

Detailed Assessment Report  
As of: 10/07/2013 10:58 AM EST  
2012-2013 Forensics MS

(Includes those Action Plans with Budget Amounts marked One-Time, Recurring, No Request.)

**Mission / Purpose**

To equip and enable students with the requisite analytical and critical thinking skills to become well read, objective practitioners, supervisors, managers, researchers and teachers in the fields of Forensic Science. The interdisciplinary nature of the program integrates highly specialized disciplines with the traditional concepts of scientific responsibility, service to mankind and science, and ethical concepts and behavior, enhanced by the value of intellectual curiosity that includes research and scholarly pursuits.

**Student Learning Outcomes/Objectives, with Any Associations and Related Measures, Targets, Findings, and Action Plans**

**SLO 1:Policies and Practice**

Students will master the major theories and practical knowledge pertaining to the policies and practices in their chosen discipline of forensic science by completing a qualifying exam that will cover said areas, policies and practices used in the chosen area of forensic science.

**Related Measures:**

**M 1:Qualifying Exam**

For the Master of Science, the student will take the departmental Qualifying/Comprehensive Examination after finishing the 12 hrs.of course work and before starting their thesis work. It is an eight (8) hour written examination which includes questions probing the student`s ability to apply scientific principles to selected forensic areas. Deficient answers are specifically noted and students are re-tested in that specific area on a subsequent written and/or oral examination.

Source of Evidence: Comprehensive/end-of-program subject matter exam

**Target:**

Expect 75% to pass comprehensive/qualifying examination questions specifically related to the forensic science practice. Questions asked will be both generic as well as specific to all areas of forensic science. 75% of the students will pass the comprehensive/qualifying examination in their first attempt. The students will clearly communicate to the reader by answering questions in a clear and concise manner that brings out their knowledge of the subject.

**Findings (2012-2013) - Target: Met**

Fall 2012: 100% of the students (6/6) passed the qualifying/comprehensive examination on their first attempt.

Spring 2013: One student took the qualifying/comprehensive examination and passed the examination in the first attempt (100%).

**M 3:Project/Presentation**

Students must complete a research project and oral presentation in FSC 691 course. The project/presentations will include topics related to forensic science policies and practices in the various disciplines. The evaluations will be based on clarity of written essays, content, oral

presentation style, audiovisuals and the ability to answer questions.

Source of Evidence: Project, either individual or group

**Target:**

Expect 75% to pass FSC 691 presentation by answering questions specifically related to the policies and practice used in forensic science settings.

**Findings (2012-2013) - Target: Met**

Fall 2012: Three students participated in the FSC 691 project and all three (100%) made successful presentations using power point slides and received a passing grade.

Spring 2013: Two students participated in the FSC 691 research project and both the students (100%) made successful presentations using power point slides and received a passing grade.

**SLO 2: Research Skills**

Students pursuing a M.S. will learn how to formulate, develop, and research an appropriate forensic topic, and successfully compose and defend a thesis in the field of Forensic Science.

**Related Measures:**

**M 2: Thesis**

The recipient of the Master of Science will develop specialized skills in his or her thesis area and successfully submit a thesis after completing the required research work.

Source of Evidence: Senior thesis or culminating major project

**Target:**

90% of all MS candidates will successfully submit a thesis that demonstrates the skills and knowledge necessary to complete a thesis research project. The thesis submitted must be acceptable and approved by the thesis committee.

**Findings (2012-2013) - Target: Met**

Fall 2012: No thesis defense during Fall 2012 semester.

Spring 2013: 100% of the students (3/3) successfully submitted a thesis that demonstrated the skills and knowledge necessary to complete a thesis research work. The appropriate thesis committee approved all the three theses.

**M 6: Thesis defense**

All MS students must successfully defend their research and written thesis before their committee in order to complete their degree program.

Source of Evidence: Senior thesis or culminating major project

**Target:**

90% of all MS students will successfully answer questions from their committee members during their thesis defense that pertain to the research performed to satisfy the thesis topic.

**Findings (2012-2013) - Target: Met**

Fall 2012: No thesis defense during Fall 2012 semester.

