The University of Iowa College of Pharmacy defines Advanced Pharmacy Practice Experience (APPE) readiness as a holistic concept requiring knowledge-, skills-, and behavior-based competencies. The APPE-Readiness Plan includes a mix of assessments and metrics embedded throughout the first (P1) through third (P3) professional years.

The APPE Readiness Plan establishes a specific “Readiness Standard” for each parameter. Sustained struggles in one area or a combination of several deficits may signal concerns regarding a student’s ability to succeed on APPEs. Assessment data related to readiness will be monitored over time to determine if APPE Readiness Plan modifications are needed.

Information outlined in this plan is collected by the Office of Professional Education (OPE) and may be utilized by the following individuals or groups:

<table>
<thead>
<tr>
<th>Individual/Group</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual student</td>
<td>Track progress in APPE Readiness measures</td>
</tr>
<tr>
<td>Assessment Committee</td>
<td>Monitor the effectiveness of the curriculum and program in preparing students to enter APPEs</td>
</tr>
<tr>
<td>Student Success and Progression Committee</td>
<td>Support student success</td>
</tr>
</tbody>
</table>

APPE Readiness Plan Workgroup

Lisa DuBrava  Deanna McDanel  Mary Schroeder
Lorin Fisher  Ben Miskle  Jenny Seyfer
Jim Hoehns  Mary Ray  Stevie Veach
Kashelle Lockman  Jeff Reist  Susan Vos

Approved by the Assessment Committee: June 21, 2023
I. Course Success and Progression

Course Success and Progression is essential for student success and APPE-readiness. Thresholds for didactic and experiential course performance and progression from semester-to-semester and academic year-to-academic year have been established by the Doctor of Pharmacy program. Failure to meet minimum passing thresholds per course, or a pattern of academic weakness in courses will result in academic warning, academic probation, and/or dismissal per the Academic Progression Policy.

To maximize the chance of APPE success, it is strongly advised that students receiving grades less than C- in any course or assessment develop their own plan for improvement to strengthen knowledge and skills in applicable areas.

😊 Readiness Standard
- Course Grade: C- or above and/or P (pass) in each course

II. Assessment of Knowledge

A. Key Drugs

The Key Drugs Examination is a programmatic assessment administered at the end of each semester during the P2 and P3 academic years. Students are assessed on drug name (generic and brand), therapeutic class/pharmacologic category, common conditions/indications, mechanism of action, boxed warnings/precautions, and counseling points such as side effects from a specified list of agents including pertinent prescription (oral and intravenous) and non-prescription products. The content of each exam is detailed below.

<table>
<thead>
<tr>
<th>Semester</th>
<th>Examination Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2 Fall</td>
<td>70-90%: Drugs covered in that semester’s courses</td>
</tr>
<tr>
<td>P2 Spring</td>
<td>10-30%: Drugs covered in previous courses</td>
</tr>
<tr>
<td>P3 Fall</td>
<td>Drugs from all courses</td>
</tr>
<tr>
<td>P3 Spring</td>
<td></td>
</tr>
</tbody>
</table>

Students performing below the standard after two attempts will complete a remediation process prior to the start of the next semester.

😊 Readiness Standard
- P2 Key Drugs Examinations (Fall and Spring): 70%
- P3 Key Drugs Examinations (Fall and Spring): 75%

B. Pharmacy Calculations

Competence in performing pharmacy calculations is essential for APPEs and pharmacy practice and is an expectation of the pharmacist licensure examination. Pharmacy calculations examinations are administered in each semester of the Pharmacy Practice course series. Students must meet the readiness standard within two attempts. Students performing below the standard after two attempts will complete a remediation process prior to the start of the next semester.

😊 Readiness Standards
- P1 Pharmacy Calculations Examinations (Foundations of Pharmacy Practice I & II): 70%
- P2 Pharmacy Calculations Examinations (Applications of Pharmacy Practice I & II): 75%
- P3 Pharmacy Calculations Examinations (Applications of Pharmacy Practice III & IV): 80%
C. Introductory Pharmacy Law Examinations

Students benefit from early exposure and the opportunity to observe how the law is applied in everyday pharmacy practice in the workplace and during Introductory Pharmacy Practice Experiences (IPPEs). Through these experiences, students gain knowledge prior to the Law and Ethics course delivered in the P3 Spring semester. Given the importance of law in pharmacy practice, students will take an examination covering assigned law material at the end of the P1 and P2 academic year. Students performing below the standard after two attempts will complete a remediation process prior to subsequent IPPEs and/or the start of the next semester, whichever comes first.

- **Readiness Standards**
  - P1 Introductory Pharmacy Law Examination: 75%
  - P2 Introductory Pharmacy Law Examination: 75%

D. Knowledge Examinations

Knowledge Examinations are comprehensive and assess the student’s ability to retain key information from the curriculum. These occur at the end of the P1 and P3 years. Students will take each exam once. Students performing below the readiness standard may be required to meet with the Office of Professional Education to develop a self-directed review plan.

- **Readiness Standards**
  - P1 Knowledge Examination: 60%
  - P3 Knowledge Examination: 60%

E. IPPE Preceptor Evaluation of Student: Foundational Knowledge

Students are evaluated by preceptors on their ability to apply knowledge in foundational sciences to solve healthcare problems and their ability to critically analyze scientific literature related to drugs and diseases. Students performing below the readiness standard will meet with the Course Coordinator to discuss a plan for improvement.

- **Readiness Standards**
  - IPPE Community: Foundational Knowledge domain above "Needs Significant Improvement."
  - IPPE Hospital: Foundational Knowledge domain above “Needs Significant Improvement."

