ADMISSIONS and CURRICULUM
General Information

The University of Wyoming School of Pharmacy offers a four-year program of study leading to the Doctor of Pharmacy (Pharm.D.) degree, the only entry-level professional degree in pharmacy.

Students are admitted to the professional program following a preprofessional program of not less than two years in length with a total of at least 67 semester credit hours.

A University of Wyoming Doctor of Pharmacy (Pharm.D.) degree meets the educational requirements for registration as a pharmacist in Wyoming, all other states, and in the District of Columbia.

Professors at the School of Pharmacy are experienced in teaching, dedicated to their field, and skilled in clinical service and research. Classes of 52 students assure each student individual attention. In addition to their teaching and research, faculty members serve as academic advisors. The professors of the School of Pharmacy have been continuously recognized nationally and internationally for their teaching and research achievements and contributions to the scientific and clinical fields.

The School of Pharmacy is housed in the Health Sciences Center. The building includes faculty offices, classrooms, seminar-study rooms, a student activity area, a student computer-study-reading room, a pharmaceutical care learning center, and well-equipped research laboratories. These, equipped with modern technology, add versatility to the teaching and research facilities.

The University of Wyoming has an enrollment of approximately 13,000 students representing 50 states and 90 foreign countries, providing a mix of cultural and
geographic backgrounds. Seven academic colleges offer 180 different programs of study. Pharmacy students have found enjoyment in UW’s many extracurricular activities such as athletics, debates, fraternities and sororities, publications, music, literary, and religious organizations.

The campus is situated near the center of Laramie, a city of approximately 30,000 people. The city lies at the eastern border of the historic Laramie Plains that are encircled by the Laramie Mountains on the east and north and by the Medicine Bow Mountains on the south and west. The plains and surrounding mountains with their national forests, streams, glacial lakes, varied wildlife, and eternal snow afford the finest facilities for both summer and winter recreation. The 7,200-foot altitude of the campus assures a delightful climate with abundant sunshine and invigorating atmosphere.

Laramie is served by Interstate Highway 80, U.S. Highways 30 and 287, State Highway 130-230, and a small municipal airport.

Vision, Mission, and Values

**Vision:**
The University of Wyoming School of Pharmacy will be nationally recognized for innovative research, teaching, and pharmacy practice that develops scholar-practitioners and substantively enhances the health and well-being of the communities we serve.

**Mission:**
The University of Wyoming School of Pharmacy exists to advance the educational and professional development of our students, generate and translate scientific findings into meaningful innovations in healthcare, and positively impact the health and well-being of the communities we serve.

We accomplish this through:

- Innovative, collaborative and interdisciplinary programs that integrate research, teaching, and pharmacy practice
- The development of scholar-practitioners capable of ethically leading and embracing change and substantively enhancing health outcomes
- Individualized, faculty-led student educational experiences.

As a result, we will attract, recognize and retain the very best students, faculty, and staff to drive the success of the school.

**Statement of Values**
The UW School of Pharmacy community is committed to supporting and promoting individual and collective excellence in teaching, research, service, and
pharmacy practice. We value responsibility, compassion, respect, and integrity in all endeavors.

Learning Outcomes

The University of Wyoming adheres to the American Association of Colleges of Pharmacy Center for Advancement of Pharmaceutical Education (CAPE) educational outcomes 2013. This multi-page document can be accessed at www.aacp.org. The school has outlined student learning outcomes; these are available on the school website.

Student Profile

The School of Pharmacy is one of eight principal units comprising the College of Health Sciences. In addition to pharmacy, divisions in health sciences include medical education and public health, Wyoming Institute for Disabilities (WIND), communication disorders, nursing, kinesiology and health, social work, and dental hygiene.

The University of Wyoming is committed to diversity and endorses principles of affirmative action/equal opportunity. We acknowledge that diversity enriches and sustains our scholarship and promotes equal access to our educational mission. We seek and welcome applications from individuals of all backgrounds, experiences, and perspectives.

As the sole state university, the admitted class to the professional pharmacy program usually consists of approximately 60% Wyoming residents. Non-resident students add unique perspectives to our student body. Students in the School of Pharmacy have their own special activities and professional organizations, and share in the congenial college and university community.

Admission

Students may enter the professional program only upon official acceptance by the School of Pharmacy. Admission to the School of Pharmacy is competitive and class size is limited. To be considered for admission to the professional program, students must have successfully completed all science preprofessional requirements or their equivalents by the end of the spring semester prior to matriculation.

Two semesters each (all with labs) of:

- general chemistry
- organic chemistry
- general and animal biology
Plus one semester each of

- calculus
- medical microbiology
- human anatomy
- human systems physiology
- fundamentals of statistics

If not completed, students are not considered for admission to the professional program. Courses in progress must be completed with a C or better to maintain the admission offer.

The application process for the University of Wyoming School of Pharmacy requires that students use PharmCAS, the national pharmacy college application service; for more information about PharmCAS log onto www.PharmCAS.org. All students are required to take the Pharmacy College Admissions Test (PCAT) and have the results sent directly to PharmCAS by February 3. PCAT results are unacceptable if older than two years. Non-citizens must submit TOEFL results (90 iBT total score with no component less than 21). All application materials and test scores must be submitted by February 3 to PharmCAS. Only courses completed with a grade of C or better (and an overall GPA ≥2.8) will be accepted as meeting admission requirements.

A minimum of four years (eight semesters plus two summer terms; minimum of 146 hours total) of work in the professional program is required of pharmacy degree candidates regardless of the amount of credit previously earned. However, credit earned in professional programs at other accredited schools or colleges of pharmacy may be applied toward this hour requirement. Students requesting to transfer from other professional pharmacy programs must be in good academic standing and may be considered on an individual basis. The School of Pharmacy admits only for fall semester; credit earned after notification of admission, but before fall semester, will be considered preprofessional coursework and does not count toward the 146 hours.

Student/Faculty Relations

The faculty and staff at the School of Pharmacy treat students as adults and expect appropriate behavior as beginning professionals. The School of Pharmacy recognizes that the profession of pharmacy demands of its members the utmost degree of professional competence, ethical behavior, and integrity. Upon enrolling at the University of Wyoming School of Pharmacy and at the start of each academic year, all students will sign a pledge acknowledging that they have received and read the current Honor Code and that they have made a personal commitment to uphold the code and abide by its principles. Similarly, the School of Pharmacy Code of Professional Expectations for faculty and staff is
built on the foundation of respect for others, personal responsibility, the creation and maintenance of trust, and honesty and truthfulness. The administration, faculty, staff, students, and alumni of the School of Pharmacy at the University of Wyoming should strive to set an example of ethical leadership and professional behavior as these traits are essential for good social and business interactions.

Accreditation and Membership

In Wyoming, as in most other states, one requirement for examination and registration as a pharmacist is graduation from an accredited entry-level professional program at a school or college of pharmacy. The Accreditation Council for Pharmacy Education (ACPE), the national accrediting agency for pharmacy, accredits pharmacy degree programs.

