PURDUE UNIVERSITY

Engineering Education/Interdisciplinary Engineering Program

College of Engineering BS

Interdisciplinary Engineering Studies Major /Basic Engineering Concentration IDE-BS

120 Credits for Graduation

Students need cumulative GPA of 2.0 to graduate.

Interdisciplinary Engineering Studies Major Courses (30 credits of 200+ level engineering courses, of which at least 15 credits are 300+ level; MAX credits allowed in any one engineering discipline is 24)

(https://engineering.purdue.edu/ENE/Academics/Undergrad/IDE)

Required Engineering Core (7 credits)

(3) IE 34300 or equivalent – Engineering Economics

(1) IDE 30100- Professional Preparation(Must be taken at Purdue-West Lafayette)

Engineering Selectives - (3-9) (https://engineering.purdue.edu/ENE/Academics/Undergrad/IDE)

- **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, EPCS 300+ level, IDE 48500, etc.

(3) Statistics counts here if engineering statistics is selected.

(3) EPCS 20100 + 20200 or ENGR 20100 count here if used for GE for STS university core, but not double counted for graduation.

Engineering Area Elective/Selective courses (17-23 credits)

(3-4)One of these beginning courses: ABE 20500, ABE 21000, BME 20100, CE 20300, CE 29700, ECE 20100, NUCL 20000, etc.

(3) A follow up to core courses : ABE 43500, AAE 33400, AAE 37200, BME 30400, CE 27000, CE 29800, ECE 20200, etc.

(3) One additional advanced (300+) course: ABE 30100, ABE 30500, ABE 32000, ABE 32500, CE 30300, etc.

(8-14)Engineering Electives

Other Departmental /Program Course Requirements (41-50 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 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 49500/ECE 30200/CHE 32000/ ECE 30200 / STAT 35000/ STAT 51100 –(*statistics selective – counts as either engineering (above) or basic science & math*)

(3) Most students will need one additional 3 credit CS, Engineering, Math or Science course (minimum 44 cr).

Area Electives (22-32 cr): chosen to satisfy student's educational objectives.

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

(3)	G.E.-1	(3)	EPCS/ENGR 20100	(3)	**G.E.-5**	( )	
(3)	G.E.-2	(3)	G.E.-4	(3)	**GE-6 may be 2 cr**	( )	

University Core Requirements

Human Cultures Humanities	☐ **GE 1**	*Science, Technology & Society Selective*	☐ **EPCS 20100+20200 or ENGR 20100**
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 + 16600 or 16100 + 16200**
Science Selective	☐ **PHYS 17200**		

(Effective Fall 2014)

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

Basic engineering

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 131/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	4/3	MA26200/26600(if take 26600, take MA 26500 (in year 3)	MA 26100
3	PHYS 24100/Sci Sel†	PHYS 17200	3	CE 29800†1	CE 29700
3	CE 29700†1	*MA 26100*/PHYS 17200	3	Elective	
3	ENGR 20100†2		3	GE2	
3	GE1		3	Elective	
16			**16/15**		

Credits	Fall 3rd Year	Prerequisite	Credits	Spring 3rd Year	Prerequisite
3	IE 34300†3		3	IDE 49500†5	
3	ECE 20100†1	ENGR13100/PHYS17200/MA16200/ *MA 26100*	1	IDE 30100	COM 11400
3	Elective – 300+ level		2	Elective	
3	MA 26500 if needed/or area elective†4	MA 261	3	Math or basic science†6, or engr course if statistics course is used for †5, If not needed, area elective†7	
3	GE4		3	Elective – 300+ level	
			3	GE5 – 300+ level	
15			**15**		

Credits	Fall 4th Year	Prerequisite	Credits	Spring 4th Year	Prerequisite
3	Engr elective -300+ level		3	IDE 485†9	IE 34300/IDE30100/MA 26200
3	Engineering elective if STS not engineering; otherwise,elective†7		2	Engr elective – 300+ level	
2/3	GE6 300+ level		3	Area elective see †13	
3	Engr elective		3	Area elective – 300+ level†8	
3	Area Elective – 300+ level		1-4	Area electives as needed	
14/15			**12-15**		
				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 engr elective – suggested option. May be taken semesters 3-6, †2 STS options. May be taken semesters. 3† May be taken semesters 5,6, 7, or 8. †4 area electives are chosen with aid of adviser to advance the student's educational objectives. †5 example statistics selective-may be taken semester 8. †6 depends on science & math courses taken. †7 talk to advisor about this concentration, †8 May switch semesters of these electives. †9 Capstone design selective – suggested option.

120 semester credits required for Bachelor of Science degree.
2.0 Graduation GPA required for Bachelor of Science 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 ADVISER.**