

DOCTOR OF PHARMACY DEGREE AND CURRICULUM

Educational Outcomes for Pharmacy Graduates

Creighton University pharmacy graduates will be practice-ready; equipped with the knowledge, skills, attitudes, attributes and values necessary to provide evidence-based, collaborative, and ethical patient-centered care. Graduates will obtain the foundational knowledge and experience needed to become innovative leaders, as well as pharmacists who exhibit professionalism, self-awareness and entrepreneurship. Graduates will possess the abilities to be reflective practitioners educated in the Ignatian tradition, will be capable of maximizing medication outcomes and patient wellbeing and will be able to provide service to persons and the community in harmony with the law. In this regard, graduates must demonstrate competence in the following areas/

Educational Outcome

The graduate will...

- Demonstrate and apply the foundational knowledge of contemporary pharmacy practice to achieve optimal health outcomes.
- Provide comprehensive patient-centered care.
- Utilize human, financial, technological, physical and policy resources to optimize the safety and efficacy of medication use systems.
- Apply critical thinking skills to support evidence-based pharmacy practice and research.
- Educate, advocate, and collaborate utilizing effective and professional communication.
- Demonstrate personal and professional attributes of an ethical, reflective, and responsible practitioner in the Ignatian Tradition.
- Contribute to the profession and society by demonstrating professionalism, leadership, innovation, and entrepreneurship.

Omaha and Phoenix Pathways

The Omaha and Phoenix Pathways to the Doctor of Pharmacy degree require nine semesters of professional course work (thirteen semesters including the two years of pre-pharmacy courses). Students are required to attend rotations during the summer prior to the last year of the program. A full semester of tuition is charged for the summer rotation experience.

Doctor of Pharmacy Curriculum (Pharm.D.)

| Course | Title | Credits |
|--------------------------------|---|---------|
| First Professional Year | | |
| First Semester (Fall) | | |
| IPE 500 | Introduction to Collaborative Care | 0 |
| OTD 215 | Medical Terminology | 1 |
| PHA 301 | Principles of Biochemistry for Pharmacy | 3 |

| | | |
|---------|---|-----|
| PHA 312 | Professional Development and Experience I | 1.5 |
| PHA 313 | Calculations in Pharmacy Practice | 2 |
| PHA 317 | Pharmaceutics I: Physiochemical Principles of Drugs | 3 |
| PHA 320 | Communication Skills | 2 |
| PHA 359 | Dispensing and Patient Care I | 2 |

Term Credits 14.5

Second Semester (Spring)

| | | |
|---------|--|-----|
| MIC 541 | Medical Microbiology and Immunology | 3 |
| PHA 314 | Professional Development and Experience II | 1.5 |
| PHA 321 | Health Systems and Patient Safety | 3 |
| PHA 339 | Pharmaceutics II - Pharmaceutical Dosage Forms and Drug Delivery Systems | 3 |
| PHA 404 | Human Physiology | 3 |
| PHA 443 | Basic Pharmacokinetics | 2 |
| PHA 470 | Pharmacy-Based Immunization Delivery | 1 |

Term Credits 16.5

Second Professional Year

First Semester (Fall)

| | | |
|---------|---|-----|
| PHR 241 | Pharmacology I | 4.5 |
| PHA 326 | Patient Assessment | 2 |
| PHA 333 | Introductory Pharmacy Practice Experience II | 3 |
| PHA 337 | The Chemical Basis of Drug Action I | 2.5 |
| PHA 413 | Pharmacotherapeutics I: Focus on Nonprescription Products & Self-Care | 5 |

Term Credits 17

Second Semester (Spring)

| | | |
|---------|--------------------------------------|-----|
| PHR 242 | Pharmacology II | 4.5 |
| PHA 338 | Professional Development Seminar III | 1 |
| PHA 414 | Pharmacotherapeutics II | 6 |
| PHA 424 | Pharmacotherapeutics II Case Studies | 1 |
| PHA 447 | Chemical Basis of Drug Action II | 2.5 |

| | | |
|---------------------|--------------------------------|-----------|
| PHA 469 | Dispensing and Patient Care II | 2 |
| Term Credits | | 17 |