The Doctor of Pharmacy program at UW was most recently accorded full accreditation status in 2012 following an on-site evaluation by the ACPE in October 2012. Verification of current accreditation status may be made by: a) contacting the Dean’s Office, School of Pharmacy; b) connecting to www.uwyo.edu/pharmacy/; c) contacting the Accreditation Council for Pharmacy Education (135 South LaSalle Street Suite 4100, Chicago IL 60603; (312) 664-3575; csinfo@acpe-accredit.org) or d) by checking the latest Annual Directory of Accredited Professional Programs published by ACPE.

The school is a member of the American Association of Colleges of Pharmacy (AACP) and adheres to its educational standards.

- Graduates of the University of Wyoming’s School of Pharmacy are eligible to take pharmacy state board examinations in all 50 states and the District of Columbia.
- School of Pharmacy students have consistently averaged a pass rate of more than 90 percent on first time attempt of the NAPLEX (state board) examinations.

Technical Standards for Admission, Curricular Progression, and Graduation

The University of Wyoming, School of Pharmacy (UWSOP) professional education program, leading to the Doctor of Pharmacy degree and eligibility for licensure as a pharmacist, requires students to possess certain intellectual, behavioral, emotional, physical, and technical abilities. These abilities are deemed essential to ensure safe and effective patient care and to function competently as a pharmacist upon graduation and licensure, regardless of practice site. Therefore, these abilities must be demonstrated to fulfill the requirements of a general pharmacy education and are prerequisites for admission, progression, retention, and graduation from the pharmacy program.
All students are expected to successfully and independently complete the same core educational requirements. Students need to possess the skills and abilities, if necessary with reasonable accommodation, which allow fulfillment of all curricular requirements necessary for program completion. Students who graduate from the program are eligible to become pharmacists without restrictions on their practice; therefore, students must complete all aspects of the curriculum and cannot take part in only a limited number of required curricular activities. In summary, students must not only gain scholastic achievement, but must also possess certain intellectual, behavioral, and physical abilities to meet the requirements of the UWSOP curriculum.

USE OF TECHNICAL STANDARDS

Admission
The University of Wyoming, School of Pharmacy will consider any applicant for admission who meets the school’s admission requirements and demonstrates the aptitude to perform the abilities and skills outlined below. Applicants or potential applicants who have questions or feel that they do not meet the technical standards are strongly encouraged to communicate with the UWSOP Associate Dean for Student Affairs.

Request for Accommodation
All students are held to the same academic and technical standards. Applicants/students with disabilities seeking accommodation must discuss their disability and accommodation needs with the University Disability Support Services (udss@uwyo.edu or (307) 766-6189, TTY: (307) 766-3073). If appropriate, and upon request and registration of the applicant, a reasonable accommodation will be made consistent with University of Wyoming guidelines.

Maintaining Technical Standards and Progression
Students are expected to maintain the technical standards throughout the curriculum and must demonstrate them through their coursework, interaction with peers and faculty, and in their pharmacy practice experiences. Students who fail to demonstrate the technical standards while in the program will be evaluated and appropriate action (e.g., remediation, counseling, dismissal) will be taken. This expectation is separate from academic achievement; therefore simply maintaining a passing GPA is not adequate.

Technical Standards
Candidates for the Doctor of Pharmacy degree program must be able to perform the essential functions in each of the following categories: Observation, Communication, Sensory and Psychomotor Skills, Intellect, Behavioral and Social Attributes, and Logistical Accommodations. Essential functions for each category are described in detail below. It is recognized that degrees of ability
vary among individuals. The School of Pharmacy will monitor maintenance of these standards. Any student who is at risk of not complying with the standards is encouraged to seek out the support and assistance needed to meet program expectations.

Students not able to comply with these standards may be at risk of probation or termination from the program. Likewise, certain chronic or recurrent illnesses and problems that interfere with patient care or safety may not be compatible with pharmacy practice or training. Deficiencies in knowledge base, judgment, integrity, character, or professional behavior/demeanor may be grounds for course/rotation failure and possible dismissal, particularly if it may jeopardize patient care.

Observation

The following characteristics of observation are necessary:

- To be able to properly observe, a student must have proper vision (accurately read 6-point font type with accommodation).
- The student must be able to participate in demonstrations, experiments, and teaching methods in the basic and clinical sciences.
- The student must be able to observe a patient, customer, or healthcare provider accurately at a distance and up close.
- The student must possess the ability to get information from written references, oral presentations, and physical examination of the patient.

Communication

The following characteristics of communication are necessary:

- A student must be able to communicate effectively and efficiently in English with faculty, staff, patients, and all members of the healthcare team.
- In addition to verbal communication, a student must be able to effectively use nonverbal communication skills.
- Students must be able to ask questions, understand answers, record information, and advise others.

Sensory and Psychomotor Skills

The following sensory and psychomotor skills are necessary:

- Students must have sufficient sensory and psychomotor function to undertake the preparation of all routine forms of medication orders, the use of diagnostic equipment for patient assessment, and the direct delivery of patient therapies.
- Students must be able to engage in safe and aseptic handling of sterile preparations.
Students should be able to execute motor movements reasonably required to participate in the general care and emergency treatment of patients.

Students must be able to respond promptly to urgencies within the practice setting and must not hinder the ability of their co-workers to provide prompt care.

Intellect

As appropriate for each stage of professional education, pharmacy students must demonstrate a fundamental and continuing ability to use analytical reasoning to independently and collaboratively synthesize knowledge, identify and solve problems, and explain health care situations. Necessary abilities include measurement, calculation, reasoning, analysis, judgment, numerical recognition, and synthesis. In particular, students must be able to:

- Perform rapid and accurate pharmaceutical calculations including medication dosage in varied situations and appropriate dilution or reconstitution of electrolytes and drug products.
- Identify medication related problems using significant findings from history, physical findings, and laboratory data; provide a reasonable explanation and analysis of the problem; determine when additional information is necessary; suggest appropriate pharmacotherapy, develop monitoring and treatment plans, and communicate effectively with patients and health care providers to solve problems; function efficiently and quickly, especially in emergent situations.
- Retain and recall information in an efficient and timely manner.
- Locate and evaluate information from literature and other resources in a timely manner and use appropriately to make assessments and develop pharmaceutical care plans for disease management.
- Identify and communicate limits of knowledge to others when appropriate; recognize when further study or investigation is necessary prior to participating in decision making.
- Interpret graphs, charts, or records describing biologic, economic, or outcome relationships.

Behavioral and Social Attributes

The following behavioral and social attributes are necessary:

- Possess the physical and emotional health required for effective professional judgment and the prompt, safe completion of all responsibilities.
- Adapt to change and display the flexibility to learn and function in the face of uncertainty, amid distraction, and in both professional and personally stressful situations of both physical and emotional nature, as changes may occur rapidly and without warning.
Possess compassion, integrity, interpersonal skills, empathy, motivation, and concern for others.

Demonstrate professional behavior established by the law and by the ethical standards of the pharmacy profession, regardless of environment.

