

# PROGRAM OF STUDY

## ARCHITECTURE A.S. Degree

### Laney College

TOP Code: 0201.00

Program Control Number:

Board of Trustees Date: 03/26/2013

Curriculum Committee Approval Date: 11/21/2014

The Architectural Technology Department offers vocational and paraprofessional programs in architectural technology as well as preparation for transfer to four- and five-year architecture programs. The curriculum provides necessary skills for employment in the design and construction fields. Students may prepare for positions as CAD drafting technicians, 3-D project renderers, and other similarly related occupations in public and private sector architecture and construction/building industry related offices. Supplemental courses offer students a broad architectural and general education background and enable them to continue their education in architecture at the university level.

## Career Opportunities in Architecture

Entry level CAD/Revit Technicians, 3-D project illustrators, digital design and fabrication positions

Degree Major/Certificate Requirements:

### **FIRST SEMESTER**

		<b>Units</b>
ARCH 010	Introduction to Design Professions and Architectural Administration	2
ARCH 013	Architectural Drafting and Design I	4
CONMT 020	Blueprint Reading and Interpretation	3
ARCH 111	Introduction to Sustainable Architectural Design Applications	3

### **SECOND SEMESTER**

		<b>Units</b>
ARCH 023	Architectural Drafting and Design II	4
ARCH 035	Perspective, Shades and Shadows I	2
ARCH 103	Materials of Construction	2
ARCH 104A	Beginning Computer Aided Drafting (CAD)	3
ARCH 107	Architectural History and Theory	3

### **THIRD SEMESTER**

		<b>Units</b>
ARCH 033	Architectural Drafting and Design III	4
ARCH 121A	Introduction to Building Information Modeling with Autodesk Revit	2
PHYS 003A +	General Physics	5
	<b>or</b>	
PHYS 004A +	General Physics with Calculus	5
ARCH 125	Digital Tools for Architecture and Design	3

### **FOURTH SEMESTER**

		<b>Units</b>
ARCH 043	Architectural Drafting and Design IV	4
ARCH 110	Introduction to 3D Modeling and Rendering	3
ARCH 121B	Advanced Building Information Modeling with Autodesk Revit	2
ENGL 001A +	Composition and Reading	4

# PROGRAM OF STUDY

## Chemistry Certificate of Achievement

### Berkeley City College

TOP Code: 1905.00

Program Control Number:

Curriculum Committee Approval Date: 12/04/2014

Current Effective Date: 08/01/2015

Chemistry is essential and pre-requisite for many science majors. At Berkeley City College we offer courses designed to prepare students for transfer to four year colleges or universities, as well as to provide the analytical skills needed as entry level technicians in academic and research laboratories. This is a two-year (four-semester) course sequence that allows students to start in either the fall or spring semester. Students have the option of completing the minimum requirements to receive a Certificate of Achievement or completing both the minimum requirements and general education requirements to obtain an Associate in Science Degree. For the latter option, students must seek advice from a counselor to develop a Student Education Plan (SEP) and participate in the Student Success (Matriculation) program. Completion of the Associate in Science Degree will qualify candidates to work as entry level technicians in chemistry laboratories in academic or research institutions. Candidates will be able to assist professors or researchers to prepare and conduct basic experiments, collect and analyze data, and understand the safety/health hazard associated with chemicals.

## Career Opportunities in

Completion of Associate in will qualify candidates to work as entry level technicians in chemistry laboratories either in academic or research institutions. Candidates will be able to assist instructors/professors or researchers collect and analyze data, have the knowledge and understanding how to prepare solutions and standardize them correctly, be able to read chemical levels and understand the safety/health hazard associated with each chemical.

