

Biotechnology

Associate in Science Degree

Biotechnology draws from many disciplines, including genetics, immunology, chemistry, physics, mathematics and computer science. Recent advances in biotechnology have resulted in major contributions to the fields of medicine, pharmacy, public health and agriculture. The Associate of Science degree in Biotechnology at Berkeley City College prepares students for employment as technicians and research associates in the pharmaceutical and biotechnology industries, state and federal laboratories, and a range of clinical and academic laboratories. The program also incorporates coursework for those students desiring to transfer to CSU/UC prior to entering the workforce.

Career Opportunities

Technician, research assistant and research associate positions in pharmaceutical and biotechnology industries, state and federal laboratories and academic and private research laboratories.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Demonstrate knowledge and facility with standard laboratory methods and procedures, advanced techniques used in immunology and genetics laboratories, laboratory mathematics, tissue culture, proper handling and disposal of hazardous materials and good laboratory practices.
2. Demonstrate an ability to maintain a neat and readable scientific notebook, record data accurately, create and label appropriately tables and graphs, interpret results correctly and troubleshoot errors.
3. Demonstrate an ability to work independently and as a member of a team, to read and interpret protocols accurately, and to use information provided in scientific papers when necessary.
4. Demonstrate an ability to write a scientific paper and present data in an oral presentation.
5. Demonstrate knowledge and facility with concepts in chemistry, biology and biotechnology and the ethical concerns associated with stem cells and recombinant DNA technologies.

Required Courses		Units
BIOL 32	Scientific Literature and Writing	3
BIOL 33	Immunology	4
BIOL 34	Genetics	3
BIOL 34L	Genetics Laboratory	2
BIOL 50A	Introductory Biotechnology with Laboratory	4
BIOL 50D	Cell and Tissue Culture	2
Select 3 courses from the following (11–15 units):		
BIOL 50B	Protein Chemistry and Fermentation	3
BIOL 50C	Stem Cell Biology and Advanced Molecular Techniques	3
BIOL 1A	General Biology	5
CHEM 1A	General Chemistry	5
PHYS 3A	General Physics	5
or		
PHYS 4A	General Physics with Calculus	5
Select 1 course from the following (3–5 units):		
MATH 1	Pre-Calculus	4
or		
MATH 3A	Calculus I	5
or		
MATH 16A	Calculus for Business and the Life and Social Sciences	3
Major Requirements		32–38
General Education and Electives		22–28
Total Units:		60

***You may substitute higher level courses in biology, chemistry, mathematics and physics.*

Recommended Course Sequence

Students must complete 18 units of required courses, 14–20 units of selected courses, and 22–28 units of general education and elective courses for a total of 60 units.

Courses	Units
1st Semester/ Fall	
BIOL 32 Scientific Literature and Writing	3
BIOL 50A Introductory Biotechnology with Laboratory	4
General Education and Electives	8
Total	15
2nd Semester/ Spring	
MATH 1 Pre-Calculus	4
or	
MATH 16A Calculus for Business and Life/Social Sciences	3
or	
MATH 3A Calculus I	5
General Education and Electives 10–12	
Total	15
3rd Semester/ Fall	
BIOL 34 Genetics	3
BIOL 34L Genetics Laboratory	2
BIOL 50D Cell and Tissue Culture	2
General Education and Electives	8
Total	15
4th Semester/ Spring	
BIOL 33 Immunology	4
General Education and Electives	11
Total	15

Biotechnology Laboratory Assistant

Certificate of Achievement

The Certificate of Achievement prepares students for entry level laboratory assistant positions in biotechnology related industry and academic laboratories. It is designed for students who are starting out in STEM, including recent high school graduates, students who are re-tooling or changing majors, and students proceeding to 4 year institutions who may want to work in a laboratory as they complete their studies.

Career Opportunities

Entry level laboratory assistant positions in pharmaceutical and biotechnology industries and academic research laboratories.

Required Courses	Units
BIOL 10 Introduction to Biology	4
CHEM 30A Introductory General Chemistry	4
BIOL 50A Introductory Biotechnology with Laboratory	4
BIOL 32 Scientific Literature and Writing	3
CIS 200 Computer Concepts and Applications	1.5
Total Units:	16.5

If you wish to earn a certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a counselor. This plan will map your sequence of courses to help you complete your certificate regardless of the semester you begin classes.