Function within the regulatory and institutional limits.

Demonstrate accountability and personal responsibility for one’s own actions and success.

Accept appropriate constructive criticism, either formal or informal, and respond quickly and cooperatively by modification of behavior as necessary.

Possess the ability to develop mature, sensitive, and effective professional relationships with classmates, faculty, administration, staff, patients, caregivers, and partners.

Work effectively as a team member.

Be aware of one’s own immediate emotional responses and environment, perceptions, and stereotypes and appropriately react avoiding negative impacts on professional relationships.

Protect patient confidentiality.

Recognize multiple points of view and appropriately integrate them into clinical decision making.

Respect diversity and be culturally sensitive.

Commit to self-awareness and life-long learning.

Provide useful, constructive feedback regarding activities, tasks, courses, rotations, and teaching throughout the curriculum.

Logistical Accommodations

Students must be able to:

- Have access to or arrange transportation to sites off campus for experiential experiences
- Have access to or resources for housing during the experiential experiences

PREPROFESSIONAL PROGRAM

Preprofessional Requirements

Applicants for the professional program in pharmacy must complete the preprofessional requirements before they can be admitted. Usually, a minimum of four semesters (two academic years totaling 67 hours) is required to complete preprofessional requirements.

All preprofessional coursework must be completed by the end of the spring semester prior to matriculation in the professional program. Work completed...
in the summer before matriculation will normally not be accepted for admission to that fall’s professional class.

Graduates of fully accredited high schools may be admitted to the preprofessional program with a math placement score of 3 or an ACT math score of 23. Students transferring into the preprofessional program must have a GPA of 3.0. For students who do not meet these requirements, majoring as a Health Sciences undeclared student is suggested until they meet the math requirement and GPA.

The following preprofessional program and suggested course sequence is provided as guidance for students planning to apply to the UW professional program. **Courses listed with bold font are REQUIRED for application** while non-bolded courses may be completed after admission to the professional program (all university studies requirements are mandatory for graduation at UW).

**Preprofessional Program (PPCY) • Required Curriculum**

**Suggested Course Sequence**

<table>
<thead>
<tr>
<th>FIRST YEAR: Fall</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM 1020</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>LIFE 1010</td>
<td>General Biology</td>
</tr>
<tr>
<td>ENGL 1010</td>
<td>Freshmen English (WA)</td>
</tr>
<tr>
<td>I Course: Intellectual Community (I)</td>
<td>1</td>
</tr>
<tr>
<td>University Studies Electives or appropriate math course</td>
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</tr>
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</table>

<table>
<thead>
<tr>
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<th>Hrs.</th>
</tr>
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<tbody>
<tr>
<td>CHEM 1030</td>
<td>General Chemistry</td>
</tr>
<tr>
<td>LIFE 2022</td>
<td>Animal Biology</td>
</tr>
<tr>
<td>MATH 2200</td>
<td>Calculus</td>
</tr>
<tr>
<td>POLS 1000</td>
<td>Government of the U.S. and Wyoming (V)</td>
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<tr>
<td>University Studies Electives</td>
<td>3</td>
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<table>
<thead>
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<th>SECOND YEAR: Fall</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>CHEM 2420</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>KIN/ZOO 2040</td>
<td>Human Anatomy</td>
</tr>
<tr>
<td>KIN/ZOO 2041</td>
<td>Human Anatomy Lab</td>
</tr>
<tr>
<td>STAT 2050</td>
<td>Fundamentals of Statistics</td>
</tr>
<tr>
<td>University Studies Electives</td>
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<table>
<thead>
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<th>SECOND YEAR: Spring</th>
<th>Hrs.</th>
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</thead>
<tbody>
<tr>
<td>MOLB 2240</td>
<td>Medical Microbiology</td>
</tr>
<tr>
<td>CHEM 2440</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>ZOO 3115</td>
<td>Human Systems Physiology</td>
</tr>
<tr>
<td>University Studies Electives</td>
<td>3</td>
</tr>
</tbody>
</table>
PREPROFESSIONAL ELECTIVES

The University Studies Program (USP)

An education at the University of Wyoming is grounded in a broad understanding of human knowledge developed through a range of courses and co-curricular activities, the most important of which is the University Studies Program (USP) of general education, required of all UW students. The specialized knowledge of a major evolves from general education. These two components of an education are complementary, enhancing one another throughout a student’s career.

The University Studies Program ensures that each student’s program includes the elements essential to a lifetime of personal and professional growth: habits of mind, practices of active citizenship, and development of intellectual skills.

The University Studies Program requires students to develop skills necessary for full participation in a technologically intricate world. These skills include the ability to express oneself in speech and writing; to locate, evaluate, and use information; and to examine problems from quantitative, qualitative, and scientific perspectives. University Studies encourages students to become active citizens in a diverse society. Through multi- and inter-disciplinary inquiry, students gain the perspectives necessary to deal with complex issues, appreciate the viewpoints of others, function effectively in multicultural communities, understand the responsibility to participate in democratic society, and communicate clearly in a civic environment.

Students who enter UW or a Wyoming community college beginning in fall of 2003 will be required to meet the USP 2003 requirements for graduation. Requirements of the University Studies Program are divided into core components, which are mutually exclusive of each other, and embeddable components, which may be taught as part of another course. University Studies Program requirements do not need to be completed in order to apply to the professional pharmacy program; however, additional credit hours may be required for graduation.

Core Components

<table>
<thead>
<tr>
<th>Core Component</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>Intellectual Community (I)</td>
<td>1-3</td>
</tr>
<tr>
<td>Writing 1 (WA)</td>
<td>3</td>
</tr>
<tr>
<td>Oral Communication (O)</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning 1 (QA)</td>
<td>3</td>
</tr>
<tr>
<td>Quantitative Reasoning 2 (QB)</td>
<td>3</td>
</tr>
<tr>
<td>Science (S, SB, SP, SE)</td>
<td>4-8</td>
</tr>
<tr>
<td>Cultural Context (C, CH, CA)</td>
<td>9</td>
</tr>
<tr>
<td>U.S. and Wyoming Constitutions (V)</td>
<td>3</td>
</tr>
<tr>
<td>Physical Activity and Health (P)</td>
<td>1</td>
</tr>
</tbody>
</table>
Embeddable Components

Embeddable components may be taught as part of another course. This does not preclude those components being taught in courses dedicated solely to that topic. Embeddable components will ordinarily be fulfilled in the context of three credit courses.

- Information Literacy (L)
- Writing 2 (WB)
- Writing 3 (WC)
- Global Awareness (G)
- Diversity in the U.S. (D)

PROFESSIONAL DOCTORAL PROGRAM

Admission

Admission to the professional program leading to the entry-level Pharm. D. degree is limited to 52 students per year and is highly competitive. Admission is granted by the Dean of the School of Pharmacy upon the recommendation of the School of Pharmacy Admissions Committee. Students applying to the UW School of Pharmacy must use the PharmCAS application (www.pharmcas.org) process, all materials (PCAT scores, and letters of recommendation) are submitted to UW using this service. The School of Pharmacy requires no supplemental application. Students granted admission to the professional program will have to pay a one-time, non-refundable, seat fee to guarantee their placement into the entering class. As part of a College of Health Sciences requirement, students are also expected to complete and pass a background check prior to final admission to the professional program.