### Required Courses:

CHEM 001A	General Chemistry	5
CHEM 001B	General Chemistry	5
CHEM 012A	Organic Chemistry	5
CHEM 012B	Organic Chemistry	5
MATH 003A	Calculus I	5
PHYS 003A	General Physics	5
	<b>or</b>	
PHYS 004A	General Physics with Calculus	5

### Restricted Elective: Choose one course from the list below

		Units
BIOL 001A	General Biology	5
BIOL 001B	General Biology	5
CIS 005	Introduction to Computer Science	5
CIS 006	Introduction to Computer Programming	5
MATH 003B	Calculus II	5
PHYS 003B	General Physics	5
PHYS 004B	General Physics with Calculus	5

### Recommended Preparation for the certificate:

		Units
CHEM 030A	Introductory General Chemistry	4

You can use the following pattern to complete the Certificate of Achievement in Chemistry. This is only one possible pattern. If you wish to earn an associate degree or a certificate, you must participate in the Student Success Program (Matriculation), which include assessing your 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 associate degree or certificate regardless of the semester you begin classes.

		<b>Units</b>
<b>1st Semester/Fall</b>		
CHEM 001A	General Chemistry	5
MATH 003A	Calculus I	5
Total units for the semester:		10
<b>2nd Semester/Spring</b>		
CHEM 001B	General Chemistry	5
Restricted Elective		5
Total units for the semester:		10
<b>3rd Semester/Fall</b>		
CHEM 012A	Organic Chemistry	5
PHYS 003A	General Physics	5
<b>or</b>		
PHYS 003B	General Physics	5
Total units for the semester:		10
<b>4th Semester/Spring</b>		
CHEM 012B	Organic Chemistry	5
Total units for the semester:		5
<b>Total Units</b>		<b>35</b>

# PROGRAM OF STUDY

## Chemistry A.S. Degree

### Berkeley City College

TOP Code: 1905.00

Program Control Number:

Curriculum Committee Approval Date: 12/04/2015

Current Effective Date: 08/01/2015

Chemistry is essential and pre-requisite for many science majors. At Berkeley City College we offer courses designed to prepare students for transfer to four year colleges or universities, as well as to provide the analytical skills needed as entry level technicians in academic and research laboratories. This is a two-year (four-semester) course sequence that allows students to start in either the fall or spring semester. Students have the option of completing the minimum requirements to receive a Certificate of Achievement or completing both the minimum requirements and general education requirements to obtain an Associate in Science Degree. For the latter option, students must seek advice from a counselor to develop a Student Education Plan (SEP) and participate in the Student Success (Matriculation) program. Completion of the Associate in Science Degree will qualify candidates to work as entry level technicians in chemistry laboratories in academic or research institutions. Candidates will be able to assist professors or researchers to prepare and conduct basic experiments, collect and analyze data, and understand the safety/health hazard associated with chemicals.

## Career Opportunities in

Completion of Associate in Science Degree will qualify candidates to work as entry level technicians in chemistry laboratories either in academic or research institutions. Candidates will be able to assist instructors/professors or researchers collect and analyze data, have the knowledge and understanding how to prepare solutions and standardize them correctly, be able to read chemical levels and understand the safety/health hazard associated with each chemical.

### Required Courses

		Units
CHEM 001A	General Chemistry	5
CHEM 001B	General Chemistry	5
CHEM 012A	Organic Chemistry	5
CHEM 012B	Organic Chemistry	5
MATH 003A	Calculus I	5
PHYS 003A	General Physics	5
	<b>or</b>	
PHYS 004A	General Physics with Calculus	5

### Select one course from the list below:

		Units
BIOL 001A	General Biology	5
BIOL 001B	General Biology	5
CIS 005	Introduction to Computer Science	5
CIS 006	Introduction to Computer Programming	5
MATH 003B	Calculus II	5
PHYS 003B	General Physics	5
PHYS 004B	General Physics with Calculus	5

### Unit Calculation:

Major Requirements	35
General Education and Electives	25

### Recommended Preparation:

CHEM 030A	Introductory General Chemistry	4
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You can use the following pattern to complete the Certificate of Achievement in Chemistry. This is only one possible pattern. If you wish to earn an associate degree, you must participate in the Student Success Program (Matriculation), which include assessing your 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 associate degree regardless of the semester you begin classes.

