



First-Time Pass Rate Improvement Plan

**College of Pharmacy and
Pharmaceutical Sciences, Institute of
Public Health
Doctor of Pharmacy Program**

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State University System of Florida
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**Pending Approval by the
FAMU Board of Trustees**

Professional Licensure & Certification Exam First-time Pass Rate Improvement Plan FAMU Doctor of Pharmacy Program

Executive Summary

The Florida A&M University (FAMU) College of Pharmacy and Pharmaceutical Sciences, Institute of Public Health (COPPS, IPH) offers the Doctor of Pharmacy (PharmD) degree and is accredited by the Accreditation Council for Pharmacy Education (ACPE). Over the past three years, the College has made several significant programmatic enhancements, with a focus on increasing first-time licensure pass rates (83% in 2019).

Admissions to the College are now more robust and streamlined. This year, the Pharmacy College Application Service (PharmCAS) was implemented along with an interview process that includes several interviewers for each applicant. Recruitment planning includes outreach, visits, and online presentations of the College.

The College recently implemented the new curriculum plan. The plan includes a remediation plan for learners who are challenged by a course.

The importance of progression and retention is demonstrated by the actions of the College and its management, but also the assessment of data generated by the electronic platforms recently implemented. The College uses Enflux, a decision support platform that aggregates data in real-time and provides insightful, actionable reports to improve overall performance and success. To manage retention, the College provides tutoring and additional academic support through the Center for Academic Retention and Enhancement (RxCARE).

The College has invested heavily in the enhancement of faculty teaching skills. The College facilitated several focused developmental sessions during College-wide meetings. Topics were derived from faculty and staff suggestions, assessment results, committee, and College-wide discussions. Faculty also attend national workshops on teaching in academic pharmacy and becoming a teacher-scholar. Additionally, many choose to attend development seminars arranged by the University.

Finally, the College is preparing for a November 2021 reaccreditation visit. To prepare for the visit and obtain additional guidance and support, the College has engaged its relationships with Deans at other Florida institutions. In addition, the College has hired three consultants with specialty in curriculum design, assessment, and admissions.

Overall, the College is moving forward with a keen focus on addressing the several standards for pharmacy education and increasing student success.

Exam Pass Rates

1. Describe the short-term strategies to improve the passage rates for recently graduated and currently enrolled students expected to take the exam in the short-term.

The short-term strategies to improve the passage rates for recent graduates include providing them with Pre-NAPLEX vouchers. The Pre-NAPLEX prepares student pharmacists for the NAPLEX testing experience as they field questions similar to those they will face on the day of the test. This diagnostic test communicates solely to the learner the percent of the 50 questions answered correctly. One additional sitting is allowed.

Recent graduates received the RxPrep board review coursebook, online access to test banks and video lectures, and a three-day virtual board review. Graduates who were considered high risk received an invitation to participate in a virtual four-day review using a specific invitation to *Pass NAPLEX Now* along with a coursebook and access to video lectures and test banks.

Short-term strategies to improve the passage rates for currently enrolled student pharmacists include a RxPrep board review coursebook and online access to test banks and video lectures from the beginning of their P4 year until August 31st, the year of their graduation. These student pharmacists also receive a live three-day, board preparation review from RxPrep.

2. Describe the short-term strategies to assist students who recently failed the exam. Does the institution provide additional tutoring or financial assistance to students who fail the exam?

Short-term strategies to assist student pharmacists who recently failed the licensure examination include providing an extension of the RxPrep online access to include licensure-type question test banks and topic video lectures until December of their graduation year.

The institution does not provide any tutoring or financial assistance to student pharmacists who fail the examination.

3. Provide the overall pass rate for the last three cohorts of graduates, including information on students who retake the exam. How many students pass the exam on the 2nd attempt, 3rd attempt, etc.? How many students fail the exam twice?