Academic Standards for Progression and Graduation

The course of study in the School of Pharmacy (SOP) is four academic years leading to a Doctor of Pharmacy degree (PharmD). The required professional coursework is organized in a prescribed, non-negotiable, sequential manner. All students have a P-designation identifying their year in the program (P1, P2, P3, P4). Required professional courses (PHCY courses) from any national or international pharmacy programs will not be applied to the UW PharmD degree. Courses taken as S/U, including electives, are usually considered unacceptable in fulfilling program requirements. Auditing courses for credit towards the PharmD degree is also not allowed.

The academic standards herein described are expected to be followed by all students admitted to the professional program. Any violation will constitute
grounds for probation or termination from the professional program and will delay progression towards advanced coursework. A leave of absence may be necessary in cases where poor academic performance is due to a medical or personal hardship. The student may appeal sanctions related to violations of the academic standards and decisions that result in probation and termination in the program. Appeals start at the School level, followed by College and University levels, according to policy.

**Academic Standards**

**PROGRESSION**

1. Students must receive a grade of C or better in all 146 credit hours of coursework completed while in the professional program.
2. For progression, students must earn a GPA of 2.0 or better in both University coursework and professional program courses each semester and cumulatively.
3. Students must complete at least 12 hours of coursework applicable to the pharmacy degree during each semester while in good standing.
4. Required pharmacy coursework successfully completed with a B or better prior to admission to the program is not automatically applied to the PharmD degree. The student may petition that coursework be applied to the program, but must replace those credit hours with additional elective courses.
5. Incompletes must be completed prior to progression into the next academic semester and will halt progression in experiential coursework.
6. Students who earn a D or lower in any experiential coursework will have their rotation sequence halted.
7. A professional pharmacy program course can be repeated only once.
8. A maximum of three required courses are allowed to be repeated during the degree program.

**PROBATION**

Probation is a period of time in which the student is allowed to continue in the program under supervision. Students that do not meet academic standards and are placed on probation will have to submit a petition that includes an individualized plan of study for the next semester. This plan must be developed by the student in agreement with and signed by the academic advisor. The petition will be reviewed by the Student Affairs Committee (SAC), which will send a recommendation to the Dean for approval or denial.

9. A grade of D or lower in any course (core or elective) during the professional program constitutes failure to progress to the next semester and P-designation, and probationary status will be required for continuation in the program.
TERMINATION

10. Failure to meet any academic standards for two semesters (not necessarily consecutive) in didactic and/or experiential coursework results in automatic termination from the professional program.

11. Failure of two experiential courses, not necessarily consecutive, results in termination from the professional program.

12. All academic requirements in the program must be completed in a maximum of 6 years. Students shall be terminated from the program if graduation is not achieved at the end of the 6th year from their official admission date to the professional program.

GRADUATION

13. Graduation with a PharmD degree requires a cumulative GPA of 2.50 in coursework taken as a professional student (both total University coursework GPA and required professional program GPA) and the successful completion of 146 hours of coursework.

Elective Credits Policies

The purpose of electives at the School of Pharmacy is to complement the pharmacy curriculum, expand knowledge within a specific pharmacy discipline, and to ensure completion of the general liberal arts education of the University of Wyoming. Therefore, the following policies have been approved by the faculty for the Doctor of Pharmacy professional program (thereafter, Program).

1. As published in the University Bulletin, students are required to complete a minimum number of electives, specific for the student’s year of matriculation into the Program. This number may vary and may be modified as adjustments are made to the professional curriculum to comply with accreditation standards. Students will be made aware of this number during initial orientation into the Program and kept informed of any changes during their stay in the academic program.

2. Students must take elective courses to satisfy first the requirements of the University Studies Program (USP) and then complete the remaining required elective credits as general elective coursework (program-approved required number of elective hours).

3. Students are required to complete all USP requirements even if they exceed the minimum number of elective hours initially defined in their program in order to graduate from UW.

4. All general elective coursework must be upper division (UW 3000 level or above) to ensure adequate rigor appropriate to a professional program.
   a. All University of Wyoming online courses at 3000 level or above are accepted for elective credit toward the Program.
b. Transfer or online courses equivalent to UW 3000 level or above from other accredited four-year institutions may be honored as elective credits toward the Program.

5. All required hours (including electives) must be completed by students before progressing into the P4 rotation year. Students will not be allowed to progress toward the fourth year rotations if their academic records show that less than a total of 107 credits were completed and/or university studies requirements were not fulfilled.

6. When an elective course is approved through a petition, enrollment in the course must occur during the semester for which it was approved.

7. Courses offered through any community colleges, including Wyoming community colleges, regardless of their level or type (online or not), are usually neither transferable nor accepted as elective credit toward the Program.

8. Students shall not take electives as Satisfactory/Unsatisfactory (S/U) credit.

9. All courses taken in the preprofessional program or to fulfill requirements in a previous degree cannot be retaken to count as elective hours in the Program.

10. Credit by exam through the Foreign Languages Department will not be accepted as fulfillment of elective requirements in the Program. However, it is a student’s right to test out for Wyoming History and Government, and Physical Education lecture while receiving elective credits toward the Program and fulfilling USP requirements.

**Academic Honesty and Professional Conduct**

Students admitted to the professional program are required to participate and sign the University of Wyoming School of Pharmacy Honor Code. Failure to sign the honor code will result in a withdrawal of the admission offer or termination from the professional program.

**Curriculum**

The School of Pharmacy offers only the four-year curriculum leading to the Doctor of Pharmacy (Pharm.D.) degree.

In order to keep abreast with changes in pharmaceutical education, the following curriculum is subject to change or modification as required by the accrediting organization. Students should be aware that changes must be expected and they will be included in their academic program. The School of Pharmacy does not plan to change graduation requirements inadvertently, but does reserve the
right to change any provisions or requirement deemed necessary at any time within the student’s term of residence. Students should note that classes are usually scheduled Monday through Friday, but may include some evening and weekend coursework.

Requirements for Graduation

The degree of Doctor of Pharmacy (Pharm.D.) is granted upon satisfactory completion of the professional curriculum in accordance to the school’s academic standards and the fulfillment of the general university requirements. Transfer students who have previous professional pharmacy credits accepted as partial completion of residence work may not earn a degree from this university for less than 30 semester hours of resident credit in the professional program of this School of Pharmacy over a minimum of two resident semesters.

