**Pre-Engineering - UW-Stevens Point at Wausau / UW-Platteville**

**Mathematics** (17 credits)
- 5 ' MATH 225 Calculus I (MATH 2640)
- 5 ' MATH 226 Calculus II (MATH 2740)
- 4 MATH 227 Calculus III (MATH 2840)
- 3 ' UWP MATH 3630 Differential Equations (Fall)

**Basic Sciences** (23 credits)
- 5 CHEM 105 Fundamental Chemistry I (CHEM 1140)
- 5 CHEM 106 Fundamental Chemistry II (CHEM 1240)
- 5 PHYS 240 University Physics I (PHYS 2240)
- 5 ' PHYS 250 University Physics II (PHYS 2340)
- 3 ' UWP PHYS 300 Modern Physics (PHYS 3140) (Spring)

**Other Courses** (11 credits)
- 3 ENGR 105 Engr Fundamentals (GENENG 1030 & ELECTENG 1020)
- 2 UWP GENENG 2820 Engineering Economy (Summer online)
- 3 ' UWP COMPUTER 1430 Programming in C++
- 3 UWP ENERGY 2130 Energy, Environmental & Society (Fall online)

**Engineering Sciences** (6-7 credits)
- 3 ENGR 220 Statics (GENENG 2130)
- 3 ENGR 221 Dynamics (GENENG 2230)

**Professional Electrical Engineering – Required Courses** (26 credits)
All required professional EE courses must be completed with a grade of C- or better.
- 3 EE 1210 Circuit Modeling I
- 4 EE 2210 Circuit Modeling II
- 4 EE 3220 Signals and Systems
- 4 EE 3020 Analog Electronics
- 4 EE 3140 Electric & Magnetic Fields
- 3 EE 3210 Engineering Computation
- 4 EE 3770 Logic and Digital Design

- UW-Stevens Point at Wausau courses have three numbers; UW-Platteville courses have four numbers.
- Addition/Plus sign (*) indicates the course requires a C- or better to be used as the prerequisite or co-requisite of an electrical engineering course.
- An Associate of Science degree in Pre-Engineering from UW-Stevens Point at Wausau satisfies the general education requirements of UW-Platteville.

**Professional Electrical Engineering - Emphasis Courses** (24 credits)
Each student shall complete a total of 24 credits from the list below. At least two of the courses must come from the following list of culminating design experience courses: EE 4260, EE 4350, EE 4450, or EE 4750 (all have asterisks below). Each student shall have at least one emphasis as defined in the divisions below. The emphasis is completed by taking 4 more credits at the 4000 level in the chosen emphasis. No more than 4 credits of independent study may be used to complete the required 24 credits.

**Communications & Electronics Emphasis**
- 4^ EE 3130 Solid State Electronics Devices
- 4 EE 4040 Analog IC Design (Fall Odd Years)
- 4 EE 4060 Electronic Communication (Fall Even Years)
- 4^ EE 4260 Measurement and Instrumentation (Spring)
- 4 EE 4430 Power Electronics & Elec Machines (Fall Odd Years)
- 1-4 EE 4980 Current Topics in EE
- 1-4 EE 4990 Independent Study

**Computer Engineering Emphasis**
- 4^ EE 3780 Introduction to Microprocessors
- 4 EE 4720 Microcomputer Architecture & Interfacing (Spring)
- 4^ EE 4750 Advanced Digital Design (Fall)
- 1-4 EE 4980 Current Topics in EE
- 1-4 EE 4990 Independent Study

**Controls Emphasis**
- 4^ EE 3320 Automatic Controls
- 4 EE 4310 Modern Control Systems (Spring Odd Years)
- 4 EE 4320 Digital Signal Processing (Spring Even Years)
- 4^ EE 4350 Discrete Time Control System (Fall)
- 1-4 EE 4980 Current Topics in EE
- 1-4 EE 4990 Independent Study

**Power & Energy Emphasis**
- 4^ EE 3410 Intro to Electrical Machines & Power Systems (lab)
- 4 EE 4430 Power Electronics & Elec Machines (Fall Odd Years)
- 4 EE 4440 Electric Motor Drives (Fall Even Years)
- 4^ EE 4450 Power Systems Analysis & Design (Spring)
- 1-4 EE 4980 Current Topics in EE
- 1-4 EE 4990 Independent Study

Revised: Fall 2020
Core Requirements: Grade of C or better or exemption from the following:
___ 3 English 102
___ 3 Math 108 or 110

Breadth Categories:
Note: Courses used to complete Breadth Requirements may also be used to satisfy Interdisciplinary or Ethnic Studies Requirements.

Humanities/Fine Arts – Minimum of 9 credits (1 Humanities & 1 Fine Arts)
___ 3 FA __________________________
___ 3 HU __________________________
___ 3 HU or FA __________________________

Math and Natural Science – Minimum of 11 credits (8 credits of NS in 2 disciplines including one lab course)
Note: The math, chemistry, and physics listed on the other side of this sheet will satisfy this category.
___ 1 LS __________________________
___ 1 NS/LS __________________________
___ 1 NS/LS/MS __________________________

Social Science – Minimum of 9 credits (From at least 2 disciplines)
___ 3 SS __________________________
___ 3 SS __________________________
___ 3 SS __________________________

Application/Performance – Minimum of 3 credits Note:
EGR 105 satisfies AP & IS requirements.
___ ___ AP __________________________
___ ___ AP __________________________
___ ___ AP __________________________

Interdisciplinary Studies – Minimum of 3 credits (not included in credit total if counted in other breadth area) Note: EGR 105 satisfies IS & AP requirements.
___ ___ IS __________________________

Ethnic Studies – Minimum of 3 credits (not included in credit total if counted in other breadth area)
___ ___ ES __________________________

Electives: A student who has met the Core Requirements & other Breadth Category minimums may complete the 60 credit requirement with Elective courses.

Total Credits Earned = ___________ (60 required)

Associate Degree application submitted: _______________________
Waiver submitted: _______________________