

**Doctor of Pharmacy (PharmD)**  
**Idaho State University**  
**Learning Outcomes**

<b>Course</b>
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<b>PHAR 9905 – Introduction to Clinical Problem Solving</b>
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| <ul style="list-style-type: none"><li>• Students will apply knowledge gained in other courses and apply it to patient cases. Students will identify medication related problems, list possible alternatives, and provide pharmacotherapeutic recommendations.</li><li>• Students will identify relevant primary, secondary, and tertiary literature and be able to critique and apply findings to patient cases.</li><li>• Students will collect relevant patient information from cases provided and organize it into a usable format.</li><li>• Students will identify potential adverse reactions from information provided in patient cases.</li><li>• Students will identify and make recommendations for solving or preventing drug-drug, drug-disease and drug lab interactions.</li><li>• Students will be able to list and evaluate therapeutic options for a specific patient case, including risk and benefits of each option.</li><li>• Students will establish therapeutic goals for their case patients and recommend a plan to reach those goals associated with outcomes.</li><li>• Students will develop individualized pharmacotherapeutic plans for their case patients and articulate recommendations for identified problems.</li><li>• Students will establish appropriate and specific monitoring parameters for recommended pharmacotherapeutic plans, including intervals and duration.</li><li>• Students will document pharmaceutical care plans using the SOAP format.</li><li>• Students will recognize the relationship between problem solving and quality improvement initiatives in health care settings.</li><li>• Students will identify and articulate recommendations for health promotion and disease prevention as part of the overall pharmaceutical care plan documentation.</li><li>• Students will be able to explain problem solving applications as it relates to population management.</li><li>• Students will identify and provide recommendations for resolving patient health-related problems as part of overall pharmaceutical care plan documentation.</li><li>• Students will apply problem solving techniques that are applicable to a variety of settings.</li><li>• Students will provide appropriate patient education and counseling in written and oral formats.</li><li>• Students will provide useful and appropriate drug information as part of pharmacotherapeutic plan recommendations.</li><li>• Students will be introduced to their role as members of an interprofessional health care team in the provision of pharmacotherapeutic recommendations.</li><li>• Students will communicate pharmacotherapeutic plans in a professional and culturally sensitive manner verbally and in writing.</li><li>• Students will counsel a simulated patient on a new medication in person and communicate by phone with a health professional colleague regarding a prescription.</li><li>• Working in groups, students will demonstrate different forms of communication, including in written and oral formats when providing pharmacotherapeutic recommendations and plans.</li></ul> |
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- Student will work positively with other students and faculty in development of pharmacotherapeutic plans.
- Students will demonstrate self-awareness and a commitment to personal growth in a simulated patient care environment.
- Students will apply group feedback given to the class in total by instructors to their own personal work and utilize that to self-reflect on their how their notes could improve.
- Students will utilize what they learned about their own conflict management style when dealing with challenges between health professionals in recommendations for patient care.
- Students will demonstrate professional behavior when interacting with fellow students and faculty and in defending pharmacotherapeutic recommendations.
- Students will accept responsibility for patient outcomes related to drug therapy.
- Students will display the highest standards of moral, ethical and legal conduct when developing and articulating pharmacotherapeutic recommendations and plans.

#### **PHAR 9906 – Case Studies in Pharmacy I**

- To be able to formulate appropriate patient care plans and recognize relevant patient information
- To utilize scientific evidence in determining appropriate drug therapy
- Recognize relevant patient information that can guide therapy recommendations
- Be able to interpret results of a physical assessment, and be able to perform certain basic assessments on one another
- Be able to educate patients and consider changes in medication to increase patient compliance
- Recognize adverse reactions and risk factors for their development
- Be able to recognize and communicate any drug-related problems found in patient cases
- be familiar with therapeutic options and factors to consider in choosing one drug over another
- Given a patient case, establish patient-specific therapeutic outcomes
- Given a patient scenario, be able to recommend appropriate pharmacotherapy
- be able to provide appropriate education and monitoring parameters for medication use and disease state management
- Be able to explain rationale for drug therapy recommendations
- Be able to provide education and information on appropriate life style changes that can help prevent the development or progression of disease
- Demonstrate the ability to counsel patients on their medications and disease states including coverage of OBRA '90 requirements, OTC and self-care products, use of drug delivery devices and other health care products
- Be able to communicate in all forms to other health care providers, peers, and patients
- Be able to work as a team with other pharmacy students to collaborate ideas with the goal of successful management of patients
- Students will demonstrate self-awareness and a commitment to personal growth in a simulated patient care environment.
- Students will demonstrate professional behavior when interacting with fellow students and faculty and in defending pharmacotherapeutic recommendations.
- Students will accept responsibility for patient outcomes related to drug therapy
- Students will display the highest standards of moral, ethical, and legal conduct when developing and articulating pharmacotherapeutic recommendations and plans.

#### **PHAR 9906L – Case Studies in Pharmacy I Lab**

- Apply knowledge learned in the classroom to laboratory activities.
- Evaluate and apply cardiovascular scientific literature to laboratory activities.

- Given a patient case, recognize medical information that is relevant and practice collecting "patient information" during role playing exercises.
- Be able to perform the basic aspects of respiratory and cardiovascular physical assessment and recognize the significance of common physical findings.
- Recognize the importance of considering patient adherence when working with case-based scenarios. Postulate questions that the patient could be asked in order to assess this.
- Recognize risk factors for adverse drug reactions and factor into case-based decision making.
- Be able to assess patient cases for drug-related problems.
- Given a patient scenario, be able to list standard treatment options and factors to consider in choosing one treatment over another.
- Given a patient case, identify appropriate therapeutic outcomes.
- Given a patient case, be able to recommend an appropriate treatment plan.
- Given a patient case, recognize and interpret common disease state and drug monitoring parameters.
- When analyzing and solving a patient case, be able to verbally articulate your thought process and justify your treatment plan.
- While role playing, be able to effectively counsel on behaviors that promote health, maintain wellness, prevent and control disease.
- Be able to assess patient cases for drug-related problems and recommend appropriate solutions.
- Using role playing, demonstrate effective patient counseling skills regarding medications, disease states, OBRA '90 requirements, OTC and self-care products, use of drug delivery devices and other health care products.
- Be able to use a variety of drug information resources for assessing and solving patient cases in the classroom.
- Demonstrate the ability to teach your peers in a laboratory setting and use appropriate information and terminology when practicing patient counseling.
- Demonstrate the ability to motivate patients to take responsibility for their health through role playing counseling activities.
- Develop an appreciation for the role of physician assistants and any other health care providers encountered during laboratory exercises.
- Communicate in a professional and culturally sensitive manner during all laboratory activities.
- Demonstrate the ability to communicate effectively during laboratory exercises.
- Demonstrate skill in verbal, non-verbal and written forms of communication.
- Display effective interpersonal skills with faculty, peers, and other health professionals encountered during this course.
- Assess the performance of others during laboratory presentations and utilize this information to improve your own performance.
- Demonstrate responsibility for creating and achieving shared goals during group activities related to this course.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately, and assuming responsibility for one's actions.
- Develop a sense for the level of responsibility needed to fulfill your obligation for providing patient centered care.
- Maintain high standards with regard to moral, ethical, and legal conduct.

