Program Change Request

New Program Proposal

Date Submitted: 03/26/20 3:48 pm

Viewing: Capstone Certificate in Applied Drug Development

Last edit: 03/27/20 4:45 pm

Changes proposed by: janetski

Name of the school or college academic planner who you consulted with on this proposal.

Name

Mel de Villiers - PHM

Proposal Abstract/Summary:

A Capstone Certificate in Applied Drug Development is proposed for students interested/working in the pharmaceutical industry but are unsure if the MS in Pharmaceutical Sciences-Applied Drug Development named option is a good fit for them. The capstone certificate will be a 12-credit program comprised of selected courses from the course of study in the MS Pharmaceutical Sciences-Applied Drug Development program.

Students who complete the capstone certificate will also be allowed to continue course work toward the MS Pharmaceutical Sciences-Applied Drug Development named option. Successful completion of courses taken in the capstone certificate can be applied to the degree program.

Basic Information

Type of Program: Capstone Certificate (Special only)

Who is the audience? Special

Home Department: School of Pharmacy (PHARMACY)

School/College: School of Pharmacy

The program will be governed by the home department/academic unit as specified. Will an additional coordinating or oversight committee be established for the program?

No

Is this in the Graduate School? Yes

SIS Code:

SIS Description:

Transcript Title: Capstone Certificate in Applied Drug Development
Roles by Responsibility: List one person for each role in the drop down list. Use the green + to create additional boxes.

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Name (Last, First)</th>
<th>Email</th>
<th>Phone</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department Chair</td>
<td>Buxton, Eric</td>
<td><a href="mailto:ebuxton@wisc.edu">ebuxton@wisc.edu</a></td>
<td>608/265-2259</td>
<td>Chair, Division of Pharmacy Professional Development</td>
</tr>
<tr>
<td>Faculty Director</td>
<td>Buxton, Eric</td>
<td><a href="mailto:ebuxton@wisc.edu">ebuxton@wisc.edu</a></td>
<td>608/265-2259</td>
<td></td>
</tr>
<tr>
<td>Primary Dean’s Office Contact</td>
<td>De Villiers, Melgardt</td>
<td><a href="mailto:devilliers@wisc.edu">devilliers@wisc.edu</a></td>
<td>608/890-0732</td>
<td>Vice Dean for Academic Affairs</td>
</tr>
<tr>
<td>Primary Dean’s Office Contact</td>
<td>Lauhon, Charles</td>
<td><a href="mailto:clauhon@wisc.edu">clauhon@wisc.edu</a></td>
<td>608/262-3083</td>
<td>Associate Dean for Graduate Studies</td>
</tr>
</tbody>
</table>

List the departments that have a vested interest in this proposal.

- School of Pharmacy (PHARMACY)

Are all program reviews in the home academic unit up to date? Yes
Are all assessment plans in the home academic unit up to date? Yes
Are all assessment reports in the home academic unit up to date? Yes
Mode of Delivery: Distance Education (100% online)

Provide information on how any lab courses required for the degree will be handled.
There are no lab courses
Will this program be part of a consortial or collaborative arrangement with another college or university? No
Will instruction take place at a location geographically separate from UW-Madison? No
Will this program have outside accreditation? No
Will graduates of this program seek licensure or certification after graduation? No
First term of student enrollment: Fall 2020 (1212)
When will the application for the first term of enrollment open? Spring 2020 (1204)

Which terms will you allow new students to enroll? What are the application deadlines for each term selected?

<table>
<thead>
<tr>
<th>Start Term</th>
<th>Application Deadline MM/DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>07/31</td>
</tr>
<tr>
<td>Spring</td>
<td>10/31</td>
</tr>
</tbody>
</table>

Year of three year check-in to GFEC (3 years after first student enrollment): 2024
Year of first program review (5 years after first student enrollment): 2026

If this proposal is approved, describe the implementation plan and timeline.

The implementation plan includes the following key milestones and timeline:
- Final degree program approval - December 2019
- Finalize course schedule - December 2019
- SOP approval - certificate - March 2020
- Recruit and hire academic advisor - March 2020
- Launch degree marketing campaign - January 2020
- Campus approval - certificate program - January 2020
- Review additional applications for fall 2020 - January 2020
Rationale and Justifications

Why is the program being proposed? What is its purpose?

