Program Change Request

Date Submitted: 10/19/18 4:11 pm

Viewing: GCRT106 : Certificate in Bioinformatics at the Graduate Level

Last approved: 09/26/18 1:14 pm

Last edit: 10/19/18 4:32 pm

Changes proposed by: adpoehli

Catalog Pages Using this Program

Bioinformatics, Graduate/Professional Certificate

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

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Andrea Poehling - MED</td>
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</tbody>
</table>

Proposal Abstract/Summary:

Proposal to suspend admissions effective Spring 2019 and be discontinued effective Spring 2022. The last term to complete the Graduate Certificate will be Fall 2021.

If approved, what term should the proposed change be effective?

Spring 2019 (1194)

Select yes if this proposal is only to add, remove, or rearrange curricular requirements, and will change less than 50% of the curriculum.

No

Basic Information

Program State: Suspend, will be discontinued

Type of Program: Certificate

Who is the audience? Graduate or professional

Home Department: B M I

School/College: School of Medicine and Public Health

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
Suspension and Discontinuation

What is the last term that a student could declare this program?  Fall 2018 (1192)
What is the last term that students may be enrolled in or complete the program?  Fall 2021 (1222)

What is the timeline and advance communication plan?

We have communicated with current students our plans to discontinue the Graduate Certificate, effective Fall 2022. We will continue to communicate with them each semester about the subsequent course offerings in our teach-out plan. We will continue to individually advise the students on their options for completion. We will update our website so that it is clear that we are no longer accepting applications and that the certificate will be discontinued by the effective term. We will also communicate our plans to discontinue the Graduate Certificate with the Departments of Statistics and of Computer Sciences.

Explain the precipitating circumstances or rationale for the proposal.

Bioinformatics is the application of computer science theory and methods to molecular biology. In the realm of biological and medical science, bioinformatics is becoming a central discipline and is placing a new demand on the training of graduate students in the biological and computer sciences. Currently, there are two certificate programs in Bioinformatics: The Graduate Certificate and the Capstone Certificate. Both were proposed and approved in 2000. Both programs involve the same admissions and course requirements. The main distinction between the two programs is the audience. The Graduate Certificate Program is geared towards current MS and PhD students who desire additional training in informatics. The Capstone Certificate program reaches a broader audience including people working in industry (e.g., Nimblegen) as well as UW post-doctoral fellows, Researchers, and Scientists. Both of these programs have had relatively low enrollment since they were approved in 2000 and implemented in 2001. The programs were reviewed during 2014 and it was clear that a plan needed to be put into place to bolster enrollment in the two programs. Initial efforts involved announcements in key courses and a greater web presence. As a result of these efforts, there was a rise in admissions for the both the Graduate Certificate Program (GCRT106) and the Capstone Certificate Program (UNCS106). However, additional measures will need to be taken to further increase enrollment. These measures will likely involve a greater expenditure of time and resources. Discussions within our Department have centered around how best to mete out these resources. Due to the costs and resources required for recruiting students to the Certificates, we have decided to discontinue both Certificates. We would like to focus our efforts towards our new graduate programs, the M.S. and Ph.D. in Biomedical Data Science. Admissions to the Capstone Certificate were suspended in Fall 2016, and we have submitted a separate proposal to discontinue the Capstone Certificate effective Spring 2019. This proposal seeks approval to suspend admissions to and discontinue the Graduate Certificate.

What is the potential impact on enrolled students?

Five students completed the program in Spring 2018. There is one student currently enrolled. We are in the process of admitting one student into the program. Only one or two students have indicated an interest in the Graduate Certificate since our decision to suspend it. These students will be encouraged to apply before admissions are suspended at the end of Fall 2018. All students who are admitted by the end of Fall 2018 will be allowed to progress through the program normally, as all courses required for the certificate will continue to be taught.

What is the potential impact on faculty and staff?

Faculty and staff will focus efforts on our new MS and PhD programs.

Explain and provide evidence of efforts made to confer with and to notify faculty and staff.

Discussions about the low-enrollment status of our certificate programs were initiated during the process of developing our MS Degree Program in Biomedical Informatics in 2012. At that time, we were encouraged to schedule a review of the certificate programs. The review was completed in 2014 and involved input from members of our department, student participants
and the review committee members. In addition, we have had extensive conversations with colleagues in Academic Planning and Institutional Research (Jocelyn Milner and Sarah Kuba) and former staff of the Graduate School (Kelly Haslam and Marty Gustafson) throughout the process. Thus, we have conferred with many parties as we worked towards the decision to suspend admissions to and discontinue the Graduate Certificate. We will also inform the Departments of Statistics and of Computer Sciences of this decision.