Recommended Course Sequence

The following sequence takes into consideration restrictions on the semester offerings of the biotechnology classes.

Required Courses	Units
Preliminary Coursework	
MATH 201 Elementary Algebra	4
ENGL 1A Composition and Reading	4
Total	8
1st Semester/ Spring	
BIOL 10 Introduction to Biology	4
CHEM 30A Introductory General Chemistry	4
CIS 200 Computer Concepts and Applications	1.5
(A student can test out of CIS 200 or take it online.)	
Total	9.5
2nd Semester/ Fall	
BIOL 50A Introductory Biotechnology with Laboratory	4
BIOL 32 Scientific Literature and Writing	3
Total	7

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Demonstrate knowledge and facility with standard laboratory methods and procedures, laboratory mathematics, proper handling and disposal of

- hazardous materials and good laboratory practices.
2. Demonstrate an ability to maintain a neat and readable scientific notebook, record data accurately, create and label appropriately tables and graphs and interpret results correctly.
3. Demonstrate an ability to work independently and as a member of a team and to read and interpret protocols and standard operating procedures accurately.
4. Demonstrate knowledge of basic concepts in chemistry and biology as they relate to biotechnology and the ethical concerns associated with recombinant DNA technologies.

Biotechnology Research Laboratory Assistant

Certificate of Achievement

The Advanced Certificate of Achievement in Biotechnology prepares students for biotechnology technician and research assistant positions in industry and academic research laboratories. The certificate is designed for students who have completed the Certificate of Achievement in Biotechnology and want to progress in their education and training so that they can either enter the workforce directly or transfer to a 4 year institution. The certificate also has been designed for students who have completed degrees in chemistry or biology, and for professionals in the industry and research laboratories, who desire more up to date laboratory training.

Career Opportunities

Technician and research assistant positions in pharmaceutical and biotechnology industries, State and Federal laboratories and academic and private research laboratories.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

1. Demonstrate knowledge and facility with standard laboratory methods and procedures, advanced techniques common to immunology and/or genetics laboratories, laboratory mathematics, tissue culture, proper handling and disposal of hazardous materials and good laboratory practices.
2. Demonstrate an ability to maintain a neat and readable scientific notebook, record data accurately, create and label appropriately tables and graphs, interpret results and troubleshoot errors.
3. Demonstrate an ability to work independently and as a member of a team, to read and interpret protocols accurately, and to use information provided in scientific papers when necessary.

4. Demonstrate an ability to write a scientific paper and present data in an oral presentation.
5. Demonstrate knowledge and facility with concepts in chemistry and biology as they relate to biotechnology and the ethical concerns associated with stem cells and recombinant DNA technologies.

Required Courses	Units
BIOL 32 Scientific Literature and Writing	3
BIOL 50B Protein Chemistry and Fermentation	3
BIOL 50D Cell and Tissue Culture	2

Select 12–15 units from the following:

BIOL 1A	General Biology	5
BIOL 3	Microbiology	5
BIOL 33	Immunology	4
BIOL 34	Genetics	3
BIOL 34L	Genetics Laboratory	2
BIOL 50C	Stem Cell Biology and Advanced Molecular Techniques	3
Total Units:		20–23

Recommended Course Sequence

Courses	Units
Preliminary Coursework	
BIOL 3 Microbiology	5
(Prerequisite for BIOL 50C, BIOL 50D, BIOL 33)	
1st Semester/ Fall	
BIOL 32 * Scientific Literature and Writing	3
BIOL 50D * Cell and Tissue Culture	2
BIOL 34 Genetics	3
BIOL 34L Genetics Laboratory	2
CHEM 1A General Chemistry (Prerequisite for BIOL 1A)	5
Total	15
2nd Semester/ Spring	
BIOL 50B* Protein Chemistry and Fermentation	3
BIOL 50C Stem Cell Biology and Advanced Techniques	3
BIOL 33 Immunology	4
BIOL 1A General Biology	5
Total	15



BIOL 1A, General Biology

5 Units
3 hrs lecture, 6 hrs lab (GR).
Prerequisite: CHEM 1A.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B, 5C;
(C-ID BIOL 190);
(BIOL 1A+1B = C-ID BIOL 130S, BIOL 135S)
Introduction to general biology: Cell structure and function, metabolism, molecular and organismal genetics, and animal physiology. 0401.00