The capstone certificate provides applicable skills that enhance a recipient’s competitiveness in the pharmaceutical and bio-pharmaceutical industries. The Division of Pharmacy Professional Development (DPPD) provides non-credit professional development and continuing education courses to working professionals in the pharmaceutical and bio-pharmaceutical industries and looks to partner with the Division of Pharmaceutical Sciences to offer these for-credit courses. The addition of a professional master’s degree and complementary capstone certificate provides the opportunity to vertically integrate the school’s offerings while meeting the needs of a broader audience.

This certificate provides an option for students who wish to be employed in the pharmaceutical and/or bio-pharmaceutical industry, or as a means of career advancement for those who are currently employed in the industry. It is anticipated that a significant number of students may be working full-time while completing this capstone certificate. The certificate is structured to accommodate a student’s needs to maintain their employment while advancing their academic preparation.

The mission of the SOP and DPPD is to advance knowledge and professional practice in pharmacy and the pharmaceutical sciences. The capstone certificate creates a higher level of professional practice across the life-cycle of drug development, manufacture, and ongoing safety management. The program provides students with career opportunities by meeting a demand for knowledgeable and skilled workers in these rapidly expanding industries. The certificate will enhance the capabilities of those who are in, or wish to be employed in professional and technical jobs in the state, regional, national, and international economy.

Within the Dane County economy alone, there are unfilled, well-paying positions that require the knowledge, skills, and abilities that this certificate provides. The industry partners that worked with DPPD in designing the program described the unfilled positions at their companies as well as anticipated job growth due to planned expansion. Through this program we will provide students with career opportunities while supporting the growing pharmaceutical and bio-pharmaceutical industry in Wisconsin and beyond.

Do current students need or want the program? Provide evidence.

The capstone certificate is designed to provide students with knowledge, skills, and abilities that prepare and make them more competitive for jobs in the pharmaceutical and bio-pharmaceutical industry. Currently, graduates with bachelor’s degrees in Biology, Chemistry, Biochemistry, Chemical Engineering, Industrial Engineering, and related life-sciences are hired into entry-level positions by companies in the industry. Career development options are limited and professional development consists of on-the-job training and limited extra-mural continuing education. The certificate program and its parent degree program provide students with options for an advanced level of academic preparation while preparing them for employment above entry level.

For working professionals, the certificate provides an opportunity to advance their careers at an accelerated pace while maintaining their employment. Senior managers from multiple organizations have told DPPD faculty that they see the program as a vehicle to develop their high-potential employees by supporting their employees with tuition reimbursement benefits.

Evidence of student demand is also seen in our non-credit program offerings. We are seeing consistent increases in our pharmaceutical sciences programs (~30%) over the past 5 years.
What is the market, workforce, and industry need for this program? Provide evidence.

Market and competitive assessments performed by DPPD have identified a significant and unmet need for industry professionals with master’s level preparation. As designed, the capstone certificate creates a new class of professionals that fulfill a variety of roles in the previously ignored space between entry-level bachelor degree holders and master’s and PhD scientists. The certificate provides students with knowledge, skills, and abilities that prepare and make them more competitive for entry- and mid-level jobs in the biopharmaceutical industry. Employment for chemical and biological scientist/technician positions in the pharmaceutical and bio-pharmaceutical industry is projected to grow at 11% and 7% respectively by 2028. Median salaries for these positions ranges from $70,000 to $85,000 (source: US Bureau of Labor Statistics).

The current industry practice is to employ graduates with chemistry, biology, biochemistry, and chemical engineering bachelor degrees and provide on-the-job training. This approach is expensive, time consuming, and severely constrains job opportunities for the employee. The named option will provide the ability for a program graduate to enter the workforce at a higher level and to be more competitive in their career progression. For employers, the certificate provides a vehicle to develop current employees and provide a pathway for career advancement.

The rapid growth rate for employment in the pharmaceutical and bio-pharmaceutical industries is particularly noticeable in the Dane County area. Catalent, Inc. has recently announced that they will be increasing the workforce of their local manufacturing operation from 350 to 700 employees over the next 2 years. Similarly, Covance, Inc. has announced plans for significant expansion of their Madison, WI operations, essentially doubling their local employment. Organizations in related industries, e.g. Exact Sciences, have also announced plans to significantly increase employment. The jobs being created are those targeted by the named option. Similar growth is being reported regionally, nationally, and internationally, providing graduates with substantial opportunities for career growth and mobility.

The capstone certificate will enhance employment opportunities by preparing graduates for careers in the pharmaceutical and bio-pharmaceutical industry. The unemployment rates for recent undergraduates in biology and life sciences is 7.4% compared to the 2.4% unemployment rate for recent graduate degree holders (source: Georgetown University Center on Education and the Workforce - Analysis of US Census Bureau, American Community Survey Micro Data. 2009-2012). The knowledge and skills provided to graduates will make them highly desirable candidates for careers in industry.

