MECHANICAL ENGINEERING MAJOR

Advisor: Advisor: 2nd Major:					rogram 1 for studen			Cheet Y 2020-2021	
NOTES: Minimum total academic credit = 15 units Residency Req.: Min. of 8 units must be completed at WPI HUMANITIES AND ARTS (2 units) All 5 HUA courses must be completed before beginning the Inquiry Seminar or Practicum. Depth Component Students must complete at least three thematically-related courses prior to the culiminating Inquiry Seminar or Practicum in the same thematic area. At least one of the three courses should be at the 2000-level or above. Course Term Grade Units Course Term Grade Units 1 1/3 2 1/3 3 1/3 4 HU 3900 or HU 3910 1/3 Breadth Component Students must take at least one course outside the grouping in which they complete their depth component. To identify breadth, courses are grouped in the following manner. i. art/art history, drama/theatre, and music (AR, EN/TH, MU); iii. foreign languages (AB, CN, EN, GN, SP); iv. history and international studies (HI, HU, INTL); v. philosophy and religion (PY, RE). Exception: May take all six courses in a foreign language SCIENCE (3/3 unit) One Chemistry and two Physics, OR one Physics and two Physics and two Physics, OR one Physics and t	Nan	ne:				Cla	ass \	/ear:	
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Course Term Grade Units 1					ea. At				
27 ES 2501 Intro to Static Systems 28 ES 2502 Stress Analysis 29 ES 2503 Intro to Dynamic Systems 30 ME 4320/4322/4810 THERMAL SYSTEMS (4/3 unit) 31 ES 3001 Intro to Thermodynamics 32 ES 3004 Fluid Mechanics 33 ES 3003 Heat Transfer 34 Interacture and writing rhetoric (EN, WR, RH); 35 iv. history and international studies (HI, HU, INTL); 36 V. philosophy and religion (PY, RE). 37 Exception: May take all six courses in a foreign language 38 ES 2502 Stress Analysis 29 ES 2503 Intro to Dynamic Systems 30 ME 4320/4322/4810 THERMAL SYSTEMS (4/3 unit) 31 ES 3001 Intro to Thermodynamics 32 ES 3004 Fluid Mechanics 33 ES 3003 Heat Transfer 34 ME 4422/ME 4429 OTHER COURSES (4/3 unit) 35 ES 2001 Intro to Material Science 36 ECE 2010 Intro to Material Science 37 ME 3901 Engineering Experimentation		Course	Term	Grade		<u> </u>	-	SINEERING SCIENCE AND DESIGN (6 1/3	units)
3							MEC	CHANICAL SYSTEMS (4/3 unit)	
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5 37 ME 3901 Engineering Experimentation			•						+
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					1/3				

5				1/3	
Hun	nanities Elective				
6				1/3	
DUV	PHYSICAL EDUCATION (4 DE classes = 1/2 unit)				

rni	PHISICAL EDUCATION (4 PE classes - 1/3 utilit)				
				1/12	
7				1/12	
1				1/12	
				1/12	

SOCIAL SCIENCE (2/3 unit) ECON, ENV, GOV, PSY, SD, SOC, SS, STS, DEV, and ID2050

8				1/3		
9				1/3		
THE	THE INTERACTIVE QUALIFYING PROJECT (1 unit)					
10				1/3		
11				1/3		
12				1/3		
FRE	FREE ELECTIVES (1 unit)					

	,		
13			1/3
14			1/3
15			1/3

MATHEMATICS AND BASIC SCIENCE (3 2/3 units)

MATHEMATICS (6/3 units)

Must include Differential & Integral Calculus and Ordinary Differential Equations

	dations	
16	MA 1021 Calculus I	1/3
17	MA 1022 Calculus II	1/3
18	MA 1023 Calculus III	1/3
19	MA 1024 Calculus IV	1/3
20	MA 2051 Ordinary Differential Equations	1/3
21	MA 2071 Linear Algebra	1/3

o Chemistry

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22				1/3
23				1/3
24				1/3
STUDENT SELECTED COURSES (2/3 upit)				

Science

25			1/3			
26			1/3			

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27	ES 2501 Intro to Static Systems		1/3	
28	ES 2502 Stress Analysis		1/3	
29	ES 2503 Intro to Dynamic Systems		1/3	
30	ME 4320/4322/4810		1/3	
THEDMAL CYCTEMS (4/2 upit)				

IND	THERMAL STSTEMS (4/3 unit)					
31	ES 3001 Intro to Thermodynamics			1/3		
32	ES 3004 Fluid Mechanics			1/3		
33	ES 3003 Heat Transfer			1/3		
34	ME 4422/ME 4429			1/3		

35	ES 2001 Intro to Material Science		1/3
36	ECE 2010 Intro to ECE		1/3
37	ME 3901 Engineering Experimentation		1/3
38	Programming (ME 2312/ ME 4512/ BME		1/3
	1004/ CS 1101 or CS 1004		1/3

MAJOR QUALIFYING PROJECT (3/3 unit)

39		1/3
40		1/3
41		1/3

ELECTIVES (4/3 unit)

Note 1: Elective courses from engineering disciplines may be selected at the 2000 or higher level. They may also include ES and ME courses at the 1000 level.

42				1/3
43				1/3
44				1/3
45				1/3

Note 2: ES 3001 can be replaced by CH 3510 or PH 2101. If CH or PH is used to cover thermodynamics, this course counts as a science; another engineering elective is then required.

Note 3: ECE 2010 or any ECE course other than ECE 1799.