BIOL 1B, General Biology

5 Units
3 hrs lecture, 6 hrs lab (GR).
Prerequisite: BIOL 1A.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B, 5C;
(BIOL 1A+1B = C-ID BIOL 130S, BIOL 135S)
Continuation of BIOL 1A: Origin of life, evolution, classification, plant structure and function, and ecology. 0401.00

BIOL 3, Microbiology

5 Units
4 hrs lecture, 3 hrs lab (GR).
Prerequisite: CHEM 1A or 30A. Recommended preparation: BIOL 10.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B, 5C
Survey of the various microscopic agents of particular importance to humans: Emphasis on microbes involved in infectious diseases, host defenses against diseases, elements of infectious chains and means utilized for breaking the chains. 0403.00

BIOL 4, Human Physiology

5 units
4 hours lecture, 3 hours lab (GR)
Prerequisite: CHEM 001A or CHEM 030A;
Recommended Preparation: BIOL 002
Acceptable for credit: UC/CSU
AA/AS area 1
CSU area B2, B3; IGETC area 5B, 5C; (C-ID BIOL 120)
Detailed study of human body function: Molecules, cells, tissues, organs, and organ systems, basic anatomy essential to understanding function, physical and chemical factors and processes, selected human diseases. Laboratory work includes computer simulations and interactive programs, physiological experiments and demonstrations, and use of microscopes. 0410.00

BIOL 10, Introduction to Biology

4 Units
3 hrs lecture, 3 hrs lab (GR or P/NP).
Not open for credit to students who have completed or are currently enrolled in BIOL 1A, 1B or 25. Students with previous credit in BIOL 11 receive only 1 unit of credit for BIOL 10.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B, 5C
Fundamentals of biology for the non-major: Scientific inquiry, biological chemistry, cell structure and function, DNA and genetics, evolution and ecology, and an overview of living organisms. Includes lab exercises designed to complement lectures. 0401.00

BIOL 13, Principles of Ecology

3 Units
3 hrs lecture (GR or P/NP).
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2;
IGETC area 5B
Study of the interactions of humans with the living world around them: The nature of the biological world and how it works; and the problems of overpopulation, pollution, and environmental deterioration. 0408.00

BIOL 13L, Principles of Ecology and Sustainable Systems Lab

1 Unit
3 hrs lab (GR or P/NP).
Prerequisite or co-requisite: BIOL 13 or ENVMT 2 or (ENVST 11). Not open for credit to students who have completed ENVMT 2L (or ENVMT 11L) or are currently enrolled in ENVMT 2L at Merritt College.
Acceptable for credit: UC/CSU
CSU area B3 (with BIOL 13 satisfies lab requirement);
IGETC area 5C (with BIOL 13 satisfies lab requirement)
Field lab course which identifies, measures, and tests the sustainable environmental principles discussed in ENVMT 2 or BIOL 13: Qualitative and macro/micro quantitative methods, identifying and sustaining ecosystems, nutrient cycling, geographical and aquatic ecology, population dynamics, water and energy systems, air pollution and hazardous waste, and farming methods and use of pesticides. 0408.00

**BIOL 25, Human Biology**

3 Units
3 hrs lecture (GR).
Not open for credit to students who have completed BIOL 1A, 1B or 10.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2;
IGETC area 5B
Principles of life sciences through study of biological structures and functions of the human organism: Human genetics, evolution, ecology, sexual differences and comparisons, development and growth, and survey of body systems. 0401.00

BIOL 32, Scientific Literature and Writing

3 Units
3 hrs lecture (GR or P/NP).
Prerequisite: ENGL 1A; Recommended Preparation: BIOL 1A, 10, or 25
Acceptable for credit: UC/CSU
AA/AS area 4d; CSU area A3; IGETC area 1B
Analytical assessment and critique of scientific and technical writing: Evaluation of logic, experimental design, data, and conclusions in selected papers; writing clear scientific protocols and research papers, and development of oral presentations. 0430.00

