

PSPP Department Graduate Assessment Plan 2019-2020

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Program Learning Outcomes

MS students

1. Demonstrate academic mastery in one of three areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)
2. Attain expertise in a specific field of study within one of three broad subject areas represented in the department: plant genetics, plant pathology, or plant biology (including ecology and evolution)
3. Attain the skills and qualifications needed for employment in an academic, government or private sector position related to the plant sciences

PhD students

1. Demonstrate academic mastery in one of three areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)
2. Attain research expertise, including grant writing experience, and complete original research that advances a specific field of study within one of three broad subject areas represented in the department: plant genetics, plant pathology, or plant biology (including ecology and evolution)
3. Attain the skills and qualifications needed for employment in an academic, government or private sector position related to the plant sciences, which could include teaching experience and expertise in one of the three broad areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)

Assessment Rubrics

MS Students

Data Source	Program Learning Outcomes		
	1	2	3
MS Comprehensive Exam	X	X	
MS Thesis Defense		X	X

PhD Students

Data Source	Program Learning Outcomes		
	1	2	3
PhD Oral Comprehensive Exam	X	X	
PhD Written Comprehensive Exam	X	X	
PhD Thesis Defense		X	X

2019-2020 Graduate Program Assessment Report

MS students

1. Demonstrate academic mastery in one of three areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)

During the assessment period, six graduate students successfully passed their MS Comprehensive Exams. No MS student failed an MS Comprehensive Exam during the assessment period. These six student thereby demonstrated academic mastery in plant genetics or in plant ecology and evolution.

2. Attain expertise in a specific field of study within one of three broad subject areas represented in the department: plant genetics, plant pathology, or plant biology (including ecology and evolution)

During the assessment period, five graduate students successfully passed their MS Thesis Defense, in addition to the six who successfully passed their MS Comprehensive Exams. No MS student failed an MS Thesis Defense during the assessment period. All students involved thereby demonstrated expertise in the areas of plant genetics or in plant ecology and evolution.

3. Attain the skills and qualifications needed for employment in an academic, government or private sector position related to the plant sciences

During the assessment period, five graduate students successfully passed their MS Thesis Defense. A successful defense preceded by a high-quality public presentation of their research demonstrated an attainment of skills and qualification needed for employment in academic, government, and private sector positions. Indeed, all PSPP graduate students completing their MS Degrees have gone on to professional work or pursued PhD degrees at other institutions. No MS student failed an MS Thesis Defense during the assessment period.

PhD students

1. Demonstrate academic mastery in one of three areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)

During the assessment period, nine graduate students successfully passed their PhD Oral Comprehensive Exams and seven students passed their PhD Written Comprehensive Exams. No PhD student failed an Oral Comprehensive Exam or a Written Comprehensive Exam during the assessment period. All graduate students involved thereby demonstrated academic mastery in plant genetics, plant pathology, or in plant ecology and evolution.

2. Attain research expertise, including grant writing experience, and complete original research that advances a specific field of study within one of three broad subject areas represented in the department: plant genetics, plant pathology, or plant biology (including ecology and evolution)

During the assessment period, nine graduate students successfully completed their PhD Oral Comprehensive Exams, seven students completed their PhD Written Comprehensive Exams, and six graduate students successfully defended their PhD Theses. No PhD student failed an Oral Comprehensive Exam, a Written Comprehensive Exam, or a Thesis Defense during the assessment period. The graduate students successfully defending their theses wrote grant proposals and submitted manuscripts to peer-reviewed scientific journals. All graduate students involved thereby demonstrated research expertise in plant genetics, plant pathology, or in plant ecology and evolution.

3. Attain the skills and qualifications needed for employment in an academic, government or private sector position related to the plant sciences, which could include teaching experience and expertise in one of the three broad areas of plant sciences: plant genetics, plant pathology, or plant biology (including ecology and evolution)

During the assessment period, six graduate students successfully defended their PhD Theses. This and the success of PhD obtaining research and teaching positions at academic institutions or with private industry demonstrated that PSPP PhD graduates attained the skills and qualifications needed for employment in the area of plant sciences. No PhD student failed a Thesis Defense during the assessment period.

