**UNTS - ENGINEERING**  
**CAREER PATHWAY MAP**

<table>
<thead>
<tr>
<th>RECOMMENDED COURSE SEQUENCE</th>
<th>Core Area shown on page 2</th>
<th>SEMESTERS OFFERED</th>
<th>MY PLAN (Semester and Year)</th>
<th>CREDIT HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. CHEM 1411 Gen. Chemistry I</td>
<td>Core Science #</td>
<td>F, Sp, Su</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>2. ENGL 1301 Comp I</td>
<td>Core Comm !</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>3. ENGR 1201 Intro Engineering</td>
<td>Core Comm !</td>
<td>F, Sp, Su</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>4. HIST 1301 US History I</td>
<td>Core History %</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>5. MATH 2413 Calculus I**</td>
<td>Core Math @</td>
<td>F, Sp, Su</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>6. ENGL 1302 OR ENGL 2311</td>
<td>Core Comm !</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>7. HIST 1302 US History II</td>
<td>Core History %</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>8. HIST 2321 OR PHIL 1301*</td>
<td>Core LP&amp;C $</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>9. MUSI 1306 OR ARTS 1301*</td>
<td>Core Arts +</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>10. PHYS 2425 Univ. Physics I</td>
<td>Core Science #</td>
<td>F, Sp</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>11. ENGR 2301 Statics***</td>
<td>Core Science #</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>12. MATH 2414 Calculus II</td>
<td>Core Math @</td>
<td>F, Sp</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>13. PHYS 2426 Univ. Physics II</td>
<td>Core Science #</td>
<td>F, Sp</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>14. ENGR 2302 Dynamics***</td>
<td>Core S&amp;B /</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>15. ECON 2301 OR PSYC 2301*</td>
<td>Core S&amp;B /</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>16. PHYS 2425 Univ. Physics I</td>
<td>Core Comp 1 &amp;</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>17. MATH 2415 Calculus III</td>
<td>Core Comp 2 &lt;</td>
<td>F, Sp, Su</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>18. MATH 2320 Differential Eq.</td>
<td>Core Gov t</td>
<td>F</td>
<td></td>
<td>3</td>
</tr>
</tbody>
</table>

**NOTE:** Check with the Office of Financial Aid as aid may not be available beyond degree completion and/or 60 hours.

| **ASSOCIATE OF SCIENCE DEGREE EARNED**** |  |  | **62 hours** |

**CAREER OPPORTUNITIES**
Career Options: [https://educatingengineers.com/career-specialties](https://educatingengineers.com/career-specialties)

**ADVANCED DEGREES/ CREDENTIAL OPPORTUNITIES**
Bachelor’s Degree in Engineering, Physics, or Mathematics

**LINKS TO COLLEGES AND PROFESSIONAL ORGANIZATIONS:**
Texas A&M University Department of Engineering: [https://engineering.tamu.edu/](https://engineering.tamu.edu/)
University of Texas at Tyler Department of Engineering: [https://www.uttyler.edu/engineering/](https://www.uttyler.edu/engineering/)

**CONTACT INFORMATION** (Click link for **KC Digital Map**)  
David Rangel  
Department Chair  
BLDG #10, Room 223  
903-988-7437  
drangel@kilgore.edu

Dr. Joe Kirchhoff  
Lead Physics Instructor  
BLDG # 10, Room 335  
903-983-8646  
jkirchhoff@kilgore.edu

Alex Knox  
Academic Advisor  
BLDG #19, Room 124  
903-983-8185  
aknox@kilgore.edu

Rhonda Heinsohn  
Academic Advisor  
BLDG #19, Room 126  
903-983-8122  
rheinsohn@kilgore.edu

*** May not be offered.

**READ ALL NOTES CAREFULLY:**

a) Courses in **bold** have a pre-requisite (previous course required). [See Catalog](https://engineering.tamu.edu/)
b) Courses in *italics* can be taken in any order.
c) ENGL 1301 and the first MATH class may require a co-requisite and/or developmental course depending on TSI Scores.

* Refer to Core Curriculum and KC Catalog for all possible course options.