The overall pass rates for the past three cohorts are as follows:

Cohort First-Time Pass Rate

2019: 83%

2018: 75%

2017: 74%

The College is not aware of how many student pharmacists pass the examination on the second or third attempt or how many student pharmacists fail the examination twice. The individual score report with student pharmacists' names is provided to Colleges and Schools in February of each year. This list outlines the graduate's name, pass, or fail, and if it was the first attempt or not. It does not outline which attempt (second or third). The College will contact the National Association of Boards of Pharmacy (NAPB) to determine the availability of this data.

4. How long after graduation do students typically wait to take the exam? How many students delay taking the exam beyond a normal or typical period and why? What assistance is available who students who delay?

Student pharmacists typically take the examination between June and August of their graduation year. The 2019 cohort took the examination during the following windows:

- 104 graduates: June-Aug 2019 (78%)

- 27 graduates: Sep-Dec 2019 (20%)
- 3 graduates: Jan-Apr 2020 (2%)

Student pharmacists who wait to take the examination after the June-August window usually do so because they do not feel that they are prepared to pass the examination successfully. As noted above, graduates have access to online resource materials through August of their graduating year.

5. Are students required to pay for any services or other support strategies provided?

The student pharmacists are not required to pay for any resources provided by the College.

6. Provide any available information on the employment outcomes of students who do not pass the exam. Do those students find employment, and if yes, what types of jobs?

The College does not track the employment status of graduates who fail NAPLEX. Pharmacy offers 87 career choices, and some do not require a license. It is also possible that if already in a practice setting, the employer will extend the graduate pharmacists' status.

Admissions

This section should address the admissions criteria and the extent to which they may or may not be sufficient for admitting qualified students to the program.

The College has an established Admissions Committee that utilizes holistic admissions where numerous factors are evaluated (both quantitative and qualitative) to assess a candidate for admission to the program. One important factor is the grade point average (GPA), but many other components of a candidate's background are thoroughly reviewed including, but not limited to: supplemental questions, letters of recommendation, application essay, leadership and volunteer experience (pharmacy related and other), work experience, co-curricular activities, motivation, candidate's background, and why a person wants to be a pharmacist. Embracing a holistic approach to admissions allows the program to select an overall higher quality class while creating a more diverse cohort of student pharmacists.

In 2017, the college implemented a minimum Science GPA of 2.75. Applicants need to show their ability to perform well academically to succeed in a professional program, and a rigorous curriculum and GPA is one measure. The committee looks at several GPAs (e.g., Science GPA, Overall GPA, Pre-req GPA, and even by year and specific subjects and classes). Average science GPAs for recent cohorts are listed below. The College has established a goal to increase the average science GPA to at least 3.30 within the next two years.

Cohort Average Science GPA

- Fall 2020: TBD
- Fall 2019: 3.17
- Fall 2018: 3.18
- Fall 2017: 3.17

This academic year the college began using the Pharmacy Centralized Application System (PharmCAS) for all applicants. This centralized system helped to streamline the application process and captures National applicants.

Beginning with the 2021-2022 academic year, the Pharmacy College Admission Test (PCAT) will be included as an application requirement as a means of developing a data set for validation. At the outset it will not be a requirement for admission. The test is designed to predict success in science-oriented courses accurately. This is determined by the types of abilities, aptitudes, and skills deemed essential by the College of Pharmacy. As an application requirement data will be validated over a minimum of three years to learn its predictive strength for learner student pharmacist success.

Curriculum

This section should describe any recent or planned curriculum reviews relative to its alignment with the content on the exam. Please note the date of the review and key changes to be made in the short-term and in the long-term.

The College recently completed the final phase of implementation of a new curriculum, which began in the fall semester of 2017 (for the first professional year learners). Implementation of the entire re-designed curriculum was completed in the 2020 spring semester. Curricular revisions touched all of didactic courses from the first professional year through the third professional year.

