Academic Year 2020-21
Minor in Polymer Science and Engineering (ECMM)
Department of Chemical Engineering

Credits Required: 18

Student Name and ID Number

Introduction to Polymers Course (Select one course, 3 credits)	Credits
BE 4300 Polymeric Biomaterials (3) Preregs: BE3800	
CM/CH 4610 Introduction to Polymer Science (3) Preregs: CH1122 or (CH1160 and CH1161)	
MSE 4110 Introduction to Polymer Engineering (3) Prereq: MSE2100	

Chemistry or Engineering Courses (Select one set of classes, 3 - 6 credits)	Credits
BE 3550 Fluid Mechanics (4) Preregs: CH1150 and ENG1102 and MA2160 and PH2100	
CH 2410 Organic Chemistry I (3) Prereqs: CH1122 or (CH1160 and CH1161)	
and CH 2420 Organic Chemistry II (3) Prereqs: CH2410	
CM 3110 Transport/Unit Operations I (3)	
Preregs: CM2120 and (MA3520 or MA3521 or MA3530 or MA3560) and MA3160 and PH2100	
ENG 3200 Thermodynamics/Fluid Mech (4)	
Preregs: MA2160 and (CH1112 or (CH1150 and CH1151)) and PH2100 and ENG1102	
MEEM 3201 Intro Fluid Mechanics & Heat Transfer (4)	
Preregs: MEEM2201 and MEEM2911 and (MA3520 or MA3521 or MA3530 or MA3560)	
MSE 3110 Materials Processing II (4) Prereqs: MSE2110 and MSE3100 and (MA3520 or MA3521 or MA3530 or MA3560)	

Elective Courses (Select remaining 9 - 12 credits)	Credits
BE 3300 Biomechanics I: Statics and Dynamics (3)	
Preregs: BE2400 and (MA2321 or MA2320 or MA2330) and (MA3521 orMA3520 or MA3530)) and BL2010	
or MEEM 2150 Mechanics of Materials (3) Prereq: MEEM 2110	
BE 4335 Smart Polymers (3) Preregs: BE3350 and BE3800	
CH/CM 4620 Polymer Chemistry (3) Preregs: CH2420	
CH 4710 Biomolecular Chemistry I (3) Prereqs: CH2420	
CM 4060 UG Research in Polymer Engg (1-6) Prereqs: none	
CM/CH 4631 Polymer Sci Lab (2) Preregs: CH4610(C) or CM4610(C) or BE4300(C) or MY4600(C)	
CM 4650 Polymer Rheology (3)	
Prereqs: (CM3110 or MEEM3210 or ENG3200 or MSE3100 or CE3600) and (MA3520 or MA3521 or MA3530 or MA3560)	
CM 4655 Polymer Rheology Lab (1) Prereqs: CM4610(C) or CH4610(C) or CM4650(C) or BE4300(C) or MY4600(C)	
ENG 4510 Sustainable Futures I (3) Polymer-related term project required. Topic must be approved by minor advisor.	
ENT XXXX Enterprise Project Work (1-3) Topic must be approved by minor academic advisor	
MEEM 4170 Failure of Materials in Mech (3) Prereq: MEEM3501 or MEEM3400	
MEEM 4635 Design with Plastics (3) Prereqs: MSE2100 and MEEM2150 and (MEEM3210 and MEEM3230(C) or CM3110)	
MSE 4430 Composite Materials (3) Prereqs: MSE2100	
XX xxxx Undergraduate Research (1-6) Topic must be approved by minor academic advisor	
Total Credits Required: 18	