Third Professional Year**First Semester (Fall)**

| | | |
|---------------------|--|-----------|
| PHA 350 | Introduction to Research Methods and Biostatistics | 2 |
| PHA 351 | Foundations of Public Health | 2 |
| PHA 415 | Pharmacotherapeutics III | 6 |
| PHA 425 | Pharmacotherapeutics III Case Studies | 1 |
| PHA 430 | Immunopharmacology and Biotechnology | 2 |
| PHA 433 | Introductory Pharmacy Practice Experience III ¹ | 3 |
| PHA 442 | Pharmacy Practice Management | 3 |
| Term Credits | | 19 |

Second Semester (Spring)

| | | |
|---------------------|---|-----------|
| PHA 416 | Pharmacotherapeutics IV | 6 |
| PHA 426 | Pharmacotherapeutics IV Case Studies | 1 |
| PHA 448 | Professional Development Seminar IV | 1 |
| PHA 454 | Pharmacy Practice Law | 3 |
| PHA 456 | Ethics in the Health Care Professions | 3 |
| PHA 458 | Literature Evaluation and Evidence-Based Practice | 3 |
| PHA 489 | Dispensing and Patient Care III | 2 |
| Term Credits | | 19 |

Fourth Professional Year**First Semester (Summer)**

| | | |
|---------------------|--|-------------|
| PHA 434 | Introductory Pharmacy Practice Experience IV | 1 |
| PHA 468 | NAPLEX Prep Course | .5 |
| Rotations (2) | | 10 |
| Term Credits | | 11.5 |

Second Semester (Fall)

| | | |
|---------------------|---|-------------|
| PHA 421 | Delivering Medication Therapy Management Services | 1 |
| PHA 468 | NAPLEX Prep Course | .5 |
| Rotations (3) | | 15 |
| Term Credits | | 16.5 |

Third Semester (Spring)

| | | |
|---------------|--------------------|----|
| PHA 468 | NAPLEX Prep Course | 1 |
| Rotations (3) | | 15 |

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|-------------------------------------|------------|
| Professional Electives ² | 4 |
| Term Credits | 20 |
| Total Credits | 151 |

¹ Taken the preceding Summer.² See "Elective Requirements".

Distance Pathway

The distance pathway for the Doctor of Pharmacy degree requires nine semesters of professional course work (thirteen semesters including the two years of pre-pharmacy courses). The courses covered in this pathway are the same as in the campus pathway, however, the laboratory component of some courses are completed during required summer sessions. Students are required to be on campus for an estimated two to three weeks each summer to take the laboratory courses in a condensed manner. As with the campus pathway, students are required to attend rotations during the summer prior to the last year of the program. The tuition for the distance pathway is assessed identically to the campus program. The overall tuition and fees are nearly identical for the total program, regardless of the pathway.

Doctor of Pharmacy Curriculum (Pharm.D.)

| Course | Title | Credits |
|---------------------------------|--|-------------|
| First Professional Year | | |
| First Semester (Fall) | | |
| IPE 500 | Introduction to Collaborative Care | 0 |
| OTD 215 | Medical Terminology | 1 |
| PHA 301 | Principles of Biochemistry for Pharmacy | 3 |
| PHA 312 | Professional Development and Experience I | 1.5 |
| PHA 313 | Calculations in Pharmacy Practice | 2 |
| PHA 317 | Pharmaceutics I: Physiochemical Principles of Drugs | 3 |
| PHA 320 | Communication Skills | 2 |
| PHA 359 | Dispensing and Patient Care I | 2 |
| Term Credits | | 14.5 |
| Second Semester (Spring) | | |
| MIC 541 | Medical Microbiology and Immunology | 3 |
| PHA 314 | Professional Development and Experience II | 1.5 |
| PHA 321 | Health Systems and Patient Safety | 3 |
| PHA 339 | Pharmaceutics II - Pharmaceutical Dosage Forms and Drug Delivery Systems | 3 |
| PHA 404 | Human Physiology | 3 |

| | | |
|---------------------|--------------------------------------|-------------|
| PHA 443 | Basic Pharmacokinetics | 2 |
| PHA 470 | Pharmacy-Based Immunization Delivery | 1 |
| Term Credits | | 16.5 |

