Pharmacy, Ph.D.

Medicinal and Natural Products Chemistry

The Doctor of Philosophy in pharmacy with a subprogram in medicinal and natural products chemistry requires 72 s.h. of credit. Students complete 24 s.h. of didactic coursework, of which a minimum of 15 s.h. must be divisional courses. The remaining hours may be fulfilled by selecting from interdisciplinary elective courses. Students must maintain a cumulative g.p.a. of at least 3.00.

The Ph.D. is based upon interdisciplinary study in courses offered by the biochemistry, medicinal and natural products chemistry, pharmacology, and toxicology disciplines. Students complete the majority of their coursework during the first two years of study while simultaneously gaining research experience in the laboratory. The degree is granted only after students complete and defend an original research-based thesis project, typically in five years.

Entering students who do not have basic knowledge in all subjects are advised to complete one or more prerequisite electives during their first and second years.

The Doctor of Philosophy in pharmacy with a subprogram in medicinal and natural products chemistry requires the following work.

### Required Coursework

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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</thead>
<tbody>
<tr>
<td>PHAR:5510</td>
<td>Pharmaceutical Sciences and Experimental Therapeutics Seminar</td>
<td>1-2</td>
</tr>
<tr>
<td>PHAR:5515</td>
<td>Perspectives in MNPC Research (taken every fall semester)</td>
<td>2</td>
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<tr>
<td>PHAR:5520</td>
<td>Medicinal and Natural Products Chemistry Research (taken every fall and spring semester)</td>
<td>arr.</td>
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<tr>
<td>BMED:7270</td>
<td>Scholarly Integrity/ Responsible Conduct of Research I (taken in second year)</td>
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<tr>
<td>BMED:7271</td>
<td>Scholarly Integrity/ Responsible Conduct of Research II (taken in second year)</td>
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<tr>
<td>CCP:3169</td>
<td>Internship in Graduate Studies (taken summer of third year)</td>
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### Interdisciplinary Electives

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>3-6 s.h., taken every fall and spring semester</td>
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### Divisional Courses

<table>
<thead>
<tr>
<th>Code</th>
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<th>Hours</th>
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<tbody>
<tr>
<td></td>
<td>3-6 s.h., taken every fall and spring, from these:</td>
<td></td>
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