Preparing learners to be able to practice pharmacy at the top of their licenses is the priority of the curriculum. The design, data assessment, and continual quality assurance of the curriculum will allow FAMU to prepare the pharmacy learners to not only pass the licensure exam, but also practice pharmacy at the highest of levels. The newest designed curriculum has a focus on integrating pharmacy practice concepts earlier in the curriculum, and also prioritizes integrating concepts across multiple courses and experiences.

Integrated Sciences is a course series offered during the first professional year of the pharmacy program. Previously, only pharmaceutical sciences faculty facilitated the learning of topics that are currently within the Integrated Sciences course series, but within our new curriculum we also have pharmacy practice faculty involved in facilitating the learning within the Integrated Sciences course series. Pharmacy faculty involvement in the first professional year helps introduce clinical application concepts earlier in the curriculum, which allows the learners to master applying pharmacy concepts to complex patient cases. The NAPLEX has a strong emphasis on the clinical application of pharmacy concepts, so organizing the curriculum to introduce clinical application earlier in the curriculum has helped student pharmacists to perform better on the NAPLEX.

Quality assurance of the curriculum is critical to prepare learners for the forever evolving pharmacy profession and the NAPLEX reflects the swift evolution of the pharmacy profession. During the summer of 2019, we conducted in real-time, an expedited course review of Patient Care One, which is a critical course within the curriculum that had a higher than normal failure rate. We reviewed the teaching methods, course content, course materials, and external class resources. After the expedited course review, we made significant changes, such as adding additional external class resources (e.g. additional exam reviews, tutorial sessions, and course remediation). A new course coordinator was assigned. We also integrated more technology within the teaching methods, such as easier access to course recorded lectures. After this review and changes, the failure rate of Patient Care One dramatically decreased.

The College also hired Dr. Arcelia Johnson-Fannin as a consultant in 2019. During the early months of her engagement with the College, she examined the curriculum of all the pharmacy schools in the State of Florida, and several other schools in academic pharmacy. The consultant, along with key faculty members, looked at the Accreditation Council for Pharmacy Education standards and other documents to be sure the FAMU curriculum covered all competencies.

Student Progression

This section should describe how student progression and performance is monitored throughout the program and what strategies are in place to support students who may need additional assistance. Also include the extent to which predictive analytics is part of monitoring efforts.

Student pharmacists' progression and performance are monitored throughout the program. Currently, the College uses Enflux, which is a decision support platform that aggregates data in real-time and provides insightful, actionable reports to improve overall performance and student pharmacists' success. When using Enflux as an early alert system for intervention and remediation, faculty and the Office of Student Affairs are able to collaborate to create an action plan based on data driven decisions that will

provide a road map for improvement in the course(s). In using Enflux as a predictive analytic, it allows the College to identify student pharmacists that need additional help and in what area(s). In identifying the issues, faculty can quickly provide a solution.

Application of Enflux to At-Risk-Learners

During the 2019-2020 academic year, several learners failed objective-based, cumulative assessments in Individualized Health III (PHA 5632). Enflux characterized said learners into a cohort entitled, “at-risk.”

- To assist at-risk learners, academic action plans were formulated to provide additional assistance for difficult exams or quizzes, and a meeting with the academic advisor was arranged to determine if unconventional issues occurred.
- After scheduled review sessions, meetings with instructors and advisors, and post-course remediation, the composite failure rate for Individualized Health III was reduced to less than 10% (7 learners out of 93).
- Data from Enflux was instrumental in improving the progression rate in this course and affording opportunities for early intervention.

The Center for Academic Retention and Enhancement (Rx CARE) provides additional academic support for the student pharmacists. The program provides tutoring for Professional 1 (P1) and Professional 2 (P2) pharmacy courses. To further assist students, several faculty also provide study sessions prior to exams and extended office hours. The Rx CARE sessions focus on topics such as improving study skills and time management.