**PHAR 9907 – Case Studies in Pharmacy II**

- To be able to formulate appropriate patient care plans and recognize relevant patient information

- To utilize scientific evidence in determining appropriate drug therapy
- Recognize relevant patient information that can guide therapy recommendations
- Be able to interpret results of a physical assessment, and be able to perform certain basic assessments on one another
- Be able to educate patients and consider changes in medication to increase patient compliance
- Recognize adverse reactions and risk factors for their development
- Be able to recognize and communicate any drug-related problems found in patient cases
- Be familiar with therapeutic options and factors to consider in choosing one drug over another
- Given a patient case, establish patient-specific therapeutic outcomes
- Given a patient scenario, be able to recommend appropriate pharmacotherapy
- Be able to provide appropriate education and monitoring parameters for medication use and disease state management
- Be able to explain rationale for drug therapy recommendations
- Be able to provide education and information on appropriate life style changes that can help prevent the development or progression of disease
- Demonstrate the ability to counsel patients on their medications and disease states including coverage of OBRA '90 requirements, OTC and self-care products, use of drug delivery devices and other health care products
- Be able to communicate in all forms to other health care providers, peers, and patients
- Be able to work as a team with other pharmacy students to collaborate ideas with the goal of successful management of patients
- Students will demonstrate self-awareness and a commitment to personal growth in a simulated patient care environment.
- Students will demonstrate professional behavior when interacting with fellow students and faculty and in defending pharmacotherapeutic recommendations.
- Students will accept responsibility for patient outcomes related to drug therapy
- Students will display the highest standards of moral, ethical, and legal conduct when developing and articulating pharmacotherapeutic recommendations and plans.

#### **PHAR 9907L – Case Studies in Pharmacy II Lab**

- Practice applying knowledge learned in the classroom to laboratory activities.
- Practice evaluating scientific literature and applying it during group discussion and other class activities.
- Given a patient case, recognize medical information that is relevant and practice collecting "patient information" during role playing exercises.
- Be able to perform the basic aspects of physical assessment and recognize the significance of common physical findings.
- Recognize the importance of considering patient adherence when working with case-based scenarios and be able to postulate questions that could be asked in order to determine this.
- Recognize risk factors for adverse drug reactions and factor into case-based decision making.
- Be able to assess patient cases for drug-related problems.
- Given a patient case, be able to evaluate therapeutic options.
- Given a patient case, identify appropriate therapeutic outcomes.
- Given a patient case, be able to recommend an appropriate treatment plan.
- Given a patient case, recognize and interpret common disease state and drug monitoring parameters

- When analyzing and solving a patient case, be able to verbally articulate your thought process and justify your treatment plan.
- Develop the knowledge needed to counsel patients on behaviors that promote health, maintain wellness, prevent and control disease.
- Be able to assess patient cases for drug-related problems and recommend appropriate solutions.
- Using role playing, demonstrate effective patient counseling skills regarding medications, disease states, OBRA '90 requirements, OTC and self-care products, use of drug delivery devices and other health care products
- Be able to utilize a variety of drug information resources to assess and solve patient cases in the classroom.
- Demonstrate the ability to teach your peers in a laboratory setting and use appropriate information and terminology when practicing patient counseling.
- Demonstrate the ability to motivate patients to take responsibility for their health through role playing counseling activities.
- Develop an appreciation for the role of physician assistants and any other health care providers helping with laboratory teaching.
- Communicate and interact in a professional and culturally sensitive manner during all laboratory activities.
- Demonstrate the ability to communicate effectively and appropriately during laboratory exercises.
- Demonstrate skill in verbal, non-verbal and written forms of communication in all laboratory activities
- Display effective interpersonal skills with faculty, peers, guests, and other health care professionals encountered in this course.
- Assess the performance of others during laboratory presentations and utilize this information to improve your own performance
- Demonstrate responsibility for creating and achieving shared goals during any group activities related to this course.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately, and assuming responsibility for one's actions.
- Develop a sense for the level of responsibility needed to fulfill your obligation for providing patient centered care.
- Maintain high standards with regard to moral, ethical, and legal conduct.

#### **PHAR 9908 – Case Study in Pharmacy III**

- To be able to formulate appropriate patient care plans and recognize relevant patient information
- To utilize scientific evidence in determining appropriate drug therapy
- Recognize relevant patient information that can guide therapy recommendations
- Be able to interpret results of a physical assessment, and be able to perform certain basic assessments on one another
- Be able to educate patients and consider changes in medication to increase patient compliance
- Recognize adverse reactions and risk factors for their development
- Be able to recognize and communicate any drug-related problems found in patient cases
- be familiar with therapeutic options and factors to consider in choosing one drug over another
- Given a patient case, establish patient-specific therapeutic outcomes
- Given a patient scenario, be able to recommend appropriate pharmacotherapy

- be able to provide appropriate education and monitoring parameters for medication use and disease state management
- Be able to explain rationale for drug therapy recommendations
- Be able to provide education and information on appropriate lifestyle changes that can help prevent the development or progression of disease
- Demonstrate the ability to counsel patients on their medications and disease states including coverage of OBRA '90 requirements, OTC and self-care products, use of drug delivery devices and other health care products
- Be able to communicate in all forms to other health care providers, peers, and patients
- Be able to work as a team with other pharmacy students to collaborate ideas with the goal of successful management of patients
- Students will demonstrate self-awareness and a commitment to personal growth in a simulated patient care environment.
- Students will demonstrate professional behavior when interacting with fellow students and faculty and in defending pharmacotherapeutic recommendations.
- Students will accept responsibility for patient outcomes related to drug therapy
- Students will display the highest standards of moral, ethical, and legal conduct when developing and articulating pharmacotherapeutic recommendations and plans.

#### **PHAR 9912 – Introductory Pharmacy Practice Experience II**

- Student should be able to apply basic medical terminology when discussing disease states and medical procedures. Nonprescription and prescription drug knowledge will be utilized in patient counseling opportunities.
- Students should be able to critically appraise required medical literature during their IPPE experience and present the information in an appropriate manner.
- Students should be able to identify areas of a patient profile and importance in communication between the healthcare team.
- Students should be able to screen and assess patient's adherence to medication therapy based on fill histories.
- Students should be able to utilize the Gold-standard databases to assess patient's medications for potential ADRs.
- Students should be able to utilize the Gold-standard databases to assess patient's medications for potential interactions and be able to communicate this to pharmacist. Students should be able to discuss potential management strategies for potential drug interactions.
- Students should be able to make rational drug therapy recommendations for nonprescription products and be able to discuss all nonprescription therapeutic options.
- Students should be able to communicate to patients what to expect with treatment options before the patient is started on therapy.
- Working with a community pharmacist, students should be able to develop an individual care plan for patients.
- Students should be able to appropriately recommend nonprescription therapy options to patients and to document in the pharmacy's electronic records.
- Students should be able to describe the workflow process in dispensing of medications in a community pharmacy. Students should be able to list the responsibilities of each member in the pharmacy and what their limitations are in accordance with the law.
- Students will be able to deliver immunizations.
- Be able to discuss patient related problems in the community pharmacy and within the healthcare team.

- Student should be able to counsel a patient for nonprescription and prescription medications under the OBRA-90 criteria.
- Student should be able to look up drug information and provide an overview of the information gathered to both a healthcare provider and patients.
- Appropriately communicates with other healthcare professionals and students.
- Appropriately communicate to patients, other healthcare professionals and students.
- Appropriately communicates with other healthcare professionals and students in a collaborative process.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Student is able to identify ways to solve problems in innovative ways.
- Is courteous, cooperative and respectful in all interactions - patients, healthcare professionals and other students
- Is able to perform the basic functions and/or skills assigned in this practice setting

### **PHAR 9913 – Introductory Pharmacy Practice Experience III**

- Student should be able to apply basic medical terminology when discussing disease states and medical procedures. In addition, students should be able to apply therapeutic knowledge from the P2 module sequence to disease states and therapy recommendations.
- Students should be able to critically appraise required medical literature during their IPPE experience and present the information in an appropriate manner.
- Students should be able to identify areas of a patient profile and importance in communication between the healthcare team.
- Students should be able to screen and assess patient's adherence to medication therapy based on medication reconciliation.
- Students should be able to utilize the Gold-standard databases to assess patient's medications for potential ADRs.
- Students should be able to utilize the Gold-standard databases to assess patient's medications for potential interactions and be able to communicate this to pharmacist. Students should be able to discuss potential management strategies for potential drug interactions.
- Students should be able to make rational drug therapy recommendations for nonprescription products and be able to discuss all nonprescription therapeutic options.
- Working with an institutional pharmacist, students should be able to develop an individual care plan for patients when appropriate.
- Students should be able to interpret and recommend drug and disease state monitoring for patients in an institutional setting.
- Students should be able to appropriately recommend evidenced based therapy options to providers or patients and to document in the electronic records.
- Students should be able to describe the workflow process in an institutional pharmacy. Students should be able to list the responsibilities of each member in the pharmacy and what their limitations are in accordance with the law.
- Students should be able to utilize appropriate pharmacy calculations for compounding medications in either sterile or non-sterile pharmacy preparations.
- Students should be able to accurately calculate and measure the appropriate medications, adjuvants, or solutions to compound sterile medications.

