



Student Name: _____

Student ID: _____

Engineering Core Requirements

| | | | |
|-------|---------|---|--|
| _____ | COS 130 | 3 | Computational Problem Solving for Engineers |
| _____ | ENP 104 | 3 | Introduction to Engineering and Software Tools |
| _____ | ENP 231 | 4 | Introduction to Electric Circuits |
| _____ | ENP 301 | 3 | Statics |
| _____ | ENP 332 | 4 | Control Systems |
| _____ | ENP 351 | 3 | Engineering Thermodynamics |
| _____ | ENP 352 | 3 | Materials Science |
| _____ | ENP 392 | 3 | Junior Engineering Project |
| _____ | ENP 393 | 2 | Practicum |
| _____ | ENP 405 | 1 | Engineering Ethics |
| _____ | ENP 491 | 1 | Review of the Fundamentals of Engineering |
| _____ | ENP 493 | 2 | Engineering Senior Capstone I |
| _____ | ENP 494 | 3 | Engineering Senior Capstone II |
| _____ | ENP 495 | 1 | Engineering Senior Capstone III |

Science and Math Core Requirements

| | | | |
|-------|---------|---|---|
| _____ | CHE 211 | 4 | College Chemistry I |
| _____ | MAT 151 | 4 | Calculus I |
| _____ | MAT 230 | 4 | Calculus II |
| _____ | MAT 240 | 4 | Calculus III |
| _____ | MAT 251 | 4 | Differential Equations |
| _____ | PHY 211 | 5 | University Physics I |
| _____ | PHY 212 | 5 | University Physics II |
| _____ | PHY 341 | 3 | Math Methods in Physics and Engineering |

Select one course from the following:

| | | | |
|-------|---------|---|-------------------------|
| _____ | MAT 210 | 4 | Introductory Statistics |
| _____ | MAT 352 | 4 | Mathematical Statistics |

Additional Core Requirements

| | | | |
|-------|---------|---|----------------------------------|
| _____ | ECO 201 | 3 | Principles of Microeconomics |
| _____ | SYS 330 | 3 | Human Relations in Organizations |

Select one or two* concentration area: **Electrical, General, Mechanical, Physics**

Electrical (24)

| | | | |
|-------|---------|---|--|
| _____ | ENP 253 | 4 | Electrical Circuits II |
| _____ | ENP 261 | 3 | Digital Systems Design |
| _____ | ENP 321 | 2 | Applied Electromagnetics |
| _____ | ENP 341 | 4 | Microcomputer Interfacing |
| _____ | ENP 431 | 4 | Advanced Electronics and Microcircuits |
| _____ | PHY 311 | 4 | Modern Physics |
| _____ | PHY 321 | 3 | Electricity and Magnetism |

Mechanical (24)

| | | | |
|-------|---------|---|-----------------------------------|
| _____ | ENP 252 | 4 | Engineering Systems |
| _____ | ENP 302 | 3 | Mechanics of Materials |
| _____ | ENP 303 | 3 | Dynamics |
| _____ | ENP 355 | 3 | Fluid Mechanics and Water Flow |
| _____ | ENP 357 | 3 | Heat Transfer |
| _____ | ENP 359 | 2 | Mechanical Engineering Laboratory |

Select 6 additional hours from Tier B: Engineering, Mathematics, and Science Electives

General (24)

Select one course from the following:

| | | | |
|-------|---------|---|------------------------|
| _____ | ENP 252 | 4 | Engineering Systems |
| _____ | ENP 253 | 4 | Electrical Circuits II |

Select 15 additional hours from Tier A: Engineering Electives

Select 5 additional hours from Tier B: Engineering, Mathematics, and Science Electives

Physics (26)

| | | | |
|-------|---------|---|---------------------------|
| _____ | ENP 253 | 4 | Electrical Circuits II |
| _____ | PHY 311 | 4 | Modern Physics |
| _____ | PHY 321 | 3 | Electricity and Magnetism |
| _____ | PHY 322 | 4 | Waves and Physical Optics |
| _____ | PHY 412 | 3 | Quantum Mechanics I |

Select 8 additional hours from Tier A: Engineering Electives

Tier A: Engineering Electives

| | | | |
|-------|---------|-----|--|
| _____ | COS 121 | 4 | Foundations of Computer Science |
| _____ | ENP 261 | 3 | Digital Systems Design |
| _____ | ENP 302 | 3 | Mechanics of Materials |
| _____ | ENP 303 | 3 | Dynamics |
| _____ | ENP 321 | 2 | Applied Electromagnetics |
| _____ | ENP 341 | 4 | Microcomputer Interfacing |
| _____ | ENP 355 | 3 | Fluid Mechanics and Water Flow |
| _____ | ENP 357 | 3 | Heat Transfer |
| _____ | ENP 359 | 2 | Mechanical Engineering Laboratory |
| _____ | ENP 394 | 1-4 | Advanced Engineering Project |
| _____ | ENP 431 | 4 | Advanced Electronics and Microcircuits |

*Majors may elect any double concentration, provided (1) they meet the requirements of both concentrations, (2) neither of the concentrations is General engineering, and (3) the total number of concentration credits (non-core) is at least 32 (34 if Physics is one concentration). These restrictions mean that any double concentration will require at least 8 Tier B credit hours beyond the credit hours required for a single concentration.

_____ Participation in a weekend retreat for all students in the department.

Tier B: Engineering, Mathematics, and Science Electives

| | | | |
|-------|-----------|------|--|
| _____ | BIO 201 | 4 | Biology I: Foundations of Cell Biology and Genetics |
| _____ | BIO 203 | 4 | Principles of Genetics |
| _____ | CHE 212 | 4 | College Chemistry II |
| _____ | COS 121 | 4 | Foundations of Computer Science |
| _____ | COS 230 | 3 | Missions Technology |
| _____ | ENP 261 | 3 | Digital Systems Design |
| _____ | ENP 360 | 1-4 | Independent Study |
| _____ | ENP 370 | 1-4 | Selected Topics |
| _____ | ENP 386 | 3 | Shop Machining and Fabrication |
| _____ | ENP 450 | 1-4 | Directed Research |
| _____ | ENS 241 | 4 | Physical Geology |
| _____ | MAT 345 | 4 | Linear Algebra |
| _____ | BIO _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | CHE _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | COS _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | ENP _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | ENS _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | MAT _____ | 1-10 | Any [†] 300/400 electives not used in major |
| _____ | PHY _____ | 1-10 | Any 300/400 electives not used in major |
| _____ | SYS _____ | 1-10 | Any 300/400 electives not used in major |

[†]Excluding MAT 301, 302, 309

Total Major Hours Required: 103-105

Degree Requirements

- 128 minimum hours and 42 minimum upper-division hours (3XX/4XX course numbers).
- Fifty percent of the minimum hours must be completed at Taylor—64 hours.
- Fifty percent of the major/minor hours must be completed at Taylor.
- 22 of the last 30 hours earned must be completed at Taylor.
- Cumulative GPA of 2.0; major GPA of 2.3 (higher GPA may be required in certain curricula). (See current catalog for policy).
- All general education, major, minor, and proficiency requirements must be completed (including Senior Comprehensive Exam/Paper/Project).
- Two years of one foreign language is required for the BA degree.
- Candidates for 2 degrees must complete a minimum of 158 semester hours and meet all requirements for 2 different majors.