

ARCHITECTURAL ENGINEERING MAJOR – Focus on the Mechanical Area
Program Tracking Sheet Based on AY 2013-14 Degree Requirements and Course Offerings

Name:	Class Year:
Advisor:	2 nd Major:

NOTES: Minimum total academic credit = 15 1/3 units
 Residency Req.: Min. of 8 units must be completed at WPI

HUMANITIES AND ARTS REQUIREMENT (2 units)

Depth Component				
Students must complete at least three thematically-related courses prior to the culminating 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
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);				
ii. foreign languages (SP, GN, AB, CN);				
iii. literature and writing rhetoric (EN, WR, RH);				
iv. history and international studies (HI, HU);				
v. philosophy and religion (PY, RE).				
Exception: May take all six courses in a foreign language				
5				1/3
Humanities Elective				
6				1/3

PHYSICAL EDUCATION (4 PE classes = 1/3 unit)

	Course	Term	Grade	Units
7				1/12
				1/12
				1/12
				1/12

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

	Course	Term	Grade	Units
8				1/3
9				1/3

THE INTERACTIVE QUALIFYING PROJECT (1 unit)

	Course	Term	Grade	Units
10				1/3
11				1/3
12				1/3

FREE ELECTIVES (1 unit)

	Course	Term	Grade	Units
13				1/3
14				1/3
15				1/3

MATHEMATICS AND BASIC SCIENCES (4 units)

MATHEMATICS (7/3 units) Courses with prefix: MA

	Course	Term	Grade	Units
16	MA 1021 (Calc 1)			1/3
17	MA 1022 (Calc 2)			1/3
18	MA 1023 (Calc 3)			1/3
19	MA 1024 (Calc 4)			1/3
20	MA 2051 (Diff Eqs)			1/3
21	MA 2611 (Applied Stats I)			1/3
22	MA 2621 (Probability for Applications)			1/3

PHYSICS (2/3 units) Courses with prefix: PH

	Course	Term	Grade	Units
23	PH 1110/1111 (Mechanics)			1/3
24	PH 1120/1121 (E&M)			1/3

CHEMISTRY (1/3 unit) Course with prefix: CH

	Course	Term	Grade	Units
25	CH 1010 (Chem 1) or 1020 (Chem 2)			1/3

MATH AND BASIC SCIENCE ELECTIVES (2/3 unit)

Including 1/3 unit in Thermodynamics (Note 1)

	Course	Term	Grade	Units
26				1/3
27				1/3

ARCHITECTURAL ENGINEERING COMPLEMENTS (1 unit)

	Course	Term	Grade	Units
28	AR 2114 Mod Arch in the American Era			1/3
29	AREN 3001 Arch Graphics and Design			1/3
30	AREN 3002 Architectural Design			1/3

ENGINEERING SCIENCE AND DESIGN REQUIREMENT (16/3 units)

(Notes 2, 3)

GENERAL ARCHITECTURAL ENGINEERING (2/3 unit)

	Course	Term	Grade	Units
31	AREN 2023 Intro to Arch Eng Systems			1/3
32	ES 3004 Fluids Mechanics			1/3

CONSTRUCTION/CONSTRUCTION MANAGEMENT (2/3 unit)

Select two of the following: CE 3020, 3022, 3025

	Course	Term	Grade	Units
33				1/3
34				1/3

BUILDING MECHANICAL SYSTEMS (2/3 unit)

	Course	Term	Grade	Units
35	AREN 3003 Principles of HVAC Design			1/3
36	ES 3003 or FPE 3080			1/3

BUILDING STRUCTURAL ENGINEERING (1 unit)

Select three of the following: CE 2000, 2001, 2002, 3041

	Course	Term	Grade	Units
37				1/3
38				1/3
39				

BUILDING ELECTRICAL SYSTEMS (2/3 unit)

	Course	Term	Grade	Units
40	ECE 2010 Intro to ECE			1/3
41	AREN 3004 Building Elec and Light Sys			1/3

DESIGN FOCUS ON THE MECHANICAL AREA (2/3 unit)

Select two of the following: FPE 3070, ES 3005, AREN 3006

	Course	Term	Grade	Units
42				1/3
43				1/3

MAJOR QUALIFYING PROJECT (1 unit)

(Note 4)

	Course	Term	Grade	Units
44				1/3
45				1/3
46				1/3

Note 1: Can be satisfied with CH 3510 as a Mathematics and Basic Science Elective, or ES 3001, Introduction to Thermodynamics as a Free Elective, or other approved equivalent course.

Note 2: Must include 1/3 unit in Experimentation (fulfilled by AREN 3003, ME 3901, CE 3026 or approved equivalent).

Note 3: Courses in Engineering Science and Design Chart above can be replaced by other approved equivalents.

Note 4: Must include the Capstone Design Activity.