<table>
<thead>
<tr>
<th>Lower Division Common Course Requirement</th>
<th>Upper Division Common Course Requirement</th>
<th>Approaches to Knowledge</th>
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<tbody>
<tr>
<td><strong>SPARKS Seminar</strong></td>
<td><strong>Written Communication</strong></td>
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<tr>
<td><strong>Seminar</strong></td>
<td><strong>Quantitative Reasoning</strong></td>
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<tr>
<td><strong>Language</strong></td>
<td><strong>Crossroads</strong></td>
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<tr>
<td><strong>Culminating Experience</strong></td>
<td><strong>Writing in the Discipline</strong></td>
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<tr>
<td><strong>Natural Science</strong></td>
<td><strong>Engineering Science</strong></td>
<td></td>
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<tr>
<td><strong>Natural or Engineering Science</strong></td>
<td><strong>Social Science</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Social Science, Arts, and Humanities</strong></td>
<td><strong>Arts and Humanities</strong></td>
<td></td>
</tr>
</tbody>
</table>

- **BIOE**
  - Sparks seminar (required course)
  - Wri 010 (required course)
  - Math 021 (required course)
  - BioE 021 (required course)
  - BioE 113 (required course) or BioE 135 (required course)
  - Engr 194 (required course)
  - BioE 113 (required course)
  - Math 022 (required course)
  - BioE 045 (required course)
  - Phys 008 (required course)
  - a course from the Social Science list
  - a course from Arts and Humanities list
  - a course from this list

- **CSE**
  - Sparks seminar (required course)
  - Wri 010 (required course)
  - Math 021 (required course)
  - CSE 020 (required course)
  - CSE 100 (required course)
  - CSE 120 (required course)
  - CSE 155 (technical elective) or Engr 197 or from this list
  - Math 022 (required course)
  - CSE 015 (required course)
  - Phys 008 (required course)
  - a course from the Social Science list
  - a course from Arts and Humanities list
  - a course from this list

- **ENVE**
  - Sparks seminar (required course)
  - Wri 010 (required course)
  - Math 021 (required course)
  - ME 021 (required course)
  - ME 164 (technical elective) or Engr 180 (technical elective) or from this list
  - Engr 194 (required course)
  - Engr 151 (Engr fundamental option) or Engr 197 or from this list
  - Math 022 (required course)
  - Engr 130 (required course)
  - Phys 008 (required course)
  - a course from the Social Science list
  - a course from Arts and Humanities list
  - a course from this list

- **ME**
  - Sparks seminar (required course)
  - Wri 010 (required course)
  - Math 021 (required course)
  - ME 021 (required course)
  - Math 131 (required course)
  - Engr 194 (required course)
  - Engr 151 (required course)
  - Math 022 (required course)
  - ME 120 (required course)
  - Phys 008 (required course)
  - a course from the Social Science list
  - a course from Arts and Humanities list
  - a course from this list

- **MSE**
  - Sparks seminar (required course)
  - Wri 010 (required course)
  - Math 021 (required course)
  - ME 021 or CSE 021 or BioE 021 (required course)
  - ENGR 197 or course from this list
  - Engr 194 (required course)
  - Engr 151 (required course)
  - Math 022 (required course)
  - Engr 130 (required course)
  - Phys 008 (required course)
  - a course from the Social Science list
  - a course from Arts and Humanities list
  - a course from this list

* Snap Shot as of 8/14/19
* For Accurate courses that fulfill GE and Badges go to [ge.ucmerced.edu](http://ge.ucmerced.edu)
<table>
<thead>
<tr>
<th>Scientific Method</th>
<th>Literary and Textual Analysis</th>
<th>Media and Visual Analysis</th>
<th>Quantitative and Numerical Analysis</th>
<th>Societies and Cultures of the Past</th>
<th>Diversity and Identity</th>
<th>Global Awareness</th>
<th>Sustainability</th>
<th>Practical and Applied Knowledge</th>
<th>Ethics</th>
<th>Leadership, Community, and Engaging the World</th>
<th>AT LEAST 3 UPPER DIVISION COURSES</th>
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</thead>
<tbody>
<tr>
<td>ME</td>
<td><a href="https://ge.ucmerced.edu/intellectual-experience-badges/literary-and-textual-analysis">https://ge.ucmerced.edu/intellectual-experience-badges/literary-and-textual-analysis</a></td>
<td><a href="https://ge.ucmerced.edu/intellectual-experience-badges/media-and-visual-analysis">https://ge.ucmerced.edu/intellectual-experience-badges/media-and-visual-analysis</a></td>
<td>ME 144 (technical elective)</td>
<td>Completed with Major Requirements</td>
<td><a href="https://ge.ucmerced.edu/intellectual-experience-badges/societies-and-culturespast">https://ge.ucmerced.edu/intellectual-experience-badges/societies-and-culturespast</a></td>
<td><a href="https://ge.ucmerced.edu/intellectual-experience-badges/diversity-and-identity">https://ge.ucmerced.edu/intellectual-experience-badges/diversity-and-identity</a></td>
<td>ESS 001 (option engr sci), BIO 043 (optional engr sci) or</td>
<td>Completed with Major Requirements</td>
<td>Completed with Major Requirements</td>
<td>ENGR 097/197 or</td>
<td>Will need to be monitored</td>
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