To assist student pharmacists with mitigating areas of weakness, faculty provide supplemental instruction, which includes exam reviews, individual or class review sessions, and complementary reading assignments. When an individual exam review is desired, student pharmacists request meetings with the faculty. Some faculty members provide supplemental instruction by providing sample questions to the learners prior to an exam and then schedule sessions to discuss the responses or post the responses in the University’s learning management system. Another form of supplemental instruction makes use of interactive discussion boards, as well as group or one-on-one instruction using virtual office hours supported by Zoom.

Faculty Support & Development

This section should describe what support and development are available to the faculty to ensure they are able to adequately support students in preparing for the exam.

The College has invested heavily in the enhancement of faculty teaching skills, especially among newly hired faculty, for whom it is required, and those for whom enhancement is a significant desire. Two learning opportunities are used: American Association of Colleges of Pharmacy workshop on teaching; and the Teaching Scholars Institute.

Over the past two-three years, the College facilitated several focused developmental sessions during College-wide meetings. Topics were derived from faculty and staff suggestions, assessment results, committee, and College-wide discussions. The College also encourages participation in other developmental and evaluative processes, which include, but are not limited to:

1. Participating in annual evaluation processes for faculty and staff (reviewing annual goals or action plans with director or supervisor).
2. Preparing for the Promotion and Tenure process. Learner evaluations are a key factor in assessing pedagogy.
 - a. Attending mandatory workshops organized by FAMU and the College. A list is available annually and announcements are shared with faculty and staff regularly. Certificates are usually awarded to attendees after completion of surveys or exams.

3. Attending annual professional development conferences.
 - a. National pharmacy conferences that include both learning in the art and skill of pharmacy practice, reaccreditation sessions and sessions on curricula and its delivery
 - American Association of Colleges of Pharmacy (AACP)
 - American Pharmaceutical Association (APhA)
 - American Society of Health Systems (i.e. hospitals and more) Pharmacists (ASHP)
 - Association of Black Health Systems Pharmacists (ABHP)
 - Florida Pharmacy Association (FPA)
 - Florida Society of Health Systems Pharmacists (FSHP)
 - National Pharmaceutical Association (NPhA)
 - b. Continuing Education series through State and Regional conferences and webinars to maintain the license to practice.
4. College Professional Development
 - a. Dean led session for new hires with a focus on the necessary steps in constructing a successful dossier for promotion and tenure. A book on teaching, and another on Becoming a Pharmacy Faculty Member, are given to each participant. This year the College is engaging the author of the latter, and others who wrote chapters as Eminent Scholar webinar speakers.

The College also has faculty who are trained to write items (e.g. test questions) for the National Association of Boards of Pharmacy (NABP). These test questions are then considered for the bank of questions shown in the NAPLEX examination.

Faculty invited to be a 2020 NABP Item Writer.

- Dr. Marlon Honeywell

Current item writer:

- Dr. Jamal Brown

Dr. Brown led a faculty 2019 workshop on the structure and process. This informs faculty in developing examination questions. Generally, faculty can model not just the format and approach of test questions, but also the time allowed per question.

Accreditation

This section should address any recent decisions, findings, actions from the program's accreditor and/or licensing board and how the institution is addressing those issues.

The PharmD program is fully accredited by the Accreditation Council for Pharmacy Education (ACPE) through the 2021-2022 school year.

After the most recently submitted report, ACPE found that the program is compliant, yet requires continued monitoring in three areas: 1) Organization and Governance; 2) Curriculum Design, Delivery and Oversight; and 3) Faculty and Staff—Quantitative Factors.

