

Geographic Information Systems  
MS - Assessment Plan Summary

Geographic Information Systems MS

Deliver A Curriculum With Appropriate Discipline Specific Knowledge

Goal Description:

Students will learn the appropriate advance Applied GIS knowledge and skills.

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

Demonstrate Advanced Applied GIS Knowledge And Skills

Learning Objective Description:

- 1. Each student will demonstrate the ability to communicate knowledge of advanced applied GIS.
- 2. Students will acquire knowledge and skill sets that will make them competitive in the ever evolving GIS job market

RELATED ITEM LEVEL 2

Mastery Of Advanced Applied GIS Knowledge - Written Comprehensive Exams

Indicator Description:

All graduate students will demonstrate a mastery of applied GIS knowledge through a set of written graduate comprehensive examinations, administered by a faculty committee. The examination will consist of questions about the practical and theoretical basis for the application of Geographic Information Systems and Remote Sensing techniques to real world problems. A committee of faculty members with expertise in the subject areas will evaluate students’ performance and give a mark of Fail, Pass, or High Pass in each examined area.

Criterion Description:



Each student needs to earn at least a "Pass" mark in each examined area to pass the written comprehensive exams. Each student is allowed two attempts. Faculty expect that at least 80% of graduate students will pass their exam on their first attempt. 100% will pass on their second attempt.

Findings Description:

Five students took their comprehensive exam in Fall 2016 and one student took his comprehensive exam in Spring 2017. Each student selected a comprehensive exam committee of three GIS faculty members. Each committee member then submitted their respective questions to the students. These questions examined the students practical and theoretical knowledge and skills in GIS. During fall 2016 two students received a High Pass from one of their respective committee members and all students passed the comprehensive exam. During spring 2017 one student who took the comprehensive exam received a high pass from two of the committee members and pass form the third committee member.

Thus, 100% of GIS graduate students passed their comprehensive exam during 2016-2017 academic year.

Attached Files

-  [Spring 2017 comp exam result](#)
-  [Fall 2016 comp exam results](#)

RELATED ITEM LEVEL 3

Objective: Strengthen the GIS graduate program

Action Description:

The GIS graduate faculty continues to adopt strategies to strengthen and improve the quality of the program. Over the years we have broadened the subject matter and range of skill sets that GIS graduate students learn in our program. Comprehensive exam is administered twice a year, once during the fall semester and once during the spring semester.

Update to Previous Cycle's Plan for Continuous Improvement

Previous Cycle's Plan For Continuous Improvement (Do Not Modify):

The graduate GIS faculty continues to adopt strategies in order to improve the quality of the program. As number of GIS graduate students increases, we plan to broaden the subject matter and the range of skill sets that GIS graduate students learn. GIS faculty will continue to work on improving student knowledge related to the most up to date geospatial technologies.

Another element of the graduate program that we plan to strengthen is the thesis track. In Fall 2014 the GIS graduate committee introduced a policy that required all graduate students on thesis track to take a class on Research Methods. This will ensure that students who are on thesis track have the required skill sets to effectively conduct research and successfully complete their thesis work. As part of continuous improvement the committee will adopt other approaches to strengthen the thesis track

**Update of Progress to the Previous Cycle's PCI:**

In 2016-2017 academic year the Applied GIS graduate program witnessed three students who have expressed interest in pursuing thesis track. Two students on thesis track successfully defended their thesis. Out of these two students one student was also able to successfully graduate in two years which is remarkable for the program. For the first time since the inception of the program in fall 2010 the Applied GIS graduate program had a student on thesis track graduate in two years. The student is currently employed with a mapping company in Houston. Currently the program has two students pursuing thesis track.

**Plan for Continuous Improvement****Closing Summary:**

All GIS graduate courses will be regularly updated to reflect the most recent changes in the GIS industry. This is to make our GIS graduate students ready for the GIS workforce.

GIS technical knowledge of graduate students will be monitored on a regular basis by administering an in-depth comprehensive exam. Each student is required to pass a comprehensive exam before they can graduate. This is a 5 day exam where a student is comprehensively tested by three GIS graduate faculty members on material they have been taught during the course of their graduate program. Students will earn a grade of PASS, HIGH PASS or FAIL.