BIOL 33, Immunology

4 Units
3 hrs lecture, 4 hrs lab (GR).
Prerequisite: BIOL 3.
Recommended Preparation: BIOL 50A, 10, or 1A; MATH 201 or 230.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC areas 5B, 5C
Principles of immunology: innate and adaptive immune responses, mucosal immunity, vaccines and vaccination, immune deficiencies, hypersensitivities, autoimmunity, cancer, immune based therapies and applications to medicine and biotechnology; laboratory includes technologies relevant to clinical and research immunology including immunoelectrophoresis, ELISA, HLA typing, tissue culture, immunofluorescence microscopy and flow cytometry. 0430.00

BIOL 34, Genetics

3 Units
3 hrs lecture, (GR).
Prerequisite: BIOL 1A or BIOL 10; CHEM 1A or CHEM 30A
Recommended preparation: ENGL 1A.
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B
Principles of molecular and human genetics: Transfer and expression of genetic information, structure and replication of DNA, gene regulation in prokaryotes and eukaryotes, mutation and chromosomal damage, population and evolutionary genetics, recombinant DNA methodology; research, clinical and industrial applications of biotechnology. 0430.00

BIOL 34L, Genetics Laboratory

2 Units
1 hrs lecture, 5 hrs Lab (GR).
Prerequisite: BIOL 50A & BIOL 10 or BIOL 1A & BIOL 34 or Co-requisite: BIOL 34 and CHEM 30A or CHEM 1A
Recommended preparation: MATH 201 or 230
Acceptable for credit: UC/CSU
AA/AS area 1; CSU area B2, B3;
IGETC area 5B, 5C
Laboratory class to accompany BIOL 34: Isolation and purification of DNA and RNA, gel electrophoresis, PCR, cloning and transformation, Southern blotting, analysis of gene expression using qPCR and NGS, DNA sequencing, bioinformatics, RNA interference, CRISPR Cas9, karyotyping, identification of transposable elements and analysis of inherited traits. 0403.00

BIOL 49, Independent Study in Biological Sciences

0.5–5 Units
1.5–15 hours lab (GR or P/NP).
Acceptable for credit: CSU
In-depth exploration of an area or problem of the student's choice not covered by regular catalog offerings in Biology. Student must obtain approval from an appropriate faculty member. For more details, see the section on independent study in the college catalog. 0401.00

BIOL 50A, Introductory Biotechnology with Laboratory

4 Units
3 hrs lecture, 4 hrs lab (GR).
Prerequisites: MATH 201, 230, or 240.
Recommended Preparation: BIOL 1A or 10 and CHEM 1A or 30A and ENGL 1A.
Acceptable for credit: UC/CSU
AA/AS Area 1; CSU areas B2, B3;
IGETC areas 5B, 5C
Introduction to the field of biotechnology: History and current medical and industrial products, government oversight, ethical issues; introduction to cell and molecular biology, standard laboratory equipment, techniques and practices, metrology, laboratory mathematics, media and buffer preparation, cloning, microbiological techniques, gel electrophoresis, chromatography, PCR, bioinformatics, safety, hazardous waste disposal and good laboratory practices. 0430.00

BIOL 50B, Protein Chemistry and Fermentation

3 Units
2 hrs lecture, 4 hrs lab (GR).
Prerequisites: BIOL 50A and CHEM 30A or 1A.
Recommended Preparation: BIOL 1A or 10.
Acceptable for credit: UC/CSU
AA/AS Area 1; CSU areas B2, B3;
IGETC areas 5B, 5C
Introduction to protein chemistry: Isolation and purification of proteins, chromatography technologies, protein activity assays, gel electrophoresis and staining methods, immunoblotting, fermentation and bioassays. 0430.00

BIOL 50C, Stem Cell Biology and Advanced Molecular Techniques

3 Units
2 hrs lecture, 4 hrs lab (GR).
Prerequisites: BIOL 50A, 3, and 10 or 1A.
Recommended Preparation: BIOL 33, 32, and ENGL 1A.
Acceptable for credit: UC/CSU
AA/AS Area 1; CSU areas B2, B3;
IGETC areas 5B, 5C
Introduction to stem cells and their applications: culture, maintenance and differentiation of embryonic, adult and induced stem cells; advanced experimental techniques and research methods including histological and immunofluorescent staining, flow cytometry, RNA extraction, RNA sequencing using NGS, TUNEL assay, SDS PAGE and western blotting, statistics and bioinformatics. 0430.00

BIOL 50D, Cell and Tissue Culture

2 Units

1 hr lecture, 4 hrs lab (GR).