The Division of Continuing Studies performed a market assessment identifying industry demand and employment for master’s level professionals in the pharmaceutical and bio-pharmaceutical industries. The DCS assessment found little demand for master’s-prepared individuals, though a high demand at the bachelor’s level. This can be explained by understanding that the study relied on current employment trends and that there is a small, but increasing number of master’s level educational programs. In addition, employers generally list minimal requirements for a position, rather than the desired level of preparation. In our face-to-face meetings with director and executive-level professionals in industry, we heard about the need for a program like the named option, and their willingness to support our efforts in the design, development, and delivery of the program.

What gap in the program array is it intended to fill?

At present there is no program in the UW-Madison catalog that specifically addresses the needs of professionals in the pharmaceutical industry. This program provides a continuum from undergraduate preparation in biology, chemistry, biochemistry, and/or chemical engineering and provides students with knowledge and skills that are directly applicable to all phases of drug development. The capstone certificate fills a need for a credential not currently available through non-credit professional development programs.
List the core program faculty and staff with title and departmental affiliation(s) who are primarily involved and will participate in the delivery and oversight.

<table>
<thead>
<tr>
<th>Name (Last, First)</th>
<th>Department</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dickmann, Leslie</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Program Director</td>
</tr>
<tr>
<td>Kwon, Glen</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Professor</td>
</tr>
<tr>
<td>Buxton, Eric</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Clinical Associate Professor</td>
</tr>
<tr>
<td>Lauhon, Charles</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Associate Professor and Associate Dean of Graduate Studies</td>
</tr>
</tbody>
</table>

What resources are available to support faculty, staff, labs, equipment, etc.?
Faculty and staff support will be provided through existing resources in the School of Pharmacy, including office space, administrative support, human resources, etc. IT support will be provided through existing School of Pharmacy systems and structures.

Program advisor(s) with title and departmental affiliation(s).

<table>
<thead>
<tr>
<th>Name (Last, First)</th>
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<td>Lauhon, Charles</td>
<td>School of Pharmacy (PHARMACY)</td>
<td>Associate Dean Graduate Studies</td>
</tr>
</tbody>
</table>

Describe how student services and advising will be supported.
The program business plan includes funding for a student services and advising professional beginning 8 months prior to the first semester of classes. This position will be dedicated to this degree program. In addition, the project plan includes the addition of up to three student services and advising professionals as enrollments dictate. All positions will be supported through 131 funds.

Confirm that the program advisor(s) or coordinator(s) have been consulted and reviewed this proposal.
Yes

**Resources, Budget, and Finance**

Is this a revenue program?
Yes

What is the tuition structure for this program?
Online/Distance per-credit tuition

Select a tuition increment:
$1,500/credit

What is the rationale for selecting this tuition increment?
This tuition price point positions the MS Applied Drug Development degree named option cost ($45,000) competitively, and slightly above the median of current competitors. The capstone certificate price point ($18,000) provides a lower-cost option for students while holding open the option to complete the degree program at a later date. Given that our target market includes current employees, we determined that the tuition increment will be competitive yet still allow students to take advantage of employer tuition reimbursement benefits.

Will segregated fees be charged?
No

If segregated fees will not be charged, please explain.
This is an entirely online program and students will be distance learners not utilizing campus services.

Provide a summary business plan.
The Capstone Certificate - Applied Drug Development is a fully supported program within the MS Pharmaceutical Sciences-Applied Drug Development named option. The certificate is designed to be an online program that can be completed in 1 year (two semesters). The target audience includes recent graduates who possess bachelor’s degrees in biology, chemistry, biochemistry, chemical engineering and related STEM fields as well as people employed in the pharmaceutical and bio-pharmaceutical industry. The program is designed to provide students with the core competencies needed to be successful in all aspects of drug development. The program is scheduled to begin with the fall semester of 2020.
Enrollment - The business plan for the degree includes the enrollment of 30 full-time students in year one, and scaling up to 80 full-time students in 2023 and beyond. In addition, we plan to admit 20 part-time (50%) students in 2021 and scale the number of part-time students to 100 by 2025. Certificate participants are included in these enrollment projections.

Finance - The program will operate as a Fund 131 program. A market-based tuition of $1,500/credit (resident and non-resident) will produce a positive operating margin in the first year, and provide an initial investment pay-back in 1.92 years.

