

# Medicinal Chemistry — Graduate Certificate

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This graduate certificate enables students to obtain training and to become credentialed in the field of medicinal chemistry. This field encompasses the study of drug mechanisms of action and biodisposition (absorption, distribution, metabolism and elimination), the design and synthesis of bioactive molecules, the detection and quantification of bioactive molecules, and the chemistry of natural products. Thus, the knowledge base and credentialing available through this program will enhance the ability of students to obtain employment, particularly, but not exclusively, in the pharmaceutical industry.

| Code               | Title                                    | Hours     |
|--------------------|--|-----------|
| CHEM 7200          | Physical Organic Chemistry               | 3         |
| CHEM 7220          | Organic Reactions                        | 3         |
| DRDD 7230          | Advanced Medicinal Chemistry I           | 3         |
| DRDD 7240          | Advanced Medicinal Chemistry II          | 3         |
| Elective Courses   |  | 3         |
| BCHE 7230          | Biochemistry of Macromolecules           |           |
| CHEM 7260          | Special Topics in Organic Chemistry      |           |
| CHEM 7530          | Advances in Bioanalytical Chemistry      |           |
| CHEM 7750          | Formal Presentations in Modern Chemistry |           |
| DRDD 7250          | Drug Action and Design                   |           |
| DRDD 7260          | Separation Science                       |           |
| DRDD 7270          | Mass Spectrometry of Organic Compounds   |           |
| DRDD 7600          | Heterocyclic Medicinal Chemistry         |           |
| <b>Total Hours</b> |  | <b>15</b> |