

UMKC School of Pharmacy
Bachelor of Science in Pharmaceutical Sciences
Curriculum (updated 3/07)

Semester One

English 110 or 110A English I	3.0
Biology 108 General Biology I	3.0
Biology 108L General Biology I Lab	1.0
Chemistry 211/211L General Chemistry I	5.0
General Elective (Speech)	<u>3.0</u>
	15.0

Semester Two

English 225 or 225A English II	3.0
Biology 109 General Biology II	3.0
Biology 109L General Biology II Lab	1.0
Chemistry 212/212LR General Chemistry II	5.0
General Electives	<u>6.0</u>
	18.0

Semester Three

Math 210 Calculus I	4.0
Chemistry 321 Organic Chemistry	3.0
Chemistry 321L Organic Chem I Lab	1.0
General Elective (U.S. Constitution)	3.0
General Elective	3.0
LSBiology 202 Cell Biology	<u>3.0</u>
	17.0

Semester Four

Chemistry 322LR Organic Chemistry II Lab	1.0
Chemistry 322R Organic Chemistry II	3.0
General Electives	3.0
Pharmacy 7110 Pharmacy Calculations	2.0
** Statistics I	3.0
Physics 210 Physics w/ Lab	<u>4.0</u>
	16.0

Semester Five

Pharmacy 7341 Medicinal Chemistry I	3.0
LSBiochem 365 Human Biochemistry I	3.0
LSPhys 399 Pharmacy Physiology I	3.0
General Electives	<u>6.0</u>
	15.0

Semester Six

● General Elective [Writing Intensive]	3.0
LSBiochem 366 Human Biochemistry II	3.0
LSPhys 400 Pharmacy Physiology II	3.0
Chemistry 341 Analytical Chemistry	4.0
Pharmacy 7344 Medicinal Chemistry II	<u>3.0</u>
	16.0

Semester Seven

Pharmacy 7202 Pharmaceutics I	4.0
Pharmacy 7361 Pharmacology I	4.0
Chemistry 345R Instrumental Analysis	3.0
●●Pharmacy Capstone Course	2.0
***400/500 level Science Elective	<u>3.0</u>
	16.0

Semester Eight

Pharmacy 7203/7203L Pharmaceutics II	4.0
Pharmacy 7362 Pharmacology II	5.0
Pharmacy 7463 Toxicology	2.0
●●Pharmacy Capstone Course	2.0
Pharmacy 7303 Pharmacokinetics & Biopharm	<u>4.0</u>
	17.0

General Education and other requirements for the BS in Pharmaceutical Sciences

● All BS in Pharmaceutical Science students must successfully pass the Written English Proficiency Test (WEPT) prior to graduation and as a prerequisite to the Writing Intensive (WI) elective. General CLEP credits may not be used to fulfill the mathematics, physics, or chemistry requirements.

Students must complete the following general education requirements: English Composition I & II; 3 credit hours of fine arts {Art, Art History, Music/Conservatory, Theatre} and 3 credit hours of humanities course work {Foreign Language, Philosophy, additional English or Communication Studies}; 6 credit hours of social and behavioral sciences { Sociology, Geography, Criminal Justice, Psychology, Economics, Political Science} course work; a course covering the U.S. Constitution {American History or American Government}; a 3.0 credit hour public speaking course; 6 credit hours of higher order thinking courses {Western Civilization, Ancient History, Philosophy or Logic, Cultural Anthropology}; and one, 3.0 credit hour writing intensive course.

Students are encouraged to work with their faculty advisor in planning their capstone course work. Students may choose to complete dual and/or double BS degrees in a related area. Students are also encouraged to seek out internship opportunities. Internship opportunities are usually a paid experience where a student can gain valuable, hands-on knowledge related to their program of study {note: students may not obtain course credit through internships}.

**The statistics course can be satisfied by successful completion of Education 5505 or Statistics 235.

***This optional elective brings the credit hours to 130. This elective is not necessary to achieve the minimum credit hours for a UMKC baccalaureate degree, but it allows the student to select a 400 or 500 level course in Chemistry, Biology, or Pharmacy.

●●BS Pharmaceutical Science Senior Capstone Options

BSPS students must choose from the following options to satisfy their 4.0 credit hour capstone during the senior year.

Option A – You may take one of the business courses as listed below. The business options are 3.0 credit hour courses. In order to make up the fourth hour, students will take a 1.0 credit hour class offered through School of Graduate Studies on Special Topics in the Responsible Conduct of Research or complete a 1.0 credit hour Directed Individual Study course with a pharmacy faculty member.

Option B – Take four separate 1 credit hour graduate level research emphasis courses as available in either the Fall Semester or Spring Semesters (See Below).

Option C – Enroll in a Pharmacy 7497 independent research project (work with one faculty member for all 4.0 credit hours within the amount of time per semester determined by the student and faculty. The Pharmacy 7497 course must be approved by the Committee On Admissions and Academic Requirements. Forms available on the School of Pharmacy web site under Current Students under Forms.

Option D – Enroll in two separate 1.0 credit hour graduate level research emphasis courses as available and enroll in one, 2.0 credit hour Pharmacy 7497 independent research project (work with one faculty member for 2 credit hours).

Business Course Offerings:

Econ 202	Introduction to Economics II
HA 5571	Financial Mgmt Issues in Health & Human Services
HA 5575	Long-Term Care Policy Administration
HA 5576	Managed Care Institutions
HA 5577	Healthcare Service Administrations & the Health Professions
ENT 5525	Entrepreneurship Managing Creativity & Innovation
ENT 5535	Small Business Management & Entrepreneurship
Pharm 7465	Economics of Health and Medicine

School of Graduate Studies Offerings [Offered over 5 week sessions] worth 1.0 credit each:

Fall Semester:

SGS 5590A	ST in the Responsible Conduct of Research: An Introductory Overview
SGS 5590B	ST in the Responsible Conduct of Research: Human Subjects Research
SGS 5590C	ST in the Responsible Conduct of Research: Research Involving Animals

Spring Semester:

SGS 5590D	ST in the Responsible Conduct of Research: Threats to Research Integrity
SGS 5590E	ST in the Responsible Conduct of Research: Conducting Research
SGS 5590F	ST in the Responsible Conduct of Research: Reporting/Reviewing Research