LONG BEACH CITY COLLEGE

ASSOCIATE IN SCIENCE IN MATHEMATICS FOR TRANSFER

Curriculum Guide for Academic Year 2020-2021

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Resources available for transfer students:
Academic Counselors at LAC 562-938-4561 or at PCC 562-938-3920
Transfer Center at LAC 562-938-4670 or at PCC 562-938-3920
ASSIST web site at www.assist.org.

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

REQUIRED COURSES:		C-ID Descriptor	CSU GE Area	IGETC Area	Units	In Progress	Completed Grade
† MATH 60	First Calculus Course	MATH 210	B4	2	5		
† MATH 70	Second Calculus Course	MATH 220	B4	2	5		
† MATH 80	Third Calculus Course	MATH 230	B4	2	5		
				Subtotal Units	**15**		
IN ADDITION, Complete 1 Course from LIST A:							
LIST A							
† MATH 84	Intro Differential Eqns & Linear Algebra	MATH 240	B4	2	5		
				Subtotal Units	**5**		
IN ADDITION, Complete 1 Course from LIST B:							
LIST B							
† PHYS 3A	Physics for Sci. & Eng—Mechanics	PHYS 205	B1	5	5.5		
† ENGR 54	Computer Methods				3.5		
† CS 11	Introduction to Computer Science - C++	COMP 122			4		
† CS 21	Introduction to Computer Science - Java	COMP 122			4		
† STAT 1/1H	Elementary Statistics/Honors	MATH 110	B4	2	4		
				Subtotal Units	**3.5-5.5**		
				TOTAL UNITS	**23.5-25.5**		

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

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 transferable units. Please note that additional units may be required to meet this minimum based upon courses selected to fulfill CSU-GE Breadth Pattern or the IGETC Pattern.

If following CSU-GE Breadth Pattern	
	Units
Math Major	23-25.5**
CSU-GE Breadth	39
Minimum Required	**60**

If following IGETC Pattern	
	Units
Math Major	23-25.5**
IGETC Pattern	37
Minimum Required	**60**

Departmental Phone: 562-938-4168 or 562-938-4428; Web site: http://math.lbcc.edu/dept.htm

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

Suggested Sequence of Classes

This is not an educational plan, as course offerings, student schedules, and circumstances vary. Students must meet all the prerequisites in order to be eligible for the sequence of courses.

A suggested full-time sample sequence of courses for the program includes:

	First Semester		Units		Second Semester		Units
†	MATH 60		5	†	PHYS 3A		5.5
		Semester Total	**5**			**Semester Total**	**5.5**
	Third Semester				**Fourth Semester**		
†	MATH 80		5	†	MATH 84		5
		Semester Total	**5**			**Semester Total**	**5**

Program Mission and Outcomes

The mission of the Associate in Science in Mathematics for Transfer program is to give those students who aspire to become scientists or engineers the opportunity to explore these fields of study here at Long Beach City College, and to supply students with the necessary lower division preparation at the community college.

Program Outcomes:

- To serve students to meet graduation for an Associate in Science in Mathematics for Transfer.
- To serve students to meet career/transfer requirements.

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.