** MATH 1314 and MATH 2412 are pre-requisites for MATH 2413. Approval is needed to begin in MATH 2412.

** Revised March 2022
Kilgore College Core Curriculum

I Communication (6 hours)
- ENGL 1301 (T) - Composition I AND
- ENGL 1302 (T) - Composition II OR
- ENGL 2311 (T) - Technical and Business Writing

@ Mathematics (3 hours)
- MATH 1314 (T) - College Algebra
- MATH 1316 - Plane Trigonometry
- MATH 1324 (T) - Mathematics for Business and Social Sciences
- MATH 1325 (T) - Calculus for Business and Social Sciences
- MATH 1332 (T) - Contemporary Mathematics
- MATH 1342 (T) - Elementary Statistical Methods

# Life and Physical Sciences (6 hours)
- BIOL 1406 (T) - Biology for Science Majors I
- BIOL 1407 (T) - Biology for Science Majors II
- BIOL 1408 (T) - Biology for Non-Science Majors I
- BIOL 1409 (T) - Biology for Non-Science Majors II
- BIOL 2401 (T) - Human Anatomy and Physiology I
- BIOL 2402 (T) - Human Anatomy and Physiology II
- BIOL 2404 (T) - Anatomy & Physiology
- BIOL 2406 (T) - Environmental Biology
- ENVR 1401 (T) - Environmental Science I
- CHEM 1405 (T) - Introductory Chemistry I
- CHEM 1406 (T) - Introductory Chemistry I (allied health emphasis)
- CHEM 1411 (T) - General Chemistry I
- CHEM 1412 (T) - General Chemistry II
- GEOL 1301 (T) - Earth Sciences for Non-Science Majors I (lecture only)
- GEOL 1403 (T) - Physical Geology
- GEOL 1404 (T) - Historical Geology
- GEOL 1405 (T) - Environmental Science
- PHYS 1303 (T) - Stars and Galaxies (lecture only)
- PHYS 1401 (T) - College Physics I
- PHYS 1402 (T) - College Physics II
- PHYS 1403
- PHYS 1404 (T) - Solar System
- PHYS 1405 (T) - Elementary Physics I
- PHYS 2425 (T) - University Physics I
- PHYS 2426 (T) - University Physics II

$ Language, Philosophy & Culture (3 hours)
- ENGL 2322 (T) - British Literature I
- ENGL 2323 (T) - British Literature II
- ENGL 2326 (T) - American Literature
- ENGL 2332 (T) - World Literature I
- ENGL 2333 (T) - World Literature II
- HIST 2311 (T) - Western Civilization I
- HIST 2312 (T) - Western Civilization II
- HIST 2321 (T) - World Civilizations I
- HIST 2322 (T) - World Civilizations II
- PHIL 1301 (T) - Introduction to Philosophy
- PHIL 2306 (T) - Introduction to Ethics
- ARTS 1301 (T) - Art Appreciation
- ARTS 1303 (T) - Art History I
- ARTS 1304 (T) - Art History II
- DANC 2303 (T) - Dance Appreciation
- DRAM 1310 (T) - Theatre Appreciation
- DRAM 2362
- MUSI 1306 (T) - Music Appreciation
- MUSI 1307 (T) - Music Literature

% American History (6 hours)
- HIST 1301 (T) - United States History I
- HIST 1302 (T) - United States History II

^ Government/Political Science (6 hours)
- GOVT 2305 (T) - Federal Government
- GOVT 2306 (T) - Texas Government

& Component Area Option 1 (3 hours)
- SPCH 1315 (T) - Public Speaking
- SPCH 1318 (T) - Interpersonal Communication

/ Social and Behavioral Sciences (3 hours)
- ECON 2301 (T) - Principles of Macroeconomics
- ECON 2302 (T) - Principles of Microeconomics
- GEOG 1303 (T) - World Regional Geography
- PSYC 2301 (T) - General Psychology
- PSYC 2314 (T) - Lifespan Growth and Development
- SOCI 1301 (T) - Introductory Sociology
- SOCI 1306 (T) - Social Problems
- TECA 1354 (T) - Child Growth and Development

< Component Area Option 2 (3 hours)
Any additional course listed in the core curriculum above or BCIS 1305 or MATH 1351 or EDUC 1300

Revised March 2022