### Pacific Requirement

<table>
<thead>
<tr>
<th>Pacific Requirement</th>
<th>fulfilled by</th>
<th>Cosumnes River College *</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mathematics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH 51 Calculus I</td>
<td>Mathematics 400</td>
<td></td>
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<tr>
<td>MATH 53 Calculus II</td>
<td>Mathematics 401</td>
<td></td>
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<tr>
<td>MATH 55 Calculus III</td>
<td>Mathematics 402</td>
<td></td>
</tr>
<tr>
<td>MATH 57 Differential Equations</td>
<td>Mathematics 420</td>
<td></td>
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<tr>
<td><strong>Basic Sciences</strong></td>
<td></td>
<td></td>
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<tr>
<td>BIOL 51 Principles of Biology I</td>
<td>(1)</td>
<td>BIOL 400</td>
</tr>
<tr>
<td>BIOL 61 Principles of Biology II</td>
<td>(1)</td>
<td>BIOL 410 or 420</td>
</tr>
<tr>
<td>CHEM 25 General Chemistry I</td>
<td></td>
<td>CHEM 400</td>
</tr>
<tr>
<td>CHEM 27 General Chemistry II</td>
<td>(2)</td>
<td>CHEM 401</td>
</tr>
<tr>
<td>PHYS 53 -55 Principles of Physics</td>
<td>(3)</td>
<td>Many options available</td>
</tr>
<tr>
<td><strong>Engineering Science</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGR 20 Engineering Mechanics I</td>
<td></td>
<td>Engineering 420</td>
</tr>
<tr>
<td>ENGR 45 Material Science</td>
<td>(4)</td>
<td>Engineering 412</td>
</tr>
<tr>
<td>ECPE 41 Electrical Circuits/Science</td>
<td>(5)</td>
<td>Engineering 400</td>
</tr>
<tr>
<td>ECPE 41L Electrical Science Lab</td>
<td>(5)</td>
<td>Engineering 400</td>
</tr>
<tr>
<td>CIVL 22 Surveying</td>
<td>(6)</td>
<td>Engineering 310</td>
</tr>
<tr>
<td>ENGR 5 Introduction to Engineering</td>
<td></td>
<td>Engineering 300</td>
</tr>
<tr>
<td>ENGR 15 Engineering Graphics</td>
<td>(4)</td>
<td>Engineering 312</td>
</tr>
<tr>
<td>(Varies) Computer Programming</td>
<td>(7)</td>
<td>CICP 360 or 400</td>
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<tr>
<td>MECH 100 Manufacturing Processes</td>
<td>(8)</td>
<td>No comparable course available</td>
</tr>
<tr>
<td>ENGR 120 Engineering Mechanics II</td>
<td></td>
<td>No comparable course available</td>
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<tr>
<td><strong>General Education</strong></td>
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</tbody>
</table>

Pacific will accept any Community College Transfer General Education program as satisfying our own, with at most one additional class being required. (See next page.)

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Students who present a transcript showing satisfactory completion of the above listed core requirements will be able to enroll with full junior standing. Completion of the Bachelors degree can be done in two additional years plus twelve months of Cooperative Education. Pacific does not require a minimum number of completed units for community college students to transfer to University of the Pacific.

(1) **REQUIRED** only for Bioengineering.
(2) **REQUIRED** only for Civil Students with environmental emphasis and Bioengineering. Elective for CpE, EE, ME, and other CE majors.
(3) **NOT REQUIRED** for Bioengineering and Engineering Physics majors.
(4) **NOT REQUIRED** for Bioengineering, Electrical, Computer and Engineering Physics majors.
(5) If the student has not completed this requirement, the student should contact the School of Engineering and Computer Science for summer school information.
(6) **REQUIRED** for Civil majors.
(7) Electrical and Computer Engineering majors **REQUIRE** C++ programming.
(8) **REQUIRED** for Mechanical majors.

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For more information contact Dr. Gary Martin at (209) 946-3064 or gmartin@pacific.edu
Students wishing to complete the entire General Education requirements at the School of Engineering and Computer Science at the University of the Pacific should:

1. Take a minimum of three social sciences and three humanity classes totaling a minimum of 18 semester units.
2. One class should be taken from each of the three different sub-groups in each discipline (See list of typical courses below).

**Social Sciences**

**Individual & Interpersonal Behavior**
- Communicative Disorders: An Overview
- Intro. to Interpersonal Communication
- Intro. to Microeconomics
- Literature & Psychology
- Intro. to Human Development
- Child Development
- Intro. to Psychology
- Sex Roles & Sexuality
- Psychoactive Drugs & Behavior
- Abnormal Psychology
- Adolescence & Young Adulthood
- Criminology
- Human Sexuality

**Society and Culture in the U.S.**
- Intro. to Mass Communication
- Economic Principles and Problems
- Intro. to Macroeconomics Theory & Policy
- U.S. History I & II
- The Civil War Era
- Women in U.S. History
- African-American History
- American Democracy
- U.S. National Government
- Mass Media & Political Participation
- Intro. to Sociology
- Social Problems & Policy

**International or Intercultural Studies**
- (Any non-U.S. History classes).
- (Any non-U.S. Political Science classes).
- Cultural Anthropology
- Intro. to Music of the World’s People
- Women Across Culture

**Humanities**

**Literature, Letters & Language**
- (Any foreign language classes)
- (Any foreign literature classes)
- Public Speaking
- Intro to Argumentation

**Fundamental Human Concerns**
- History of Western Civilization I & II
- Intro. to Philosophy
- Fundamentals of Ethics
- History of Modern Philosophy
- Key Ideas of the Old Testament
- Life and Teaching of Jesus
- Nature of the Christian Faith
- Religion and American Culture
- Intro. to Religion

**Practice & Perspective in the Visual & Performing Arts**
- Visual Arts Exploration
- Survey of Western Art to 1400
- Survey of Western Art after 1400
- History of the Theater
- Aesthetics of Film
- Religion & Cinema
- Music Appreciation
- Performing Ensembles
- Opera Literature

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**Engineering Degrees Available**

- Bioengineering (BE)
- Civil Engineering (CE)
- Computer Engineering (CpE)
- Electrical Engineering (EE)
- Engineering Management (EMgt)
- Engineering Physics (Eph)
- Mechanical Engineering (ME)

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