A.S. PRE-ENGINEERING
Pathways for Transfer

REQUIRED COURSES (24 - 26 semester units)  UNITS
MAT-1A  Calculus I  4
MAT-1B  Calculus II  4
PHY-4A  Mechanics  4
Choose one of the following:
PHY-4B  Electricity and Magnetism  4
PHY-4C  Heat, Light, and Waves  4
Electives: choose two from the list below  8-10

ELECTIVE LIST (8 - 10 units)  UNITS
CHE-1A  General Chemistry I  5
CHE-1B  General Chemistry II  5
MAT-1C  Calculus III  4
PHY-4B  Electricity and Magnetism (if not used above)  4
or
PHY-4C  Heat, Light, and Waves (if not used above)  4

The UC Riverside Bourns College of Engineering Guaranteed
Transfer Pathway requires an overall 3.00 UC GPA & 2.50 in
two major sequences. See a STEM Counselor for more info.
Apply online to join UCR Engineering pathway.

This academic plan includes major coursework and recommend-
ed general education requirements for transfer to UC Riverside.
Transfer requirements vary based on institution. Please see a
STEM Counselor to develop your personal educational plan and
determine appropriate work/life/school balance.

HS DUAL ENROLLMENT
SENIOR FALL TERM  UNITS
COURSE   UNITS
MAT-1A  4
ENE-10  3
Total Units  7

SENIOR SPRING TERM  UNITS
COURSE   UNITS
MAT-1B  4
High School chem or
CHE-2A @ Norco  4
Total Units  4-8

NORCO SPRING TERM 1  UNITS
COURSE   UNITS
CHE-1B (except Comp E)  5
PHY-4B  4
MAT-2  4
ENG-1B  4
Total Units  17

NORCO FALL TERM 1  UNITS
COURSE   UNITS
MAT-1C  4
CHE-1A  4
PHY-4A  4
IGETC AREA 3B  3
Total Units  15

NORCO FALL TERM 2  UNITS
COURSE   UNITS
PHY-4C  4
BIO-60  5
CIS-5 (except MS & ME)  4
IGETC AREA 4  3
Total Units  16

NORCO WINTER TERM  UNITS
COURSE   UNITS
ENG-1A  4
IGETC LOTE  5
ENE-39 or 35  3-4
IGETC AREA 4  3
IGETC AREA 3A or 3B  3
Total Units  14-15

NORCO SPRING TERM 2  UNITS
COURSE   UNITS
IGETC AREA 4  3
IGETC AREA 3A  3
IGETC AREA 3B  3
Total Units  4

First Term To-Do List

Submit official high school transcripts and AP/IB scores
Visit Engagement Center (ST 108)
Meet with a counselor to personalize your EduNav plan and
to determine if you have already met the IGETC foreign
language requirement through high school coursework.
Register for ILA-800 each term to receive FREE tutoring
Attend STEM Guest Speaker and other STEM events

Second Term To-Do List

Visit the Career Center (2nd floor of CSS)
Connect with a Mustang Mentor
Get involved in ASNC or other student organizations
Look for internship, research or volunteer opportunities in
your field(s) of interest.

Third Term To-Do List

Meet with a counselor to verify your transfer status
Attend Transfer Fair, transfer workshops and meet with
university reps
Submit UCR TAG application in September and UC/CSU
applications in November
Complete FAFSA before March 2nd (include all transfer
institutions that you applied to)

Fourth Term To-Do List

Submit Degree Applications via WebAdvisor
Complete transfer application updates
Finish strong and order final transcripts for your transfer
institution along with IGETC certification
ENGINEERS are trained in fundamentals of engineering with a foundation in calculus and physics. Coursework will also include electrical engineering, mechanical engineering, computer science, materials science, biology, and chemistry. This breadth allows students to specialize in their areas of interest and collaborate widely with researchers in a variety of fields.

WHERE CAN I WORK?

- Federal Government
- Medical Research
- Higher Education
- National Institutes of Health
- Hospitals & Healthcare Facilities
- Pharmaceutical Companies
- Medical Equipment Companies
- Regulatory Agencies

HOW DO I GET STARTED?