- Students should be exposed to systems that an institutional pharmacist will utilize in managing inventory control. In addition, the student should be exposed to medication/safety management protocol and be able to state what components are necessary for such a program.
- Students should be able to perform a simple transition of care documentation and be able to record the patient information in an electronic health record.
- Students will be able to deliver immunizations and lifestyle changing consultations.
- Be able to discuss patient related problems in the institutional pharmacy and within the healthcare team.
- Student should be able to counsel a patient on a top 200 prescription medications under the OBRA-90 criteria.
- Student should be able to look up drug information and provide an overview of the information gathered to both a healthcare provider and patients.
- Appropriately communicates with other healthcare professionals and students.
- Appropriately communicate to patients, other healthcare professionals and students.
- Appropriately communicates with other healthcare professionals and students in a collaborative process.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Demonstrates the ability to self-assess, accept and utilize feedback, and learn independently.
- Student is able to identify ways to solve problems in innovative ways.
- Is courteous, cooperative and respectful in all interactions - patients, healthcare professionals and other students
- Is able to perform the basic functions and/or skills assigned in this practice setting

**PHAR 9914 – Introductory Pharmacy Practice Experience IV**

- Interact in a professional and culturally sensitive manner including demonstrating respect and sensitivity for others, be open-minded and nondiscriminatory and maintain patient confidentiality.
- Demonstrate professional behavior at all times, including, but not limited to punctuality, reliability, meeting deadlines, and assume responsibility for one's actions.
- Consistently maintain a professional demeanor in regards to ethical behavior, respectfulness, personal hygiene, appropriate attire, empathy, and reliability.
- Accept responsibility for individual patient outcomes and give priority to patient well-being and safety.
- Participate actively and effectively in all educational activities and as a member of an interdisciplinary health care team.
- Deliver pharmaceutical care in accordance with moral, ethical and legal principles.
- Communicate appropriately and professionally with other students, healthcare professionals and patients.
- Demonstrate effective patient interviewing and medication/disease state counseling skills.
- Be able to assess the patient's comprehension of counseling.
- Demonstrate linguistic and cultural competency in communications with patients, family members, and healthcare professionals about medications and other health care issues

**PHAR 9921 – Biological Basis of Drug Action I**

- Students are expected to acquire the necessary foundational knowledge in BBDA1 to be able to apply this information in both the classroom setting and their future practice.
- Students are expected to critically evaluate primary scientific data as presented in class.

- Recognize the role that the pharmacokinetic and pharmacodynamic properties of drugs may play in adverse drug reactions
- Recognize the effects of the pharmacokinetic and pharmacodynamic, genetic properties of drugs on drug action, drug disposition, drug elimination, and potential drug interaction
- Communicate and interact in a professional and the culturally sensitive manner in the classroom including demonstrating sensitivity and respect for others and being open minded and nondiscriminatory
- Communicate effectively with instructors and peers.
- Demonstrate effective communication skills during in-class discussions
- Work effectively with peers during in-class group assignments and/or discussions
- Work effectively with peers during in-class group assignments to create and achieve shared goals
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's own actions.
- Maintain high standards with regard to moral, ethical, and legal conduct within the classroom

#### **PHAR 9922 – Biological Basis of Drug Actions II**

- Acquire, recognize, and explain foundational knowledge, including brand/generic, class, mechanism of action, indication and adverse effects of the top 300 drugs.
- Identify and explain common side effects for a patient's medications.
- Identify and explain patient-specific pharmacotherapeutic goals for therapy.
- Identify and explain major monitoring parameters for top 300 drugs.
- Identify and explain adjunct therapies and lifestyle modifications as appropriate to improve health, augment drug therapy and reduce disease risk.
- Identify and explain any preventative and health maintenance issues relevant to a particular patient.
- Provide timely, clear, and accurate drug information and education in a format appropriate to patients and caregivers.
- Provide timely, clear, and accurate drug information and education in a format appropriate to patients and caregivers.
- Effectively communicate information verbally and non-verbally when interacting with a patient.
- Effectively communicate information verbally and non-verbally when interacting with a patient.
- Effectively communicate information verbally and non-verbally when interacting with a patient.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's actions.
- Maintain high standards with regard to moral, ethical, and legal conduct.

#### **PHAR 9923 – Professional Development I**

- Reflect on ability to apply information presented in coursework.
- Reflect on ability to analyze and appropriately interpret information pertinent to field.
- When analyzing patient cases or reflections, be able to articulate rationale and justification of your approach.
- Reflect on IPPE and other outreach activities during the year as related to your ability to provide health and wellness counseling.
- Annually, self-evaluate your patient counseling skills.
- Annually, self-evaluate your ability to work with peers and other health care professionals using appropriate information and terms when discussing patient cases and/or practicing patient counseling.
- Reflect on IPPE and IPE activities during the year.

- Self-evaluate and self-reflection on your ability to communicate in a professional and culturally sensitive manner during all coursework and
- experiential/inter-professional activities.
- Reflect on your ability to provide verbal, non-verbal and written forms of communication.
- Reflect upon learning as it relates to being a life-long learner, how you will accept and utilize feedback, and learn independently.
- Describe what it means to be introspective through reflections and self-assessments. Describe how you might use this skill to improve your own performance.
- Self-assess your ability to lead, and set SMART goals despite position.
- Reflect upon coursework as well as experiential activities, and how you used creative thinking to accomplish a task or share a point/perspective.
- Reflect upon the qualities and characteristics that define professional behavior.
- Reflect upon why it is important for pharmacists to maintain high moral, ethical and legal standards.

#### **PHAR 9924 – Physiochemical Basis of Drug Action**

- Students are expected to acquire the necessary foundational knowledge in medicinal chemistry to be able to apply this information in both the classroom setting and their future practice.
- Students are expected to critically evaluate primary scientific data as presented in class.
- Recognize the role that the physicochemical properties of drugs may play in adverse drug reactions
- Recognize the effects of the physicochemical properties of drugs on drug action, drug disposition, drug elimination, and potential drug interaction
- Communicate and interact in a professional and the culturally sensitive manner in the classroom including demonstrating sensitivity and respect for others and being open minded and nondiscriminatory.
- Communicate effectively with instructors and peers.
- Demonstrate effective communication skills during in-class discussions.
- Work effectively with peers during in-class group assignments and/or discussions.
- Work effectively with peers during in-class group assignments to create and achieve shared goals.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's own actions.
- Maintain high standards with regard to moral, ethical, and legal conduct within the classroom.

