MCP Curriculum Requirements

YEAR 1

During the first year, students in the MCP program must take four (4) core courses and at least two (2) elective courses from the list below. Elective courses not on the below list must be approved by the Graduate Advisor and may require a Graduate Division General Petition.

Required Courses
PHARM 254 – Introduction to Pharmacology
PHRMSCI 223 – Biological Macromolecules
PHRMSCI 250A/B/C – Current Topics in Pharmaceutical Sciences
PHRMSCI 277 – Medicinal Chemistry
PHRMSCI 280 – Lab Rotation/Research (or equivalent in the respective faculty’s department – CHEM, PHARM, or MB&B)
PHRMSCI 298 – Research Seminar

Elective Courses (select at least two)

Chemistry Department
CHEM 201 – Organic Reaction Mechanisms
CHEM 202 – Organic Reaction Mechanisms II
CHEM 203 – Organic Spectroscopy
CHEM 204 – Organic Synthesis I
CHEM 205 – Organic Synthesis II
CHEM 218 – Metallobiochemistry
CHEM 219 – Chemical Biology
CHEM 221A – Fundamentals of Molecular Biophysics

Molecular Biology & Biochemistry Department
MOLBIO 203 – Nucleic Acid Structure & Function
MOLBIO 204 – Protein Structure & Function
MOLBIO 206 – Regulation of Gene Expression
MOLBIO 211 – Biomolecular Structure Methods
BIOCHEM 212 – Signal Transduction & Growth Control

Pharmaceutical Sciences Department
PHRMSCI 274 – Nanomedicine
PHRMSCI 263 – Pharmacogenomics and Epigenetics
PHRMSCI 275 – Discovery Computing Techniques
PHRMSCI 278 – Emerging Technologies in Pharmaceutical Sciences & Medicine

Pharmacology Department (can be substituted for the PHARM 254 requirement)
PHARM 252 – Neurotransmitter and Drug Receptors
PHARM 255 – Chemical Transmission
MCP Curriculum Requirements Cont.

Additional Courses
PHARM 257 – Ethics in Research or equivalent (Responsible Conduct of Research training – [UC Learning Center](#) online modules – once completed, send the SAO the certificate of completion)
PHRMSCLI 399 – University Teaching (or equivalent in the respective department for which you are TAing) – You must enroll in the course every quarter you are employed as a TA.

Advancement Exam
Completion of the PHRMSCLI 250A/B/C course series, including the final paper, fulfills your advancement examination requirement.

Sample Study List

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>CORE</td>
<td>PHRMSCLI 223</td>
<td>PHRMSCLI 277</td>
<td>PHRMSCLI 250C</td>
</tr>
<tr>
<td></td>
<td>PHRMSCLI 250A</td>
<td>PHRMSCLI 250B</td>
<td>PHRMSCLI 298</td>
</tr>
<tr>
<td></td>
<td>PHARM 254</td>
<td>PHRMSCLI 298</td>
<td>PHRMSCLI 280</td>
</tr>
<tr>
<td></td>
<td>PHRMSCLI 298</td>
<td>PHRMSCLI 280</td>
<td>PHRMSCLI 399</td>
</tr>
<tr>
<td>PHRMSCLI</td>
<td>PHRMSCLI 274</td>
<td>PHRMSCLI 263</td>
<td>PHRMSCLI 278</td>
</tr>
<tr>
<td>Electives</td>
<td>PHRMSCLI 250A</td>
<td>PHRMSCLI 250B</td>
<td>PHRMSCLI 298</td>
</tr>
<tr>
<td>CHEM Electives</td>
<td>CHEM 201</td>
<td>CHEM 203</td>
<td>CHEM 202</td>
</tr>
<tr>
<td></td>
<td>CHEM 204</td>
<td>CHEM 204</td>
<td>CHEM 205</td>
</tr>
<tr>
<td></td>
<td>CHEM 219</td>
<td>CHEM 219</td>
<td>CHEM 218</td>
</tr>
<tr>
<td>MB&amp;B Electives</td>
<td>MOLBIO 211</td>
<td>MOLBIO 203</td>
<td>CHEM 221A</td>
</tr>
<tr>
<td>PHAR Electives</td>
<td>PHARM 252</td>
<td>PHARM 252</td>
<td>PHARM 255</td>
</tr>
</tbody>
</table>

You must transfer to a home department by the end of Spring Quarter and completed the following forms:
• [Department/Research Advisor Choice Form](#)
• [Change of Major](#)

YEARS 2-5

See the handbook for the PhD program into which you are transferring for degree requirements beyond the first year.