Program adjustments. The Department addressed an issue identified from previous assessments, which involved the need to offer opportunities for graduate students to improve their written communication skills with respect to writing grant proposals and preparing manuscript for peer-reviewed journals. This resulted in a special topics course offering, Graduate Writing and Professional Development, during Fall Semester 2019, which was taught by Drs. Ryan Thum, Jennifer Lachoweic, and Mac Burgess. This course had an enrollment of 15 graduate students and in the end had high student evaluations. It will become part of the regular course offerings so that PSPP graduate students have the opportunity to hone writing communication skills. The reason for maintaining this graduate student course offering is that “graduate students need to develop research ideas into compelling proposals. This course offers a formal structure and support system for graduate students to develop and articulate their research ideas, conceptual and theoretical frameworks, and methodologies.” (quoting the course syllabus and the related CIM document).

Overall. MS students in the PSPP Department averaged just over 3 years to complete their degrees during the assessment period, whereas PSPP PhD students averaged right at 4 years to complete their degrees (see associated document “PSPP Department Graduate Assessment Plan 2019 2020 data.pdf” on page 4). These and other data presented above suggest that the PSPP graduate program is expeditious and prospering.

Future reports. The PSPP Graduate Studies Committee is exploring avenues that keep track of the professional status of PSPP MS and PhD graduate students after they have graduated. In addition, this same PSPP committee is looking into the possibility of keeping track of peer-reviewed publications resulting from or involving PSPP graduate student research.

PSPS Department Graduate Assessment Plan 2019 2020 data.pdf

8/28/2020

Tracy, Mike

Let me give full credit to Tonya who has done a wonderful job on this.

Here is the TTD data, I think option 3 for TTD for PhD students makes most sense, but you can explore the other options.

Please let me know if you can access it – I think all DHs have access, but if you can't see it, I can track down the problem.

<https://tableau.mus.edu/#/site/bozeman/views/GraduateTimetoDegree/Story1?iid=3>

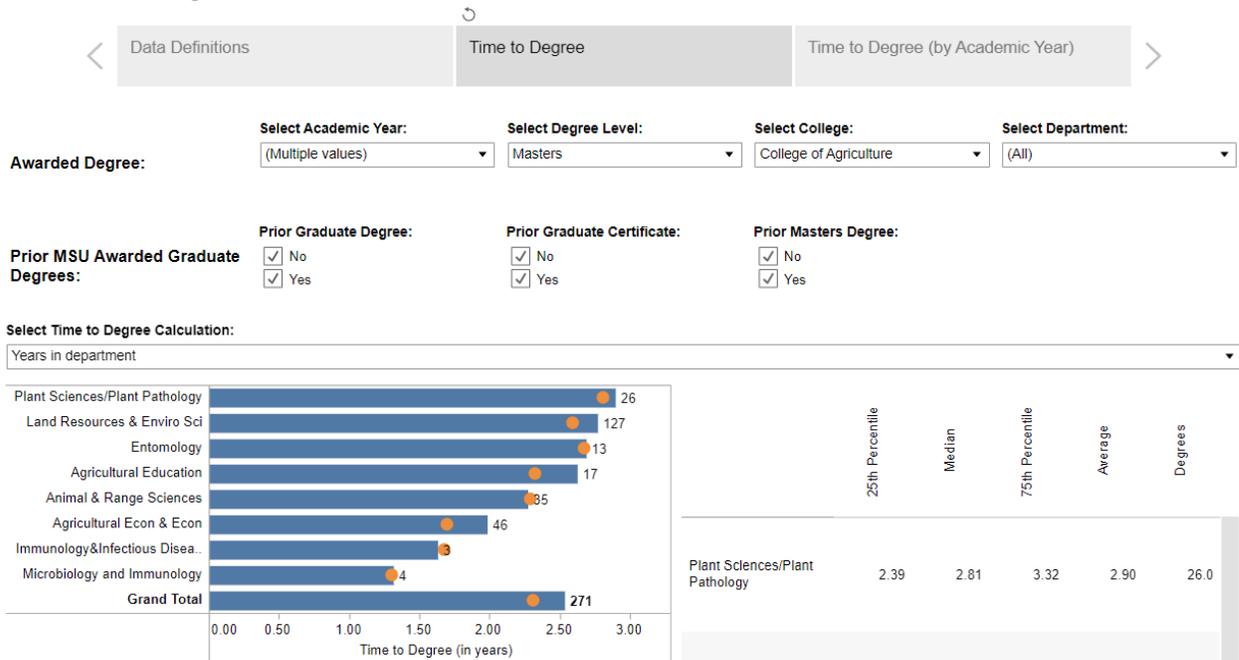
In addition, here is the degree completion rates and attrition/retention tableau, but I will admit this is not loading for me at the moment, Tonya, can you check? **(This didn't work for Giroux on 8/30/2020 either.)**