#### **Phar 9926 – Basic Pharmacokinetics and Calculations**

- Utilize mathematical techniques to determine proper pharmacy and clinical calculations
- Gather relevant pharmacokinetic data from provided patient information
- Utilize pharmacokinetic techniques to monitor and/or predict possible adverse reactions.
- Determine appropriate dosing rates for patients
- Dispense prescription medications safely, accurately, efficiently, and in accordance with all federal and state requirements
- Accurately calculate the quantity of medication to be compounded or dispensed, including the rate of parenteral drug administration
- Develop a patient-specific dosage regimen based on drug indication and dose appropriateness, identify and resolve any possible drug interactions, and monitor efficacy and side effects
- Develop a patient-specific dosage regimen based on drug indication and dose appropriateness, identify and resolve any possible drug interactions, and monitor efficacy and side effects

- Identify opportunities for interprofessional collaboration with other healthcare provider with patient-centered approach in mind

**PHAR 9927 – Dosage Form Design and Compounding with Lab**

- Evaluate the possible effects of a specific dosage form on a patient adverse event.
- Understand effects of dosage forms on therapy outcomes.
- Understand the differences in dosage forms to be sure the correct form is dispensed.
- Dispense prescription medications safely, accurately, efficiently, and in accordance with all federal and state requirements
- Accurately calculate the quantity of medication to be compounded or dispensed, including the rate of parenteral drug administration
- Provide counseling to patients and/or caregivers including proper instructions for the safe and effective use of medications and devices.
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.
- Provide counseling to patients and/or caregivers including proper instructions for the safe and effective use of medications and devices.
- Provide counseling to patients and/or caregivers including proper instructions for the safe and effective use of medications and devices.
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.
- Communicate drug product counseling on compounded medications and specific dose forms in written and verbal forms
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.
- Communicate drug product counseling on compounded medications and specific dose forms in a culturally sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory, and maintaining patient confidentiality.

**PHAR 9931 – Health Care I**

- Perform basic economic calculations and define terminology.
- Define basic epidemiological terminology and develop the ability to recognize and critique evidence utilizing population-based outcomes.
- Identify ways general practicing pharmacists can contribute to public health.
- Recognize health disparities are prevalent in the US health care system by reading reports and case studies.
- Develop techniques for communicating with patients having different cultures, beliefs, and values.
- Appreciate health prospective of patients from different cultures and backgrounds may differ by modeling techniques demonstrated in video instruction.
- Differentiate between basic ethical terminology and concepts.

**PHAR 9933 – Professional Development II**

- Reflect on ability to apply information presented in coursework.
- Reflect on ability to analyze and appropriately interpret information pertinent to field.
- When analyzing patient cases or reflections, be able to articulate rationale and justification of your approach.
- Reflect on IPPE and other outreach activities during the year as related to your ability to provide health and wellness counseling.
- Annually, self-evaluate your patient counseling skills.
- Annually, self-evaluate your ability to work with peers and other health care professionals using appropriate information and terms when discussing patient cases and/or practicing patient counseling.
- Reflect on IPPE and IPE activities during the year.
- Self-evaluate and self-reflection on your ability to communicate in a professional and culturally sensitive manner during all coursework and
- experiential/inter-professional activities.
- Reflect on your ability to provide verbal, non-verbal and written forms of communication.
- Reflect upon learning as it relates to being a life-long learner, how you will accept and utilize feedback, and learn independently.
- Describe what it means to be introspective through reflections and self-assessments. Describe how you might use this skill to improve your own performance.
- Self-assess your ability to lead, and set SMART goals despite position.
- Reflect upon coursework as well as experiential activities, and how you used creative thinking to accomplish a task or share a point/perspective.
- Reflect upon the qualities and characteristics that define professional behavior.
- Reflect upon why it is important for pharmacists to maintain high moral, ethical and legal standards.

**PHAR 9941 – Introduction to Pharmacy Practice I**

- At the end of this course the student will be able to learn material on their own. This will be accomplished by self directed learning in OTC medications and drug information queries.
- Students will be able to evaluate a medical literature article and be able to present it formally during a journal club.
- Given a simple patient case, the students will be able to identify the patient problem and recommend the appropriate course of therapy.
- Students will be able to perform basic point of care tests (Hb A1c, cholesterol, blood glucose) as well as patient assessment of blood pressure, heart rate and breathing rate.
- Students will be able to identify a single problem in the setting of self-care.
- Students will be able to utilize OBRA-90 requirement to effectively provide patient counseling and be able to retrieve appropriate drug information and be able to deliver the information in a patient friendly manner.
- Students will be able to identify appropriate resource for providing health information. Students will become familiar with a wide variety of drug information databases. Students will be able to search the medical literature and find an appropriate article to answer a drug information question.
- Students will be able to present a journal club to students and college faculty. In addition, students will lead a discussion on their article.

- Students will create a formal, written drug information response to a mock health care provider. Students will be able to write a patient care note that is appropriate for a patient chart.

**PHAR 9942 – Introduction to Pharmacy Practice and Literature II**

- Students will be able to use their knowledge in study designs, statistics, and related topics to critically evaluate literature and other sources of information.
- Students will be able understand the medical/scientific literature, form appropriate conclusions, and use the literature to make informed and evidence-based patient recommendations.
- Students will be able to evaluate the literature as a component of evaluating appropriate therapeutic options.
- Students will be able to interpret the medical literature to provide pertinent drug information to an appropriate audience.
- Students will be able to appropriately convey data in written and verbal forms.
- Students will be able to interact appropriately with their peers and instructors.

**PHAR 9943 – Professional Development III**

- Reflect on ability to apply information presented in coursework.
- Reflect on ability to analyze and appropriately interpret information pertinent to field.
- When analyzing patient cases or reflections, be able to articulate rationale and justification of your approach.
- Reflect on IPPE and other outreach activities during the year as related to your ability to provide health and wellness counseling.
- Annually, self-evaluate your patient counseling skills.
- Annually, self-evaluate your ability to work with peers and other health care professionals using appropriate information and terms when discussing patient cases and/or practicing patient counseling.
- Reflect on IPPE and IPE activities during the year.
- Self-evaluate and self-reflection on your ability to communicate in a professional and culturally sensitive manner during all coursework and experiential/inter-professional activities.
- Reflect on your ability to provide verbal, non-verbal and written forms of communication.
- Reflect upon learning as it relates to being a life-long learner, how you will accept and utilize feedback, and learn independently.
- Describe what it means to be introspective through reflections and self-assessments. Describe how you might use this skill to improve your own performance.
- Self-assess your ability to lead, and set SMART goals despite position.
- Reflect upon coursework as well as experiential activities, and how you used creative thinking to accomplish a task or share a point/perspective.
- Reflect upon the qualities and characteristics that define professional behavior.
- Reflect upon why it is important for pharmacists to maintain high moral, ethical and legal standards.

**PHAR 9944 - Health Care II**

- Students will learn fundamental concepts related to the pharmacy industry and business structure and be able to build upon these principles.
- Students will learn the importance of appropriate communication as part of basic professionalism. Students will learn business basics and financial statements allowing for interactions regarding financial communication.

- Students will be able to articulate a response to a pro-forma need for financial statements and the ability to communicate using financial tools and practices.
- Reflect on pharmacy practice issues and demonstrate understanding of professionalism and its application in the provision of pharmacy services
- Using established business tools and principles and within an ethical decision-making framework, provide a sound rationale for new practice innovations and alternative approaches
- Students will explore in great detail the entrepreneurial opportunities in the pharmacy industry. This will include interaction with banking professionals and practice purchase brokers. Strategic formulation will be presented and pro-forma development of financial statements will be presented and tested.
- Students will demonstrate professional behavior in their discussion of business, ethical and legal issues with classmates, instructors, and other business professionals.
- Students will learn and discuss the need for professional responsibilities and high ethical standards when dealing with issues in the practice of pharmacy

**PHAR 9944L – Health Care II Lab**

- Gather patient information in a mock patient encounter.
- Assess patient adherence and self-management in a mock patient encounter.
- Establish drug and disease state monitoring in a mock patient encounter.
- Apply basics of pharmacy billing for clinical services using hands on activity.
- Appropriately provide patient education during a mock encounter.

