a chemist is to work on a computer developing theories or models or to predict reactions. Some chemists do field work. Others contribute advice on chemistry for projects. Some chemists write. Some chemists teach. Others use chemistry to enter the medical field.

The chemistry program offers two associate degrees: the Associate in Arts (A.A.) and the Associate in Science (A.S.). The courses in this program can prepare students to transfer to Bachelor of Arts or Bachelor of Science degree programs in chemistry.

To earn an associate degree with a major in chemistry, students must complete the core courses listed below, plus general education degree requirements. These major requirements help prepare students for upper-division coursework for bachelor degrees and advanced degrees in chemistry offered by four-year institutions. Since the coursework in chemistry is sequential, students may spend less time earning an associate degree by giving priority to the requirements for a major in chemistry. Earning an associate degree in chemistry suggests an achievement of technical skills that may be helpful in seeking immediate employment.

Universities differ slightly in requirements for the Bachelor of Arts degree in chemistry and the Bachelor of Science degree in chemistry or biochemistry. The Counseling Department or a member of the Science Department faculty can help students plan their coursework at Oxnard College so students have a smooth transition to the university of his or her choice. Students are advised to refer to the official articulation agreements on assist.org for the most current requirements of their intended transfer institution. Both the Bachelor of Arts degree in chemistry and the Bachelor of Science degree in chemistry are offered at California State University Channel Islands (CSUCI), California State University Northridge (CSUN) and the University of California Santa Barbara (UCSB). The University of California Los Angeles (UCLA) only grants the Bachelor of Science degree in chemistry. In addition, CSUCI, CSUN, UCSB and UCLA all grant Bachelor of Science degrees in biochemistry.

CAREER OPPORTUNITIES

(Most careers require bachelor’s degrees, graduate degrees, or professional degrees)
Biochemist
Chemical Analyst
Dentist*
Geochemist
Laboratory Technician
Medical Doctor*

Pharmaceutical Sales
Pharmacist*
Research Chemist
Teaching – secondary or college level
Veterinarian*

*Students with chemistry degrees have been notably successful in these areas.

FACULTY

Full-Time                       Part-Time
Luanne Crockett                Krys Miller
Yong C. Ma                     Sergey Trusov

Associate in Arts Degree in Chemistry

The requirements for the A.A. degree in chemistry are satisfactory completion of a minimum of 60 semester units of which 30 semester units must be the required major courses shown below. The additional minimum of 30 units is to be chosen from the general education degree requirements found in the Oxnard College catalog. Students who plan to transfer to a four-year university should consult the CSU-GE or IGETC pattern for general education. This degree is designed primarily for students who wish to transfer to CSUCI into the B.A. program in chemistry, B.S. program in chemistry or B.S. program in chemistry with a biochemistry option.

REQUIRED CORE COURSES FOR THE A.A. IN CHEMISTRY UNITS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM R120</td>
<td>General Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>CHEM R122</td>
<td>General Chemistry II</td>
<td>5</td>
</tr>
<tr>
<td>MATH R120</td>
<td>Calculus with Analytic Geometry I</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL REQUIRED CORE UNITS</td>
<td></td>
<td>15</td>
</tr>
</tbody>
</table>

Required Additional Courses

Complete a minimum of 5 units from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM R130</td>
<td>Organic Chemistry I</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHEM R112</td>
<td>Elementary Organic and Biological Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>ADDITIONAL REQUIRED UNITS</td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

Complete a minimum of 10 units from the following sequences:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS R121</td>
<td>Physics with Calculus 1</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS R122</td>
<td>Physics with Calculus 2</td>
<td>5</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHYS R101</td>
<td>College Physics 1</td>
<td>4</td>
</tr>
<tr>
<td>PHYS R101L</td>
<td>College Physics 1 Laboratory</td>
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</tr>
<tr>
<td>PHYS R102</td>
<td>College Physics 2</td>
<td>4</td>
</tr>
<tr>
<td>PHYS R102L</td>
<td>College Physics 2 Laboratory</td>
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</tr>
<tr>
<td>TOTAL SEQUENCE UNITS</td>
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<td>10</td>
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TOTAL REQUIRED UNITS FOR A.A. DEGREE IN CHEMISTRY 30