<b>1st Semester/Fall</b>		<b>Units</b>
CHEM 001A	General Chemistry	5
MATH 003A	Calculus I	5
IGETC/CSU-GE Breadth Requirements and/or Elective		6
Total units for the semester:		16

<b>2nd Semester/Spring</b>		<b>Units</b>
CHEM 001B	General Chemistry	5
Restricted Elective		5
IGETC/CSU-GE Breadth Requirements and/or Elective		6
Total units for the semester:		16

<b>3rd Semester/Fall</b>		<b>Units</b>
CHEM 012A	Organic Chemistry	5
PHYS 003A	General Physics	5
<b>or</b>		
PHYS 004A	General Physics with Calculus	5
IGETC/CSU-GE Breadth requirements and/or Elective		6
Total units for the semester:		16

<b>4th Semester/Spring</b>		<b>Units</b>
CHEM 012B	Organic Chemistry	5
IGETC/CSU-GE Breadth Requirements and/or Elective		7
Total units for the semester:		12

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<b>Total Units</b>	<b>60</b>
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<b>Total Major Units</b>		<b>Units</b>
		53
<b>Recommended but not required:</b>		
ARCH 045	Perspective, Shades and Shadows II	2
ART 060	Beginning Painting: Watercolor	2
ART 070	Beginning Sculpture	2
COMM 001A	Introduction to Speech	3
COMM 045	Public Speaking	3
ENGL 001B	Composition and Reading	4
PHOTO 010	Basic Photography	2
MEDIA 180	HDSLR Workflow for Digital Photography and Cinematography	3

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**Total Units** **69 - 74**

+Course may be applied to Associate Degree General Education requirement.  
 For Associate Degree General Education requirements, refer to page 75.

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# PROGRAM OF STUDY

## ADMINISTRATIVE ASSISTANT A.A. Degree

### Merritt College

TOP Code: 0514.00

Program Control Number: 9044

The Administrative Assistant program is designed to equip a student for employment as a valuable member in an organization with professional support skills. The student will learn how to support a business office through acquisition of organized and efficient skills in current office technology using Microsoft Office to develop business correspondence and prepare documents, reports, presentations, spreadsheets, and more.

<b>Degree Major Requirements:</b>		<b>Units</b>
BUS 005	Human Relations in Business	3
BUS 010	Introduction to Business	3
BUS 020	General Accounting	3
	<b>and</b>	
CIS 001	Introduction to Computer Information Systems	4
	<b>or</b>	
CIS 005	Introduction to Computer Science	5
	<b>and</b>	
COMM 020	Interpersonal Communication Skills	3
CIS 040	Database Management	4
CIS 042	Spreadsheet Applications	4
COPED 450	General Work Experience	1 - 3
Typewriting proficiency via credit by exam at 45 NWPM for graduation.		
Total Units Required for Major:		25 - 28
<b>Recommended:</b>		<b>Units</b>
ENGL 001A	Composition and Reading	4
	<b>and</b>	
MATH 203	Intermediate Algebra	4
	<b>or</b>	
MATH 013	Introduction to Statistics	4
<b>General Education (PCCD GE Pattern):</b>		<b>Units</b>
		19
<b>Units that may be double-counted:</b>		<b>Units</b>
		7
<b>Electives (degree-applicable courses):</b>		<b>Units</b>
		20 - 23
<b>Total Units</b>		<b>60</b>

## PROGRAM OF STUDY

### Administrative Assistant Certificate of Achievement

#### Merritt College

TOP Code: 0514.00

Program Control Number: 22017

The Administrative Assistant program is designed to equip a student for employment as a valuable member in an organization with professional support skills. The student will learn how to support a business office through acquisition of organized and efficient skills in current office technology using Microsoft Office to develop business correspondence and prepare documents, reports, presentations, spreadsheets, and more.

