Engineering Education/Interdisciplinary Engineering Program

College of Engineering

Multidisciplinary Engineering Major/General Engineering Concentration

BSE
IDE-BSE
120 Credits for Graduation
Students need cumulative GPA of 2.0 to graduate.

Multidisciplinary Engineering Major Courses (45 credits of 200+ level engineering courses, of which at least 18 credits are 300+,and 6 credits 400+; MAX credits allowed in any one engineering discipline is 24)
(https://engineering.purdue.edu/ENE/Academics/Undergrad/IDE/general)

Required Engineering Core (18-26 credits)

_____ (3) ECE 20100/Equivalent - Electrical Circuits
_____ (3/6) ME 27000+ ME 27400/AAE 20300/ CE 29700 + 29800 – Statics and Dynamics*
_____ (3) ME 30900/CE34000/AAE 33300/ CHE 37700 or equivalent – Fluid Mechanics
_____ (3) ME 20000/ABE 21000/ CHE 21100/MSE 35000 or equivalent- Thermodynamics
_____ (3/1) IE 34300 or IDE 48300 or equivalent – Engineering Economics
_____ (3/4) EPCS 41100 + EPCS 41200/IDE 48400 +IDE 48500 or equivalent – Capstone Design (Must be taken at Purdue-West Lafayette)
(1) IDE 30100- Junior Professional Preparation(Must be taken at Purdue-West Lafayette)
_____ (1) IDE 48700 Senior Professional Development (Must be taken at Purdue-West Lafayette)

Engineering Selectives - (8) (https://engineering.purdue.edu/ENE/Academics/Undergrad/IDE/general)

- **Use the link to find out which other courses are applicable.**

_____ (3) Engineering Design- Must be approved by Dept. Eng. Education e.g. ABE 33000, AAE 25100, CE 45600, IE 38600, etc.
_____ (2) Hands-on(not computer) Lab- AAE 20401, AAE 33301, ECE 20700, CE 34300, ME 30900 (1)……etc.
_____ (3) Engineering Courses in materials/ strength of materials – MSE 23000, NUCL 27300, CE 23100, etc.

Engineering Area Selective/Elective courses (15-20 credits)

_____ (3-4)One of these beginning courses: ABE 21000, BME 20100, CE 20300, NUCL 20000, etc.
_____ (3) A follow up to core courses : ABE 43500, AAE 33400, AAE 37200, BME 30400, CE 27000, etc.
_____ (3) One additional advanced (300+) course: ABE 30100, ABE 30500, ABE 32000, ABE 32500, CE 30300, etc.
_____ (5-9)Engineering Electives

Other Departmental /Program Course Requirements (47-54 credits)

_____ (4/5) MA 16500/16100 – Calculus I (*satisfies FYE requirement & quantitative reasoning for core*)
_____ (4/5) MA 16600/16200 – Calculus II(*satisfies FYE requirement & quantitative reasoning for core*)
_____ (4) CHM 11500 – General Chemistry I (*satisfies FYE requirement & science selective for core*)
_____ (2) ENGR 13100- Transforming Ideas to Innovation I(*satisfies FYE requirement*)
_____ (2) ENGR 13200 - Transforming Ideas to Innovation II(*satisfies FYE requirement*)
_____ (4) ENGL 10600 – English Composition(*satisfies FYE requirement & general education requirement & written com and info literacy for core*)
_____ (3) COM 11400 – (*satisfies general education requirement & oral communication for core)*
_____ (4) PHYS 17200- Physics I(*satisfies FYE requirement & science selective for core*)
_____ (3/4) CS 15900/CHM 11600- Science selective(*satisfies FYE requirement*)
_____ (4) MA 26100 – (*satisfies math requirement*)
_____ (4/6) MA 26200 or MA 26500 + 26600 (*satisfies math requirement*)
_____ (3/4) PHYS 24100/PHYS 27200/BIOL 11000/BIOL 23000 - (*choose one-sophomore science selective*)
(3) IE 23000/33000/IDE 36000/ECE 30200/CHE 32000/ ECE 30200 / STAT 35000/ STAT 51100 –(*statistics selective – counts as either engineering or basic science & math*)
_____ (2-3) CGT 11000, 16300 or 16400- (*required course in area*)
(1) Hands-on(not computer) Lab- 1 credit from: CHM 11600, THTR sound studio , AD, engineering lab, etc.