Development - Funding for program development will be shared by the Division of Continuing Studies (DCS) and the Division of Pharmacy Professional Development (DPPD). DCS will provide development year funding for a program director and 50% student services professional. In addition, DCS will provide instructional design and marketing support to the program. DPPD will fund administrative support, division chair, faculty associate (20%), and expenses related to market assessment and industrial advisory board.

Investing the Margin - in addition to fully funding the named option, the business plan includes funding for School of Pharmacy (SOP) faculty lines, conversion of SOP courses to digital delivery, new course development, and the development of a new professional master's degree program.

PLEASE NOTE - COPIES OF THE DETAILED BUDGET SPREADSHEET AND ONLINE TUITION REQUEST ARE ATTACHED TO THIS PROPOSAL IN "SUPPORTING INFORMATION" SECTION

Provide an overview of plans for funding the program including but not limited to program administration, instructional/curricular delivery, technology needs and program assessment.

Program funding will be supported by the Division of Continuing Studies (DCS) and the Division of Pharmacy Professional Development (DPPD). DCS will provide funding for year one development to include a program director, 50% student services professional, instructional design support for course development, and program marketing. DPPD will provide administrative and support for market research and program/course development. Beginning in year two, DPPD will assume all operating expenses with the exception of instructional design for online courses and program marketing which will remain with DCS.

The business plan includes investments in educational technology needs for the program as well as the SOP. The business plan identifies the use of existing campus educational technology infrastructure and DCS program services for instructional design and program marketing.

The plan includes funding for instructional support for faculty as well as allocations for faculty professional development in online and distance education. Program assessment and governance will be provided through existing SOP and campus structures.

What is the marketing plan?

The marketing plan includes "upstream" (market research) and "downstream" (go to market) elements.

Upstream - the upstream marketing efforts are largely completed and include obtaining industry "voice of customer" (VOC), a competitive assessment, a market assessment, target demographics/psychographics, determination of price-point, and the creation of an industrial advisory board.

Downstream - Downstream marketing efforts will be designed to achieve enrollment targets. These efforts will be led by DCS. The downstream marketing campaign will build on the market intelligence from upstream efforts. Marketing messaging will focus on job and financial opportunities, short time to completion, and SOP reputation. Downstream marketing communications will employ customer touches in a variety of digital media and social networking platforms. Marketing automation will be employed to assure frequent and strategic customer "touches" designed to lead prospective students through the program pipeline.

In addition to digital and media communications, the program director and student services professional will contact prospective students. These efforts will enhance relationships between the student, program staff and faculty.

The program director will be responsible for maintaining the industrial advisory board and industry contacts as a source of potential student referrals as well as a vehicle for student job placement.
Does the program or change require substantial new resources other than those just described? Describe the needs. Confirm that the dean is committed to providing the resources.

There are no additional new / substantial resource requirements.

Are new Library resources needed to support this program?

No

Will you be seeking federal financial aid eligibility for this Capstone program?

No

Curriculum and Requirements

Guide Admissions/How to Get In tab

Admissions

Applications are accepted for terms fall and spring.
Fall Deadline: July 31
Spring Deadline: October 31
Applicants must possess the following:
Earned bachelor’s degree or equivalent or currently enrolled in PharmD program
Recommended cumulative GPA ≥ 3.0 (on 4.0 scale). Graduate Record Examination (GRE) scores are not required
Submit official post secondary student transcripts
Submit a maximum one-page statement of interest: Why are you interested in Applied Drug Development and what do you aim to get out of the program?
Non-native English speakers submit a Test of English as a Foreign Language (TOEFL) score of 92 (Internet version) or better

Application steps
Adult Career and Special Student Services (ACSSS) is the admitting office for all University Special students. However, the Pharmaceutical Sciences Division at the School of Pharmacy makes the final admission decision upon review of all applicant materials.
A complete application includes the following information:
An online application for admission as a University Special student, selecting UNCS Capstone Certificate and the program: Applied Drug Development. This application is received and processed by ACSSS with final decision held for approval from the School of Pharmacy.
Submit the following materials to the graduate student services coordinator for the School of Pharmacy at gradadmissions@pharmacy.wisc.edu or by mailing them to the address below.

Official transcripts from all colleges/ universities attended
Brief essay describing your reasons for applying and your career goal
Mailing address for transcripts:
Division of Pharmacy Professional Development
777 Highland Avenue
Madison, WI 53705

Describe plans for recruiting students to this program.