<b>Requirements:</b>		<b>Units</b>
BUS 005	Human Relations in Business	3
BUS 010	Introduction to Business	3
BUS 020	General Accounting	3
	<b>and</b>	
CIS 001	Introduction to Computer Information Systems	4
	<b>or</b>	
CIS 005	Introduction to Computer Science	5
	<b>and</b>	
CIS 040	Database Management	4
CIS 042	Spreadsheet Applications	4
COMM 020	Interpersonal Communication Skills	3
COPED 450	General Work Experience	1 - 3
Typewriting proficiency required via credit by exam at 45 NWPM		
<b>Recommended:</b>		<b>Units</b>
ENGL 001A	Composition and Reading	4
	<b>and</b>	
MATH 203	Intermediate Algebra	4
	<b>or</b>	
MATH 013	Introduction to Statistics	4
<b>Total Units</b>		<b>25 - 28</b>

PID 767

# PROGRAM OF STUDY

## ADMINISTRATIVE OFFICE SYSTEMS AND APPLICATIONS A.A. Degree

### Merritt College

TOP Code: 0514.00

Program Control Number: 1198

The Administrative Office Systems and Applications AA degree program prepares students to work in an office environment of people and prepares students to assume positions as office managers, supervisors, or as assistants to top executives. These positions use a variety of office technology and computer-based applications (word processing, electronic mail, desktop publishing, presentation graphics, database, and spreadsheet.). Classes emphasize technology, proofreading and editing, document formatting, electronic filing, transcription, human relations, and computerized 10-key. Students will develop administrative skills necessary to participate as part of the management team. Office management personnel assist in planning, organizing, and controlling the information related activities and in leading or directing people to attain the objectives of the organization. They support and help facilitate accurate communication and information exchange to internal and external customers on a timely basis.

#### **Degree Major Requirements:**

		<b>Units</b>
BUS 005	Human Relations in Business	3
BUS 010	Introduction to Business	3
	<b>and</b>	
BUS 020	General Accounting	3
	<b>or</b>	
BUS 001A	Financial Accounting	4
	<b>and</b>	
CIS 001	Introduction to Computer Information Systems	4
	<b>or</b>	
CIS 005	Introduction to Computer Science	5
	<b>and</b>	
CIS 040	Database Management	4
CIS 042	Spreadsheet Applications	4
COMM 020	Interpersonal Communication Skills	3
	<b>and</b>	
COPED 456Q	Occupational Work Experience in Administrative Office Systems & Applications	1
	<b>or</b>	
COPED 450	General Work Experience	1
Require typewriting proficiency via credit by exam at 45 NWPM for graduation.		
Total Units for Major:		25 - 27

#### **Recommended:**

		<b>Units</b>
BUS 002	Introduction to Business Law	3
BUS 050	Principles of Management	3
BUS 070	Introduction to Marketing	3
ECON 001	Principles of Economics (Macro-Economics)	3
ECON 002	Principles of Economics (Micro-Economics)	3

#### **General Education (PCCD GE Pattern):**

**Units**  
19

#### **Units that may be double-counted:**

**Units**  
7

Electives (degree-applicable courses):

**Units**

21 - 23

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**Total Units**

**60**

PID 346

## PROGRAM OF STUDY

### BUSINESS INFORMATION PROCESSING A.A. Degree

#### Merritt College

TOP Code: 0514.00

Program Control Number: 9045

Students in this program acquire proficiency working with computer technology, business software applications and managing business information processing needs with current Office software applications, Internet & web work via business correspondence & a variety of documents, presentation graphics, database management, spreadsheet creation, integration of applications, and business resource and support departments.

<b>Requirements:</b>		<b>Units</b>
BUS 005	Human Relations in Business	3
BUS 010	Introduction to Business	3
	<b>and</b>	
CIS 001	Introduction to Computer Information Systems	4
	<b>or</b>	
CIS 005	Introduction to Computer Science	5
	<b>and</b>	
CIS 040	Database Management	4
CIS 042	Spreadsheet Applications	4
CIS 234A	World Wide Web Publishing I	2
CIS 234D	Web Authoring	2
CIS 234E	Creating an E-Commerce Web Site	2
COMM 020	Interpersonal Communication Skills	3
COPEd 450	General Work Experience	1
Typewriting proficiency via credit by exam at 45 NWPM for graduation.		
Total Units Required for Major:		28 - 29
<b>Recommended:</b>		<b>Units</b>
BUS 054	Small Business Management	3
BUS 070	Introduction to Marketing	3
BUS 074	Introduction to Advertising	3
<b>General Education (PCCD GE Pattern):</b>		<b>Units</b>
		19
<b>Units that may be double-counted:</b>		<b>Units</b>
		7
<b>Electives (degree-applicable courses):</b>		<b>Units</b>
		19 - 20
<b>Total Units</b>		<b>60</b>