Explain and provide evidence of efforts made to confer with and to notify current students.

We have communicated with current students our plans to discontinue the Graduate Certificate, effective Fall 2022. We will continue to communicate with them each semester about the subsequent course offerings in our teach-out plan. We will continue to individually advise the students on their options for completion. We will update our website so that it is clear that we are no longer accepting applications and that the certificate will be discontinued by the effective term. We will also communicate our plans to discontinue the Graduate Certificate with the Departments of Statistics and of Computer Sciences.

Explain and provide evidence of efforts made to confer with and to notify alumni and other stakeholders.

There is a minimal number of alumni.

Teach-out plan - How will program quality be maintained during the suspended period or the teach-out period for discontinued programs?

Quality will be maintained. Courses offered in the certificate are also offered in our graduate program.

Teach-out plan: A) For currently enrolled students, how will required courses, curricular elements, advising and other student services be provided?

We will continue to provide courses and services to certificate students, as we provide them to MS and PhD students.

Teach-out plan: B) For prospective students in the admissions pipeline, how are any commitments being met or needs to notify them that their program of interest will not be offered?

Students who express interest in the certificate but who do not apply before admissions are suspended will be encouraged to consider our MS Degree Program in Biomedical Data Science. Students interested in a shorter commitment than the MS degree can still take all of the courses in the certificate program; while they will earn course credit, they will not have the designation of a Graduate Certificate.

Teach-out plan: C) For stopped out students, what provisions are made for their re-entry? What program(s) will they be re-entered into?

We will comply with the university’s policy on stopped out students in certificate programs, which states: “If a student was enrolled in a certificate program and then stopped out, and the certificate program was discontinued while they were stopped out, the certificate program will not be available to them. Program faculty may make exceptions in the 2 years after a program is discontinued.”

Teach-out plan: D) Provide any other information relevant to teach-out planning.

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>
</tr>
</thead>
<tbody>
<tr>
<td>Department Chair</td>
<td>Newton, Michael A</td>
<td><a href="mailto:manewton@wisc.edu">manewton@wisc.edu</a></td>
</tr>
<tr>
<td>Faculty Director</td>
<td>Craven, Mark W</td>
<td><a href="mailto:mwcraven@wisc.edu">mwcraven@wisc.edu</a></td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Sweeney, Whitney A</td>
<td><a href="mailto:wasweeney@wisc.edu">wasweeney@wisc.edu</a></td>
</tr>
<tr>
<td>Primary Dean’s Office Contact</td>
<td>Poehling, Andrea D</td>
<td><a href="mailto:adpoehli@wisc.edu">adpoehli@wisc.edu</a></td>
</tr>
<tr>
<td>Primary Contact</td>
<td>Bierman, Beth A</td>
<td><a href="mailto:bbierman@wisc.edu">bbierman@wisc.edu</a></td>
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List the departments that have a vested interest in this proposal.

<table>
<thead>
<tr>
<th>Departments</th>
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<tr>
<td>Computer Sciences (COMP SCI)</td>
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<tr>
<td>Statistics (STATISTICS)</td>
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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: Face-to-Face (majorly face-to-face 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

Faculty and Staff Resources

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

Curriculum and Requirements

If you are proposing a change to the curriculum, what percentage of the curriculum is changing?
No change

Guide Admissions/How to Get In tab

The Department of Biostatistics and Medical Informatics is the administrative home of the bioinformatics certificate program. You must be currently enrolled in a graduate program at UW–Madison.

To apply for the certificate program you must provide the following:
A completed Graduate Certificate in Bioinformatics Application Form
A Statement of Purpose explaining how the certificate program will help your current and future research
A CV/resume
One letter of recommendation

Please submit the listed materials to Beth Bierman, graduate coordinator, bbierman@wisc.edu

For additional information about the certificate program, see Graduate Certificate in Bioinformatics

Applications are accepted on a rolling basis.

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

The Graduate/Professional Certificate in Bioinformatics consists of four courses for a total of 12 credits. Three of the courses are required; one is an elective. Depending on years to complete the program.

Prerequisites:

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<tbody>
<tr>
<td>MATH 222</td>
<td>Calculus and Analytic Geometry 2</td>
</tr>
<tr>
<td>COMP SCI 300</td>
<td>Programming II 1</td>
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</tbody>
</table>

1 Or COMP SCI 367 - Intro to Data Structures prior to fall 2018.

Basic Course Requirements:
Choose ONE Statistics Course:

Code
B M I/STAT 541
or STAT/F&W ECOL/HORT 571
Complete BOTH of these courses:

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<tbody>
<tr>
<td>B M I/COMP SCI 576</td>
<td>Introduction to Bioinformatics</td>
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