**Note:** Students will be required to live in locations other than Laramie while enrolled in experiential rotations. In addition, students are responsible for all travel, housing, and other expenses necessary to successfully complete experiential coursework occurring in the P2 and P4 years. Students will be required to complete introductory experiential rotations during the summer session as scheduled after their first year in the professional program. Students are required to meet current vaccination standards as determined by the Student Health Services and by the Professional Experience Program. Students are required to hold professional liability insurance while completing experiential coursework. Additionally, proof of vaccinations, tuberculosis tests, and, in some cases, titers are required for progression into the P2-P4 year rotations. Additional background checks and drug screens are required by some sites as is personal health insurance.

Doctor of Pharmacy • Required Curriculum
Suggested Course Sequence and Courses (Subject to Change)

<table>
<thead>
<tr>
<th>FIRST YEAR [PH1]: Fall</th>
<th>Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOLB 3610 Principles of Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6100 Dose Form Design</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6101 Practical Aspects Dosage Form Design</td>
<td>1</td>
</tr>
<tr>
<td>PHCY 6185 Seminar: Role of the Pharmacist</td>
<td>1</td>
</tr>
<tr>
<td>PHCY 6106 Pharmaceutical Calculations</td>
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<tr>
<td>ZOO 4125 Integrative Physiology</td>
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<table>
<thead>
<tr>
<th>FIRST YEAR [PH1]: Spring</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>PHCY 4450 Pathophysiology</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6102 Biopharmaceutics/Pharmacokinetics</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6152 Therapeutics I</td>
<td>3</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
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</tr>
<tr>
<td>PHCY 6354</td>
<td>Pharmacy Practice Laboratory</td>
</tr>
<tr>
<td>PHCY 6110</td>
<td>Medicinal/Natural Products Chemistry I</td>
</tr>
<tr>
<td>PHCY 6170</td>
<td>Introductory Pharmacy Practicum</td>
</tr>
<tr>
<td>PHCY 6285</td>
<td>Seminar: Drug Use Process</td>
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**FIRST YEAR [PH2]: Summer**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHCY 6480</td>
<td>Introduction to Community Pharmacy</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6482</td>
<td>Introduction to Institutional Pharmacy</td>
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</table>

**SECOND YEAR [PH2]: Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHCY 6210</td>
<td>Medicinal/Natural Products Chemistry II</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6245</td>
<td>Patient/Professional Interactions</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6220</td>
<td>Pathophysiology II</td>
<td>3</td>
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<tr>
<td>PHCY 6230</td>
<td>Pharmacology I</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6250</td>
<td>Drug Literature Evaluation</td>
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</tr>
<tr>
<td>PHCY 6280</td>
<td>Pharmacy Ethics</td>
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**SECOND YEAR [PH2]: Spring**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHCY 6211</td>
<td>Medicinal/Natural Products Chemistry III</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6231</td>
<td>Pharmacology II</td>
<td>4</td>
</tr>
<tr>
<td>PHCY 6241</td>
<td>Organizational/Societal Issues</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6270</td>
<td>Intermediate Pharmacy Practicum</td>
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<tr>
<td>PHCY 6251</td>
<td>Therapeutics II</td>
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<tr>
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**THIRD YEAR [PH3]: Fall**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHCY 6312</td>
<td>Clinical Toxicology</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6341</td>
<td>Pharmacy Practice Law</td>
<td>3</td>
</tr>
<tr>
<td>PHCY 6350</td>
<td>Therapeutics III</td>
<td>4</td>
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<tr>
<td>PHCY 6356</td>
<td>Physical Assessment in the Evaluation of Drug Therapy</td>
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<tr>
<td>PHCY 6357</td>
<td>Clinical Pharmacokinetics</td>
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</tr>
<tr>
<td>Elective</td>
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**THIRD YEAR [PH3]: Spring**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>PHCY 6342</td>
<td>Pharmacy Administration</td>
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<tr>
<td>PHCY 6343</td>
<td>Pharmacoeconomics</td>
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<tr>
<td>PHCY 6351</td>
<td>Therapeutics IV</td>
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<tr>
<td>PHCY 6103</td>
<td>Sterile Products</td>
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<tr>
<td>PHCY 6104</td>
<td>Sterile Products Laboratory</td>
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<tr>
<td>PHCY 6370</td>
<td>Advanced Pharmacy Experience Orientation</td>
<td>1</td>
</tr>
<tr>
<td>Elective</td>
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<td>2</td>
</tr>
</tbody>
</table>
**FOURTH YEAR [PH4]**: Consists of nine experiential rotations of four credit hours each and three reflective learning weeks. Rotations are considered full-time. Students may not enroll in any other coursework concurrent with rotations. Consequently, all other coursework (107 credits) must be satisfactorily completed before enrollment in P4 coursework. *Note: Students will be required to live in locations other than Laramie while enrolled in experiential rotations. In addition, students are responsible for all travel, housing, and other expenses necessary to successfully complete experiential coursework.*

**FOURTH YEAR [PH4]**

<table>
<thead>
<tr>
<th>Season</th>
<th>Course Description</th>
<th>Hrs.</th>
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<tbody>
<tr>
<td>Summer</td>
<td>Experiential Rotation 1</td>
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<tr>
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<td>Experiential Rotation 2</td>
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<td>Experiential Rotation 3</td>
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<tr>
<td>Fall</td>
<td>PHCY 6485 Reflective Learning in Pharmacy</td>
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<td>Experiential Rotation 4</td>
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<td>Experiential Rotation 6</td>
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<tr>
<td>Spring</td>
<td>PHCY 6485 Reflective Learning in Pharmacy</td>
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<tr>
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<td>Experiential Rotation 7</td>
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<tr>
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<td>Experiential Rotation 9</td>
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<tr>
<td></td>
<td>PHCY 6485 Reflective Learning in Pharmacy</td>
<td>1</td>
</tr>
</tbody>
</table>

*Students must complete the following “Core” or “Required” Experiential Rotations:*

- PHCY6470—Internal Medicine Pharmaceutical Care I
- PHCY6471—Internal Medicine Pharmaceutical Care II
- PHCY6473—Ambulatory Care I
- PHCY6481—Advanced Community Pharmacy
- PHCY6483—Advanced Institutional Pharmacy

*Plus 4 Elective Rotations (PHCY 6465)*

**TUITION AND FEES (Subject to Change)**

The links for the University of Wyoming semester fee schedules for the current academic year are shown below. The University Trustees and the university administration reserve the right to change tuition and fees policies at any time.
Undergraduate students and professional pharmacy students (for all four professional years) enrolled for 12 or more hours in a semester are considered to be attending full-time.

In addition to university and school fees applicable to all students, all students granted admission to the professional program will have to pay to the School of Pharmacy a one-time, non-refundable, seat fee to guarantee their placement into the entering class. This fee is applied to first semester tuition upon matriculation.

The Cost of Attendance

The Fee Book 2013–2014 (tuition table on page 7)

Student Benefit Package and Insurance

Students who have their own insurance or choose not to have any health insurance may withdraw from the University’s health insurance program. Failure to have health insurance may prevent placement at some rotation sites. Please contact the Student Medical Insurance Advocate at (307) 766-3025 for more information on the university’s health insurance policies.

