

## Michigan Technological University

### Minor in Medicinal Chemistry

Program Code SMCM, Academic Year 2023-24

Department of Chemistry

Total Credits Required: 22 to 28

#### Required Courses: 19 to 24 credits

- CH 4220 Bioanalytical Chemistry (3) and CH 4221 Bioanalytical Chemistry Lab (2) *Prereqs: CH1122 or (CH1160 and CH 1161) and (CH3510 and CH3511)*
  - **or** CH 2210 Quantitative Analysis (3) and CH 2211 Quantitative Analysis Lab (2) *Prereqs: CH1122 or (CH1160 and CH1161) and CH 4210 Instrumental Analysis (3) and CH 4211 Instrumental Analysis Lab (2) Prereqs: CH2212 or (CH2210 and CH2211) and CH3510 and (CH 3511 or CH 3530)*
- CH 3510 Physical Chemistry I - Thermodynamics, Equilibrium and Kinetics (3) *Prereqs: CH1122 or (CH1160 and CH1161) and MA2160 and (PH2200 C or PH2260 C)*
- CH 3511 Physical Chemistry Lab I (2) *Prereqs: CH3511 C*
- CH 4110 Medicinal Chemistry: Mechanism of Drug Action (3) *Prereqs: CH2410 or CH2430*
- CH 4120 Medicinal Chemistry: Drug Design (3) *Prereqs: CH2420 or CH2440*
- CH 4710 Biomolecular Chemistry I (3) *Prereqs: CH2420 or CH2440*

#### Elective Courses: 3 to 4 credits

- CH 4140 Pharmaceutical Analysis (3) *Prereqs: CH2410 or CH2430*
- CH 4720 Biomolecular Chemistry II (3) *Prereqs: BL3020 or CH4710*
- MA 2720 Statistical Methods (4) *Prereqs: MA1020 or MA1030*
  - **or** MA 3710 Engineering Statistics (3) *Prereqs: MA2160*
- CH 4990 Undergraduate Research in Chemistry (3) *Undergraduate research experiences will be permitted in the minor as long as the topics are in the area of pharmaceutical chemistry.*