

SCHOOL OF PHARMACY

Contacts: Dr. Eric Blough, Dean

The Marshall University School of Pharmacy strives to educate compassionate, ethical, and competent students to become innovative thinkers, problem solvers, and the future leaders of our profession. To accomplish these goals, the school has developed a curriculum that fuses local practice standards and vision to the evolving trends within our discipline. The school's vision of the skills, knowledge, and abilities required for the success of future pharmacists is central to its Pharm.D. curriculum.

3+4 Accelerated Pathways

The Marshall School of Pharmacy, Marshall College of Science, and Marshall College of Health Professions have partnered to provide Marshall undergraduate students with three opportunities to earn a joint Bachelor of Science or Bachelor of Health Science and Doctor of Pharmacy degree.

The three 3+4 pathways programs allow students to complete three years of undergraduate education and four years of pharmacy school enroute to earning a bachelor's and Pharm.D. degree. The Marshall College of Science and College of Health Professions will recognize the first year of the pharmacy curriculum as the student's senior year and will award students the bachelor's degree after the first year is successfully completed.

For more information please visit <https://www.marshall.edu/pharmacy/academic-partnerships/#marshall>.

- Pharmaceutical Sciences, B.S. (<http://catalog.marshall.edu/undergraduate/programs-az/pharmacy/pharmaceutical-sciences-bs-only/>)
- Pharmaceutical Sciences, B.S. to Pharm.D. (<http://catalog.marshall.edu/undergraduate/programs-az/pharmacy/pharmaceutical-sciences-bs/>)
- Pharmaceutical Sciences, Minor (<http://catalog.marshall.edu/undergraduate/programs-az/pharmacy/pharmaceutical-sciences-minor/>)

B.S. in Pharmaceutical Sciences

BSPS 101 Intro to Careers in Pharm Sci **2 Credit hours**
Careers in the Pharmaceutical Sciences will introduce students to the future career and educational opportunities available following the completion of a BS in the Pharmaceutical Sciences.

Grade Mode: Normal Grading Mode

BSPS 201 Intro to Pharmaceutical Sci **2 Credit hours**
This course introduces students to the pharmaceutical sciences. Topics include an overview of drug discovery, development, basic principles of drug properties, drug structure, drug delivery, drug disposition, drug action and therapy.

Pre-req: CHM 212 with a minimum grade of C and BSC 121 with a minimum grade of C.

Grade Mode: Normal Grading Mode

BSPS 202 Drug Regulatory Affairs **3 Credit hours**
This course provides an overview of pharmaceutical regulatory affairs, particularly USFDA's regulation of drug products approved in the United States.

Pre-req: BSPS 101 with a minimum grade of D and BSPS 201 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 301 Introduction to Pharmacology I **3 Credit hours**
This introductory pharmacology course covers basic principles of pharmacology. Mechanism of action, physiological effects and the rational basis for use of commonly used therapeutic drug classes are emphasized.

Pre-req: BSC 228 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 302 Cardiovascular Pharmacology **3 Credit hours**
This course is a survey of cardiovascular pharmacology. Emphasis is on the rationale for therapeutic drug use, mechanism of action, physiological effects, and contraindications of drugs in the cardiovascular system.

Pre-req: BSPS 301 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 320 Pharmaceutical Analysis **3 Credit hours**
This class covers analytical techniques commonly employed in pharmaceutical sciences, including traditional chemical analysis, spectrometric methods, and separation strategies along with the applications of proteomics and metabolomics to the pharmacy

Pre-req: CHM 355 with a minimum grade of D and CHM 356 with a minimum grade of D and CHM 212 with a minimum grade of D and CHM 218 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 330 Introduction to Cancer Biology **3 Credit hours**
Introduction to Cancer Biology covers current concepts and knowledge of cancer, including carcinogenesis (cancer pathogenesis) and cancer treatment.

Pre-req: BSC 120 with a minimum grade of D and BSC 121 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 340 Immunotherapeutics **3 Credit hours**
This course introduces students to the role of the immune system in the pathophysiology of inflammatory diseases including autoimmunity and allergies.

Pre-req: BSC 302 with a minimum grade of D or BSC 322 with a minimum grade of D or BSC 334 with a minimum grade of D or BSC 448 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 350 Pharmacology of Illicit Drugs **3 Credit hours**
Fundamentals of the interactions of illicit drugs with the human body. Provides scientific background in substance use disorder for students pursuing clinical or research careers.

Pre-req: BSC 121 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 360 Prin of Infectious Diseases **4 Credit hours**
This course focuses on the pathophysiology of infectious diseases and the pharmacology of antimicrobials used in treatment.

Pre-req: BSC 250 with a minimum grade of D or BSC 302 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 401 Pharm Sciences Seminar 1 Credit hour

This course is designed to teach critical literature search and evaluation skills, prepare and present pharmaceutical scientific material in written and oral format.

Grade Mode: Normal Grading Mode

BSPS 444 Princ of Disease Drug Act 4 Credit hours

Topics covered include the concepts and mechanisms of the basic processes underlying disease and pathophysiology, the general principles underlying drug action and therapeutics, including receptor pharmacology, enzyme inhibition and pharmacology, and the relationship between drug concentration at the target tissue and drug effect.

Pre-req: BSC 120 with a minimum grade of D and BSC 121 with a minimum grade of D and CHM 211 with a minimum grade of D and CHM 212 with a minimum grade of D and BSC 227 with a minimum grade of D and BSC 228 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 447 Pharmaceutical Chemistry 4 Credit hours

Topics covered include functional groups found in drug structures and their chemical properties, drug solubility, absorption, metabolic pathways of drug molecules, biomolecules, enzymes and enzyme kinetics.

Pre-req: CHM 356 with a minimum grade of D.

Grade Mode: Normal Grading Mode

BSPS 470 Capstone Exper in Pharm Sci 4 Credit hours

Capstone experience in Pharmaceutical Sciences provides students with the opportunity to apply their classroom knowledge by completing research project or internship at an approved experiential site.

Grade Mode: Credit/No Credit Grade Only