Tuition and Fee Payment

Questions regarding tuition and fee payment should be directed to:

ACCOUNTS RECEIVABLE
Room 250 Knight Hall
(307) 766-6232
http://www.uwyo.edu/fsbo/accounts-receivable/

Questions regarding financial aid, scholarships, and loans should be directed to:

STUDENT FINANCIAL AID
Room 174 Knight Hall
(307) 766-2116
finaid@uwyo.edu

Please note that students entering into the professional program are considered, for financial aid purposes only, as undergraduate students for their first two years of pharmacy school and graduate students for their last two years of pharmacy school. Students are considered professional pharmacy students for all other purposes on campus.
DESCRIPTION OF PHARMACY (PHCY) COURSES

PHCY 4160. Problems in Pharmacy. 1-4 (Max. 8). Original investigation on a library or laboratory problem concerned with a definite phase of work in pharmacy. Prerequisite: consent of the instructor.

PHCY 4170. Pharmacy Seminar. 1-4 (Max. 8). Students may present oral reports on selected topics of pharmaceutical interest for discussion by the group. Prerequisite: consent of the instructor.

PHCY 4450. Pathophysiology. 4. Clinical concepts of dynamic disease processes in humans. Biochemical, physiological, and morphological disease mechanisms as related to symptomatology and treatment. Prerequisites: LIFE 1010, CHEM 1000 or 1020 and 1030, KIN/ZOO 2040, 2041, ZOO 3115 or 3120.

PHCY 4470. Fundamentals of Pharmacology. 4. Studies pharmaceutical agents used for treatment, diagnosis, or prevention of disease with particular emphasis on mechanisms of action, therapeutic, and adverse affects. Prerequisite: PHCY 4450. (normally offered fall semester.)

PHCY 5140. Pharmacotherapy for Primary Care. 3. Prepares primary care practitioners in drug therapy management for various client populations, emphasizing rural practice. Cross listed with NURS 5140. Prerequisite: B.S.N; Baccalaureate in health care field, or consent of the instructor.

PHCY 5550/6550. Advanced Cardiovascular Physiology and Pharmacology. 3. An advanced study in the integration of modern cardiovascular physiology, pharmacology, biochemistry, and cell biology concepts. Prerequisites: PHCY 6230 (or equivalent) and consent of instructor.

PHCY 6100. Dose Form Design. 4. Extensively introduces various types of dosage forms, discusses advantages and disadvantages of each. Pharmaceutical calculations are a major component of the course, as well as physicochemical principles involved in dose form stability. Prerequisites: CHEM 2420 and 2440.

PHCY 6101. Practical Aspects of Dosage Form Design. 1. Preparation and evaluation of dosage forms is main thrust of course. Laboratory emphasizes manipulative and mathematical skills, prescription formats, packaging, and storage as they apply to pharmaceuticals. Prerequisites: concurrent enrollment in PHCY 6100, MATH 2200.

PHCY 6102. Biopharmaceutics/Pharmacokinetics. 4. [M3]. A discussion of basic concepts in biopharmaceutics and pharmacokinetics. Qualitative and quantitative descriptions of factors, which influence drug absorption and disposition and rationale for drug dosage selection, are discussed. Basic pharmacokinetics and biopharmaceutics are applied to clinical situations. Prerequisites: MATH 2200 and PHCY 6100 and PHCY 6106.

PHCY 6103. Sterile Products. 2. An introduction to the preparation and clinical application of sterile dosage forms. Emphasizes basic principles related to preparation, dispensing, and administration of parenteral medications in extended care and hospital pharmacy practice. Prerequisites: PHCY 6100, 6101, 6105, and concurrent enrollment in PHCY 6104.

PHCY 6104. Sterile Products Laboratory. 1. A hands-on training in techniques used to prepare, dispense and administer parenteral admixtures, parenteral nutrition, chemotherapy,
and ophthalmics. **Prerequisites:** PHCY 6100, PHCY 6101, PHCY 6105 and concurrent enrollment in PHCY 6103.

**PHCY 6105. Pharmaceutical Calculations.** 2. Application of basic mathematics and quantitative reasoning to pharmaceutical calculations, emphasizing calculations of doses, dosage requirements, compounding of formulations and parenterals. **Prerequisites:** Math 1400.

**PHCY 6110. Medicinal and Natural Products Chemistry I.** 3. First of a three-semester series that studies physicochemical, biochemical, and pharmacological properties of substances of natural and synthetic origin that are used as medicinal agents. **Prerequisites:** CHEM 2440 and MOLB 3610.

**PHCY 6152. Therapeutics I.** 4. A study of the basic principles employed in the pharmacotherapeutic management of common disease states. Includes the pharmacist's role in monitoring drug therapy of the patient and serving as a drug consultant to the health care team. **Prerequisite:** grade of C or higher in PHCY 6251.

**PHCY 6170. Introductory Pharmacy Practicum.** 1. Provides an early curricular exposure to the roles and functions of pharmacists in their work environment through a shadow experience. **Prerequisites:** satisfactory completion of PHCY 6185.

**PHCY 6185. Seminar: Role of the Pharmacist in Health Care.** 1. Provides an overview and survey of the scope of pharmacy, including educational and licensing requirements; career opportunities, pharmacy organizations and regulatory agencies, and historical evolution. **Prerequisites:** admission to the doctor of pharmacy professional program.

**PHCY 6210. Medicinal and Natural Products Chemistry II.** 3. Continuation of Medicinal and Natural Products Chemistry I. **Prerequisite:** PHCY 6110.

**PHCY 6211. Medicinal and Natural Products Chemistry III.** 3. Continuation of Medicinal and Natural Products Chemistry II. **Prerequisite:** PHCY 6210.

**PHCY 6220. Pathophysiology II.** 3. Continuation of PHCY 4450. Students work closely with clinical case studies. **Prerequisite:** PHCY 4450.

**PHCY 6230. Pharmacology I.** 4. First semester of a one-year series. Studies action of chemical agents on living systems to include pharmacodynamics, toxicology, and clinical therapeutics. Concepts are emphasized through case presentation and discussion. **Prerequisites:** PHCY 4450. Discussion required.

**PHCY 6231. Pharmacology II.** 4. Second semester of a one-year series. Continuation of PHCY 6230. **Prerequisites:** PHCY 6230. Discussion required.

**PHCY 6241. Organizational and Societal Issues within the Health Care System.** 3. Provides students with knowledge of the U.S. and Wyoming healthcare systems from both the organizational and sociological perspectives for the purpose of understanding how these systems impact patient care and health policy. Topics include organization of healthcare systems, insurance programs, legislation, and health care professions. **Prerequisite:** enrollment in the doctor of pharmacy professional program or consent of the instructor.

**PHCY 6245. Patient/Professional Interactions.** 3. Focuses on psychosocial and communication concepts pertaining to human interactions, with application to professional practice environments and clinical counseling situations. **Prerequisites:** Enrollment in professional program or P2 status.
PHCY 6250. Drug Literature Evaluation. 3. [WC-L]. Provides a knowledge base, techniques, and skills for information retrieval, evaluation of medical and pharmaceutical practice literature, and application to specific patient problems. Prerequisites: STAT 2050.

