# FORENSIC CHEMISTRY

## Bachelor of Science - Chemistry; Forensic Chemistry Concentration

### College Humanities & Sciences

**Degree Specific Credits:** 100

**Required Cumulative GPA:** 2.0

### Catalog Year: 2017-2018
## General Education Requirements

Information regarding these requirements can be found in the General Education Section (http://catalog.umt.edu/academics/general-education-requirements) of the catalog.

## Summary

| | | |
|---|---|---|
| Lower Core Courses | | 52 |
| General Chemistry | | |
| Organic Chemistry | | |
| Biochemistry and Biology | | |
| Physics | | |
| Mathematics | | |
| Forensic Science and Criminal Justice | | |
| Upper Division Core Courses | | 28-29 |
| Analytical Chemistry | | |
| Physical Chemistry | | |
| Inorganic Chemistry | | |
| Biochemistry | | |
| Experiential Learning | | |
| Seminar | | |
| Statistics | | |
| Advanced Electives | | 11 |
| Expressive Art - Public Speaking | | 3 |
| Social Science - Criminology | | 3 |
| Ethics | | 3 |
| Total Hours | | 100-101 |

## Lower Core Courses

**Rule:** All courses in all subcategories listed are required

### General Chemistry

| | | |
|---|---|---|
| CHMY 141N & CHMY 142N | College Chemistry I and College Chemistry I Lab | 5 |
| CHMY 143N & CHMY 144N | College Chemistry II and College Chemistry II Lab | 5 |
| Total Hours | | 10 |

Minimum Required Grade: C-

### Organic Chemistry

| | | |
|---|---|---|
| CHMY 221 | Organic Chemistry I | 3 |
| CHMY 222 | Organic Chemistry I Lab | 2 |
| CHMY 223 | Organic Chemistry II | 3 |
| CHMY 224 | Organic Chemistry II Lab | 2 |
| Total Hours | | 10 |

Minimum Required Grade: C-

### Biochemistry and Biology

| | | |
|---|---|---|
| BCH 110 | Intro Biology for Biochemists | 3 |
| BCH 111 | Intro Biol for Biochemists Lab | 1 |
| BIOB 260 | Cellular and Molecular Biology | 4 |
| Total Hours | | 8 |

Minimum Required Grade: C-

### Physics

| | | |
|---|---|---|
| PHSX 215N | Fund of Physics w/Calc I | 4 |
| PHSX 216N | Physics Laboratory I w/Calc | 1 |
| PHSX 217N | Fund of Physics w/Calc II | 4 |
| PHSX 218N | Physics Laboratory II w/Calc | 1 |
| Total Hours | | 10 |

Minimum Required Grade: C-

### Mathematics

| | | |
|---|---|---|
| M 171 | Calculus I | 4 |
| M 172 | Calculus II | 4 |
| Total Hours | | 8 |

Minimum Required Grade: C-

### Forensic Science and Criminal Justice

| | | |
|---|---|---|
| CJUS 125N | Fund of Forensic Science | 3 |
| SOCI 221 | Criminal Justice System | 3 |
| Total Hours | | 6 |

Minimum Required Grade: C-

## Upper Core Courses

**Rule:** All subcategories must be completed

### Analytical Chemistry
**Rule:** Complete all of the following courses

| | | |
|---|---|---|
| CHMY 311 | Analytical Chem-Quant Analysis | 4 |
| CHMY 421 | Advanced Instrument Analysis | 4 |
| Total Hours | | 8 |

Minimum Required Grade: C-

### Physical Chemistry
**Rule:** Choose 1 of the listed courses

| | | |
|---|---|---|
| CHMY 360 | Applied Physical Chemistry | 3-4 |
| or CHMY 373 | Phys Chem-Kntcs & Thrmdynmcs | |
| Total Hours | | 3-4 |

Minimum Required Grade: C-

## Inorganic Chemistry
**Rule:** Complete the following course

| | | |
|---|---|---|
| CHMY 401 | Advanced Inorganic Chemistry | 3 |
| Total Hours | | 3 |

Minimum Required Grade: C-

## Biochemistry
**Rule:** Complete the following courses

| | | |
|---|---|---|
| BCH 480 | Advanced Biochemistry I | 3 |
| BCH 482 | Advanced Biochemistry II | 3 |
| Total Hours | | 6 |

Minimum Required Grade: C-

## Experiential Learning
**Rule:** Choose 1 of the listed courses for 3 credits

| | | |
|---|---|---|
| CHMY 488 | Forensic Research | 3 |
| or CHMY 498 | Internship/Cooperative Educ | |
| Total Hours | | 3 |

Minimum Required Grade: C-

## Seminar
**Rule:** Complete the following course

| | | |
|---|---|---|
| CHMY 489 | Forensic Research Seminar | 1 |
| Total Hours | | 1 |

Minimum Required Grade: C-

## Statistics
**Rule:** Complete the following courses

| | | |
|---|---|---|
| STAT 451 | Statistical Methods I | 3 |
| STAT 457 | Computer Data Analysis I | 1 |
| Total Hours | | 4 |

Minimum Required Grade: C-

# Advanced Electives
**Rule:** Choose 11 credits from the listed courses. 8 of the credits must be numbered 300 or above

| | | |
|---|---|---|
| Select 11 credits from the following: | | 11 |
| BIOB 440 | Biological Electron Microscopy | |
| CHMY 465 | Organic Spectroscopy | |
| CHMY 466 | FT-NMR Optn for Undrgrd Rsrch | |
| CHMY 542 | Separation Science | |
| CJUS 488 | Forensic Science the Crime Lab and Beyond | |
| PHAR 110N | Use & Abuse of Drugs | |
| Total Hours | | 11 |

Minimum Required Grade: C-

# Expressive Art - Public Speaking
**Rule:** Complete the following course

| | | |
|---|---|---|
| COMX 111A | Intro to Public Speaking | 3 |
| Total Hours | | 3 |

Minimum Required Grade: C-

# Social Science - Criminology
**Rule:** Complete the following course

| | | |
|---|---|---|
| SOCI 211S | Introduction to Criminology | 3 |
| Total Hours | | 3 |

Minimum Required Grade: C-

# Ethics
**Rule:** Complete the following course

| | | |
|---|---|---|
| CHMY 305E | Ethics, Literature and Writing in the Sciences | 3 |
| Total Hours | | 3 |

Minimum Required Grade: C-