

University of Detroit Mercy
Bachelor of Architectural Engineering-Structure Track
Course Requirements Flowchart (pg. 1 of 2) 2019
Total Program Credits =142 (145)+7 (Co-op) =149(152). (Sept. 2019)
(Designations in Parentheses indicate core curriculum attributes and Prereq/coreq courses)

<p>Freshman – Fall 13-16 Credits ENGR 1234 Engr Math (<i>placement</i>) ENGR 1050 Eng Graphic Design ARCH 1190 Introduction Prof. Arch. ARCH 1100 Architecture Studio I ARCH 1110 Visual Communication Optional Elective as needed (e.g. ENL 1300, MTH TBD, UAS)</p>	<p>Freshman –Winter 17 Credits PHY 1600 Physics (<i>MTH 1234</i>) (C1, IT2) PHY 1610 Phys Lab (<i>co-PHY 1600</i>) (C1, IT2) ARCH 1200 Arch. Studio II (<i>ARCH 1100</i>) ENL 1310 Acad Writing (<i>placement</i>) (A2) ARCH 1860: Environmental Principles ARCH 1880: Construction Principles ARCH 1840 Structural Principles Elective (Any math or science course)</p>	<p>Freshman- Summer Vacation</p>
<p>Sophomore-Fall 16 Credits PHL 1000 Intro to Philosophy (D1) ARCH 2110 Viz Com 3 (<i>Arch 1110</i>) MTH 1410 Calc I (<i>MTH 1234</i>) ENGR 3120 Statics (<i>PHY 1600, MTH 1234</i>) ENGR 3000 Coop Prep (IT5) ARCH 2660: Building Environment I ARCH 2680 – Building Construction I</p>	<p>Sophomore – Winter 16 Credits PHY 1620 Physics II (<i>PHY 1600</i>) PHY 1630 Physics II Lab (<i>co-PHY 1620</i>) MTH 1420 Calc II (<i>MTH 1410</i>) CHM 1070 Chem I (<i>placement</i>) (C1) CHM 1100 Chem Lab I (<i>co-CHM 1070</i>) (C1) RELS Course (Core D2) ARCH 2880 – Building Construction II</p>	<p>Sophomore-Summer 2 Credits CTA 3010 Coop I (IT5)</p>

<p>Junior – Fall 17 Credits ENGR 3260 Mechanics of Materials (<i>ENGR 3120</i>) ENGR 3270 Mechanics of Mat. Lab (<i>co-ENGR 3260</i>) ARCH 2440 Environmental Technology 2 (<i>ARCH 2340</i>) MTH 2410 Calc III (<i>MTH 1420</i>) CST 1010 Speech (<i>co-ENL 1310</i>) (A1) ENGR 3150 Thermo I (<i>Phys I, Chem, MTH 1234</i>)</p>	<p>Junior –Winter 17 Credits CIVE 3420 Structural Theory (<i>ENGR 3260</i>) ENGR 3140 Fluid Mechanics (<i>co-Thermo</i>) MTH 3720 Differential Equations (<i>MTH 1420</i>) CIVE 3450 Construction Materials (<i>ENGR 3260</i>) (IT1) RELS Course 3081 or 4140 (Core D3*,IT4)</p>	<p>Junior - Summer 2 Credits CTA 3020 CoopII (IT5)</p>
<p>Senior-Fall 15 Credits CIVE 4680 Structural Design (<i>CIVE 3420</i>) ENGR 3400 Heat Transfer (<i>Thermo, Fluids, MTH 3720</i>) STAT 2250 Probability & Statistics (<i>MTH 1410</i>)(B2) Literary Course (Core E2) ENGR 3110 Prof. Pract. Engr. (<i>CTA 3010</i>) (C2, IT3)</p>	<p>Senior – Winter 16 Credits ARCH 2220 Arch Hist 2 (<i>ARCH 2120</i>) ENGR 3240 Engineering Economics (<i>MTH 4270Stat 2250</i>) AENG 3112 Fund. of Engr. Pract. (<i>Senior Standing</i>) AENG 4100 Integrative Design (Capstone) Technical Elective ENGR 3130 Dynamics (<i>Statics</i>)</p>	<p>Senior-Summer 2 Credits CTA 3030 Coop III (IT5)</p>
<p>Professional -Fall 15 Credits ENGR 3200 Principles of Electrical Circuits (<i>Phy 2</i>) ENGR 3170 Materials Science (<i>Chem, Statics</i>) CIVE 3480 / 3490 Geotechnical Engin (<i>ENGR 3260</i>) ENGR 1000 Engineering Ethics (F1,IT6) History Course (Core E1)</p>		

*One D2 or D3 course must also fulfill Knowledge Area IT4

The table below shows how the Bachelor of Architectural Engineering program meets the new core knowledge areas.

Knowledge Area	Required courses
A1	CST 1010
A2	ENL 1310
B1	MTH 1410 or MTH 1420
B2	MTH 4270
C1	CHM 1070 or PHY 1600/1610
C2	ENGR 3110
D1	PHL 1000
D2	Any approved course with limitation*
D3	Any approved course with limitation*
E1	Any approved course
E2	Any approved course
E3	Any approved course
F1	ENGR 1000
IT1	CIVE 3450,CIVE 4500
IT2	PHY 1600/1610 or ENGR 3150
IT3	ENGR 3110
IT4	Any RELS or PHL course that meets both IT4 and (D3 or D2)
IT5	(ENGR 3000 + CTA 3010 + CTA 3020)
IT6	ENGR 1000