

University of Detroit Mercy
Bachelor of Architectural Engineering
Course Requirements Flowchart (pg. 1 of 2) 2016-2017

Freshman Fall

15 credits

MTH 1234 Engr Math (placement)
ENL 1310 Acad Writing (*placement*)
ARCH 1190 Introduction Prof. Arch.
ARCH 1100 Architecture Studio I
ARCH 1110 Visual Communication
ENGR 3000 Coop Prep

Freshman Winter

17 credits

PHY 1600 Physics (*MTH 1234*)
PHY 1610 Phys Lab (*co-PHY 1600*)
ARCH 1200 Arch. Studio II (*ARCH 1100*)
ARCH 2130 Structural Behavior
PHL 1000 Intro to Philosophy
Core Objective 5D

Summer

Vacation

CHM 1050 (if nec'y)

Sophomore Fall

17 credits

ENGR 1050 Eng Graphic Design
ARCH 1300 Architectural Studio III (*ARCH 1200*)
ARCH 2160 Computer Aided Design
ARCH 2120 Architectural History I
ARCH 2190 Intro. Prof. Arch III (*ARCH 1190*)
MTH 1410 Calc I (*MTH 1234*)

Sophomore Winter

17 credits

ENGR 3120 Statics (*PHY 1600, MTH 1234*)
PHY 1620 Physics II (*PHY 1600*)
PHY 1630 Physics II Lab (*co-PHY 1620*)
ARCH 2340 Enviro. Tech. I
ARCH 1160 Graphics
MTH 1420 Calc II (*MTH 1410*)

Summer

2 credits

CTA 3010 Coop I (*ENGR 3000*)

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Junior Fall

18 credits

ENGR 3260 Mechanics of Materials
(*ENGR 3120*)
ENGR 3270 Mechanics of Mat. Lab (*co-ENGR 3260*)
CHM 1070 Chem I (*placement*)
CHM 1100 Chem Lab I (*co-CHM 1070*)
ARCH 2440 Environmental
Technology 2 (*ARCH 2340*)
MTH 2410 Calc III (*MTH 1420*)
CST 1010 Speech (*co-ENL 1310*)

Junior Winter

17 credits

CIVE 3420 Structural Theory (*ENGR 3260*)
ENGR 3150 Thermo I (*Phys I, Chem, MTH 1234*)
ENGR 3140 Fluid Mechanics (*co-Thermo*)
MTH 3720 Differential Equations
(*MTH 1420*)
CIVE 3450 Construction Materials
(*ENGR 3260*)

Summer

2 credits

CTA 3020 Coop II

Senior Fall

18 credits

CIVE 4680 Structural Design (*CIVE 3420*)
ENGR 3400 Heat Transfer (*Thermo, Fluids, MTH 3720*)
MTH 4270 Probability & Statistics (*MTH 1420*)
ARCH 2150 Construction 1
ENGR 3170 Materials Science (*Chem, Statics*)
ENGR 3110 Prof. Pract. Engr. (*CTA 3010*)

Senior Winter

14 credits

AENG 1400 Architectural
Engineering Studio (*ARCH 1300*)
Core Objective 4C
Core Objective 4B
ARCH 2250 Construction 2 (*ARCH 2150*)
ARCH 2220 Arch Hist 2 (*ARCH 2120*)

Summer

2 credits

CTA 3030 Coop III

Professional Fall

15 credits

ENGR 3200 Principles of Electrical
Circuits (*Phy 2*)
ENGR 1000 Engineering Ethics
CIVE 3480 / 3490 Geotechnical Engin
(*ENGR 3260*)
ARCH 4590 Construction Law
Technical Elective

Professional Winter

16 credits

ENGR 3240 Engineering Economics
(*MTH 4270*)
ENGR 3112 Fund. of Engr. Pract.
(*ENGR 3110*)
AENG 4100 Capstone
(Integrative) Design (*AENG 1400*)
Technical Elective
ENGR 3130 Dynamics (*Statics*)
PSY 2650 Environmental
Psychology

Junior Fall

18 credits

MTH 2410 Calc III (*MTH 1420*)
ENGR 3260 Mechanics of Materials (*ENGR 3120*)
ENGR 3270 Mechanics of Mat. Lab (*co-ENGR 3260*)
CHM 1070 Chem I (*placement*)
CHM 1100 Chem Lab I (*co-CHM 1070*)
ARCH 2150 Construction I
ARCH 2440 Environmental Technology 2 (*ARCH 2340*)

Junior Winter

17 credits

ENGR 3150 Thermo I (*Phys I, Chem, MTH 1234*)
ENGR 3140 Fluid Mechanics (*co-Thermo*)
ARCH 2250 Construction 2 (*ARCH 2150*)
ENGR 3190 Fluids Lab (*co-Fluids*)
MTH 3720 Differential Equations (*MTH 1420*)
CIVE 3450 Construction Materials (*ENGR 3260*)

Summer

2 credits

CTA 3020 Coop II

Senior Fall

14-17 credits

ENGR 3400 Heat Transfer (*Thermo, Fluids, MTH 3720*)
ENGR 3200 Principles of Electrical Circuits (*Phy 2*)
ENGR 3110 Prof. Pract. Engr. (*CTA 3010*)
Core Objective 4B
ARCH 2330 Structures I (*ARCH 2130*)
***Note: (Recommended optional course: ARCH 2140 Ecological Design)**

Senior Winter

15 credits

AENG 1400 Architectural Engineering Studio (*ARCH 1300*)
ARCH 2430 Structures II (*CIVE 3420*)
ARCH 2220 Arch Hist 2(*ARCH 2120*)
Core Objective 4C
CST 1010 Speech (*co-ENL 1310*)
AENG 3800 Refrigeration & Psychometrics

Summer

2 credits

CTA 3030 Coop III

Professional Fall

17 credits

ENGR 3170 Materials Science (*Chem, Statics*)
ARCH 4590 Construction Law
ENGR 3130 Dynamics (*Statics*)
ENGR 4820 HVAC
MTH 4270 Probability & Statistics (*MTH 1420*)
ENGR 1000 Engineering Ethics

Professional Winter

13 credits

ENGR 3240 Engineering Economics (*MTH 4270*)
ENGR 3112 Fund. of Engr. Pract. (*ENGR 3110*)
AENG 4100 Capstone / Integrative Design (*AENG 1400, CIVE 4680 or ENGR 4820*)
PSY 2650 Environmental Psychology
AENG 4350 Lighting Design (*Arch 2440*)