LIBERAL ARTS, ASSOCIATE IN ARTS (AA): BIO-MEDICAL SCIENCES EMPHASIS

Requirements

Associate Degree Graduation Requirements

Complete all of the following:

1. All Department Requirements listed below with a “C” or better or “P” in each course (at least 20% of the department requirements must be completed through SBCC).

2. One of the following three General Education options:
   a. OPTION 1: A minimum of 18 units of SBCC General Education Requirements (http://articulation.sbcc.edu/sbcc/sbccge.pdf) (Areas A-D) and Institutional Requirements (Area E) and Information Competency Requirement (Area F) OR
   b. OPTION 2: IGETC (http://articulation.sbcc.edu/igetc/igetc.pdf) Pattern OR
   c. OPTION 3: CSU GE Breadth (http://articulation.sbcc.edu/csugb.csucge.pdf) Pattern

3. A total of 60 degree-applicable units (SBCC courses numbered 100 and higher).

4. Maintain a cumulative GPA of 2.0 or better in all units attempted at SBCC.

5. Maintain a cumulative GPA of 2.0 or better in all college units attempted.

6. A total of 12 units through SBCC.

Code Title Units

Code Title Units

Department Requirements

BMS 107 Human Anatomy 4
BMS 108 Human Physiology 4
BMS 127 Medical Microbiology 4
or BMS 157 General Microbiology
CHEM 101 Introductory Chemistry 4-5
or CHEM 104 Fundamentals Of General, Organic And Biological Chemistry
or CHEM 155 General Chemistry I
Select 13 units from the Bio-Medical Sciences Electives list 13

Total Units 29.00-30.00

1 Bio-Medical Sciences electives should be carefully selected from the list below in consultation with the Bio-Medical Sciences Faculty Adviser or the Sciences Counselor to avoid problems with transfer. Students intending to transfer with an AA Degree in Liberal Arts: Emphasis in Bio-Medical Sciences should include introductory courses in general and organic chemistry, physics and statistics.

Code Title Units

Bio-Medical Sciences Electives:

