Michigan Technological University
Minor in Sustainable Biomaterials
Program Code FSBM, Academic Year 2024-25
College of Forest Resources and Environmental Science
Total Credits Required: 18
This minor is not open to students majoring in Sustainable Bioproducts.

Required Course: 6 credits
- FW 3097 Forest Biomaterials (3) Prereqs: none
- ENG 4515 Introduction to Sustainability and Resilience (3) Prereqs: none

Core Elective Course: Choose one
- CEE 4233 Structural Timber Design (3) Prereqs: CEE3202
- EC 4640 Natural Resource Economics (3) Prereqs: (EC2001 or EC3002 or FW4080) and UN1015 and UN1025
- FW 1035 Wood Anatomy and Properties (3) Prereqs: none
- FW 3313 Sustainability Science, Policy, and Assessment (3) Prereqs: UN1015 and UN1025

Elective Courses: Choose 9 credits, not already completed
- ART 2190 Art and Nature (3) Prereqs: none
- CEE 4233 Structural Timber Design (3) Prereqs: CEE3202
- CEE 4506 Application of Sustainability Principles to Engineering Practice (3) Prereqs: CEE3501 or CEE3503
- CEE 4993 Engineering with Developing Communities (2) Prereqs: CEE 3200
- CH 3540 Biophysical Chemistry (3) Prereqs: (BL1020 or BL1040) and CH1122 or (CH1160 and CH1161) and MA2160 and PH2200
- CH 3541 Biophysical Chemistry Laboratory (2) Prereqs: (CH3540)
- CH/CM 4610 Introduction to Polymer Science (3) Prereqs: CH1122 or (CH1160 and CH1161)
- CM 3979 Alternative Energy Technologies and Processes (1) Prereqs: CH1112 or (CH1150 and CH1151) and (MA1160 or MA1161)
- CM 4080 Undergraduate Research in Biofuels Engineering (1-3) Prereqs: none
- CMG 3250 Structural Analysis and Design (3) Prereqs: CMG 2120 or MET 2120
- CMG 4800 Sustainable Construction (3) Must have Junior or Senior standing
- EC/GE 4620 Energy Economics (3) Prereqs: EC2001 and UN1015 and UN1025
- EC 4640 Natural Resource Economics (3) Prereqs: (EC2001 or EC3002 or FW4080) and UN1015 and UN1025
- EC 4650 Environmental Economics (3) Prereqs: (EC2001 or EC3002) and UN1015 and UN1025
- ENG 3505 Modeling Laboratory for Sustainable Systems (1) Prereqs: ENG150 and ENG250 and ENG4510(c)
- ENG 4505 Systems Analysis, Modeling, and Design (3) Prereqs: ENG350 and ENG4510
- FW 3010 Practice of Silviculture (4) Prereqs: FW 2010 and FW2051
- FW 3098 Adding Value to Biomaterials (2) Prereqs: none
- FW 3110 Natural Resource Policy (3) Prereqs: none
- FW 3116 Ethnobotany (3) Prereqs: UN1015 and UN1025
- FW 3150 Timber Harvesting (2) Prereqs: FW2051
- FW 3766 Maple Syrup Management and Culture (3) Prereqs: UN1015 and UN1025
- FW 4080 Forest Economics & Finance (3) Prereqs: none
- MSE 4777 Open-Source 3-D Printing (3) Prereqs: none
- SS 3300 Environmental Problems (3) Prereqs: UN1015 and UN1025
- SS 3630 Environmental Policy and Politics (3) Prereqs: UN1015 and UN1025
- SS 4390 Seminar in Sustainability Issues (3) Prereqs: UN1015 and UN1025