# PROGRAM OF STUDY

## BUSINESS INFORMATION PROCESSING Certificate of Achievement

### Merritt College

TOP Code: 0514.00

Program Control Number: 22018

Students in this program acquire proficiency working with computer technology, business software applications and managing business information processing needs with current Office software applications, Internet & web work via business correspondence & a variety of documents, presentation graphics, database management, spreadsheet creation, integration of applications, and business resource and support departments.

<b>Requirements:</b>		<b>Units</b>
BUS 005	Human Relations in Business	3
BUS 010	Introduction to Business	3
	<b>and</b>	
CIS 001	Introduction to Computer Information Systems	4
	<b>or</b>	
CIS 005	Introduction to Computer Science	5
	<b>and</b>	
CIS 040	Database Management	4
CIS 042	Spreadsheet Applications	4
CIS 234A	World Wide Web Publishing I	2
CIS 234D	Web Authoring	2
CIS 234E	Creating an E-Commerce Web Site	2
COMM 020	Interpersonal Communication Skills	3
COPED 450	General Work Experience	1
Typewriting proficiency via credit by exam at 45 NWPM for graduation.		
<b>Recommended:</b>		<b>Units</b>
BUS 054	Small Business Management	3
BUS 070	Introduction to Marketing	3
BUS 074	Introduction to Advertising	3

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**Total Units**

**28 - 29**

PID 773

# PROGRAM OF STUDY

## ECONOMICS A.A. Degree

### Merritt College

TOP Code: 2204.00

Program Control Number: 1232

The major in Economics is designed to prepare students for transfer to four-year institutions; to enter the business world with knowledge of economic trends and conditions; or to provide training for such positions as market analyst, sales analyst, or stockbroker. The AA degree in Economics will be awarded upon satisfactory completion of the Major course requirements and the General Education requirements.

<b>Requirements:</b>		<b>Units</b>
BUS 001A	Financial Accounting	4
BUS 010	Introduction to Business	3
CIS 001	Introduction to Computer Information Systems	4
ECON 001	Principles of Economics (Macro-Economics)	3
ECON 002	Principles of Economics (Micro-Economics)	3
MATH 013	Introduction to Statistics	4
Total Units Required for Major:		21
<b>Recommended:</b>		<b>Units</b>
BUS 002	Introduction to Business Law	3
BUS 005	Human Relations in Business	3
<b>General Education (PCCD GE Pattern):</b>		<b>Units</b>
		19
<b>Units that may be double-counted:</b>		<b>Units</b>
		7
<b>Electives (degree-applicable courses):</b>		<b>Units</b>
		27
<b>Total Units</b>		<b>60</b>

# PROGRAM OF STUDY

## Family Child Care Certificate of Proficiency

### Merritt College

TOP Code: 1305.40

Program Control Number:

The Family Child Care Provider Program is designed to prepare students to meet the unique demands for running a quality Family Child Care business. This specialization under the Child Development Department focuses on program, business practices and regulatory compliance. A Certificate of Proficiency will be awarded upon satisfactory completion of the courses specified below. The Certificate of Proficiency is not indicated on the student's transcript.

### Career Opportunities in

Service providers in the Family Child Care Centers.

