CAREER OPPORTUNITIES

This field of concentration is designed to recognize partial fulfillment of the requirements for transfer with junior standing for students seeking a baccalaureate degree in engineering.

This Associate Degree will facilitate transfer for a four-year engineering degree. Students who wish to transfer may need to meet additional requirements.

DEPARTMENTAL ADMISSION REQUIREMENTS

None. For more departmental information call (562) 938-4168 or 938-4428.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>† CHEM 1A</td>
<td>General Chemistry</td>
<td>5</td>
</tr>
<tr>
<td>† ENGR 3B</td>
<td>Engineering Graphics</td>
<td>3</td>
</tr>
<tr>
<td>† ENGR 17</td>
<td>Electrical Engineering Circuits (INF)</td>
<td>3</td>
</tr>
<tr>
<td>† ENGR 17L</td>
<td>Electrical Engineering Circuits Lab (INF)</td>
<td>1</td>
</tr>
<tr>
<td>† ENGR 35</td>
<td>Statics (INF)</td>
<td>3</td>
</tr>
<tr>
<td>† ENGR 50</td>
<td>Intro. to Engineering (INF)</td>
<td>1</td>
</tr>
<tr>
<td>†* ENGL 1</td>
<td>Reading and Composition</td>
<td>4</td>
</tr>
<tr>
<td>† MATH 80</td>
<td>Third Calculus Course</td>
<td>5</td>
</tr>
<tr>
<td>† PHYS 3A</td>
<td>Physics for Sci. &amp; Engr. - Mechanics</td>
<td>5</td>
</tr>
<tr>
<td>† PHYS 3B</td>
<td>Physics for Sci. &amp; Engr. – E &amp; M</td>
<td>4</td>
</tr>
</tbody>
</table>

Subtotal Units: 34

Select ONE of the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 11</td>
<td>Computer Programming/C++I</td>
<td>3.5</td>
</tr>
<tr>
<td>† ENGR 54</td>
<td>Computer Methods /C++</td>
<td>3</td>
</tr>
</tbody>
</table>

Subtotal Units: 3-3.5

TOTAL UNITS: 37-37.5

LEGEND

† This course has a prerequisite; prerequisite courses must be completed with at least a "C" or "P" grade (see catalog or schedule of classes).
* This course is an exception to the “double-counting” rule; it may be double-counted.

(SP = Spring) (S = Summer) (F = Fall) (INF = Infrequently) = Represents general frequency of course offering
GRADUATION REQUIREMENTS

For **ASSOCIATE IN SCIENCE DEGREE**:  
Complete the required units listed above with a minimum grade of "C" in each course. In addition, complete the A.S. degree requirements specified in the Catalog. The requirements for general education/proficiency and the field of concentration 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"). Fifty per cent (50%) or more of the unit requirements for this field of concentration must be completed in residence (credit earned by exam, where applicable, may be included).

**NOTE:** To receive a degree you must submit completed application forms in the Admissions and Records Office during your final semester of course work.

In general, "double-counting" is not allowed. That is, one course may not be used to fulfill both a field of concentration requirement and to fulfill a general education requirement.

### SUGGESTED SEQUENCE OF COURSES

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 required 60 units to reach an Associate Degree includes:

**Summer Before First Semester:** If necessary, prerequisite courses in math / English.

<table>
<thead>
<tr>
<th>First Semester</th>
<th>Second Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR 50</td>
<td>ENGR 3B</td>
</tr>
<tr>
<td>1 Unit</td>
<td>3 Units</td>
</tr>
<tr>
<td>MATH 60</td>
<td>MATH 70</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>ENGL 1</td>
<td>PHYS 3A</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>CHEM 1A</td>
<td>MATH 84</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td><strong>Semester Total</strong></td>
<td><strong>Semester Total</strong></td>
</tr>
<tr>
<td>15 Units</td>
<td>13 Units</td>
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</table>

<table>
<thead>
<tr>
<th>Third Semester</th>
<th>Fourth Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 80</td>
<td>ENGR 35</td>
</tr>
<tr>
<td>5 Units</td>
<td>3 Units</td>
</tr>
<tr>
<td>PHYS 3B</td>
<td>ENGR 17</td>
</tr>
<tr>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 54</td>
<td>ENGR 17L</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>MATH 84</td>
<td><strong>Semester Total</strong></td>
</tr>
<tr>
<td></td>
<td><strong>11 Units</strong></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester Total</th>
<th>12 Units</th>
</tr>
</thead>
</table>

**Students interested in transferring to a university to continue their study in this field of concentration or other majors are strongly advised to consult an LBCC academic counselor and refer to the ASSIST website (www.assist.org) for major preparation information. Counselors can clarify the different major and admissions requirements at a university. Students may visit the Student Success/Transfer Services Center to access further educational resources. If you need to set up an appointment to see a counselor or schedule the SOAR Test, call LAC (562)938-4561 or PCC (562)938-3920.**