PhD - Drug Development Sciences (replaces "Pharmacology" track)

<table>
<thead>
<tr>
<th>Required Didactic &amp; Research Courses</th>
<th>Course Number</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethics in Research</td>
<td>GNTD7003</td>
<td>1</td>
</tr>
<tr>
<td>Principles of Pharmaceutical Sciences</td>
<td>PHID7010</td>
<td>3</td>
</tr>
<tr>
<td>Molecular and Cellular Biology</td>
<td>GNTD7001</td>
<td>3</td>
</tr>
<tr>
<td>Biochemistry and Cellular Signaling</td>
<td>GNTD7002</td>
<td>3</td>
</tr>
<tr>
<td>Statistics (choose one of the following courses)</td>
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<td>3</td>
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<tr>
<td>Statistical Principles in Clinical Research (PHDD8060, 3 cr hrs)</td>
<td></td>
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<tr>
<td>Introduction to Biostatistics (BE7022, 3 cr hrs)</td>
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</tr>
<tr>
<td>Journal Club in Pharmaceutical Sciences</td>
<td>PBIO7004</td>
<td>4</td>
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<tr>
<td>Seminar in Pharmaceutical Sciences</td>
<td>PHID7005</td>
<td>4</td>
</tr>
<tr>
<td>Research in Pharmaceutical Sciences</td>
<td>PHID7001</td>
<td>12</td>
</tr>
<tr>
<td>Elective Courses* (see examples below)</td>
<td></td>
<td>12</td>
</tr>
</tbody>
</table>

**Required Courses** 45

Supplemental Elective Courses* and/or Research in Pharmaceutical Sciences 15

| PhD Dissertation Research | PHID9001 | 30 |

**TOTAL 90**

*Examples of Elective Courses*

- Research in Pharmaceutical Sciences (PHID7001, variable 1-12 cr hrs)
- Advanced Pharmacetics II (PCEU7030, 3 cr hrs)
- Global Regulatory & Development Strategies of Drugs/Medical Devices (PHDD8010, 3 cr hrs)
- Phase I/II Clinical Trial Design & Research (PHDD8050, 3 cr hrs)
- Phase III/IV Clinical Trial Design & Research (PHDD8070, 3 cr hrs)
- Pharmaceutical Economics & Management (PHDD8080, 3 cr hrs)
- Introduction to Functional Genomics (GNTD8001C, 3 cr hrs)
- Cancer Biology and Therapeutics (CB8080, 4 cr hrs)
- Scientific Writing (CB9022, 2 cr hrs)