



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

#### 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 <sup>†</sup> 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

\*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.

<sup>†</sup>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.