PHCY 6251. Therapeutics II. 3. Pharmacotherapeutic principles employed in the management and monitoring of drug therapy. Assesses the impact of drug therapy on clinical laboratory parameters, metabolic states, and specific patient populations. Introduces the pharmacotherapeutic management of common disease states. Prerequisites: PHCY 6220, 6230.

PHCY 6270. Intermediate Pharmacy Practicum. 1. An advanced exposure to the practice of pharmacy in health care environments. Prerequisites: satisfactory completion of PHCY 6170.

PHCY 6280. Seminar: Pharmacy Ethics. 1. Provides the student with an introduction to the field of bioethics, with an emphasis on the ethics of the pharmacist in the provision of pharmaceutical products and services to patients. Prerequisites: Enrollment in the Pharm.D. professional program.

PHCY 6285. Seminar: The Drug Use Process. 1. Focuses on how and why people use pharmaceuticals; people as patients; illness and wellness behavior; drug misadventuring, and appropriate intervention strategies. Prerequisites: PHCY 6185.

PHCY 6312. Clinical Toxicology. 3. Focuses on biological and pharmacological effects of environmental, chemical, OTC, and prescription drug poisoning cases. Emphasis will be placed on the use of historical, laboratory, and clinical data to diagnose and develop clinical management approaches for both acute and chronic poisoning cases. Prerequisite: PHCY 6230, MOLB 3610.

PHCY 6341. Pharmacy Practice Law. 3. Provides the student with a working knowledge of the legal responsibilities of pharmacists for distributing pharmaceutical products and the provision of pharmaceutical care services to patients. This course covers state and federal statutes, rules, and regulations that impact the practice of pharmacy. Prerequisites: PH3 or consent of the instructor.

PHCY 6342. Pharmacy Administration. 3. Examines management of pharmaceutical services, analysis of drug distribution systems in the U.S., contemporary pharmacy practice, and problems common or peculiar to all types of pharmacy service. Prerequisite: PH3 status.

PHCY 6343. Pharmacoeconomics. 2. Designed to provide the student with the techniques to evaluate health care economic data for application to the pharmaceutical care of patients. Prerequisites: MATH 2200; PHCY 6250.

PHCY 6350. Therapeutics III. 4. A study of the basic principles employed in the pharmacotherapeutic management of common disease states. Includes the pharmacist’s role in monitoring drug therapy of the patient and serving as a drug consultant to the health care team. Prerequisite: grade of C or higher in PHCY 6251.

PHCY 6351. Therapeutics IV. 4. Continuation of Therapeutics III. Prerequisite: grade of C or higher in PHCY 6350.

PHCY 6354. Pharmacy Practice Laboratory. 2. Emphasizes the application of patient and disease state management pharmaceutical care skills by modeling patient care clinics, community practice, and institutional practice. Emphasizes patient counseling, assessment, monitoring, and development of patient care plans in “mock” patient scenarios. Prerequisites: enrollment in the doctor of pharmacy professional program.
PHCY 6356. Physical Assessment in the Evaluation of Drug Therapy. 1. Physical examination techniques and the interpretation of physical examination data. Emphasis is on a systemic approach to the physical examination, evaluation of patient data, maintaining patient charts, monitoring of patient outcomes, and development of treatment plans. Prerequisites: PH3 status or consent of the instructor.

PHCY 6357. Clinical Pharmacokinetics. 2. Pharmacokinetic principles of dosage regimen calculation and pharmacokinetic considerations relating to the use of various drugs. Clinical pharmacokinetics of therapeutically important drugs will be covered. Prerequisite: PHCY 6102.

PHCY 6370. Advanced Pharmacy Experience Orientation. 1. Designed to prepare the student for fourth year experiential activities by discussion of logistics, professionalism, regulatory issues, and assessment tools. Prerequisites: Good standing in the P3 year or consent of instructor.

PHCY 6465. Elective Rotation In __________________. 4. Max 8.0. Advanced practice experience in a variety of pharmacy practice, patient care, health care management, and pharmaceutical industry environments. Application of knowledge and skills with active participation in direct pharmaceutical care. Development of knowledge and skills related to specialized patient populations, health care management, and pharmaceutical industry. Students will be required to move to off-campus sites to complete this course. Prerequisite: grade of C or higher in PHCY 6351 and PHCY 6357.

PHCY 6470. Internal Medicine I. 4. Pharmacy practice experiences with acute care patient populations in community hospitals; exposure to various disease states and patient records; evaluating drug orders in medical records, assessing problems involving patient’s drug therapy, monitoring drug therapy to insure effective, safe, and economical patient care, and applying drug information skills. Prerequisite: grade of C or higher in PHCY 6351 and PHCY 6357.


PHCY 6473. Ambulatory Pharmaceutical Care I. 4. An experiential course focusing on the pharmacist as the drug expert in a multidisciplinary health care team approach to treating ambulatory patients within the philosophy of family practice. Prerequisite: grade of C or higher in PHCY 6351 and PHCY 6357.

PHCY 6480. Introduction to Community Pharmacy Practice. 4. Four-week rotation in community pharmacy practice completed under the guidance of a licensed pharmacist. Patient care activities will include, but not be limited to, basic patient and drug therapy assessment, performing medication histories and prospective drug utilization reviews, basic patient counseling, and active participation in the medication distribution process. Prerequisites: grade of C or higher in PHCY 6352 and 6354 and satisfactory completion of all courses within the P1 curriculum (i.e., P2 standing).

PHCY 6481. Advanced Community Pharmacy Practice. 4. An advanced practice experience in community pharmacy involves student learning and participation in non-dispensing models of pharmaceutical care, such as pharmacist anticoagulation clinics, vaccination clinics, smoking cessation, diabetic education, chronic disease drug therapy monitoring, self-care treatment, and indigent patient care, etc. Prerequisite: grade of C or higher in PHCY 6351 and PHCY 6357.

PHCY 6482. Introduction to Hospital Pharmacy Practice. 4. Four-week rotation in hospital pharmacy practice completed under the guidance of a licensed pharmacist. Patient-care
activities will include basic drug therapy and patient assessment, prospective drug utilization reviews, participating in the hospital’s medication distribution process, performing calculations, compounding preparations, and understanding pharmacy’s role within the health-system through interdisciplinary interactions. Prerequisites: grade of C or higher in PHCY 6352 and 6354 and satisfactory completion of all courses within the P1 curriculum (i.e., P2 standing).

PHCY 6483. Advanced Institutional Pharmacy. 4. An advanced practice experience in institutional pharmacy under the preceptorship of a licensed pharmacist. The student interacts with patients, health care professionals, and allied health personnel to assure the best use of medications. Prerequisite: grade of C or higher in PHCY 6351 and PHCY 6357.

