

GRADUATE CERTIFICATE IN PHARMACEUTICAL SCIENCES

Applications to this program are pending Missouri Department of Higher Education (MDHE) approval, anticipated June 1.

Program Description:

This certificate is aimed at individuals with a BS in Chemistry, Biology, or a similar degree who are either working in or plan to work in pharmaceutical/biotechnology companies. It is expected that this program will help advance their professional careers. This certificate will give students graduate level instruction in basic concepts in ADME/Tox, mechanisms of action of drugs, pharmaceutical techniques, drug formulations and aseptic techniques, as well as basic regulatory information about the development of therapeutics in the US.

Please visit our website to learn more about the school: <https://pharmacy.umkc.edu/index.html> (<https://pharmacy.umkc.edu/>)

Admission requirements:

Bachelors degree in: biology, chemistry, or a health-sciences related field

Contact: wycckoffg@umkc.edu

Student Learning Outcomes

Students graduating from this program will:

- Analyze complex data from modern lab tools
- Identify mechanisms of action of commonly used drugs
- Identify essential concepts and drawbacks of drug formulations
- Create drug formulations using appropriate aseptic techniques
- Appraise pertinent regulations surrounding drug discovery

Required courses (1 Year Certificate):

Code	Title	Credits
PHARM 5508	Medicinal Chemistry of Drug Classes	3
PHARM 5519	Pharmacology I	2
PHARM 5527	Analytical Methods	3
PHARM 5631	Pharmaceutical Formulations I	3
PHARM 7309	Pharmacy and Pharmaceutical Sciences Innovations: Nuts & Bolts	1
PHARM 7331	Sterile Compounded Preparations	1
PHARM 7331L	Applied Skills Lab: Sterile Compounded Preparations	0.5
PHARM 5580A	Seminar in Pharmaceutical Sciences	1
Total		14.5