<https://tableau.mus.edu/#/site/bozeman/views/GraduateCohortRetentionGraduation/Story1>

Thanks

Craig Ogilvie

MS graduate degrees 2013/14 through 19/20 Graduate Degrees

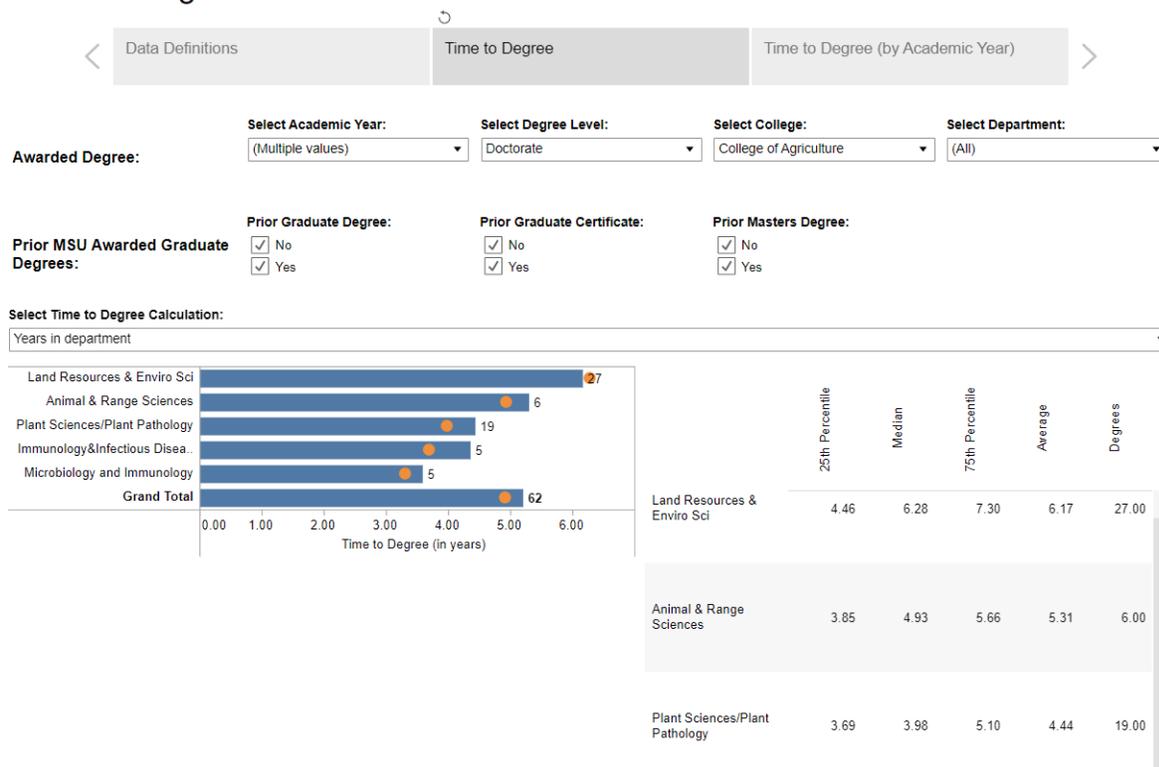


MS graduate degrees 2019/2020 Graduate Degrees



PhD graduate degrees 2013/14 – 2019/20

Graduate Degrees



PhD graduate degrees 2019-2020

Graduate Degrees

