LONG BEACH CITY COLLEGE

BIOLOGICAL SCIENCES

Curriculum Guide for Academic Year 2015-2016

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Students planning to **transfer** to a four-year college or university should refer to the ASSIST web site at www.assist.org and **consult a counselor** before beginning a program of study. Please call 562-938-4561 for the LAC, or (562) 938-3920 for PCC to schedule a meeting with a counselor. Students may also wish to visit the Transfer Center on either campus.

Program of study leading to:
Associate in Arts (A.A.) or Associate in Science (A.S.) Degree

REQUIRED COURSES

	Select courses from the following to total 9-12 UNITS		**UNITS**	**In Progress**	**Completed Grade**
	ANAT	Anatomy Courses			
	BIO	Biology courses			
†	PHYSI	Physiology			
		Subtotal Units	**9-12**		

	IN ADDITION, complete SIX – NINE (6-9) UNITS from:		**UNITS**		
	ASTR	Astronomy Courses			
	CHEM	Chemistry Courses			
	ENVRS 1	Energy for the Future			
	PGEOG	Physical Geography Courses (excluding all other Geography –GEOG—courses)			
	GEOL	Geology Courses			
	MATH	Math Courses (Excluding MATH 110, 805, 815)			
	PHYS	Physics Courses			
		Subtotal Units	**6-9**		
		TOTAL UNITS	**18**		

For graduation with an **A.A. or A.S. Degree with a major in Biological Sciences:**

1. **Minimum Unit Requirements: §**Any course that appears on a curriculum guide and the General Education Pattern (Plan A) may fulfill both major and general education requirements (Approved by College Curriculum Committee Spring 2012). For this degree, complete a minimum of 60 units in courses numbered 1-599. Please note that additional elective units may be required to meet this minimum based upon courses selected to fulfill General Education for the Associate Degree.

A.A. Degree	**Biological Sciences Major**	**18 Units**
	General Education/A.A.§	**25 Units**
A.S. Degree	**Biological Sciences Major**	**18 Units**
	General Education/A.S.§	**19 Units**

Associate Degree requirements continue on the following page:

Associate Degree requirements continued from the previous page:

2. **Scholarship:** Maintain an **overall grade point average (GPA) of 2.0** ("C" average) based on all accredited college work applied to the degree, no matter where completed. For this **field of concentration**, **complete each course above** 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 semester units of the required 60 semester units in residence at Long Beach City College in order for the college to grant an Associate of Arts and/or an Associate of Science Degree.
4. **Residence for the Field of Concentration**: Complete fifty percent (50%) or more of the unit requirements for this field of concentration in residence; this means at **least 9 units** of the required 18 must be **completed at Long Beach City College**. Credit earned by exam, where applicable, may be included.
5. **General Education and Proficiency Requirements:** Complete the required A.A./A.S. General Education and Proficiency requirements*, otherwise known as "Plan A". For Plan A requirements, refer to the general catalog or view it online at http://osca.lbcc.edu .
6. 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.

*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".

Career Opportunities

This field of concentration provides the student with an introductory education to this field, not necessarily career related, ending with the associate degree or partial lower-division preparation for transfer to a baccalaureate degree in the biological sciences.

This **Associate Degree** will provide the student with an introductory education to this field of study, not necessarily career related, but ending with the Associate Degree or a partial lower-division preparation for transfer to a Baccalaureate Degree in the biological sciences.

Program Mission and Outcomes

The department has a multi-fold mission of (1) transfer preparation; (2) preparing students to attain an associate degree; and (3) helping students satisfy biological science prerequisite for various programs at LBCC and other colleges. Students who have matriculated through our programs will be exposed to the scientific method, gain an appreciation for the environment, and become aware of the vital roles of science in our lives. Our courses will also help students to become better 'consumers' of scientific information and increase awareness of personal health.

- 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.
- 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 or recommended preparation. Prerequisite courses must be complete 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.