

## Medicinal and Biological Chemistry Professional Division Curriculum

All requirements listed below must be fulfilled with a minimum of 126 semester hours required for graduation.

### P1 Year

#### *First Semester*

MBC	3310	Medicinal Chemistry I .....	2
MBC	3330	Techniques in Pharmaceutical and Medicinal Chemistry .....	2
MBC	3340	Techniques in Pharmaceutical and Medicinal Chemistry Laboratory .....	1
PHCL	3700	Pharmacology I .....	3
MBC	3550	Physiological Chemistry I.....	3
MBC	Laboratory (Recommend MBC 3880) <sup>1</sup> .....		3
	Major Elective <sup>2</sup>	.....	2

#### *Second Semester*

MBC	3100	Practices in Pharmaceutical ResearchI	
MBC	3320	Medicinal Chemistry II .....	2
MBC	3560	Physiological Chemistry II.....	3
PHCL	3730	BSPS Pharmacology II.....	3
MBC	Laboratory (Recommend MBC 3880) <sup>1</sup> .....		3
	Major Elective (Recommend MBC 4870) <sup>2</sup> .....		1-5

### P2 Year

#### *First Semester*

MBC	4710	Targeted Drug Design <sup>3</sup> .....	3
	Major Elective (Recommend MBC 4850) <sup>2</sup> .....		1-10
	MBC Laboratory (Recommend MBC 4880) <sup>1</sup> or Major Elective <sup>3</sup>		

#### *Second Semester*

MBC	4780	Internship in Med. & Biol. Chem <sup>4</sup> 6-12	
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<sup>1</sup>The 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 4880, MBC 4900, MBC 4950, or MBC 4960. MBC 3850 Microbiology & Immunology Lab, 1 semester hour credit does not satisfy this requirement **unless** it is taken with an additional 2 credit hours of any of the other approved laboratories listed above.

<sup>2</sup>To be chosen from the MBC electives list.

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

<sup>4</sup>Internship can be taken in the summer before the P2 year. The internship sites require an average 3.0 GPA in all chemistry related courses (MBC 3310, MBC 3320, MBC 3550 and MBC 3560).

## MBC Electives

A total of 20 hours of course work must be selected from the list of elective courses below. Other electives require approval of the MBC adviser.

BIOL	3010	Molecular Genetics .....	3
BIOL	3020	Molecular Genetics - Lab.....	2
BIOL	3030	Cell Biology .....	3
BIOL	3040	Cell Biology Lab.....	2
BIOL	4010	Molecular Biology .....	3
BIOL	4030	Microbiology.....	3
BIOL	4050	Immunology.....	3
BIOL	4110	Human Genetics.....	3

BIOL	4330	Parasitology.....	3
CHEM	3310	Analytical Chemistry .....	2
CHEM	3360	Analytical Chemistry Lab .....	2
CHEM	3560	Biochemistry Lab.....	1
CHEM	3610	Inorganic Chemistry.....	3
CHEM	3710	Physical Chemistry for the Biosciences I	3
CHEM	3720	Physical Chemistry for the Biosciences II	3
CHEM	3730	Physical Chemistry I.....	3
CHEM	3740	Physical Chemistry II.....	3
CHEM	3860	Advanced Laboratory I .....	3
CHEM	3870	Advanced Laboratory II.....	3
CHEM	4300	Instrumental Analysis .....	2
CHEM	4620	Inorganic Chemistry II.....	3
CHEM	4880	Advanced Laboratory III.....	2
CHEM	4980	Advanced Organic Chemistry.....	2
EEES	4150	Evolution.....	3
EEES	4300	Field Botany.....	3
EEES	4450	Hazardous Waste Management.....	3
EEES	4510	Environmental Microbiology .....	3
EEES	4800	Plant Physiological Ecology .....	4
MATH	2600 or 2640	..... Statistics	3
MBC	3800	Microbiology & Immunology .....	3
MBC	3850	Microbiology & Immunology Laboratory	1
MBC	3880	Synthetic Medicinal Chemistry Laboratory	3
MBC	4300	Chemotherapy and Immunotherapy ...	2
MBC	4470	Advanced Immunotherapeutics.....	2
MBC	4720	Advances in Drug Design .....	3
MBC	4850	Adv Immunology & Tissue Culture Lab	1-10
MBC	4870	Biomedical Chem Lab .....	1-10
MBC	4880	Medicinal Biotech Lab.....	1-10
MBC	4900	Hrs Seminar in Medic/Bio Chem..	1-3
MBC	4910	Problems in Bio-medicinal Chem ...	1-3
MBC	4950	Research in Medicinal Chemistry ...	3-8
MBC	4950	Research in Medicinal Chemistry –Honors	3-8
MBC	4960	Hrs Thesis in Medicinal Chem.....	2-5
MBC	4980	Special Topics in Drug Design .....	1-4
PHCL	4140	Interpretation of Pharmaceutical Data	3
PHCL	4150	Biopharmaceutics/Pharmacokinetics .	4
PHCL	4630	Cancer chemotherapy.....	3
PHCL	4810	BSPS Pharmacology III .....	3
PHCL	4820	BSPS Pharmacology IV .....	3
PHCL	4730	Toxicology I.....	3
PHCL	4750	Toxicology II .....	3
PHCL	4760	Toxicokinetics.....	3
PHCL	4800	Human-Xenobiotic Interactions .....	3