The following represents the College's accepted action plans addressing the remaining issues requiring monitoring:

1. **Organization and Governance:** The College provided acceptable action plans to address issues identified through the analysis of the Administrative Satisfaction survey and continues administration of the survey to evaluate effectiveness of the implemented measures.
2. **Curriculum Design, Delivery and Oversight:** The College continues evaluation of the implementation of the new curriculum that began in fall 2017. The College continues to address contributing factors related to a self-reported anomalous high failure-rate course administered for the first time in the spring 2019 term. Additionally, the College analyzed the preparedness of the first cohort of learners to progress through the new curriculum for commencement to Advanced Pharmacy Practice Experiences. Finally, the College continues the initiatives outlined above to enhance learner performance on the national licensure exam.
3. **Faculty and Staff-Quantitative Factors:** The College plans to evaluate the measure implemented to enhance the delivery of the designed Co-Curricular Program, inclusive of institution of a Co-Curriculum Coordinator and assurance of full complement of faculty and staff to execute the program's intentions.

In November 2021, there is a planned full site visit by ACPE, for which an intensive self-study report is being prepared.

External Assistance

This section should describe any efforts to reach out to other institutions (SUS and non-SUS) with strong pass rates to identify best practices and obtain additional guidance and support.

The College has utilized a combination of strategies to identify best practices for implementation. These efforts include engaging external consultants and reviewing admission criteria and curricula from other schools. For example, benchmarks of the College compared to USF, UF and pharmacy peers informed the College as to the following topics: admission requirements (GPA, PCAT, prerequisites), licensure first time pass rates, and enrollment. The metrics for admission requirements is comparable, except for the PCAT, which will be incorporated into the College's admissions process in the coming year. The College's curriculum committee has reviewed curricula for Auburn University, Purdue University, and the University of Florida when considering best practices, assessment criteria, and modifications. Consequently, the College is currently exploring additional ways to integrate pharmacy clinical practice concepts throughout the curriculum and is using the aforementioned curricula to help navigate this initiative. The College is currently working on professional development opportunities for faculty led by eminent scholars from institutions such as Auburn University to assist in the implementation of best practices surrounding curriculum delivery.

The College is currently engaged with three external consultants, as highlighted below.

- The College utilized the professional experiences and perspective of Dr. Amy Diepenbrock, Assistant Dean of Student Pharmacists Affairs, Feik School of Pharmacy in December 2019 for consulting services pertaining to admission and recruitment. She spent two days with the Office of Student Affairs observing and speaking with the Associate Dean of Student Affairs, current student pharmacists, faculty, and staff. As a result of her visit, Dr. Diepenbrock provided a report of her findings/observations and recommendations. The report will be used as a road map for admission and recruitment efforts.
- The curriculum consultant's (Dr. Arcelia Johnson-Fannin) input was cited above in the section on curriculum.
- Additionally, the College engaged Dr. Michael Fulford, University of Georgia, as an assessment consultant to review and make recommendations on key aspects of the assessment program, inclusive of personnel and to course final examinations. The first key finding from Dr. Fulford was to dedicate more FTE to the assessment activities of the College. Dr Fulford made several

recommendations regarding the structure and activities of the Assessment Committee as well as the role of staff currently dedicated to assessment. He also recommended more intentional lines of communication between the assessment, curriculum, and the Executive Associate Dean. The College is currently addressing these recommendations and plans to respond to each by December 1st. Recommendations for embedded assessment and recurring programmatic evaluation and predictive analysis using data generated by Enflux are also being incorporated into the overall assessment plan.

Institutional Knowledge and Outreach: The College's Dean has more than three decades of experience in this role at two other institutions. This experience allows for easy access to pharmacy thought leaders and peers. Challenges faced by the College can be influenced by the experiences of others in academic pharmacy. Examples include a one-on-one session with the Executive Director, AACP, and two sessions with ACPE (Accreditation Council for Pharmacy Education) personnel.

Communications among the state pharmacy schools is robust. Deans of the three state institutions have unfettered access to each other and this was in full display at the start of the Pandemic. This type of collaboration is also evident and quite useful at the associate Dean level.

Additional Information (optional)

This section is optional and may be used to describe any other initiatives designed to improve exam pass rates that do not align with any of the previous section.

N/A