Prerequisites: BIOL 3.

Recommended Preparation: BIOL 50A and BIOL 10 or 1A, and MATH 201 or 230.

Acceptable for credit: CSU.

Introduction to mammalian cell culture: Maintaining and passaging cell lines, aseptic technique, working in laminar flow hoods, making and sterilizing media, identifying contaminants, determining cell concentration and growth curves, working with adherent, non-adherent and stem cells, STR DNA profiling, transfection and fluorescent microscopy. 0430.00

BIOL 484A, Occupational Work Experience in Biotechnology

1-4 units

3.43-60.03 hours lab (GR or P/NP)

Acceptable for credit CSU

Supervised employment in biotechnology or a related field: Extension of classroom learning to the job site. The employment must be related to the student's educational or occupational goals. Each 75 hours of paid work equals one unit, while each 60 hours of non-paid work equals one unit. Students can earn at most 16 units through general and occupational work experience courses combined, but may re-enroll in such courses any number of times until the maximum of 16 units is earned. 0430.00

BUSINESS PROGRAMS

The Business Department offers transfer programs and non-transfer occupational programs leading to Associate Degrees and Certificates in several business areas. A student who wishes to transfer to a four-year college in business and wants to complete an associate degree prior to transfer should complete the degree in Business Administration or General Business. Accounting, General Business, and Office Skills programs will provide you with the skills needed for immediate employment; they will prepare students for advancement to positions that require more in-depth knowledge of organization and business principles; they will develop and upgrade skills in related business and office technology areas; and/or they will help students acquire entry-level job skills.

Accounting

Associate in Arts Degree

Career Opportunities

Entry-level accounting positions.

Required Courses	Units
BUS 1A Financial Accounting	4
BUS 1B Managerial Accounting	4
BUS 2 Introduction to Business Law	3
BUS 5 Human Relations in Business	3
BUS 10 Introduction to Business	3
BUS 19 Business Communications	3
BUS 24 Computerized Accounting Principles	3
BUS 56 Introduction to Human Resources Management	3
CIS 1 Introduction to Computer Information Systems	4
CIS 42A Spreadsheet Applications I	2
CIS 42B Spreadsheet Applications II	2
Major Requirements	34
General Education and Electives	26
Total Units	60

Recommended Course Sequence

You can use the following pattern to complete an Associate in Arts degree in Accounting. This is only one possible pattern. If you wish to earn an associate degree or certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map your sequence of courses to help you complete your degree regardless of the semester you begin classes.

Courses	Units
1st Semester/Fall	
BUS 5 Human Relations in Business	3
CIS 42A Spreadsheet Applications I	2
CIS 42B Spreadsheet Applications II	2
General Education and Electives	8
Total	15
2nd Semester/Spring	
BUS 10 Introduction to Business	3
BUS 19 Business Communications	3
CIS 1 Introduction to Computer Information systems	4
General Education and Electives	5
Total	15
3rd Semester/Fall	
BUS 1A Financial Accounting	4
BUS 2 Introduction to Business Law	3
General Education and Electives	8
Total	15
4th Semester/Spring	
BUS 1B Managerial Accounting	4
BUS 24 Computerized Accounting Principles	3
BUS 56 Introduction to Human Resources Management	3
General Education and Electives	5
Total	15

Program Learning Outcomes

Students who complete the program will be able to:

- Apply legal and ethical principles in business decision making.
- Obtain information related to the profession using traditional and electronic sources, and synthesize the information into a written or oral business report.
- Analyze a business situation and recommend a solution or plan for improvement.
- Analyze data and prepare common business and personal financial reports.
- Demonstrate ability to acknowledge and act with sensitivity toward the diverse customs, beliefs, and lifestyles that exist within the college and the business environment.

Accounting

Certificate of Proficiency

The Certificate of Proficiency in Accounting allows students to learn the basics of accounting which will qualify them to apply for entry level bookkeeping positions with potential for advancement as they gain work experience, while still pursuing higher education in the field.

Career Opportunities

Entry-level bookkeeping positions.

