PURDUE
UNIVERSITY

Engineering Education/Interdisciplinary Engineering Program
College of Engineering
Multidisciplinary Engineering Major/General Engineering Concentration

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)

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 Professional Preparation –Junior (Must be taken at Purdue-West Lafayette)
	(1)	IDE 48700 Multidisciplinary Professional Development -Senior (Must be taken at Purdue-West Lafayette)

Engineering Selectives - (8 credits)

	(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 (12 or 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.
	(3/10)	Engineering Elective courses to meet students educational objectives (Engineering courses only)

Must Total (45) Credits of Engineering Coursework

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)	*[can be substituted with approved alternative FYE courses: i.e. ENGR141/2, etc.] 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*)
	(1)	Hands-on (not computer) Lab- 1 credit from: CHM 11600, THTR sound studio, AD, engineering lab, etc.
		AREA Electives (1-12 credits): chosen to satisfy student's educational objectives. CGT 11000, 16300 or 16400 (2-3) are required area course(s) for General Engineering

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

(3)	GE 1		(3)	GE 3		(3)	GE 5		(4)	ENGL 10600
(3)	GE 2		(3)	GE 4		(2)	GE 6		(3)	COM 11400

All Must Total (>=120) Credits to graduate

University Core Requirements

Human Cultures Humanities	GE 1		Science, Technology & Society	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			

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.

General Engineering

Suggested Arrangement of Courses:

Credits	Fall First-Year	Prerequisite	Credits	Spring First-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 Second-Year	Prerequisite	Credits	Spring Second-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	ENGR 13100 PHYS 17200 MA 16200 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 Third-Year	Prerequisite	Credits	Spring Third-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	Area Elective	
14			15		

Credits	Fall Fourth-Year	Prerequisite	Credits	Spring Fourth-Year	Prerequisite
3	Engineering Class 400+ level (advanced) †5		3	IDE 48500†10	IDE 483 IDE 30100 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

'THE PLAN OF STUDY FROM THIRD SEMESTER ONWARDS SHOULD BE FILLED BY STUDENT IN CONSULTATION WITH ACADEMIC ADVISOR'

Spring 2016 IDES/MDE POS update

Engineering Education
College of Engineering

Multidisciplinary Engineering Major: *General Engineering Concentration*

Course Lists & Notes
Where several columns are provided with courses for each table, each column represents one possible choice that would meet the specific requirement. (I.e. the student will *choose one column for each bulleted title as a choice to meet that requirement*)

Engineering Core
- Circuits

ECE20100

- Statics/Dynamics

ME27000 + ME27400	CE29700 + CE29800	AAE20300

- Fluid Mechanics

ME30900	CE34000	AAE33300	CHE37700	

- Thermodynamics

ME20000	ABE21000	CHE21100	MSE26000	

- Engineering Economics

IE34300	IDE48300			

- Engineering Economics

IE34300	IDE48300			

- Engineering Capstone Design

IDE485+IDE484	EPCS41100+EPCS41200			

Engineering Selectives – by category course lists/tables
- Engineering Design Selective: Others approved on a case by case basis

ABE33000	AAE25100	CE45600	IE38600	ME41300	ECE27000	EPCS@30000:40000

- Engineering Hands on lab: Others approved on a case by case basis

AAE20401	AAE33301	ECE20700	CE34300	ME30900 (1)

- Engineering Materials/Strength of Materials: Others approved on a case by case basis

MSE23000	NUCL27300	CE23100		

Engineering Area Selective/Electives

- Engineering Selective Beginning Course

Any @20000:50000 level course

- Engineering Selective Follow up Course

Any @20000:50000 level course, with pre-requisite of "Beginning course", or Engineering core   example. ECE201 followed by ECE 270

- Engineering Selective Advanced Course

Any @30000:50000 level course

- Engineering Elective Courses

Any @20000:50000 level engineering course (AAE, ABE, BME, CE, CEM, CHE, ECE, EEE, ENE, ENGR, EPCS, IDE IE, ME, MSE, NUCL) *NOTE: only courses not already listed in the required engineering core

Other course lists

- Sophomore Science Selective

PHYS 24100	PHYS 27200	BIOL 11000	BIOL 23000	

- Statistics Selective

IDE495000 (now called IDE36000)	IE23000	IE33000	ECE 30200	CHE 32000	STAT 35000	STAT 51100

  NOTE: if non engineering *statistics selective it chosen, it counts as MBSE; if engineering course is selected it count as an engineering course)*

- Hands on lab (non computer):

CHM 11600	THTR26300	AD10500		

- Area Courses

CGT11000	CGT16300	CGT16400	Any @10000:50000 level course NOT counted in FYE POS, any prefix.	

(Effective Fall 2016)
....
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.
....

Spring 2016 IDES/MDE POS update

Engineering Education
College of Engineering

Multidisciplinary Engineering Major: *General Engineering Concentration*

Course Lists & Notes

Where several columns are provided with courses for each table, each column represents one possible choice that would meet the specific requirement. (I.e. the student will *choose one column for each bulleted title as a choice to meet that requirement*)

Engineering Core

- Circuits

ECE20100

- Statics/Dynamics

ME27000 + ME27400	CE29700 + CE29800	AAE20300

- Fluid Mechanics

ME30900	CE34000	AAE33300	CHE37700	

- Thermodynamics

ME20000	ABE21000	CHE21100	MSE26000	

- Engineering Economics

IE34300	IDE48300			

- Engineering Economics

IE34300	IDE48300			

- Engineering Capstone Design

IDE485+IDE484	EPCS41100+EPCS41200			

Engineering Selectives – by category course lists/tables

- Engineering Design Selective: Others approved on a case by case basis

ABE33000	AAE25100	CE45600	IE38600	ME41300	ECE27000	EPCS@30000:40000

- Engineering Hands on lab: Others approved on a case by case basis

AAE20401	AAE33301	ECE20700	CE34300	ME30900 (1)

- Engineering Materials/Strength of Materials: Others approved on a case by case basis

MSE23000	NUCL27300	CE23100		

Engineering Area Selective/Electives

- Engineering Selective Beginning Course

Any @20000:50000 level course

- Engineering Selective Follow up Course

Any @20000:50000 level course, with pre-requisite of "Beginning course", or Engineering core   example. ECE201 followed by ECE 270

- Engineering Selective Advanced Course

Any @30000:50000 level course

- Engineering Elective Courses

Any @20000:50000 level engineering course (AAE, ABE, BME, CE, CEM, CHE, ECE, EEE, ENE, ENGR, EPCS, IDE IE, ME, MSE, NUCL) *NOTE: only courses not already listed in the required engineering core

Other course lists

- Sophomore Science Selective

PHYS 24100	PHYS 27200	BIOL 11000	BIOL 23000	

- Statistics Selective

IDE495000 (now called IDE36000)	IE23000	IE33000	ECE 30200	CHE 32000	STAT 35000	STAT 51100

  NOTE: if non engineering *statistics selective it chosen, it counts as MBSE; if engineering course is selected it count as an engineering course)*

- Hands on lab (non computer):

CHM 11600	THTR26300	AD10500		

- Area Courses

CGT11000	CGT16300	CGT16400	Any @10000:50000 level course NOT counted in FYE POS, any prefix.	

Ref: EFD no.70-13, April 24, 2013; Effective date Fall2013