**PHAR 9945/9945L – Health Care III with Lab**

- Create presentations for improved workflows, billing methods, or clinical recording tools utilizing pharmacy and operations management knowledge
- Assess and critique primary literature from pharmacy practice journals
- Develop and deliver an elevator pitch on a new pharmacy-based service or advancement for existing service.
- Recognize formulary terminology. If given a mock formulary be able to tailor patient care.
- Recognize role of transitions of care in medical errors. Identify opportunities for advancements in pharmacy practice in transitions of care.
- Be able to identify the role of Part D in MTM. Apply MTM practices to quality metrics.
- Utilize basic ME and ADR terminology. Apply root cause analysis to a case.
- Differentiate between cost effective versus cost saving practices. Identify patient reported and patient oriented outcomes in pharmacy literature and apply them to a given patient case.
- Identify and discuss the role of health disparities in health and wellness.
- Develop confidence and experience in patient counseling through simulation laboratories.
- Communicate drug information utilizing single drug/OBRA-90 counseling
- Engage in role-playing exercises on educating diverse populations including health care providers and vulnerable patient populations
- Discuss the importance of advocacy and practice communication techniques
- Identify opportunities for patient assistance programs and techniques for talking about health across different cultures
- Identify communication strategies for use in diverse patient settings.
- Develop skills in patient communication and motivational interviewing
- Develop skills in patient communication and motivational interviewing
- Determine a strategy for professional development and create a curriculum vitae
- Utilize counseling videos to reflect upon communication skills

- Develop a potential workflow or novel practice tool to promote pharmacy practice
- Identify role of medical ethics in pharmacy practice

#### **PHAR 9948 – Pharmacy Law**

- Students will be able to describe basic concepts of legislative, judicial, executive, administrative, civil, and criminal law as it applies to the practice of pharmacy. Students will also practice the skills necessary to continue to learn independently throughout their professional careers.
- Upon completion of the course, students will be able to: 1. Discuss the basic concepts of legislative, judicial, executive, administrative, civil, and criminal law. 2.
- Describe the historical development and content of select federal laws affecting pharmacy. 3. Define the practice of pharmacy and articulate the responsibilities and practice limits for pharmacists and non-pharmacists and negligence as it relates to the practice of pharmacy. 4. Describe the organizational structure, powers, duties, and functions of the Idaho and Alaska Boards of Pharmacy. 5. Order, receive orders for, fill, label, distribute, and dispense drugs in accordance with all applicable laws. 6. Maintain the security and integrity of drugs and protected health information. 7. Describe and comply with all law addressing the registration, licensure, and practice standards for both individuals and drug outlets. 8.
- Differentiate between prescription only and OTC drugs, describe the state and federal procedure for controlling substances, and list criteria to place drugs in each of the controlled substance schedules.
- Upon completion of the course, students will be able to: Adequately complete and maintain all notifications, inventories, records, and reports required by law.
- Students will be able to describe the process for identifying and resolving legal issues related to the practice of pharmacy in different practice settings.
- Students will be able to communicate legal issues related to the practice of pharmacy to patients, fellow pharmacists, and members of other healthcare professions.
- Students will learn to communicate legal issues effectively using different formats.
- Students will display effective interpersonal skills as related to communication and teamwork.
- Students will demonstrate a commitment to professional growth and to upholding the law.
- Through completion of student group projects, students will explore the rules of the Idaho and Alaska State Boards of Pharmacy, will work in teams, and will demonstrate responsibility for creating and achieving shared goals in regard to their group project.
- Through completion of the group project, students will explore the statutes, rules, and regulations of the Idaho and Alaska State Boards of Pharmacy and will utilize creative thinking and innovative strategies to 1) identify a potential rule change (addition, amendment, or deletion) that holds potential to improve public health or patient care in the state of Idaho or Alaska, or 2) develop a plan to implement a new pharmacy service in Idaho or Alaska and outline how that new service would be allowed by law.
- Students will display professional behavior in their interactions with each other and faculty during class.
- Students will uphold the highest standards of moral, ethical, and legal conduct by adhering to the self-determined class rules and reflecting on different case scenarios.

#### **PHAR 9949 - Human Physiology I**

- Students will draw upon foundational knowledge from previous coursework and are expected to learn independently from lecture and study of the text.
- Students are expected to demonstrate professional behavior through attendance and participation to all lectures.

- Students are expected to maintain high standards for ethical behavior by adhering to the testing rules and procedures.

**PHAR 9952 – Pharmacotherapy Lab IV**

- Students will be familiar with the major information resources in oncology and mental health and be able to utilize them effectively to answer oncology and mental health-related questions.
- Recognize relevant information that needs to be collected from either a patient or their medical record.
- From case history presentation, identify potential adverse drug reactions/interactions associated with existing or proposed pharmacotherapy regimen.
- Recognize drug-related issues for the disease states discussed in class, be able to apply them to specific patient cases.
- Describe therapeutic options, their role in therapy and factors to consider in choosing one agent over another.
- From a case history presentation, identify endpoint targets of proposed or existing pharmacotherapy regimens.
- Given a patient case, students should be able to develop an optimal pharmacotherapy plan.
- Based on a case history presentation, identify target symptoms, the drug-related response of those symptoms, potential adverse effects, and describe how the patient will be assessed.
- Explain your rationale for drug therapy recommendations.
- Students will be familiar with safe handling requirements for oncology agents.
- Students will be able to accurately perform dosing calculations for oncology agents.
- Based on a patient case presentation, identify patient-related health care problems and recommend solutions to those problems.
- Describe and model actual patient education in a laboratory setting after being provided with patient & pharmacotherapy regimen characteristics.
- When provided with a patient-related question, students will provide accurate and useful drug information related to that question.
- Students will be able to communicate effectively with peers and classroom instructors.
- Students will demonstrate professional behavior during all laboratory sessions.

**PHAR 9956 – Human Physiology II**

- Given a patient complaint, generate appropriate questions for a patient interview. (Formative assessment)
- Evaluate a patient case for signs and symptoms of underlying disease.
- Determine the physiological and pathophysiological underpinnings for disease.
- Explain the function of all organ systems and system interactions in the human body.

**PHAR 9961 – Pulmonary Renal Module**

- Students will learn the physiology, pathophysiology and the pharmacologic intervention strategies for the management of diseases of the upper and lower airways. Students will learn the physiology, pathophysiology and the pharmacologic intervention strategies for the management of common renal and urinary tract issues.
- Students will be expected to evaluate and discuss primary literature in the Forum Discussions
- Patient information will be gathered in the inhaler and device lab, the sleep apnea cases, the otc lab and in the physical assessment lab
- Presented in the physical exam lab presented by PA faculty
- Adherence will be assessed in the lab sections and self-management skills (proper inhaler utilization) will be assessed during the Inhaler device lab.

- Adverse reactions will be presented in each drug class presentation and in the lab sections of pulmonary renal
- Lecture- Drug and disease induced respiratory disorders Lab- Inhaler utilization, Renal lab, OTC cases lab
- Appropriate sequencing for the management of allergies, conjunctivitis, asthma, COPD, alpha one antitrypsin, and sleep apnea are presented
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- Appropriate sequencing for the management of allergies, conjunctivitis, asthma, COPD, alpha one antitrypsin, and sleep apnea are presented
- Optimal outcomes for interventions are presented and discussed for the management of f allergies, conjunctivitis, asthma, COPD, alpha one antitrypsin, and sleep apnea are presented
- Verbal justification of recommendations are presented in the Inhaler laboratory and the OTC cases lab.
- Formulary adherence is presented and discussed briefly in the presentation of the pharmacologic classes utilized in the management of COPD and asthma
- CMS evaluates the COPD and ASTHMA exacerbation bounce backs in hospital environments. Pharmacists are providing care and follow-up for patients transitioning through these health care environments
- Create Asthma Action Plans
- Always
- Cost considerations are an essential part of creating the most optimal pharmacologic disease intervention.
- Education in smoking cessation and immunizations are discussed
- Education in smoking cessation and immunizations are discussed
- Allergy evaluation and recommendations, conjunctivitis evaluation and recommendations, smoking cessation, asthma evaluation, COPD evaluation, electrolyte evaluation and therapy in patients with renal impairment
- Counseling and device lab
- Counseling labs
- Pharmacist peer education, patient smoking cessation education.
- Present the advocacy for the patient by discussing PharmA discount cards, Patient assistance programs and Good Rx like programs
- PA physical assessment lab, asthma/COPD device education
- Always
- -Upholds ASPIRE values consisting of: Accountability, Stewardship, Professionalism, Integrity, Respect, and Integrity for every patient, employee, colleague and providers
- Forum discussions provides the venue for demonstrating written communication skills Verbal presentations are evaluated in the OTC Lab and the Inhaler device labs
- -Upholds ASPIRE values consisting of: Accountability, Stewardship, Professionalism, Integrity, Respect, and Integrity for every patient, employee, colleague and providers
- -Upholds ASPIRE values consisting of: Accountability, Stewardship, Professionalism, Integrity, Respect, and Integrity for every patient, employee, colleague and provider
- -Upholds ASPIRE values consisting of: Accountability, Stewardship, Professionalism, Integrity, Respect, and Integrity for every patient, employee, colleague and providers