Required Courses	Units
BUS 1A Financial Accounting	4
BUS 5 Human Relations in Business	3
BUS 10 Introduction to Business	3
BUS 24 Computerized Accounting Principles	3
CIS 42A Spreadsheet Applications I	2
Total Units	15

Recommended Course Sequence

You can use the following pattern to complete a Certificate of Proficiency in Accounting. This is only one possible pattern. If you wish to earn a certificate, you must participate in the Student Success

Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. This plan will map your sequence of courses to help you complete your degree regardless of the semester you begin classes.

Course	Units
1st Semester/Fall	
BUS 1A Financial Accounting	4
BUS 5 Human Relations in Business	3
CIS 42A Spreadsheet Applications I	2
Total	9
2nd Semester/Spring	
BUS 10 Introduction to Business	3
BUS 24 Computerized Accounting Principles	3
Total	6

Program Learning Outcomes

Students who complete the program will be able to:

- Analyze data in order to prepare common business and personal financial reports.
- Analyze a business situation and recommend a solution or plan for improvement.

Business Administration

Associate in Science for Transfer Degree (AS-T)

The Associate in Science in Business Administration for Transfer Degree will help students develop communications, critical thinking, and problem solving skills. Students will also learn how to convey ideas skillfully and effectively in writing and presentations.

Students who successfully complete the AS-T in Business Administration earn specific guarantees for transfer to the CSU system: admission to a CSU with junior status and priority admission a local CSU campus and to a program or major in business administration or a similar major. Students transferring to a CSU campus will be required to complete no more than 60 units after transfer to earn a bachelor's degree.

Students are required to complete 60 semester units that are eligible for transfer to a California State University, including both of the following: (1) The Inter-segmental General Education Transfer Curriculum (IGETC) or the California State University General Education – Breadth Requirements and (2) 27 semester units with a grade of C or P or better in the major and an overall minimum grade point average (GPA) of at least 2.0 in all CSU transferable coursework. For a more detailed description of Associate Degrees for Transfer, see "Associate Degrees for Transfer (ADT) to a California State University" on page 31.

Students are advised to consult with a Berkeley City College Counselor for additional information and to verify transfer requirements.

Career Opportunities

Marketing, sales, accounting, technology, education and management.

Required Courses	Units
BUS 1A Financial Accounting	4
BUS 1B Managerial Accounting	4
BUS 2 Introduction to Business Law	3
BUS 10 Introduction to Business	3
ECON 1 Principles of Economics (Macro Economics)	3
ECON 2 Principles of Economics (Micro-Economics)	3
MATH 13 Introduction to Statistics	4
MATH 16A Calculus for Business and the Life and Social Sciences	3
Major Requirements	27
General Education (IGETC or CSU GE) and Electives	33
Total Units for BusAd	60

Recommended Course Sequence

You can use the following pattern to complete an Associate in Science in Business

Administration for Transfer Degree. This is only one possible pattern. If you wish to earn an associate degree or certificate, you must participate in the Student Success Program (Matriculation), which includes assessing academic skills and developing a Student Education Plan (SEP) with a Counselor. The SEP will map your sequence of courses to help you complete your degree regardless of the semester you begin classes.

Courses	Units
1st Semester/Fall	
BUS 10 Introduction to Business	3
MATH 16A Calculus-Business/Social Sciences	3
General Education and Elective Courses	9
Total	15
2nd Semester/Spring	
BUS 2 Introduction to Business Law	3
ECON 2 Principles of Economics (Microeconomics)	3
General Education and Elective Courses	9
Total	15
3rd Semester/Fall	
BUS 1A Financial Accounting	4
ECON 1 Principles of Economics (Macroeconomics)	3
General Education and Elective Courses	8
Total	15
4th Semester/Spring	
BUS 1B Managerial Accounting	4
MATH 13 Statistics	4
General Education and Elective Courses	7
Total	15
Total Units Required for Degree60	

Program Learning Outcomes

Students who complete the program will be able to:

- Analyze a business situation and recommend a solution or plan for improvement, applying legal and ethical principles in business decision making.
- Obtain information related to the profession using traditional and electronic sources and synthesize the information into a business report.
- Analyze data and prepare common business and personal financial reports.
- Analyze impact of globalization on culture, politics, and economics.

General Business

Associate in Arts Degree and Certificate of Achievement

Berkeley City College's General Business Associate in Arts Degree and Certificate of Achievement allows students to develop