**Medicinal and Biological Chemistry Plan of Study for Upper Division (Professional Division)**

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| --- | --- | --- | --- | --- | --- |
|  | Subject  | Course NBR   |   Course Description | Semester Hours   | Pre- and Co-requisites |
| **Fifth Term** |  |  | Fall Semester |  |  |
|   | MBC | 3310-002 | Medicinal Chemistry I | 2 |   |
|   | MBC  | 3330 | Techniques in Pharmaceutical and Medicinal Chemistry | 2 |   |
|   | MBC  | 3340 | Techniques in Pharmaceutical and Medicinal Chemistry Laboratory | 1 | Coreq MBC 3330 |
|   | PHCL | 3700 | Pharmacology I | 3 |   |
|   | MBC | 3550-002 | Physiological Chemistry I | 3 |   |
|   | MBC  |  3880 | Synthetic Medicinal Chemistry Laboratory1 | 3 |   |
|   |   |   | Major Elective 2 | 2 |   |
|  |   |   |   | **16** |   |
| **Sixth Term** |   |   |  Spring Semester |   |   |
|   | MBC | 3100 | Practices in Pharmaceutical Research | 1 |   |
|   | MBC | 3320 | Medicinal Chemistry II | 3 | MBC 3310, MBC 3550 |
|   | MBC | 3560 | Physiological Chemistry II | 3 | MBC 3550 |
|   | PHCL | 3730 | BSPS Pharmacology II | 3 | PHCL 3700 |
|   |   |   | Major Elective (Recommend MBC 4870, Synthetic Medicinal Chemistry Lab II 2) | 2 - 4 |  MBC 3880 |
|   |  MBC |  3860-005 | Major Elective: Microbiology for Pharmaceutical Professionals or other professional elective course | 2 |   |
|   |   |   |   | **14 - 16** |   |
| **Seventh Term** |   |   |  Fall Semester |   |   |
|   | MBC | 4710 | Targeted Drug Design3 | 3 | MBC 3320 |
|   |   |   | Major Elective(s)  | 1-10 |   |
|   |   |   | MBC Laboratory (Recommend MBC 4950)1 or Major Elective | 3 |   |
|   |   |   |   | **7-16** |   |
| **Eighth Term** |   |   |  Spring Semester |   |   |
|   | MBC | 4780 | Internship in Medicinal & Biological Chemistry4 | 6 - 12 | MBC 3320, MBC 3560 |
|   |   |   |   | **6-12** |   |
|  |  |  |  |  |  |

All requirements listed above must be fulfilled with a minimum of 120 semester hours required for graduation. MATH 2600/2640 Statistics is a requirement for graduation and must be added if it was not taken previously.

1The MBC major requires that 3 semester hours of laboratory instruction be taken at the 3000 level or higher in a course taught by the MBC Department. Completion of 3 semester hours of any of the following courses will satisfy this requirement: MBC 3880, MBC 4850, MBC 4870, MBC 4900, MBC 4950, or MBC 4960.

2To be chosen from the MBC electives list. A total of 20 semester hours of professional elective courses are required for graduation.

3MBC 4720, Advances in Drug Design, when offered, will also fulfill the requirement.

4The internship can alternatively be taken during the summer semester following term 6. If MBC 4780 take over the summer, it will be possible to complete the program requirements and to graduate after the next semester in December.