⇒ Visit the CAREER CENTER to learn about opportunities in the field and help determining if it is a good fit for your preferred values, strengths, skills, and interests. CSS 2nd floor.
⇒ Attend annual TRANSFER FAIR and TRANSFER CENTER WORKSHOPS to determine which university is the best fit for you as well as application requirements and transfer process.
⇒ Attend STEM GUEST SPEAKER & ALUMNI EVENTS for valuable insight on life in the workplace.
⇒ Build LABORATORY and RESEARCH SKILLS through courses and/or work with professors.
⇒ JOB SHADOW and NETWORK WITH PROFESSIONALS in positions you wish to obtain.
⇒ Join the Norco STEM Club or ASNC to gain TEAMWORK and LEADERSHIP SKILLS.
⇒ Practice interpersonal, small group and public speaking COMMUNICATION SKILLS.
⇒ Gain experience through RESEARCH/INTERNSHIP OPPORTUNITIES such as NASA, JPL, NAVSEA, UCR Tune Summer Bridge, UC Berkeley Summer Research Internship, etc.
⇒ Join an engineering PROFESSIONAL ASSOCIATION to network and maintain current knowledge of opportunities in the field.

WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?

<table>
<thead>
<tr>
<th>Position Title</th>
<th>CA Annual Openings</th>
<th>CA Median Salary</th>
<th>In Riverside County Wages will Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Technician</td>
<td>720</td>
<td>$47,170</td>
<td>Adult</td>
</tr>
<tr>
<td>Computer Repair Technician</td>
<td>1,200</td>
<td>$41,670</td>
<td>Adult</td>
</tr>
<tr>
<td>Manufacturing Engineering</td>
<td>520</td>
<td>$61,770</td>
<td>Adult, 2 children</td>
</tr>
<tr>
<td>Medical Equipment Repairer</td>
<td>400</td>
<td>$55,080</td>
<td>Adult, 1 child</td>
</tr>
<tr>
<td>Quality Control Analyst</td>
<td>1,120</td>
<td>$53,280</td>
<td>Adult, 1 child</td>
</tr>
<tr>
<td>Teacher’s Assistant</td>
<td>17,710</td>
<td>$35,380</td>
<td>Adult</td>
</tr>
</tbody>
</table>

WHAT CAN I DO WITH MORE EDUCATION AND TRAINING?

<table>
<thead>
<tr>
<th>Position Title</th>
<th>CA Annual Openings</th>
<th>CA Median Salary</th>
<th>In Riverside County Wages will Support</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerospace Engineer</td>
<td>980</td>
<td>$123,210</td>
<td>2 adults, 5 children</td>
</tr>
<tr>
<td>Biomedical Engineer</td>
<td>250</td>
<td>$102,140</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Chemical Engineer</td>
<td>190</td>
<td>$101,620</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Civil Engineer</td>
<td>4,490</td>
<td>$107,530</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Computer Engineer</td>
<td>1,1960</td>
<td>$117,200</td>
<td>2 adults, 4 children</td>
</tr>
<tr>
<td>Environmental Engineer</td>
<td>780</td>
<td>$102,100</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Materials Engineer</td>
<td>190</td>
<td>$102,840</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Mechanical Engineer</td>
<td>2,310</td>
<td>$102,030</td>
<td>2 adults, 3 children</td>
</tr>
<tr>
<td>Product Safety Engineer</td>
<td>170</td>
<td>$116,150</td>
<td>2 adults, 4 children</td>
</tr>
<tr>
<td>Quality Control Manager</td>
<td>1,720</td>
<td>$112,340</td>
<td>2 adults, 4 children</td>
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ESTIMATED COST TO OBTAIN ASSOCIATE DEGREE

72 Units x $46 per unit (CA residents) = $3,312
Books & Supplies = $3,944
Health, ASNC, Parking Fees (x 4 terms) = $360
Total Cost = $7,616

For more information about careers, education and training requirements, salary data, and job outlooks visit www.onetonline.org, www.bls.gov or www.labormarketinfo.edd.ca.gov/OccGuides.