Second Professional Year**First Semester (Fall)**

| | | |
|---------------------|---|-----------|
| PHR 241 | Pharmacology I | 4.5 |
| PHA 326 | Patient Assessment | 2 |
| PHA 333 | Introductory Pharmacy Practice Experience II ¹ | 3 |
| PHA 337 | The Chemical Basis of Drug Action I | 2.5 |
| PHA 413 | Pharmacotherapeutics I: Focus on Nonprescription Products & Self-Care | 5 |
| Term Credits | | 17 |

Second Semester (Spring)

| | | |
|---------------------|---|-----------|
| PHR 242 | Pharmacology II | 4.5 |
| PHA 338 | Professional Development Seminar III | 1 |
| PHA 414 | Pharmacotherapeutics II | 6 |
| PHA 424 | Pharmacotherapeutics II Case Studies | 1 |
| PHA 447 | Chemical Basis of Drug Action II | 2.5 |
| PHA 469 | Dispensing and Patient Care II ² | 2 |
| Term Credits | | 17 |

Third Professional Year**First Semester (Fall)**

| | | |
|---------------------|--|-----------|
| PHA 350 | Introduction to Research Methods and Biostatistics | 2 |
| PHA 351 | Foundations of Public Health | 2 |
| PHA 415 | Pharmacotherapeutics III | 6 |
| PHA 425 | Pharmacotherapeutics III Case Studies | 1 |
| PHA 430 | Immunopharmacology and Biotechnology | 2 |
| PHA 433 | Introductory Pharmacy Practice Experience III ¹ | 3 |
| PHA 442 | Pharmacy Practice Management | 3 |
| Term Credits | | 19 |

Second Semester (Spring)

| | | |
|---------|--------------------------------------|---|
| PHA 416 | Pharmacotherapeutics IV | 6 |
| PHA 426 | Pharmacotherapeutics IV Case Studies | 1 |

| | | |
|---------------------|---|-----------|
| PHA 448 | Professional Development Seminar IV | 1 |
| PHA 454 | Pharmacy Practice Law | 3 |
| PHA 456 | Ethics in the Health Care Professions | 3 |
| PHA 458 | Literature Evaluation and Evidence-Based Practice | 3 |
| PHA 489 | Dispensing and Patient Care III ² | 2 |
| Term Credits | | 19 |

Fourth Professional Year**First Semester (Summer)**

| | | |
|---------------------|--|-------------|
| PHA 434 | Introductory Pharmacy Practice Experience IV | 1 |
| PHA 468 | NAPLEX Prep Course | .5 |
| Rotations (2) | | 10 |
| Term Credits | | 11.5 |

Second Semester (Fall)

| | | |
|---------------------|---|-------------|
| PHA 421 | Delivering Medication Therapy Management Services | 1 |
| PHA 468 | NAPLEX Prep Course | .5 |
| Rotations (3) | | 15 |
| Term Credits | | 16.5 |

Third Semester (Spring)

| | | |
|-------------------------------------|--------------------|------------|
| PHA 468 | NAPLEX Prep Course | 1 |
| Rotations (3) | | 15 |
| Professional Electives ³ | | 4 |
| Term Credits | | 20 |
| Total Credits | | 151 |

¹ Course taken in preceding summer semester.² Course taken the following summer.³ See "Elective Requirements".

