

ASSOCIATE IN SCIENCE IN BIOLOGY FOR TRANSFER

Curriculum Guide for Academic Year 2020-2021

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Resources available for transfer students:

Academic Counselors (Call 562-938-4561 for LAC or 562-938-3920 for PCC)

Transfer Center (Call 562-938-4670 for LAC or 562-938-3920 for PCC)

ASSIST web site at www.assist.org.

Program of study leading to: Associate in Science (AS-T) Degree

REQUIRED CORE COURSES:

- † BIO 1A Biology for Science Majors
- † BIO 1B Biology for Science Majors

C-ID Descriptor	CSU GE Area	IGETC Area	Units	In Progress	Completed Grade
BIO 135S	B2, B3	5B, 5C	5		
BIO 135S	B2, B3	5B,5C	5		
Subtotal Units			10		

IN ADDITION, complete ALL courses from LIST A:

- † CHEM 1A **AND** General Chemistry **AND**
- † CHEM 1B General Chemistry
- † MATH 60 First Calculus Course
- † PHYS 2A **AND** General Physics **AND**
- † PHYS 2B General Physics

CHEM 120S	B1, B3	5A, 5C	5.5		
CHEM 120S	B1, B3	5A, 5C	5.5		
MATH 210	B4	2	5		
PHYS 105	B1, B3	5A, 5C	4.5		
PHYS 110	B1, B3	5A, 5C	4.5		
Subtotal Units			25		
Total Units			35		

Recommended (See Note in Legend):

- † CHEM 12A Organic Chemistry
- † CHEM 12B Organic Chemistry
- † MATH 70 Second Calculus Course
- † PHYS 3A Physics for Sci & Eng - Mechanics
- † PHYS 3B Phys for Sci & Eng – E & M

			5.5		
			5.5		
	B4	2	5		
	B1, B3	5A, 5C	4.5		
	B1, B3	5A, 5C	4.5		

IN ADDITION to the above major courses, students are also required to obtain general education certification and meet other degree requirements as specified on the next page.

General Education Certification Requirements

Either completion of the California State University General Education-Breadth pattern (CSU GE Breadth) OR the Intersegmental General Education Transfer Curriculum (IGETC) pattern IS REQUIRED. For general education patterns, visit the following web site: <http://osca.lbcc.edu/genedplan.cfm>, or the LBCC catalog. After completion of the General Education Pattern **students must request GE certification**. Consult with a counselor for more information about the GE Certification process.

Other Degree Requirements

1. **Minimum Unit Requirements:** Complete a minimum of 60 transferrable units. Please note that additional units may be required to meet this minimum based upon courses selected to fulfill CSU-GE Breadth for STEM Pattern or the IGETC for STEM Pattern.

If following CSU-GE Breadth Pattern	Units	If following IGETC Pattern	Units
Biology for Transfer	35**	Biology for Transfer	35**
CSU-GE Breadth	33	IGETC Pattern	31
Minimum Required	60	Minimum Required	60

****Double-Counting of Units:** SB 1440 Regulations allow for double-counting of major requirements towards CSU- GE Breadth for STEM or IGETC for STEM patterns.

2. **Minimum Grade and GPA Requirements:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) in all CSU-transferable coursework. For the major complete each course with a grade of "C" or better, or "P" if course is graded on a P/NP basis.
3. **Residence for the Degree:** Complete at least 12 CSU-transferable units (courses numbered 1-99) in residence at LBCC.
4. **Degree Application:** Complete and submit the degree application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu>. Refer to the Schedule of Classes (<http://schedule.lbcc.edu>) and click the "Important Dates" link to view the actual deadline for each semester.
5. The requirements for general education/proficiency and the field of concentration (major) need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout. See the catalog for definition of "continuous enrollment".

Program Mission and Outcomes

The Associate in Science in Biology for Transfer program provides students with a foundation in core principles of biological sciences, including scientific reasoning, cell/molecular biology, principles of genetics, evolution, organismal biology, and ecology. Students prepare for a baccalaureate degree program in biology at a university. Students at the four-year university have the opportunity to pursue a Bachelor's degree specializing in areas such as anatomy and physiology, botany, cell and molecular biology, clinical science, ecology, environmental biology, field biology, marine biology, microbiology, organismal biology, botany or zoology. A Bachelor's degree in biology may lead to opportunities in graduate/professional school or careers in research, biotechnology, dentistry, pharmacy, medicine, and veterinary medicine among many other diverse fields.

Student Learning Outcomes:

- Assimilate information from various sources and apply critical thinking to form evidence-based conclusions (scientific method) to issues in the realm of biology, health, and as a consumer in society.
- Demonstrate an understanding of all levels of organismal biology such as morphological, physiological, and developmental advocates within the community for continued support of health and nutrition.
- Demonstrate knowledge of the importance of the diversity of organisms on earth and their ecological and evolutionary relationships including human impact on other organisms (or the reciprocal) and ecosystems.

Legend

† This course has a prerequisite; prerequisite courses must be completed with at least a "C" or "P" grade. Refer to the General Catalog (<http://www.lbcc.edu/cat/index.html>), the Schedule of Classes (<http://schedule.lbcc.edu/>), or the online Credit Course Outline (<http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/>) for specific prerequisite information.

Note: Recommended, but not required courses.