Engineering Education

→ PURDUE UNIVERSITY

→ LEARNING to Make a DIFFERENCE

MDE Concentration Guideline—Acoustical Engineering(vibrational option)

Semester 1			Semester 2		
CHM 11500	GENERAL CHEMISTRY	4	ENGR 13200	TRANS IDEAS TO INNOV II	2
ENGR 13100	TRANS IDEAS TO INNOV I	2	GEN ED	GEN ED (Found Outcome OC) ²	3
GEN ED	GEN ED (Found Outcome WC) ¹	3	MA 16600	PL ANLY GEO CALC II	4
MA 16500	PL ANLY GEO CALC I	4	PHYS 17200	MODERN MECHANICS	4
			SCI SEL	FYE SCIENCE SELECTIVE	3
	Total	13		Total	16
Semester 3			Semester 4		
IDE 30100	PROF PREP IN IDE SEMINAR	1	CM 16400	GRAPH FOR CE&CONSTR ⁷	2
MA 26100	MULTIVARIATE CALCULUS	4	ECE 20001	ELEC ENGR FUND I	3
ME 20000	THERMODYNAMICS ³	3	ECE 20007	ELEC ENGR FUND I LAB8	1
ME 27000	BASIC MECHANICS I ⁴	3	MA 26200	LIN ALG AND DIF EQU ⁹	4
PHYS 24100	ELECTRICITY & OPTICS ⁵	3	ME 27400	BASIC MECHANICS II ¹⁰	3
THTR 25300	SURVEY OF AUDIO PROD ⁶	3	THTR	THTR SELECTIVE ⁶	1
	Total	17		Total	14
Semester 5			Semester 6		
CE 34000	HYDRAULICS ¹¹	3	ENGR ELECTIVE	ENGINEERING ELECTIVE ¹²	3
CE 34300	HYDRAULICS LAB ⁸	1	GEN ED	GEN ED (Found Outcome BSS) ¹⁵	3
ENGR ELECTIVE	ENGINEERING ELECTIVE ¹²	3	GEN ED	GEN ED ELECTIVE ¹⁶	3
GEN ED	GEN ED (Found Outcome H) ¹³	3	IDE 36000	MDE STATISTICS ¹⁷	3
NUCL 27300	MECHANICS OF MATERIALS ¹⁴	3	ME 41300	NOISE CONTROL(engr design)	3
			AREA	AREA ELECTIVE ¹⁸	2
	Total	13		Total	17
Semester 7			Semester 8		
AREA	AREA ELECTIVE ¹⁸	3	AREA	AREA ELECTIVE ¹⁸	3
ENGR ELECTIVE	ENGINEERING ELECTIVE ¹²	3	AREA	AREA ELECTIVE ¹⁸	3
GEN ED	GEN ED (Found Outcome STS) ¹⁹	3	GEN ED	GEN ED (300 level or non intro) ¹⁶	3
IDE 48300	MDE ENGR ANALYSIS/DECISION ²⁰	1	GEN ED	GEN ED (300 level or non intro) ¹⁶	3
IDE 48400	MDE DESIGN METHODOLOGY	1	IDE 48500	MDE ENGR DESIGN PROJ ²²	3
IDE 48700	MDE SENIOR DEVELOPMENT	1			
ME 51300	ENGINEERING ACOUSTICS ²¹	3			
	Total	15		Total	15

¹Written Communication University foundational outcome. Courses can be found at: http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

²Oral Communication University foundational outcome. Courses can be found at: http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

³other options include ABE 20100, 21000, CE 21101, CHE 21100, MSE 26000

⁴other options include CE 29700, AAE 20300

⁵sophomore science selective. Other options include PHYS 27200 or BIOL 11000, 20300, 22100, 23000 23100 or CHM 11600, 25500, 25700, 26100, 32100 or EAPS 10400, 10500, 10900, 11100, 11200, 11300, 11600, 11700, 12000, 13800, 17100 (May not be the same course used as FYE Science Selective.)

⁶4 credits total of THTR are required for this concentration. Options include THTR 16300, 25300, 26300, 35300, 36300, 36800, 55300, 56300, 56900, 59700 or DANC 36800

⁷other options include MFET 16300; THTR 25400, 55400.

⁸hands on (not computer) engineering lab; other options include 1 credit engineering lab class (AAE 20401, AAE 33301, CE 34300, ME 30801 etc.); 1 credit from a 2 credit engineering lab class (BME 30600, NUCL 20500, etc.); 1 credit from a 3 credit engineering class that includes a lab (ABE 30500, IE 38600, MSE 23500, etc.); 1 credit from a 4 credit engineering class that includes a lab (CE 20300, CHE 37700, ECE 27000 etc.). Consult academic advisor for list of engineering lab courses.

⁹other option MA 26500 + MA 26600

¹⁰other option CE 29800

¹¹other options include AAE 33300, ME 30800, CHE 37700, MSE 34000

¹²Engineering electives are chosen based on a student's educational objectives. Consult with academic advisor.

¹³Humanities University foundational outcome. Courses can be found at: http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

¹⁴other "materials course" option ME 32300 (CODO from ME only)

¹⁵ Behavioral/Social Sciences University foundational outcome. Courses can be found at: http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html

¹⁶General education courses can be taken from the College of Liberal Arts, the Krannert School of Management, and/or the Honors College provided such courses are not focused primarily on engineering, technology, the natural sciences, or mathematics. Consult with academic advisor for acceptable general education courses.

¹⁷other options include IE 23000, IE 33000

¹⁸Area classes are chosen based on a student's educational objectives. These may be chosen to complete minors. Consult with academic advisor.

¹⁹Science Technology and Society University foundational outcome. Courses can be found at: http://www.purdue.edu/provost/students/s-initiatives/curriculum/courses.html If EPCS is used to satisfy this outcome, 3 credits of EPCS must be taken.

Additional Requirements:

A course listed on the Concentration Guideline is not a guarantee that the course will be accessible/made available to a student. Lack of availability could be due to any number of circumstances beyond the control of either student or program.

Engineering credits: A minimum 45 credits at 200+ level, of which at least 18 credits are at 300+ level and 6 credits of the 18 must be at 400+ level. Maximum number of credits in any engineering discipline is 24. It is the student's responsibility to see that all prerequisites are met for selected courses.

30 credits must be Math and Basic Science (MA, BIOL, CHM, PHYS, EAPS, SLHS are some examples)

32 credits at 300+ level (any courses) must be taken at Purdue West Lafayette.

3 credits of "hands-on" (not computer lab) required. 2 credits must be engineering (See footnote 8). The third credit may be engineering on non-engineering. A non-engineering lab credit would be included in an AREA class. Some examples are BIOL, CHM, or PHYS lab classes OR THTR and AD classes that include a studio component. Consult academic advisor for details.

²⁰other option IE 34300

²¹other options include ME 41300, CE 31100

 $^{^{22}}$ other capstone design option instead of IDE 48400 + IDE 48500 is EPCS 41200 + 41200, or IDE 48400 + THTR 59700(taken 2^{nd} semester senior year) Consult with academic advisor.