## **PHAR 9962 – Cardiovascular I Module (Pharmacotherapy II)**

- Apply foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics and pharmacodynamics to select an appropriate drug, dosage and drug delivery system for a patient.
- Utilize current scientific literature and practice guidelines to develop an evidence-based care plan for a patient.
- Collect and identify relevant information from the patient (or caregiver) and their medical records (ex. HPI, PMH, SH, labs, PE findings, etc.).
- Perform and/or interpret basic components of a cardiovascular physical assessment (ex. blood pressure, pulse, respiratory rate, edema assessment, etc.)
- Assess and address barriers to adherence.
- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions (ex. drug, food, disease state), adverse drug effects and toxicity.
- Assess patient information to identify and prioritize drug-related problems or additional healthcare needs.
- Evaluate all possible possible pharmacologic and non-pharmacologic options for the patient's problem(s).
- Define patient-specific pharmacotherapeutic goals, expected endpoints and appropriate duration of therapy.
- Develop a patient-specific, evidence-based treatment plan.
- Recommend appropriate patient-specific monitoring and follow-up for drug therapy and disease states for both the patient and the healthcare provider.
- Explain and justify the rationale for the treatment plan.
- Recommend adjunct therapies and lifestyle modifications as appropriate to improve health, augment drug therapy and reduce disease risk.
- Identify and address any preventative and health maintenance issues relevant to a particular patient.
- Develop a patient-specific, evidence-based treatment plan.
- Develop a patient-specific, evidence-based treatment plan.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Identify opportunities for interprofessional collaboration.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming ability for one's actions.
- Demonstrate courtesy and respect for patients through individualization of patient outcomes and giving priority to the patient's well-being and safety.
- Maintain high standards with regard to moral, ethical and legal conduct.

### **PHAR 9963 – Cardiovascular II Module (Pharmacotherapy III)**

- Acquire foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics and pharmacodynamics to select an appropriate drug, dosage and/or drug delivery system for a patient.
- Utilize current scientific literature and practice guidelines to develop an evidence-based care plan for a patient.
- Collect and identify relevant information from the patient (or caregiver) and their medical records (ex. HPI, PMH, SH, labs, PE findings, etc.).
- Perform and interpret basic components of a cardiovascular physical assessment (ex. blood pressure, pulse, respiratory rate, edema assessment, etc.)
- Assess and address barriers to adherence.
- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions (ex. drug, food, disease state), adverse drug effects and toxicity.
- Assess patient information to identify and prioritize drug-related problems or additional healthcare needs.
- Evaluate all possible pharmacologic and non-pharmacologic options for the patient's problem(s).
- Define patient-specific pharmacotherapeutic goals, expected endpoints and appropriate duration of therapy.
- Develop a patient-specific, evidence-based treatment plan
- Recommend appropriate patient-specific monitoring and follow-up for drug therapy and disease states for both the patient and the healthcare provider.
- Explain and justify the rationale for the treatment plan.
- Recommend adjunct therapies and lifestyle modifications as appropriate to improve health, augment drug therapy and reduce disease risk.
- Identify and address any preventative and health maintenance issues relevant to a particular patient.
- Develop a patient-specific, evidence-based treatment plan.
- Develop a patient-specific, evidence-based treatment plan.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Identify opportunities for interprofessional collaboration.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming ability for one's actions
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming ability for one's actions
- Maintain high standards with regard to moral, ethical, and legal conduct.

#### **PHAR 9964 - Pharmacotherapy IV Endocrine**

- Apply foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics and pharmacodynamics to select an appropriate drug, dosage and drug delivery system for a patient.
- Utilize current scientific literature and practice guidelines to develop an evidence-based care plan for a patient.
- Collect and identify relevant information from the patient (or caregiver) and their medical records (ex. HPI, PMH, SH, labs, PE findings, etc).
- Perform and interpret basic components of a physical assessment information that applies to the cardiovascular, endocrine, and other systems.
- Assess and address barriers to adherence.
- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions (ex. drug, food, disease state), adverse drug effects and toxicity.
- Assess patient information to identify and prioritize drug-related problems or additional healthcare needs.
- Evaluate all possible pharmacologic and non-pharmacologic options for the patient's problem(s).
- Define patient-specific pharmacotherapeutic goals, expected endpoints and appropriate duration of therapy.
- Develop a patient-specific, evidence-based treatment plan.
- Recommend appropriate patient-specific monitoring and follow-up for drug therapy and disease states for both the patient and the healthcare provider.
- Explain and justify the rationale for the treatment plan.
- Accurately calculate quantity of medication to be dispensed for all medications including those with variable daily doses or can be titrated.
- Recommend adjunct therapies and lifestyle modifications as appropriate to improve health augment drug therapy and reduce disease risk.
- Identify and address any preventative and health maintenance issues relevant to a particular patient.
- Be familiar with current evidence-based guidelines that would be pertinent for use in developing a disease management protocol for common endocrine disease states.
- Develop a patient-specific, evidence-based treatment plan.
- Develop a patient-specific, evidence-based treatment plan.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Identify opportunities for inter-professional collaboration.
- Communicate and interact in a professional and culturally sensitive manner including demonstrating sensitivity and respect for others and being open minded and nondiscriminatory.
- Effectively communicates information verbally,
- non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.

- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's actions.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's actions.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming ability for one's actions
- Maintain high standards with regard to moral, ethical, and legal conduct.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.

**PHAR 9965 – Pharmacotherapy V**

- Students will be able to utilize foundational knowledge of topics covered and apply knowledge to patient care. Students will also learn about resources that will enable them to learn independently and keep up on therapeutic developments in the topics covered
- Students will evaluate and utilize clinical and scientific literature to provide best practice recommendations related to topics covered in the course
- Students will learn to gather appropriate patient information to formulate pharmacotherapeutic plans when dealing with pain management syndromes.
- Students will learn basic assessment related to pain evaluation, including 0-10 and visual analog scales of assessing and rating patients' pain.
- Students will learn to assess risks for adverse drug reactions related to musculoskeletal and pain management therapies.
- Students will be able to identify drug-related problems associated with pain management and musculoskeletal therapies, including issues related to tolerance, dependence, abuse, and addiction.
- Students will be able to identify and evaluate all therapeutic options for treating a variety of musculoskeletal and pain related healthcare issues
- Students will be able to cite therapeutic goals and establish patient-specific outcomes related to musculoskeletal and pain related conditions.
- Students will be able to articulate and defend patient-specific pharmaceutical care plans that take into account clinical, economic, social, legal, and ethical considerations
- Students will be able to cite and describe appropriate drug and disease state monitoring parameters for pharmacotherapeutic plans, including appropriate monitoring parameters
- Students will be asked to counsel and provide effective counseling to an assigned patient case
- Students will be asked to provide accurate and useful drug information during their counseling sessions including but not limited to alternative treatment therapies, OTC and herbal medications.
- Students will learn the importance of identifying and adequately treating pain-related conditions and will learn the importance of advocating for appropriate treatment of pain.
- Students will display effective interpersonal skills by interacting appropriately and professionally with fellow students and faculty during classroom and laboratory discussions.
- Students will demonstrate professional behavior in class and laboratory settings.
- Students will understand the importance of pain management and quality of life issues as part of patient-specific care.
- Students will maintain the highest standards of moral, ethical and legal conduct associated with the pharmacotherapy of pain management and other scheduled and controlled substances