Working in concert with the Division of Continuing Studies, we plan to:
- Travel to college and career fairs across the United States (Host institution invites many colleges to present at informational booths)
- Create pop-up events and lunch and learns at targeted universities and businesses (where UW-Madison is the only visiting institution, often a more intimate event with a presentation)
- Host a series of events on UW-Madison campus targeting UW-Madison undergraduate students (examples might include: tips for your application, difference between masters and PhD, panel of students or admissions committee)
- Work with Applied Drug Development program staff to host booths at targeted conferences and career fairs to reach working professionals
- Call all leads within 24 hours of RFI form submission including video conferencing as requested
- One to one email and texting with prospective students to answer questions and connect to program staff as appropriate
- Develop automated campaigns to move prospective from interested to started the application and started the application to completed the application
- Develop automated yield campaigns and strategies to get accepted students to enroll
- Coordinate many of the above marketing activities in conjunction with partner departments (e.g., partners take program brochures to conferences they attend and vice versa)

Projected Annual Enrollment:
<table>
<thead>
<tr>
<th>Year</th>
<th>Projected Enrollment</th>
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<tbody>
<tr>
<td>Year 1</td>
<td>10</td>
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<tr>
<td>Year 2</td>
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<td>Year 3</td>
<td>25</td>
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<td>Year 4</td>
<td>30</td>
</tr>
<tr>
<td>Year 5</td>
<td>30</td>
</tr>
</tbody>
</table>

Maximum enrollment that can be supported with existing instructional and student services resources: 200

Describe plans for supporting enrollments that are much higher or much lower than the anticipated enrollment.

The nature of the certificate’s instructional design accommodates scalable enrollments. Our plan includes the hiring of Teaching Assistants for every 30 students enrolled in a course. The use of TA’s provides the ability to easily scale up (or down) instructional resources as enrollments dictate.

Similarly our plan for academic support services is scalable to enrollments. We will add advising and technical support as growth dictates.

Are international students permitted to enroll in this program? Yes

Those who are not familiar with using the HTML editor fields may upload a document with information about the curriculum for use by those who will format and edit the content that will appear in the Guide.

Guide Requirements tab

**Program Requirements**

Must maintain a minimum GPA of 2.000

A letter grade of C or better must be earned in each course

Required Coursework (12 credits)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHM SCI 750</td>
<td>The Drug Development Process</td>
<td>3</td>
</tr>
<tr>
<td>PHM SCI 751</td>
<td>Introduction to Regulatory Practice</td>
<td>3</td>
</tr>
<tr>
<td>PHM SCI 752</td>
<td>GxP (Good Practice): Working in a Regulated Environment</td>
<td>3</td>
</tr>
<tr>
<td>PHM SCI 753</td>
<td>Pharmaceutical Economics and Project Management</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credits 12

Total credits required: 12

Semesters to completion: 2

Guide Graduate Policies tab

**Program Learning Outcomes and Assessment**

List the program learning outcomes.

1. Demonstrate critical knowledge and in-depth understanding of principles in pharmaceutical sciences and in the student’s area of expertise.
2. Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.

3. Communicate scientific knowledge and research results effectively to a range of audiences.

Summarize the assessment plan.

Parent Program Learning Outcomes

- Demonstrate critical knowledge and in-depth understanding of principles in pharmaceutical sciences and in the student’s area of expertise.
- Identify important research questions, formulate testable hypotheses, and design experiments to test those hypotheses.
- Conduct research that contributes to the student’s field of study.
- Communicate scientific knowledge and research results effectively to a range of audiences.
- Apply ethical principles in conducting scientific research.

The Associate Dean for Graduate Education, with support from the SOP Assessment Office, is responsible for collecting and analyzing annual assessment data and presenting the subsequent report to the Pharmaceutical Sciences Division faculty. Data will be collected annually on all learning outcomes but analyzed and reported every other year to ensure a large enough sample. Recommendations and implementation are the responsibility of the assistant dean for graduate studies with assistance from the graduate program coordinator.

Approved Assessment Plan:  [Capstone ADD Assessment Plan Template 200326.docx](https://next-guide.wisc.edu/courseleaf/approve/?role=GRAD SCH Dept. Approver)

### Commitments

All required courses are approved through the school/college level.

- Yes

Courses are offered on a regular basis to allow timely completion.

- Yes

Courses have enrollment capacity.

- Yes

Courses in the curriculum are numbered 300 or higher.

- Yes

Courses in which a student elects the pass/fail option will not count toward completion of requirements.