Elective Requirements

Within the first six semesters of the program, a total of four (4) professional elective hours must be successfully completed. These electives will relate to the practice of pharmacy or meet the needs of individual dual tracks. All electives must be approved by the Pharmacy Curriculum Committee. For elective courses not already approved, a pre-approval process will be conducted by the Assistant/Associate Dean for Academic Affairs, in conjunction with the Pharmacy Curriculum Committee. Non-Creighton courses must be taken at a four year institution. Students will not progress to rotations in the last three semesters of the program until these requirements are met.

Elective courses must be taken for a grade unless the instructor has elected to use the Satisfactory/Unsatisfactory grading system. The Pass/No Pass option is not allowed for courses that will be applied toward the degree.

| Code | Title | Credits |
|----------------------------------|---|---------|
| Pharmacy Elective Courses | | |
| PHA 300 | Pharmacogenomics in Disease Management | 2 |
| PHA 335 | Directed Study in Spanish for Healthcare Professionals | 1 |
| PHA 340 | Native American Culture and Health | 2 |
| PHA 341 | Learning Through Reflective Service: Native American Experience | 2 |
| PHA 343 | Intensive English Language for Health Care Professionals | 1 |
| PHA 347 | Professional Seminar | 1 |
| PHA 348 | Well-Being and Student Success Seminar | 1 |
| PHA 362 | Ocular Pharmacology and Therapeutics | 1 |
| PHA 363 | Introduction to Pharmaceutical Materials Sciences | 1 |
| PHA 366 | History of Pharmacy in America | 1 |
| PHA 375 | Introduction to Online Information Retrieval | 1 |
| PHA 377 | Addiction, Alcoholism and Other Substance Abuse Disorders | 2 |
| PHA 381 | Health Informatics | 2 |
| PHA 388 | Integrative Medicine | 2 |
| PHA 393 | APhA Institute on Substance Use Disorders | 2 |
| PHA 397 | Directed Study | 0-6 |
| PHA 399 | Directed Independent Research I | 1-6 |
| PHA 403 | Cultural Proficiency for Health Care Professionals I | 2 |
| PHA 410 | Third World Cultures and Health Care (ILAC Service) | 3 |
| PHA 451 | Advanced Critical Care Elective | 2 |
| PHA 452 | Pharmacoeconomics | 2 |
| PHA 455 | Diabetes Care | 2 |
| PHA 457 | Clinical Toxicology | 1 |
| PHA 480 | Pediatric Pharmacy Practice Elective | 2 |
| PHA 481 | Oncology Pharmacy Practice Elective | 1 |
| PHA 484 | Compounding Seminar and Practicum | 1 |
| PHA 494 | Advanced Pharmaceutical Compounding Seminar and Practicum | 2 |
| PHA 495 | Advanced Veterinary Compounding Seminar & Practicum | 3 |
| PHA 499 | Directed Independent Research II | 1-6 |

Rotation Requirements

In the last three semesters of the program, five credits are given for each five-week rotation experience. Five rotations are required:

| Code | Title | Credits |
|------------|---|---------|
| PHA 510 | Community Advanced Pharmacy Practice Experience | 5 |
| PHA 511 | Hospital Advanced Pharmacy Practice Experience | 5 |
| PHA 512 | Acute Care Advanced Pharmacy Practice Experience | 5 |
| PHA 515 | Drug Information Advanced Pharmacy Practice Experience | 5 |
| or PHA 534 | Medication Therapy Management (MTM) Advanced Pharmacy Practice Experience | |