6485. Reflective Learning in Pharmacy. 1 (Max. 3). This course brings P4 students back to campus for opportunities to share, reflect, and maximize learning from rotation experiences. Students will also give final presentations, submit portfolios, and participate in guest lectures and other learning experiences. This one-week course will meet at 12-week intervals throughout the P4 year. Offered S/U only. Prerequisites: PH4 status.

DESCRIPTION OF REQUIRED NON-PHARMACY COURSES

Professional

MOLB. 3610. Principles of Biochemistry. 4. For students who desire a thorough study of biological systems chemistry from a physical and physical organic approach, but who do not have a background in physical chemistry. Biochemical systems of living organisms are examined in terms of basic chemical concepts. Cross listed with CHEM 3610. Prerequisite: LIFE 1000 or 1010, and CHEM 2300 or 2340.

ZOO 4125. Human Integrative Physiology. 4. Examines how functional organ systems are coordinated and integrated to establish and maintain health. Develops the physiological principles established in ZOO 3115, and considers, amongst others, the functions of the immune, endocrine, and central nervous systems. Fulfills degree requirements in physiology subsection for zoology major. Prerequisite: ZOO 3115.

Preprofessional Prerequisite Courses

LIFE 1010. General Biology. 4. [S1<>SB] Discussions of fundamental concepts of biology are considered in 1010, including basic chemistry of living systems, cell structures and functions, energy relations, genetics, molecular biology, ecology, population dynamics, and evolutionary theory. Living invertebrate and vertebrate organisms studied during some lab meetings. Laboratory is required.

LIFE 2022. Animal Biology. 4. An integrative course addressing the evolution, anatomy, physiology, and ecology of animals. Continues building upon the four themes in BIOL 1010, cell and molecular biology, genetics, evolution, and ecology. Preserved animal specimens are dissected during some labs. Intended for students majoring in the life sciences. Laboratory is required. Prerequisites: BIOL 1010 with a C or better.

CHEM 1020. General Chemistry I. 4. [S2<>SP] First semester of one-year introductory series. Provides broad coverage of chemistry principles with inorganic and organic systems applications. Laboratory: 3 hours per week. Prerequisite: ACT math score of 23 or above, or concurrent enrollment in MATH 1400 or 1405 or 1450.
CHEM 1030. General Chemistry II. 4. [S2<>SP] Second semester of one-year introductory series. Provides broad coverage of chemistry principles with inorganic and organic systems applications. Laboratory: 3 hours per week. Prerequisite: CHEM 1020.

CHEM 2420. Organic Chemistry I. 4. First semester of a one-year sequence in organic chemistry. Approached from the viewpoint of modern chemical theory with special emphasis on structural and mechanistic concepts. Laboratory: three hours per week. Prerequisite: CHEM 1030 or CHEM 1060. (Offered fall semester.)

CHEM 2440. Organic Chemistry II. 4. The second semester of a one-year sequence in organic chemistry. The course is approached from the viewpoint of modern chemical theory with special emphasis on structural and mechanistic concepts. Laboratory: three hours per week. Prerequisite: CHEM 1030 or CHEM 1060 and CHEM 2420. (Offered spring semester.)

STAT 2050. Fundamentals of Statistics. 4. Presents central ideas and fundamental techniques of statistical inference on application in the biological sciences. Includes probability models and inference for means, variances, and parameters of discrete distributions. Introduces statistical computer packages in biweekly labs. Prerequisite a grade of C or better in Math 1000, 1400 or equivalent.

MATH 2200. Calculus I. 4. Calculus with emphasis on physical science applications. Includes plane analytic geometry, differentiation, applications of the derivative, differential equations, integration, and applications. Prerequisite: grade of C or better in MATH 1405 or MATH 1450 or Level 5 on the Math Placement Exam/ACT

MOLB 2240. Medical Microbiology. 5. Designed primarily for nursing and prepharmacy majors. Introduces students to microbiology, including the diversity of procaryotic and eucaryotic microbes, their structural and physiological properties, and their applied medical significance. Also covers the basic principles of the immune system and emphasizes the communicable diseases of man caused by microbial pathogens. Cross-listed with MICR 2240. Prerequisites: BIOL 1010.

KIN 2040. Human Anatomy. 4. Study of human structure in terms of its microscopic and gross anatomy. Provides students with adequate background to study human physiological function. The corresponding course, to be taken concurrently, is ZOO/KIN 2041. Prerequisite: BIOL 1000 or 1010.

KIN 2041. Human Anatomy Laboratory. 1. A laboratory study of human structure in terms of human microscopic and gross anatomy. This laboratory course is designed to provide students with an adequate background to study human physiology and kinesiological function. Prerequisite: KIN/ZOO 2040 or concurrent enrollment in KIN/ZOO 2040.

ZOO 3115. Human Systems Physiology. 4. Covers the fundamental function(s) of the human body systems, from cells and tissues through organs and systems, focusing also on biological communication and homeostasis. Students learn how to interpret physiological data. Includes laboratory and tutorial sessions. Fulfills degree requirement in physiology subsection for zoology major. Cross listed with KIN 3115. Prerequisites: BIOL/LIFE 1010 or equivalent, and a semester of chemistry, physics, and math.

* Note: University Studies Program course descriptions can be found in the General Bulletin.
FOR FURTHER INFORMATION

The University of Wyoming welcomes interest in its School of Pharmacy. The pharmacy faculty and other university officials stand ready to aid prospective students in any possible way. The university publishes several bulletins and brochures with general information valuable to prospective students. These include:

The UW General Bulletin (http://uwadmnweb.uwyo.edu/REGISTRAR/bulletin/main.html): Contains complete information on admission, fees, curriculum, and all courses of study.

Wyoming Financial Aid and Scholarships (http://uwadmnweb.uwyo.edu/sfa/): Lists scholarships, loans, and part-time employment available to UW students.

Future Students (http://www.uwyo.edu/admissions/index.html): A link for the student who is coming to UW.

For additional information on the University of Wyoming’s School of Pharmacy, please contact:

Manager, Pharmacy Student Services
University of Wyoming
Dept. 3375, 1000 E. University Ave.
Laramie, WY 82071-3375
Phone: (307) 766-6132 • Fax: (307) 766-2953
E-mail: uwpharmacy@uwyo.edu • www.uwyo.edu/pharmacy/
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Roberta Cesko
Staff Assistant, Office Manager

Bruce W. Culver, Ph.D.
Professor of Pharmacology

E. Kurt Dolence, Ph.D.
Associate Professor of Medicinal Chemistry

Lanae L. Fox, Pharm.D.
Clinical Assistant Professor of Pharmacy Practice

Cara Harshberger, Pharm.D.
Clinical Assistant Professor of Pharmacy Practice

Guanglong He, Ph.D.
Associate Professor of Medicinal Chemistry

Michelle L. Hilaire, Pharm.D.
Clinical Associate Professor of Pharmacy Practice

Jaime Hornecker, Pharm.D.
Clinical Associate Professor of Pharmacy Practice

Melissa Hunter, Pharm.D.
Director, Drug Information Center

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