**I. UTD CORE CURRICULUM REQUIREMENTS (42 Semester Hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Core Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>RHET 1302</td>
<td>Composition &amp; Rhetoric</td>
<td>ENGL 1302</td>
</tr>
<tr>
<td>ECS 3390</td>
<td>Professional &amp; Technical Communication*</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**A. Communication (6 Hours)**

- RHET 1302: Composition & Rhetoric
  - *ENGL 1301 is prerequisite to ENGL 1302 and must be completed prior to taking ENGL 1302. ENGL 1301 can be used for elective hours.

**B. Social and Behavioral Sciences (15 Hours)**

6 Hours of Government (Texas Legislative Mandate):

- GOVT 2301: Const Found & Pol Beh in the U.S. and Texas
- GOVT 2302: Political Institutions in the U.S. and Texas
  - *Consult your academic advisor for course descriptions. The six hour government requirement must include study of the Constitution of the United States and the Constitution of Texas.

6 Hours of American History (Texas Legislative Mandate):

- HIST 3301: American History I
- HIST 3302: American History II
- HIST 2301: History of Texas
- HIST 2328: Mexican American History II
- HIST 2381: African American History

3 Hours Social and Behavioral Sciences Elective:

- ECS 3361: Social Issues and Ethics in CS & EE

**C. Humanities and Fine Arts (6 Hours)**

- HUMA 1301: Exploration of the Humanities

**D. Mathematics and Quantitative Reasoning (6 Hours)**

- MATH 2417: Calculus I (Accelerated)
- MATH 2418: Calculus II (Accelerated)
  - *MATH 2417 & 2419 are lower-division major requirements that also satisfy the 6 hour Mathematics and Quantitative Reasoning core curriculum requirement.
  - *Students may need to take additional Mathematics courses so that the total number of hours in Mathematics credited to them is at least that specified in the degree requirements. Consult with an advisor.

**Note:** UTD's accelerated two-semester calculus sequence, MATH 2417 and MATH 2419, is equivalent to the three-semester calculus sequence offered at community colleges. Students must take Calculus I (MATH 2413), Calculus II (MATH 2414), and Calculus III (MATH 2415) in order to be equivalent to UTD MATH 2417 and MATH 2419. Students are strongly urged to start and complete the entire sequence either at the community college, or at UTD. If students choose to take Calculus I, II, and III, there may be prerequisite courses required. These courses would not be applicable towards the degree plan.
BSME-2

UTD Courses

E. Science (9 Hours)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PHYS 2325/2125*</td>
<td>Mechanics and Heat w/lab</td>
</tr>
<tr>
<td>PHYS 2326/2126*</td>
<td>Electricity and Magnetism w/lab</td>
</tr>
<tr>
<td>CHEM 1311/1111*</td>
<td>General Chemistry w/lab</td>
</tr>
</tbody>
</table>

*PHYS 2325/2125 & 2326/2126 are major requirements that will also satisfy eight hours of the science core curriculum requirement.

CHEM 1311/1111* General Chemistry w/lab

ECS 1200 Introduction to Engineering and Computer Science
MECH 2310 Static Equilibrium and Rigid Body Dynamics

Four of these hours may be satisfied with MATH 2420 counted under Major Preparatory Courses.

One hour of Chemistry is counted under Science Core and three hours are counted under Major Preparatory Courses.

II. MAJOR REQUIREMENTS (77 Semester Hours)

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Major Preparatory Courses (26 hours beyond Core Curriculum)

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ENGR 2300</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>ENGR 2301 AND 2302*</td>
<td>Mechanics and Heat w/lab</td>
</tr>
<tr>
<td>ENGR 2302</td>
<td>Introduction to Mechanical Engineering</td>
</tr>
<tr>
<td>ENGR 2303</td>
<td>Linear Algebra for Engineers</td>
</tr>
<tr>
<td>ENGR 2304</td>
<td>Static Equilibrium and Rigid Body Dynamics</td>
</tr>
</tbody>
</table>

*Must take both ENGR 2301 AND ENGR 2302 to receive credit for MECH 2310 and three hours elective credit.

MECH 2320 Strength of Materials
MECH 2320 Mechanical Measurements Laboratory
MATH 2420 Differential Equations w/ Applications
MATH 2417 Calculus I (Accelerated)
MATH 2419 Calculus II (Accelerated)

*Subjects may need to take additional Mathematics courses so that the total number of hours in Mathematics credited to them is at least that specified in the degree requirements. Consult with an advisor.

III. ELECTIVE REQUIREMENTS (8 Semester Hours)

Advanced Electives (2 Hours):
All electives are required to take at least six hours of advanced electives outside of their major field of study.
These electives must be either upper-division classes or lower-division classes that require prerequisites.
Four of these hours may be satisfied with MATH 2420 counted under Major Preparatory Courses.

Free Electives (6 Hours):
Both lower-division and upper-division course may count as free electives but students must complete at least 51 hours of upper-division credit to qualify for graduation. Please consult with your advisor.

A MINIMUM OF 127 SEMESTER HOURS IS REQUIRED FOR GRADUATION WITH AT LEAST 51 UPPER-DIVISION HOURS

Note: Core options listed reflect the TCCNS courses. Other courses that may potentially qualify for core requirements must be petitioned through an academic advisor or the department housing the student’s major.

UTD does not accept vocational or technical courses in certificate or applied science programs, nor courses offered through the Workforce Education Course Manual (WECM), nor developmental courses. Course credit awarded with no grade will not be accepted.
Consult the current online UTD catalog for complete degree plan requirements.
http://www.utdallas.edu/student/catalog/ugcurrent/undergradprograms.html