

ELECTIVES FOR ENGINEERING CURRICULA

Civil Engineering Elective: Any three CE courses selected by the student with prior approval of advisor.

Computer Engineering Computer Electives: Four required, select from ECE 448 plus three of the following:

ECE 354 – Software Engineering Design I	ECE 544 – Digital Communications
ECE 375 – Digital Integrated Circuits	ECE 547 – Introduction to Computer Communication Networks
ECE 451 – Industrial Automation	CS 332 – Algorithms
ECE 454 – Software Engineering Design II	CS 442 – Database Design
ECE 459 – Advanced Digital System Design	
ECE 476 – Digital Signal Processing	

Other graduate-level courses allowed with prior approval of advisor.

Electrical Engineering ECE Electives: Any four ECE courses selected by the student with prior approval of advisor.

Electrical Engineering ENGR Elective: One required, select from:

ME 271 – Basic Mechanics I (Statics)
ME 305 – General Thermodynamics I
MSE 200 – Materials Science

Electrical Engineering ENGR/Science Elective: One required, select from:

Any-of the Engineering or Science courses from the list of Acceptable Technical Elective Courses plus
BIOL 101 or 102 – Introductory Biology CHEM 261 – Organic Chemistry
BIOL 213 – Human Anatomy & Physiology I

Electrical Engineering Mechatronics Electives: Two required, select from:

ECE 451 – Industrial Automation	ME 305 – General Thermodynamics I
ECE 483 – Digital Control Systems-Analysis & Design	ME 312 – Fluid Mechanics
	ME 320 – Kinematic Analysis and Design

Mechanical Engineering Core Electives: Any four ME or MSE courses selected from the following:

ME 306 – General Thermodynamics II	ME 486 – Introduction to Manufacturing Engineering
ME 426 – Heating and Air Conditioning Analysis and Design	ME 4?? – Introduction to Finite Element Analysis and Design
ME 485 – Linear Control Systems	MSE 344 – Materials in Engineering

Mechanical Engineering ENGR Elective: Any Engineering (CE, ECE, ME, or MSE) course 300 or above plus ECE 202.

Mechanical Engineering Mechatronics Elective. One required, select from:

ECE 426 – Electric Drives	ME 486 – Intro. to Manufacturing Engineering
ECE 451 – Industrial Automation	ME 4?? – Introduction to Finite Element Analysis and Design
ME 306 – General Thermodynamics II	MSE 344 – Materials in Engineering
ME 426 – Heating and Air Conditioning Analysis and Design	

ACCEPTABLE TECHNICAL ELECTIVES

Acceptable technical elective courses include:

1. Any Engineering (CE, ECE, ENGR, ME, or MSE) or Computer Science course 200 or above that is required in another engineering curricula, or is an elective in any engineering curricula (and that has not been used to meet another requirement) except CE 201.
2. Any Engineering (CE, ECE, ENGR, ME, or MSE) or Computer Science course 495 and above with prior approval of advisor.
3. Any of the following courses:

CHEM 116	General Chemistry II	MGMT 324	Marketing Management
		MGMT 333	Total Quality Management
MA 315	Intro. To Abstract Math.	MGMT 363	Total Quality Techniques
MA 345	Coding and Information Theory		
MA 348	Discrete Mathematics	PHYS 311	Quantum Physics I
MA 472	Introduction to Applied Math.*	PHYS 322	Intermediate Optics
		PHYS 342	Modern Physics
MGMT 310	Financial Management		

Other courses, including BIOL, CHEM, MA, MGMT, PHYS, and STAT course 500 and above may be used with approval of the Undergraduate Curriculum Committee. Approval requests must be sent by email to the chair of the Undergraduate Curriculum Committee, Edward S. Pierson, at pierson@calumet.purdue.edu.

* Students who take MA 472 can receive a Minor in Applied Mathematics

ACCEPTABLE HUMANITY AND SOCIAL SCIENCE ELECTIVE COURSES

Required:

PHIL 324	Ethics for the Professions
POL 305	Technology and Society

The balance (6 credits) is selected by the student and advisor to give the student an opportunity to explore areas within the humanities and social sciences. Credit for ECON 210 is not allowed.

Subject areas not acceptable are skills courses such as writing and speaking, accounting, industrial management, personal finance, ROTC, and personnel administration. Credit is not allowed for a student's native language.