- Yes

Special topics courses are only used if all topics count for the certificate.

- Yes

All requirements must be met; exceptions that amount to waiving requirements are not permitted.

- Yes

Course substitutions to the curriculum should be kept to a minimum; if substitutions are being made on a regular basis, the curriculum should be re-examined. When course substitutions are made, the substituted course should be formally added to the curriculum through governance for inclusion in the curriculum the following academic year.

- Yes

Substitutions are not permitted for any course unless the substitution would be provided for every student with the same substitution request.

- Yes

All of the Capstone certificate credits must be earned “in residence” (which includes on campus and distance-delivered courses) at UW-Madison while enrolled in the Capstone certificate program. Because a Capstone certificate is comprised of just a few courses, it is not appropriate for students who already have completed the same or similar coursework at UW-Madison or another institution.

- Yes

Students must earn a minimum grade of C on all attempted Capstone certificate coursework.

- Yes

The program faculty/staff will ensure the program is encoded into DARS and will work with the Registrar’s Office DARS liaison to keep approved revisions to the curriculum current.

- Yes
All students will be declared into the appropriate plan code in SIS via either an admission process or e-declaration. If the student does not have the plan code on their student record in SIS the student is not considered to be in the program.

Yes

The program faculty/staff will ensure the program website, Advance Your Career materials if applicable, and other presentations are consistent with the Guide information for this program.

Yes

Credential will not be awarded retroactively to students who completed all of the requirements before the credential was approved.

Yes

Degree-seeking students may not be concurrently enrolled in a Capstone certificate program.

Yes

Students enrolled in Capstone certificate programs are NOT eligible for teaching assistant (TA), research assistant (RA), project assistant (PA) nor graduate fellowship support. Programs must disclose this program policy to Capstone certificate students in the recommendation of admission letter, program website, program handbook, and program orientation.

Yes

To be eligible for admission to a Capstone program, a student must hold an earned bachelor’s degree or equivalent credential from an accredited college or university.

Yes

Supporting Information

List name and department of those who are in support of this proposal.

If those supporting the proposal provided a letter or email of support upload here. A letter is NOT required. Upload any other explanatory information about support from other UW-Madison units.

Additional Information:

Approvals

Department Approval - This proposal has been approved by the faculty at the department/academic unit level. The program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:

Entered by: Mel de Villiers Date entered: 3/26/2020

School/College Approval - This proposal has been approved at the school/college level and it is submitted with the Dean’s support. The Dean and program faculty confirm that the unit has the capacity and resources (financial, physical, instructional, and administrative) to meet the responsibilities associated with offering the program, including offering the necessary courses, advising students, maintaining accurate information about the program in the Guide and elsewhere, conducting student learning assessment and program review, and otherwise attend to all responsibilities related to offering this program.

Enter any notes about approval here:

Entered by and date:

Entered by: Mel de Villiers Date entered: 3/26/2020

GFEC Approval - This proposal has been approved by the Graduate Faculty Executive Committee and the Dean of the Graduate School.

Enter any notes about the approval here:

Entered by:

UAPC Approval - This proposal has been approved by the University Academic Planning Council and the Provost.

Enter any notes about approval here:

Entered by: Date entered:
**For Administrative Use**

Admin Notes:  
Guide URL:  
Effective date:  
Career:  
SIS Program Code:  
SIS Short  
Description:  
Other plan codes associated with this program:  
Degree:  
Field of Study:  
Program Length:  
National Student Clearing House Classification:  
Plan Group:  
Award Category:  
Enrollment Category:  
CIP Code:  
UWSTEM:  
HEALTH:  
Educational Innovation Program:  
Distance Education Program:  
Non Traditional Program:  
Special Plan Type:  
CDR certificate category:  

<table>
<thead>
<tr>
<th>Reviewer</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beth Janetski (janetski) (03/26/20 3:48 pm)</td>
<td>SOP APC approved: 3/26/20</td>
</tr>
<tr>
<td>Regina Lowery (lowery3) (03/26/20 10:20 pm)</td>
<td>Learning outcomes: Format accepted.</td>
</tr>
<tr>
<td>Regina Lowery (lowery3) (03/26/20 10:20 pm)</td>
<td>Assessment plan: Accepted.</td>
</tr>
<tr>
<td>Regina Lowery (lowery3) (03/26/20 10:23 pm)</td>
<td>Assessment reporting: Parent program Pharmaceutical Sciences Master’s - up to date.</td>
</tr>
</tbody>
</table>