**B.S. in Mechanical Engineering (2019 – 2020 Catalog)**

**Advisor:\_\_\_\_\_\_\_\_\_**

**\_\_Fast Track \_\_Minor\_\_\_\_\_\_\_\_\_**

**\_\_Dbl Major/Degree**

**\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Other:**

### Student \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ UTD ID \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

# MAJOR PREPARATORY REQUIREMENTS

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **LD** | **UD** | **NTS** | **COURSE TITLE** | **COURSE #** | **GRADE** | **SEM** | **INFO** |
| 1 |  | 1,7 | Intro to Engineering and CS |  ECS 1100 |  |  |  |
| 1 |  | 1 | Intro to Mechanical Engineering I | MECH 1100 |  |  |  |
| 2 |  | 1 | Intro to Mechanical Engineering II | MECH 1208 |  |  |  |
| 3 |  | 1,4 | Intro to Programming | CS 1325 |  |  |  |
| 3 |  | 1 | Statics | MECH 2310 |  |  |  |
| 3 |  | 1 | Mechanics of Materials | MECH 2320 |  |  |  |
| 1 |  | 1 | Mechanics of Materials Laboratory | MECH 2120 |  |  |  |
| 3 |  | 1 | Dynamics | MECH 2330 |  |  |  |
| 3 |  | 1 | Linear Algebra for Engineers | ENGR 2300 |  |  |  |
| 4 |  | 1,2,3 | Calculus I | MATH 2414 or 2417 |  |  |  |
| 4 |  | 1,2,3 | Calculus II | MATH 2415 or 2419 |  |  |  |
| 4 |  | 1 | Differential Equations w/ Applications | MATH 2420 |  |  |  |
| 3 |  | 1,2 | Mechanics | PHYS 2325 |  |  |  |
| 1 |  | 1,2 | Physics Laboratory I | PHYS 2125 |  |  |  |
| 3 |  | 1,2 | Electromagnetism and Waves | PHYS 2326 |  |  |  |
| 1 |  | 1 | Physics Laboratory II | PHYS 2126 |  |  |  |
| 3 |  | 1 | General Chemistry I | CHEM 1311 |  |  |  |
| 1 |  | 1 | General Chemistry Lab I | CHEM 1111 |  |  |  |
| 44 |  |

MAJOR CORE REQUIREMENTS\* *(\*Courses in this block used to calculate major GPA)*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 3 | 1 | Advanced Engineering Math | ENGR 3300\* |  |  |  |
|  | 3 | 1 | Computer Aided Design | MECH 3305\* |  |  |  |
|  | 1 | 1 | Computer Aided Design Laboratory | MECH 3105\* |  |  |  |
|  | 3 | 1 | Thermodynamics | MECH 3310\* |  |  |  |
|  | 3 | 1 | Fluid Mechanics | MECH 3315\* |  |  |  |
|  | 1 | 1 | Fluid Mechanics Laboratory | MECH 3115\* |  |  |  |
|  | 3 | 1 | Heat Transfer | MECH 3320\* |  |  |  |
|  | 1 | 1 | Heat Transfer Laboratory | MECH 3120\* |  |  |  |
|  | 3 | 1 | Probability Theory & Statistics | ENGR 3341\* |  |  |  |
|  | 3 | 1 | Kinematics and Dynamics of Mechanical Systems | MECH 3350\*  |  |  |  |
|  | 1 | 1 | Kinematics and Dynamics Laboratory | MECH 3150\* |  |  |  |
|  | 3 | 1 | Design of Mechanical Systems | MECH 3351\* |  |  |  |
|  | 3 | 1 | Systems and Controls | MECH 4310\* |  |  |  |
|  | 1 | 1 | Systems and Controls Laboratory | MECH 4110\* |  |  |  |
|  | 3 | 1 | Senior Design Project I | MECH 4381\* |  |  |  |
|  | 3 | 1 | Senior Design Project II | MECH 4382\* |  |  |  |
|  | 3 | 1,9 | MECH Prescribed Elective | MECH XXXX\* |  |  |  |
|  | 3 | 1 | MECH Prescribed Elective | MECH 33XX\*/43XX\* |  |  |  |
|  | 3 | 1 | MECH Prescribed Elective | MECH 33XX\*/43XX\* |  |  |  |
|  | 3 | 1 | MECH Prescribed Elective | MECH 33XX\*/43XX\* |  |  |  |
| 3 |  | 1,2 | Social Issues & Ethics in Sci & Tech | ECS 2361\* |  |  |  |
|  | 3 | 1,2 | Prof & Tech Communication | ECS 3390\* |  |  |  |
| 3 | 53 |

REMAINING CORE CURRICULUM\*\*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3 |  | 1 | Rhetoric | RHET 1302 |  |  |  |
| 3 |  |  | American National Government | GOVT 2305 |  |  |  |
| 3 |  |  | State and Local Government | GOVT 2306 |  |  |  |
| 3 |  | 4 | US History Survey to Civil War (Core: 060) | HIST 1301 |  |  |  |
| 3 |  | 4 | US History Survey from Civil War (Core: 060) | HIST 1302 |  |  |  |
| 3 |  | 4 | Exploration of the Humanities (Core: 040) | HUMA 1301 |  |  |  |
| 3 |  | 4 | Exploration of the Arts (Core: 050) | ARTS 1301 |  |  |  |
| 21 |  |

ELECTIVES (6 Hours - Requires Approval from Advisor)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 3 |  | 5,6,9 | Free Elective |  |  |  |  |
| 3 |  | 5,6 | Free Elective |  |  |  |  |
| 0 |  | 7 | Freshmen Seminar | UNIV 1010 |  |  |  |
| 0 |  | 8 | Core Curriculum Assessment | UNIV 2020 |  |  |  |
| 3 |  |
| 74 | 53 | ***Total Hours\_\_\_\_\_\_\_\_\_*** | ***127 hours required for graduation. Must include minimum 51 hours as Upper Division.\*\*\**** |

## NOTES

|  |  |
| --- | --- |
| 1. Major requirement. Must earn C- or better to receive credit. | 2. Course meets both major and CORE requirement. |
| 3. Must take Math 2413/2414/2415 ***or*** Math 2417/2419. | 4. Other course options available. See advisor for details. |
| 5. A maximum of 3 PHIN credits is allowed on any UTD degree plan. | 6. Lower or upper division courses may count as free electives. |
| 7. Incoming freshmen (FTIC) must enroll and complete requirements of UNIV 1010 and the corresponding school-related freshmen seminar course. |
| 8. All students, including transfer students, who complete their core curriculum at UT Dallas must take UNIV 2020.  |
| 9. Students taking MECH 2340 for prescribed elective credit must take at least one hour of upper division elective credit to earn 51 hours of UD credit.  |
| \*\*\* Must have a minimum cumulative 2.0 GPA in all UTD coursework and a cumulative 2.0 GPA in all Major requirements to graduate. Students must also complete 45 hours in residence and complete 24 of the last 30 hours at UTD. No off-campus courses in the last semester allowed. |