ASSOCIATE IN SCIENCE IN
PHYSICS 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

<table>
<thead>
<tr>
<th>REQUIRED CORE:</th>
<th>C-ID Description</th>
<th>CSU GE Area</th>
<th>IGETC Area</th>
<th>Units</th>
<th>In Progress</th>
<th>Completed Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>† MATH 60/60H</td>
<td>First Calculus Course/Honors</td>
<td>MATH 210</td>
<td>B4</td>
<td>2</td>
<td>5</td>
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<tr>
<td>† MATH 70/70H</td>
<td>Second Calculus Course/Honors</td>
<td>MATH 220</td>
<td>B4</td>
<td>2</td>
<td>5</td>
<td></td>
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<tr>
<td>† MATH 80</td>
<td>Third Calculus Course</td>
<td>MATH 230</td>
<td>B4</td>
<td>2</td>
<td>5</td>
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<tr>
<td>† PHYS 3A</td>
<td>Physics for Sci. &amp; Eng - Mechanics</td>
<td>PHYS 205</td>
<td>B1,B3</td>
<td>5A,5C</td>
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<tr>
<td>† PHYS 3B</td>
<td>Physics for Sci. &amp; Eng – E &amp; M</td>
<td>PHYS 210</td>
<td>B1,B3</td>
<td>5A,5C</td>
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<td>Phys for Sci. &amp; Eng – Modern Phys</td>
<td>PHYS 215</td>
<td>B1,B3</td>
<td>5A,5C</td>
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<tr>
<td><strong>TOTAL UNITS</strong></td>
<td></td>
<td></td>
<td></td>
<td>29.5</td>
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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
Completion of EITHER 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.

General Education Certification Requirements

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.

   Following the IGETC Pattern:
   - Physics Major: Units
   - IGETC Pattern: 29.5**
   - Minimum Required: 37

   1. **Double-Counting of Units:** SB 1440 Regulations allow for double-counting of major requirements towards the IGETC pattern.
2. **Minimum grade and GPA requirements:** Maintain an overall grade point average (GPA) of 2.4 ("C+" average) in all UC 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/](http://admissions.lbcc.edu/). Refer to the Schedule of Classes ([http://schedule.lbcc.edu/](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".

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**Program Mission and Outcomes**

The Physics Associate Degree for Transfer will prepare students for transfer to a University of California (UC) program in Physics while meeting the minimum lower division admission requirements (60 transferable units). Completion of these classes also provides a foundation for programs in Physical Science, Engineering and Math.

Program Student Learning Outcomes:

- Evaluate real-world scenarios using a variety of frameworks to formulate models and solutions using mathematics.

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**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](http://www.lbcc.edu/cat/index.html)), the Schedule of Classes ([http://schedule.lbcc.edu/](http://schedule.lbcc.edu/)), or the online Credit Course Outline ([http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/](http://wdb-asir.lbcc.edu/coursecurriculum/coursedetails/)) for specific prerequisite information.

> Cross-Listed Courses – A cross-listed course is interdisciplinary and is the same course as its cross-listed counterpart. A cross-listed course CANNOT be used in more than one subject area. *(HLED 10 = PSYCH 10 Human Sexuality)*