**PHAR 9966 – GI/Hepatic/Nutrition Module**

- Students attend lectures/sessions relating to gastroenterology, hepatic, and nutrition topics and are expected to study and use references independently to complete studying of material presented and complete assigned work.
- Students will complete an abdominal exam lab with PA providers to understand the basics of an abdominal exam.
- Student complete an OTC lab on counseling on medications to patients.
- Students learn about the implications of medications used to treat GI/hepatic/nutrition disorders.
- Students learn the medications used related to treatment of GI/hepatic/nutrition disorders.
- Students learn goal outcomes for diagnosis and treatment of GI/hepatic/nutrition disorders.
- Students learn monitoring parameters for given disease state and medical treatments for given GI/hepatic/nutrition disorders.
- Students have labs and lectures to learn and practice counseling skills on patients with medications for GI/hepatic/nutrition disorders.
- Students will learn physical assessment parameters of abdominal exams from physician assistant from the university and/or community.
- Students have a counseling lab to work on communication skills while counseling on use of OTC agents.
- All students are expected to always act in a professional manner while in class, in labs, and taking exams.

**PHAR 9967 – Pharmacotherapy VII: Infectious Diseases**

- Apply foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics and pharmacodynamics to select an appropriate drug, dosage and drug delivery system for a patient.
- Utilize current scientific literature and practice guidelines to develop an evidence-based care plan for a patient.
- Collect and identify relevant information from the patient (or caregiver) and their medical records (ex. HPI, PMH, SH, labs, PE findings, etc.).
- Perform and interpret basic components of an infectious diseases physical assessment (ex. blood pressure, pulse, respiratory rate, edema assessment, etc.)
- Assess and address barriers to adherence.
- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions (ex. drug, food, disease state), adverse drug effects and toxicity.
- Assess patient information to identify and prioritize drug-related problems or additional healthcare needs.
- Evaluate all possible pharmacologic and non-pharmacologic options for the patient's problem(s).
- Define patient-specific pharmacotherapeutic goals, expected endpoints and appropriate duration of therapy.
- Develop a patient-specific, evidence-based treatment plan.
- Recommend appropriate patient-specific monitoring and follow-up for drug therapy and disease states for both the patient and the healthcare provider.
- Explain and justify the rationale for the treatment plan.
- Recommend adjunct therapies and lifestyle modifications as appropriate to improve health, augment drug therapy and reduce disease risk.
- Identify any preventative and health maintenance issues relevant to a particular patient.
- Recommend appropriate drug therapy and select monitoring parameters.

- Recommend appropriate therapy for selected bio-terrorism threats.
- Develop a patient-specific, evidence-based treatment plan.
- Develop a patient-specific, evidence-based treatment plan.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patient, caregiver, or other health professional.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patient, caregiver, or other health professional.
- Develop the knowledge base necessary and communication skills required to educate patients, families, and other healthcare providers.
- Develop the knowledge base to empower patients to be well informed of major disease states, medications, and adverse effects.
- Given a case scenario, be able to distinguish urgent from non-urgent situations and be able to recommend appropriate therapy.
- Identify opportunities for interprofessional collaboration.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally,
- non-verbally, and in written form when interacting with an individual, group or organization.
- Effectively communicates information verbally,
- non-verbally, and in written form when interacting with an individual, group or organization.
- Develop a sense of responsibility regarding antimicrobial stewardship.
- Develop the knowledge base and critical thinking skills required to apply learned knowledge.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately and assuming ability for one's actions.
- Demonstrates courtesy and respect for patients through individualization of patient outcomes and giving priority to the patient's well-being and safety.
- Maintain high standards with regard to moral, ethical and legal conduct.

#### **PHAR 9968 – Pharmacotherapy VIII Special Populations**

- Apply foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics and pharmacodynamics to select an appropriate drug, dosage, and drug delivery system for a patient. Collect and recognize medical information that is relevant, organizing information into a usable format.
- Efficiently gather, recognize, and utilize relevant patient information and scientific literature to improve drug therapy. This includes but is not limited to recognition of adverse drug events, associated
- drug-related issues, therapeutic options, and establish relevant monitoring parameters for all drug therapies.
- Develop knowledge base to effectively gather and identify relevant patient information from the patient, caregiver, medical record, patient scenario, case study, and/or simulated interview materials provided.
- Perform and/or interpret basic components of physical assessment for patients across the lifespan (e.g., blood pressure, heart rate, skin and soft tissue assessment).
- Develop knowledge base to be able to accurately assess patient adherence, patient self-management skills, and counsel patient to ensure safe and effective use of medications and barriers to adherence.

- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions, recognize adverse effects/reactions, and patient risk factors for their development.
- Accurately and efficiently identify and prioritize drug-related concerns and associated additional unmet healthcare needs.
- Evaluate all possible pharmacologic and
- non-pharmacologic options for the patient's condition. Be familiar with available therapeutic options and factors to consider in drug selection; comparing and contrasting relevant patient and environmental characteristics.
- Given a patient case and/or simulation, define patient-specific pharmacotherapeutic goals, identify patient-specific therapeutic options, appropriate duration of therapy, expected endpoints and necessary monitoring parameters.
- Given a patient case and/or simulation, develop a patient-specific, evidence-based treatment and monitoring plan.
- Recommend appropriate and tailored patient-specific drug and disease state monitoring parameters and anticipated therapeutic outcomes. Note responses should be grounded in the scientific literature, published evidence, and guidelines.
- Establish, document, and articulate rationale for therapeutic pharmaceutical care plan recommended to provider, care team, and/or patient.
- Given a patient case, be able to select appropriate formula to calculate and/or adjust medication dose and or delivery method.
- Given a patient case and/or simulation, establish patient-specific medication error reduction strategies the care team should consider.
- Given a patient case identify and justify
- patient-specific therapeutic options to consider in changing therapy from inpatient to outpatient.
- Given a complex patient case, provide medication therapy management recommendations.
- Tailor class and case responses to take into account cost/benefit and/or cost/ effectiveness of therapy, as well as the humanistic outcomes including patient preference and quality of life.
- Develop knowledge base to direct patients and/or providers to available, reputable and accurate health promotion and disease prevention materials and services.
- Identify and address any preventative and health maintenance issues relevant to a particular patient.
- Develop infographic within lab that addresses public health initiative faced by pharmacists.
- Demonstrate necessary knowledge to identify and solve patient-related, health care and medication concerns.
- Demonstrate knowledge base necessary to address multiple, diverse, patient-related health problems across a variety of healthcare settings and practice sites (take into account environmental factors).
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, and other healthcare professionals, taking into account patient expectations and monitoring parameters of prescribed therapy.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, and other health professionals.
- Information must be accurate and useful drug information to simulated patient and care team.
- Given a patient case, be able to provide drug information to simulated patient, providers, care team, and fellow students for review and feedback.
- Given a patient case, be able to provide culturally sensitive and relevant health care recommendations to patient and care team.