AH 120 Medical Terminology 1
ANTH 101 Physical Anthropology 3

ANTH 103 Introduction To Cultural Anthropology 3
ANTH 104 Language and Culture 3
ART 122 Advanced Drawing 3
ART 123 Figure and Portrait Drawing 3
BIOL 100 Concepts Of Biology 4
BIOL 101 Plant Biology 4
BIOL 102 Animal Biology 5
BIOL 103 Cell and Molecular Biology 5
BIOL 110 Natural Science 3-4
or BIOL 110H Natural Science, Honors
BIOL 112 Evolution And Adaptation 3
BIOL 116 Biological Illustration 4
BIOL 120 Natural History 4
BIOL 140 Principles Of Biology 3
BIOL 141 Biology Laboratory 2
BIOL 291 Seminars In Biology 2
BMS 118 Human Microanatomy 3
BMS 119C Human Dissection of the Torso 1
BMS 128 Human Nutrition 3
BMS 128L Human Nutrition Laboratory 1
BMS 136 Biology Of Human Sexuality 3
BMS 146 Human Form and Function 3
BOT 100 Concepts Of Botany 2 4
BOT 121 Plant Diversity 2 4
BOT 123 Field Botany 3
BOT 129 Survey Of Earth's Vegetation 3
CHEM 156 General Chemistry II 5
CHEM 211 Organic Chemistry I 3
CHEM 212 Organic Chemistry II 3
CHEM 221 Organic Chemistry Laboratory I 2.3
CHEM 222 Organic Chemistry Laboratory II 2.5
CIM 100 Cancer Registry Management I 3
CIM 125 Cancer Disease Management 4
CIM 225 Cancer Registry Management II 2
CIM 250 Cancer Statistics And Epidemiology 3
COMM 101 Introduction to Communication 3
COMM 121 Interpersonal Communication 3
or COMM 121H Interpersonal Communication, Honors
or COMM 122 Mediated Interpersonal Communication
COMM 131 Fundamentals Of Public Speaking 3
or COMM 131H Fundamentals Of Public Speaking, Honors
COMM 141 Small Group Communication 3
COMM 151 Intercultural Communication 3
EMT 110 Emergency Medical Technician-Basic 6
HE 101 Personal Health Awareness 3
HE 102 Personal Health for Women 3
HE 103 Responding to Medical Emergencies 3
HE 104 Introduction to Athletic Injuries 3
HE 108 Advanced Assessment And Treatment Of Athletic Injuries 3
HIT 101 Introduction To Health Information Management 3
HIT 135 Basic Medical Terminology 3
HIT 201 Pharmacology For Allied Health 2
HIT 204 Basic Pathophysiology 3
HIT 220 HIM Statistics 2
HIT 265 HIM Computer Applications 3
MATH 107 Intermediate Algebra 7 5
MATH 117 Elementary Statistics 4
or PSY 150 Statistics for the Behavioral Sciences 5
MATH 130 Calculus for Biological Sciences, Social Sciences and Business I 5
MATH 131 Calculus For Biological Sciences, Social Sciences And Business II 3
MATH 137 College Algebra 5
MATH 138 Precalculus - College Algebra and Trigonometry 4
MATH 150 Calculus with Analytic Geometry I 5
MATH 160 Calculus With Analytic Geometry II 5
PE 200 Introduction to Kinesiology 3
PHIL 204 History And Philosophy Of The Great Ideas Of Physics 3
PHSC 103 The Physical Universe 4
PHYS 101 Conceptual Physics 3
PHYS 101L Conceptual Physics Laboratory 1
PHYS 102 Introductory Physics For Science Majors 4
PHYS 105 General Physics 4
PHYS 106 General Physics 4
PHYS 110 Introductory Physics 4
PHYS 111 Introductory Physics 4
PSY 100 General Psychology 3-4
or PSY 100H General Psychology, Honors 4
PSY 105 Applied Behavior Analysis 2
PSY 110 Introduction to Physiological Psychology 3
PSY 115 Psychology Of Health And Effective Behavior 3
PSY 120 Introduction To Psychology 3
PSY 125 Psychology Of Human Sexuality 4
PSY 130 Personality Dynamics And Effective Behavior 3
PSY 140 Child Development 3
PSY 145 Human Development 3
PSY 170 Abnormal Psychology 3
PSY 175 Social Psychology. Psychological Perspective 3
SOC 101 Introduction To Sociology 3-4
or SOC 101H Introduction to Sociology, Honors 3
SOC 103 Marriage, Family and Intimacy 3
SOC 104 Social Psychology 3
SOC 106 Sociology of Deviance 3
SOC 109 Social Problems 3
SOC 113 Sociology Of Sex and Gender 3
ZOOL 110 Animal Physiology 3
ZOOL 122 Animal Diversity 3

ZOOL 123 Animal Diversity Laboratory 1
ZOOL 140 Animal Behavior 3

**Learning Outcomes**

1. Articulate the principles of evolutionary theory, the history of its development, and the role that evolution plays in the continuity and diversity of life.
2. Communicate the unifying principles governing the organization of organisms from molecules to populations.
3. Explain and apply fundamental ecological principles, from populations to communities through ecosystems, and the geographical distribution of life on Earth.
4. Summarize and illustrate an understanding of the development of the organism from fertilization to the adult form.
5. Compare and contrast organismal diversity and life histories including nomenclature, taxonomy, and systematics.
6. Characterize fundamental metabolic pathways, describe bioenergetics, and relate the interdependence of these pathways.
7. Demonstrate understanding of the structure and function of tissues, organs, and organ systems, describing interrelationships and mechanisms of their integration to support the whole, functioning organism and the underlying causes of dysfunction.
8. Describe and connect the role of DNA in regulating cell activity to its importance as the basis of inheritance, evolution, and biotechnology.
9. Demonstrate proficiency in the basic methods, instrumentation, and quantitative analytical skills used to conduct biological research, including fundamental methods of microscopy, animal and plant dissection, and molecular and cellular biology.
10. Produce original research reports and review papers in a standard scientific format based on laboratory, field experiments, and literature searches that include critical quantitative and qualitative evaluation of data to effectively communicate results, interpretations, and concepts.
11. Evaluate how human populations impact and are impacted by abundance and diversity of other species and the structure and function of ecosystems.
12. Describe the physical environment defining the limits to life on Earth and correlate the physical properties of life that allow it to thrive within these limitations.

**Recommended Sequence**

Make an appointment with your SBCC academic counselor through Starfish to create a Student Education Plan that reflects a recommended course sequence for this program that is tailored to your individual needs.

How to schedule an Academic Counseling appointment (http://www.sbcc.edu/starfish/howtos/starfish_appt_how_to.pdf).