**The following are required for the certificate:**

		<b>Units</b>
CHDEV 051	Child Growth and Development	3
CHDEV 053	The Child, the Family and the Community	3
	<b>and</b>	
CHDEV 054B	Introduction to Curriculum	3
	<b>or</b>	
CHDEV 056B	Curriculum and Environments for Infants and Toddlers	3
	<b>and</b>	
CHDEV 062	Overview of Operations of Family Child Care	3

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**Total Units****12**

PID 759

# PROGRAM OF STUDY

## Histotechnician Certificate of Achievement

### Merritt College

TOP Code: 1205.00

Program Control Number:

The Merritt College Histotechnician program provides on-campus and on-site technical training in the field of histotechnology, focusing on routine tissue sample preparation, special stains and techniques such as immunohistochemistry, in situ hybridization, fluorescence microscopy and genomics. Training on campus will utilize samples routinely prepared in both clinical and research facilities. As part of their formal training, students of histotechnology will work through study guides provided by the American Society of Clinical Pathologists (ASCP) for its certification examination. Partnerships with local facilities will allow for work experience and internship sites, required for certification of histotechnician graduates, and will provide further training for those interested in research and/or careers in the private sector. Completion of this Program qualifies students for HT or HTL certification through ASCP.

### Career Opportunities in

Histotechnician positions in the following: Hospital and clinical diagnostic labs. Biotech histotechnology labs. Academic research labs. Agricultural and plant pathology labs. Veterinarian labs.

<b>Required:</b>		<b>Units</b>
BIOL 002	Human Anatomy	5
	<b>and</b>	
BIOL 004	Human Physiology	5
	<b>or</b>	
BIOL 020A	Human Anatomy and Physiology	5
	<b>and</b>	
BIOL 020B	Human Anatomy and Physiology	5
	<b>and</b>	
BIOL 003	Microbiology	5
BIOSC 002	Theory and Practice of Optical Microscopy	5
BIOSC 005	Good Laboratory Practices	1
BIOSC 006	Survey of Biotech Industry	1
BIOSC 007	Practical Mammalian Cell Culture	1
BIOSC 008	Immunohistochemistry	1
BIOSC 009	General Histology	5
BIOSC 010	Fluorescence Microscopy Laboratory	3 - 6
BIOSC 011	Lab Safety and Ethics	0.5
BIOSC 030	Genomics Theory	4
BIOSC 055	Beginning Histotechniques	4
BIOSC 056	Advanced Histotechniques	4
BIOSC 057	Advanced Immunohistochemistry	2
	<b>and</b>	
CHEM 001A	General Chemistry	5
	<b>or</b>	
CHEM 030A	Introductory General Chemistry	4
	<b>and</b>	
COPED 476G	Occupational Work Experience in Histotechnology	1 - 4

**Total Units**

**51.5 - 58.5**

PID 761

# PROGRAM OF STUDY

## Infant/Toddler Specialist Certificate of Proficiency

### Merritt College

TOP Code: 1305.40

Program Control Number:

The Infant/Toddler Specialist Program is designed to prepare students for work in public or private infant toddler programs. This specialization option under the Child Development Department focuses on skills needed to work in infant toddler settings. A Certificate of Proficiency will be awarded upon satisfactory completion of the courses specified below. The Certificate of Proficiency is not indicated on the student's transcript.

### Career Opportunities in

Infant/Toddler teacher, owner/director of Family Child Care business, Home Visitor with Early Headstart programs.

**The following are required for the certificate:**

		<b>Units</b>
CHDEV 056A	Infant/Toddler Development and Care	3
CHDEV 056B	Curriculum and Environments for Infants and Toddlers	3

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**Total Units**

**6**

PID 729

## PROGRAM OF STUDY

### SPANISH A.A. Degree

#### Merritt College

TOP Code: 1105.00

Program Control Number:

The AA degree in Spanish will be awarded upon satisfactory completion of the Major course requirements and the General Education requirements.

#### **Degree Major Requirements:**

SPAN 001A	Elementary Spanish	5
SPAN 001B	Elementary Spanish	5
SPAN 002A	Intermediate Spanish	5
SPAN 002B	Intermediate Spanish	5

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**Total Units**

**20**

PID 760