- Effectively communicate information verbally, non-verbally, and in written form when interacting with an individual, group, or organization.
- Actively participate in lectures, case studies interactive group activities, and required small group reports to class to establish and improve upon necessary interdisciplinary and cross stakeholder communication skills.
- Develop and demonstrate effective interpersonal communication and relational skills through participation in class activities.
- Throughout the course the student is expected to use feedback from didactic and interactive group activities to foster personal and professional growth. The goal is to develop self-awareness and undertake challenges that foster personal and professional growth.
- Utilize feedback from interactive group activities to foster self-reflection for personal and professional growth and development.
- Develop leadership skills through participation in interactive group activities and class participation.
- Given a patient case and/or interactive group activity, the student is expected to take initiative when confronted with challenging questions, using critical thinking to provide recommendations when options are not black and white.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately, and assuming responsibility for one's actions.
- Develop an understanding through case studies and interactive group activities of the level of responsibility required for providing patient-centered pharmaceutical care.
- Maintain high standards with regard to moral ethical and legal conduct.

**PHAR 9969 – Pharmacotherapy IX: CNS Module**

- Students will be expected to integrate foundational knowledge into new material presented in this course in order to enhance their understanding of principles of pharmacotherapy practice.
- Be aware of key scientific literature and become familiar with practice guidelines related to psychiatric and neurologic diseases.
- Recognize relevant information that needs to be collected from either a patient or their medical record.
- Evaluate adverse reactions and risk factors for their development.
- Evaluate drug-related issues for the disease states discussed in class.
- Determine therapeutic options, their role in therapy and factors to consider in choosing one agent over another.
- Given a patient case, be able to determine patient-specific therapeutic outcomes.
- Given a patient case, be able to formulate an appropriate drug therapy using an evidence-based approach.
- Identify the most important drug and disease state monitoring parameters.
- Explain your rationale for drug therapy recommendations.
- Identify common health care problems and potential solutions related to mental health disorders.
- Demonstrate knowledge for effective patient education related to mental health disorders and medications used to treat mental health disorders.
- Demonstrate the ability to provide accurate and useful drug information, including key sources of information and evidence-based guidelines.
- Communicate and interact in a professional, culturally sensitive, respectful, open minded and non-discriminatory manner with peers and instructors.
- Communicate in an efficient, timely, respectful manner with peers and instructors.

- Interact efficiently and respectfully with peers, instructors and guest lecturers via verbal, written and non-verbal interactions.
- Exhibit effective verbal communication skills, non-verbal communication skills, listening skills, problem solving, decision making and assertive still when interacting with peers and instructions.
- Demonstrate professional behavior through punctuality, reliability, meeting deadlines, dressing appropriately and assuming responsibility for one's actions.
- Maintain a high standard with regard to moral, ethical and legal conduct.

**PHAR 9970 – Hematology/Oncology Module (Pharmacotherapy X)**

- Develop a basic understanding of malignancy and be able to apply this information to the treatment of individual malignancies.
- Identify guideline sources and their use in the treatment of cancer.
- Recognize relevant information that needs to be collected from either a patient or their medical record.
- Recognize adverse reactions and risk factors for their development.
- Explain drug-related issues for the disease states discussed in class.
- Outline therapeutic options and explain their role in therapy and factors to consider in choosing one agent over another.
- Given a patient case, establish patient-specific therapeutic outcomes.
- Given a patient case, select appropriate alternatives in situations where patients have underlying co-morbidities, organ dysfunction or toxicity.
- Identify the most important drug and disease state monitoring parameters.
- When recommending alternative therapies, explain your rationale for drug therapy as it relates to toxicity, drug-interactions or other pharmacology-based considerations.
- Identify applicable health promotion and disease prevention strategies related to cancer.
- Discuss common health care problems related to hematology/oncology and potential solutions.
- Demonstrate the knowledge necessary for counseling patients with anemias and oncologic disorders.
- Identify useful drug information, including key sources of information and evidence-based guidelines.
- Recognize the pharmacist's role in the management of hematology/oncology patients and the importance of integration into the care team.
- Demonstrate respect for peers and instructors and be open minded and non-discriminatory in lab sessions through active and thoughtful participation.
- Demonstrate professional behavior including attendance at all guest lecture sessions and lab sessions and participate when requested.
- Explain the pharmacist's moral, ethical and legal conduct as it relates to difficult conversations with patients, families and healthcare professionals at end-of-life.

**PHAR 9971 – Capstone Pharmacy**

- Apply foundational knowledge of biochemistry, medicinal chemistry, pharmacology, pathophysiology, pharmacokinetics, and pharmacodynamics to select an appropriate drug, dosage, and drug delivery system for a patient
- Utilize current literature and practice guidelines to develop an evidence-based care plan for a patient
- Collect and identify relevant information from the patient (or caregiver) and their medical records (ex. HPI, PMH, SH, labs, PE findings, etc.).
- Assess barriers to adherence.

- Assess a patient's current drug therapy (prescription and non-prescription) for safety including interactions (ex. drug, food, disease state), adverse drug effects and toxicity.
- Assess patient information to identify and prioritize drug-related problems or additional healthcare needs.
- Evaluate all possible pharmacologic and non-pharmacologic options for the patient's problem(s).
- Define patient-specific pharmacotherapeutic goals, expected endpoints and appropriate duration of therapy.
- Develop a patient-specific, evidence-based treatment plan.
- Recommend appropriate patient-specific monitoring and follow-up for drug therapy and disease states for both the patient and the healthcare provider.
- Explain and justify the rationale for the treatment plan.
- Analyze compound formulations and complete appropriate calculations.
- Assess a patient's medication regimen and identify all medication related problems by document appropriate notation and communication s.
- Recommend adjunct therapies and lifestyle modifications as appropriate to improve health, augment drug therapy, and reduce disease risk.
- Identify and address any preventative and health maintenance issues relevant to a particular patient.
- Develop a patient-specific, evidence-based treatment plan.
- Develop a patient-specific, evidence-based treatment plan.
- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
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- Provide timely, clear, and accurate drug information and education in a format appropriate for patients, caregivers, or other health professionals.
- Identify opportunities for interprofessional collaboration.
- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
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- Effectively communicates information verbally, non-verbally, and in written form when interacting with an individual, group or organization.
- Demonstrate professional behavior in class and laboratory settings.

**PHAR 9981 – Academic APPE**

- Academic literature will be reviewed and analyzed as applicable.
- The student will work to solve various academic-related problems.
- The student will provide education to their colleagues in the law course.
- Prepare and deliver educational content.
- Describe the roles/responsibilities of a faculty member.
- Describe how teaching and learning are assessed.
- Demonstrate initiative and proactive attitude in completing assigned activities, taking on responsibilities and interacting with administrators, faculty, staff and students.
- Actively participate in meetings attended.
- Begin a teaching portfolio inclusive of a teaching philosophy. Reflect on organizational governance.

- In the classroom when teaching colleagues.
- Discuss professional roles of a faculty member, including professional organization membership, competency maintenance and professional growth and development.
- Maintain FERPA confidentiality

**PHAR 9982 – Professional Student Seminar**

- Work independently to utilize clinical and scientific literature to provide an evidence-based approach to answering a practice-based question
- Appropriately utilize clinical and scientific literature to provide an evidence-based approach to answering a practice-based question. This includes the ability to provide an answer when evidence is inconclusive.
- Apply principles of pharmacoeconomic and humanistic outcomes research to answer practice-based questions
- Present will analyze, critique, and assimilate supporting scientific literature to formulate specific, defensible therapeutic conclusions and recommendations for a specific therapeutic question.
- Presenter will demonstrate the ability to teach others through the use of effective presentation techniques and communication skills.
- Communicate and interact in a professional and culturally and sensitive manner including demonstrating respect and sensitivity for others, being open-minded and nondiscriminatory.
- Demonstrate professional behavior including punctuality, reliability, meeting deadlines, dressing appropriately, and assuming responsibility for one's actions.
- Maintain high standards with regard to moral, ethical, and legal conduct.