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| PHA 516 | Ambulatory Care Advanced Pharmacy Practice Experience | 5 |
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The remaining three (3) rotations are elective but must be selected so as to provide a variety of professional experiences. Students are encouraged to enroll in rotations that will expose them to direct patient contact and clinical service, distributive functions, and nontraditional practices. The experiential year has been designed to graduate a generalist practitioner who is highly qualified to enter practice or pursue advanced study in the clinical, administrative, or basic pharmaceutical sciences. The elective rotations available to Pharm.D. students currently include:

| Code | Title | Credits |
|---------|--|---------|
| PHA 520 | Elective Community Advanced Pharmacy Practice Experience | 5 |
| PHA 521 | Community Management Advanced Pharmacy Practice Experience | 5 |
| PHA 522 | Advanced Community Advanced Pharmacy Practice Experience | 5 |
| PHA 523 | Long Term Care Advanced Pharmacy Practice Experience | 5 |
| PHA 524 | Elective Ambulatory Care Advanced Pharmacy Practice Experience | 5 |
| PHA 525 | Informatics Advanced Pharmacy Practice Experience | 5 |
| PHA 526 | Home Infusion Advanced Pharmacy Practice Experience | 5 |
| PHA 527 | Compounding Advanced Pharmacy Practice Experience | 5 |
| PHA 528 | Institute For Latin American Concerns (ILAC) Advanced Pharmacy Practice Experience | 5 |
| PHA 529 | International Advanced Pharmacy Practice Experience | 5 |
| PHA 530 | Emergency Medicine Advanced Pharmacy Practice Experience | 5 |
| PHA 531 | Medication Safety Advanced Pharmacy Practice Experience | 5 |
| PHA 533 | Organization Management Advanced Pharmacy Practice Experience | 5 |
| PHA 534 | Medication Therapy Management (MTM) Advanced Pharmacy Practice Experience | 5 |
| PHA 535 | Academic Advanced Pharmacy Practice Experience | 5 |
| PHA 538 | Managed Care Advanced Pharmacy Practice Experience | 5 |
| PHA 540 | Elective Hospital Advanced Pharmacy Practice Experience | 5 |
| PHA 541 | Hospital Management Advanced Pharmacy Practice Experience | 5 |
| PHA 542 | Elective Drug Information Advanced Pharmacy Practice Experience | 5 |
| PHA 543 | Poison Center Advanced Pharmacy Practice Experience | 5 |
| PHA 545 | Nuclear Medicine Advanced Pharmacy Practice Experience | 5 |
| PHA 546 | Veterinary Advanced Pharmacy Practice Experience | 5 |
| PHA 550 | Industry Advanced Pharmacy Practice Experience | 5 |

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|---------|---|---|
| PHA 551 | Research Advanced Pharmacy Practice Experience | 5 |
| PHA 560 | Elective Acute Care Advanced Pharmacy Practice Experience | 5 |
| PHA 563 | Infectious Disease Advanced Pharmacy Practice Experience | 5 |
| PHA 566 | Oncology Advanced Pharmacy Practice | 5 |
| PHA 568 | Critical Care Advanced Pharmacy Practice Experience | 5 |
| PHA 569 | Cardiology Advanced Pharmacy Practice Experience | 5 |
| PHA 570 | Psychiatry Advanced Pharmacy Practice Experience | 5 |
| PHA 572 | Pediatrics Advanced Pharmacy Practice Experience | 5 |
| PHA 573 | Nutrition Support Advanced Pharmacy Practice Experience | 5 |
| PHA 574 | Neurology Advanced Pharmacy Practice Experience | 5 |
| PHA 575 | Transition of Care Advanced Pharmacy Practice Experience | 5 |

In order to satisfy the requirements for graduation, the Doctor of Pharmacy student must successfully complete:

- all requirements for admission, including a minimum of 63 pre-professional semester hours;
- all required courses in the Pharm.D. curriculum;
- all required elective courses

A cumulative grade-point average of not less than 2.00 is required for graduation, based on all work attempted while enrolled in the pharmacy program.

A candidate for a degree must be determined by the faculty to be of good moral character and fit for the practice of the profession, must have paid all indebtedness to the University, and must be present at the ceremonies where the degree is conferred (unless excused under University rules).

To participate in Commencement a candidate must submit an application for degree from the Registrar's website by the University deadline.

In an effort to comply with accreditation and ongoing programmatic quality assurance, completion of all course evaluations and senior assessments is required in order for the student to be assigned a course grade and/or graduate.