

University of Detroit Mercy
Bachelor of Architectural Engineering-Construction Track
Course Requirements Flowchart (pg. 1 of 2)
Fall 2021

Freshman Fall

13-17 credits

ENGR 1234 Engr Math (placement)
ENGR 1050 Engr Graphic Design
ARCH 1190 Introduction Prof. Arch.
ARCH 1100 Architecture Design I
ARCH 1110 Visual Communication
Optional Elective as needed (e.g. ENL 1300, MTH TBD, CHM 1050, UAS)

Sophomore Fall

17 credits

ARCH 2110 Viz Com 3 (*Arch 1110*)
MTH 1410 Calc I (*MTH 1234*)
ENGR 3120 Statics (*PHY 1600, MTH 1234*)
ENGR 3000 Coop Prep
PHL 1000 Intro to Philosophy **ARCH 2660:** Building Environment I
ARCH 2680 – Building Construction I
ARCH 2640 Building Structures I

Freshman Winter

17 credits

PHY 1600 Physics (*MTH 1234*)
PHY 1610 Phys Lab (*co-PHY 1600*)
ARCH 1200 Arch. Design II (*ARCH 1100*)
ENL 1310 Acad Writing (*placement*)
ARCH 1860: Environmental Principles
ARCH 1880: Construction Principles
ARCH 1840 Structural Principles
Elective (any math or science course)

Sophomore Winter

15 credits

PHY 1620 Physics II (*PHY 1600*)
PHY 1630 Physics II Lab (*co-PHY 1620*)
MTH 1420 Calc II (*MTH 1410*)
CHM 1070 Chem I (*placement*)
CHM 1100 Chem Lab I (*co-CHM 1070*)
ARCH 2860: Building Environment II
ARCH 2880 Building Construction II
ARCH 2840 Building Structures II

Summer

Summer

2 credits

CTA 3010 Coop I (*ENGR 3000*)

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Junior Fall

17 credits

ENGR 3260 Mechanics of Materials
(*ENGR 3120*)
ENGR 3270 Mechanics of Mat. Lab (*co-ENGR 3260*)
MTH 2410 Calc III (*MTH 1420*)
CST 1010 Speech (*co-ENL 1310*)
ENGR 3150 Thermo I (*Phys I, Chem, MTH 1234*)
Core D2 RELS + **IT4** (if available)

Junior Winter

13 credits

ENGR 3140 Fluid Mechanics (*co-Thermo*)
MTH 3720 Differential Equations
(*MTH 1420*)
CIVE 3450 Construction Materials
(*ENGR 3260*)
ARCH 2220 Arch His 2 (*ARCH 2120*) E3

Summer

2 credits

CTA 3020 Coop II

Senior Fall

17 credits

ENGR 3400 Heat Transfer (*Thermo, Fluids, MTH 3720*)
ENGR 3200 Principles of Electrical Circuits (*Phy 2*)
STA 2250 Statistics (*MTH 1410*)
ARCH 3680 Building Construction III
Green Technical Elective (CIVE 4872 or CIVE 4726 or CIVE as approved)
Core E2 Lit

Senior Winter

16 credits

ARCH 4840 Building Structures III
ENGR 3240 Engineering Economics
(*MTH 4270*)
AENG 4112 Fund. of Engr. Pract.
(*senior standing*)
AENG 4100 Integrative Design
(Capstone)
Core D3 + IT4 if needed (e.g. RELS 3081 or 4140)
Design Technical Elective (as approved by dept)

Summer

2 credits

CTA 3030 Coop III

Professional Fall

17 credits

ENGR 3170 Materials Science (*Chem, Statics*)
ENGR 1000 Engineering Ethics
ENGR 3110 Prof. Pract. Engr. (*CTA 3010*)
ENGR 3130 Dynamics (*Statics*)
CIVE 3480 / 3490 Geotechnical Engr
(*ENGR 3260*)
Core E1 History