III. Assessment of Skills

A. Pharmacy Practice Series: Skills

Multiple practice skills are taught, practiced, and assessed as a component of the Pharmacy Practice course series. Planned repetition is essential for students’ readiness to both perform and enhance their practice skill proficiency during their Advanced Pharmacy Practice Experiences (APPEs).

Students have appropriate repetition (as indicated below) throughout the course series to prepare them to perform these skills on their APPEs.

- **Readiness Standards**
  - Fingerstick: 5 repetitions
  - Blood pressure and pulse: 5 repetitions
  - Immunization injection technique: 3 repetitions
  - Written communication: SOAP Note: 4 repetitions
  - Collect patient medication history: 4 repetitions
  - Prescription verification: 4 repetitions
  - Prescription counseling: 8 repetitions
  - Patient triage/self-care counseling: 7 repetitions
B. IPPE Preceptor Evaluation of Student: Patient Care
Students are evaluated by preceptors on their ability to collect and interpret patient information, interview patients, and promote health and wellness. Students performing below the readiness standard will meet with the Course Coordinator to discuss a plan for improvement.

👉 Readiness Standards
→ IPPE Community: All ratings in Patient Care domain above “Needs Significant Improvement.”
→ IPPE Hospital: All ratings in Patient Care domain above “Needs Significant Improvement.”

IV. Assessment of Attitudes & Behaviors
Professionalism is an integral component of APPE-readiness. Healthcare providers are held to the highest standard of ethical conduct and must possess exceptional character, honesty, and integrity. Specific domains assessed to determine APPE-readiness include social skills, reliability and dependability, professionalism, and ethical responsibility to self and others. If concerns are identified in the areas below, the student meets with the course coordinator and/or Associate Dean of Student Affairs to discuss a plan for improvement.

A. Pharmacy Practice Series: Accountability Parameters
The practice laboratory simulates the pharmacy workplace and accountability expectations mirror the pharmacy workplace, regardless of practice setting. Like their future jobs, students are expected to be in attendance and ready to learn, communicate transparently regarding their learning needs, and adhere to deadlines.

👉 Readiness Standards
→ No greater than 2 late assignments per semester
→ No more than 2 missed lab sessions (excused or unexcused) per semester

B. Introductory Pharmacy Practice Experiences: Accountability Parameters
Because of the direct relationship between Introductory Pharmacy Practice Experiences (IPPEs) and future APPE readiness, the following indicators of success during IPPEs are monitored.

👉 Readiness Standards
→ Timely completion of all pre-rotation requirements
→ Timely completion of all assignments
→ Completion of all required experiential hours as scheduled
→ No preceptor or course coordinator concerns during any IPPE related to accountability or professionalism such as attendance, timeliness, attitudes, behaviors, or receptiveness to feedback.

C. Ad-hoc Report of Concerns
Faculty, staff, and students may document observations and/or concerns regarding student attitudes, behaviors, and professionalism. These data are kept in a separate confidential file by the Associate Dean of Student Affairs who will tailor follow-up with faculty and/or students as appropriate for the concern.

👉 Readiness Standards
→ No reports of concern
SUMMARY: APPE READINESS MINIMUM STANDARDS

The following performance information is collected by the Office of Professional Education (OPE) on behalf of the Assessment Committee. Sustained struggles in one area or a combination of several deficits may signal concerns regarding a student’s ability to succeed on APPEs.

<table>
<thead>
<tr>
<th></th>
<th>P1 Year</th>
<th>P2 Year</th>
<th>P3 Year</th>
<th>Student Improvement Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fall</td>
<td>Spring</td>
<td>Fall</td>
<td>Spring</td>
</tr>
<tr>
<td>OVERALL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Grades</td>
<td></td>
<td></td>
<td></td>
<td>Self-review of material</td>
</tr>
<tr>
<td>Introductory Pharmacy Law Examination</td>
<td>---</td>
<td>75%</td>
<td>---</td>
<td>75%</td>
</tr>
<tr>
<td>IPPE Preceptor Evaluation of Student: Foundational Knowledge Domain</td>
<td>---</td>
<td>---</td>
<td>Needs Improvement</td>
<td>---</td>
</tr>
<tr>
<td>Key Drugs Examination</td>
<td>---</td>
<td>---</td>
<td>70%</td>
<td>70%</td>
</tr>
<tr>
<td>Knowledge Examination</td>
<td>---</td>
<td>60%</td>
<td>---</td>
<td>75%</td>
</tr>
<tr>
<td>Pharmacy Calculations Examination</td>
<td>70%</td>
<td>70%</td>
<td>75%</td>
<td>75%</td>
</tr>
<tr>
<td>SKILLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPPE Preceptor Evaluation of Student: Patient Care Domain</td>
<td>---</td>
<td>---</td>
<td>Needs Improvement</td>
<td>---</td>
</tr>
<tr>
<td>Pharmacy Practice Series: Skills</td>
<td>Target Repetitions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATTITUDES &amp; BEHAVIORS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IPPE Accountability and Professionalism</td>
<td>0 reports</td>
<td>Meet with Course Coordinator. For repeated concerns: Meet with Associate Dean of Student Affairs or designee</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pharmacy Practice Series Accountability and Professionalism</td>
<td>&lt; 3 of each</td>
<td>&lt; 3 of each</td>
<td>&lt; 3 of each</td>
<td>&lt; 3 of each</td>
</tr>
<tr>
<td>Ad-hoc Reporting of Concerns (on file)</td>
<td>0 reports</td>
<td>Meet with Associate Dean of Student Affairs or their designee</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Students who do not complete remediation will meet with the Associate Dean of Student Affairs or their designee.
2 IPPE Community or IPPE Hospital only
3 Not collected by OPE