_____ **Area Electives (9-18 cr):** chosen to satisfy student's educational objectives.

NOTE: General Education (24 credits) (includes ENGL 106 and COM 114 listed above)

_____ (3)	GE 1	_____ (3)	GE 3	_____ (3)	GE 5	_____ ( )	_____
_____ (3)	GE 2	_____ (3)	GE 4	_____ (3)	GE 6	_____ ( )	_____

University Core Requirements

Human Cultures Humanities	**GE 1**	*Science, Technology & Society Selective*	**GE 3**
Human Cultures Behavioral/Social Science	**GE 2**	*Written Communication*	**ENGL 10600**
Information Literacy	**ENGL 10600**	*Oral Communication*	**COM 11400**
Science Selective	**CHM 11500**	*Quantitative Reasoning*	**MA 16500 or 16100**
Science Selective	**PHYS 17200**		

(Effective Fall 2015)

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The student is ultimately responsible for knowing and completing all degree requirements.
IDES/MDE web pages and Adviser are knowledge sources for specific requirements and completion

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General engineering

https://engineering.purdue.edu/ENE/Academics/Undergrad/IDE/general

Suggested Arrangement of Courses:

Credits	Fall 1st Year	Prerequisite	Credits	Spring 1st Year	Prerequisite
4	MA 16500	ALEXS score of 75	4	MA 16600	MA 16500
4	CHM 11500	*MA 16500*	4	PHYS 17200	
4	ENGL 10600		3/4	CS 15900/CHM 11600	ENGR 13100/CHM 11500
2	ENGR 13100		2	ENGR 13200	ENGR 13100
			3	COM 11400	
14			**16/17**		

Credits	Fall 2nd Year	Prerequisite	Credits	Spring 2nd Year	Prerequisite
4	MA 26100	MA 16600	4	MA 26200	MA 26100
3	PHYS 24100/Sci Sel†	PHYS 17200	3	ME 27400†4	ME 27000
3	ME 27000†1	*MA 26100* PHYS 17200	3	ECE 20100	ENGR13100 PHYS17200 MA16200 *MA 26100*
3	ME 20000†2	*MA 26100* CHM11500 ENGR13200	1	ECE 20700	*ECE 20100*
3	AREA ELECTIVE†3		2	CGT 16300	
			2	AREA ELECTIVE†3	
16			**15**		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	ENGINEERING CLASS (intro) †5		3	IDE 36000†8	
3	CE 34000†6	CE 29800	1	ENGINEERING CLASS (follow-up) †5	
1	CE 34300	*CE 34000*	2	ENGINEERING CLASS (design) †9	
3	MSE 23000†7	CHM 11500/MA 16500	3	GENERAL EDUCATION 4 (300 level or non-intro)	
3	GENERAL EDUCATION 1 (Core outcome H)		3	GENERAL EDUCATION 2 (Core Outcome BSS)	
1	IDE 30100	COM 114	3		
14			**15**		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	ENGINEERING CLASS 400+ level (advanced) †5		3	IDE 48500†10	IDE 483 IDE30100 MA 26200
3	GENERAL EDUCATION 3 (Core Outcome STS)		3	AREA MBS or other	
1	IDE 48300		3	AREA ELECTIVE	
1	IDE 48400		3	ENGINEERING CLASS 300+ level	
1	IDE 48700		3	GENERAL EDUCATION 6 (300+ level or non-intro)	
3	GENERAL EDUCATION 5				
3	AREA ELECTIVE		**15**		
15				**Grand Total = 120**	

*Satisfies a University Core Requirement **Satisfies a Non-departmental Major Course Requirement. †Multiple options are available – the most common is listed. †1 statics options, †2 thermodynamics options †3 area electives are chosen with aid of adviser to advance the student's educational objectives †4 dynamics options †5 engineering selectives are chosen with aid of adviser to advance the student's educational objectives †6 fluids option †7 materials options †8 statistics options †9 design selective †10 Capstone design selective

120 semester credits required for Bachelor of Science in Engineering degree.
2.0 Graduation GPA required for Bachelor of Science in Engineering degree.

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The student is ultimately responsible for knowing and completing all degree requirements.
Degree Works is knowledge source for specific requirements and completion

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***THE PLAN OF STUDY FROM 3rd SEMESTER ONWARDS SHOULD BE FILLED BY STUDENT AFTER CONSULTATION WITH ACADEMIC ADVISOR**