Spring 2013: 100% of the students (3/3) successfully submitted a thesis that

demonstrated the skills and knowledge necessary to complete a thesis research work. The appropriate thesis committee approved all the three theses. All the three students answered the questions from the thesis committee as part of the thesis defense.

### **SLO 3:Communication Skills**

Students will master the complexities associated with delivering oral and written scientific knowledge and findings by successfully presenting a research project for FSC 691 and answering questions to the satisfaction of a minimum of 2 faculty members.

#### **Related Measures:**

##### **M 1:Qualifying Exam**

For the Master of Science, the student will take the departmental Qualifying/Comprehensive Examination after finishing the 12 hrs.of course work and before starting their thesis work. It is an eight (8) hour written examination which includes questions probing the student`s ability to apply scientific principles to selected forensic areas. Deficient answers are specifically noted and students are re-tested in that specific area on a subsequent written and/or oral examination.

Source of Evidence: Comprehensive/end-of-program subject matter exam

##### **Target:**

MS students written and/or oral answers must be clear, concise, comprehensive and correct as to the question's content.

##### **Findings (2012-2013) - Target: Met**

Fall 2012: 100% of the students (6/6) passed the qualifying/comprehensive examination on their first attempt. All the students provided clear, comprehensive, and correct answers to the question.

Spring 2013: 100% of the students (1/1) passed the qualifying/comprehensive examination on their first attempt. This student provided clear, comprehensive, and correct answers to the question.

##### **M 3:Project/Presentation**

Students must complete a research project and oral presentation in FSC 691 course. The project/presentations will include topics related to forensic science policies and practices in the various disciplines. The evaluations will be based on clarity of written essays, content, oral presentation style, audiovisuals and the ability to answer questions.

Source of Evidence: Project, either individual or group

##### **Target:**

75% of students will receive a grade of "B" or higher on the FSC 691 project presentation.

##### **Findings (2012-2013) - Target: Met**

Fall 2012: Three students participated in the FSC 691 project and all three (100%) made successful presentations using power point slides and received a passing grade of B or better.

Spring 2013: Two students participated in the FSC 691 research project and both the students (100%) made successful presentations using power point slides and/or other audiovisuals and received a passing grade of B or better.

#### **SLO 4: Practical Knowledge**

Students will gain practical knowledge and skills by hands-on experience through laboratory course work by being introduced to techniques, instrumentation, and data interpretation within the various disciplines of forensic science. Upon graduation, the students should be able to relate their practical knowledge within the work environment.

##### **Related Measures:**

#### **M 2: Thesis**

The recipient of the Master of Science will develop specialized skills in his or her thesis area and successfully submit a thesis after completing the required research work.

Source of Evidence: Senior thesis or culminating major project

##### **Target:**

90% of all MS candidates will successfully demonstrate their knowledge about the specific area of forensic science they chose to perform research toward their Thesis by answering questions that cover historical aspects as well as future trends in the field .

##### **Findings (2012-2013) - Target: Met**

Fall 2012: No thesis defense during Fall 2012 semester.

Spring 2013: 100% of the students (3/3) successfully submitted a thesis that demonstrated the skills and knowledge necessary to complete a thesis research work.

The appropriate thesis committee approved all the three theses. All three students have demonstrated their knowledge and practical skills in their work.

#### **M 4: Faculty evaluations of presentations**

All students who make the presentation will cover areas related to the forensic science discipline. The evaluation instrument will cover presentation style, content, professionalism and student response during question and answer.

Source of Evidence: Academic direct measure of learning - other

##### **Target:**

75% of all MS students will achieve a combined grade of 80% on their oral presentation in FSC 580.

##### **Findings (2012-2013) - Target: Not Reported This Cycle**

Fall 2012: FSC 580 class is not offered in Fall 2012 semester.

Spring 2013: No MS FSC student was enrolled in the FSC 580 class during Spring 2013 semester.

#### **SLO 5: Professional presentation**

All MS FSC graduate students are expected to make a professional presentation in one of the forensic science classes or at a scientific meeting when practical. Graduate students will gain oral and written presentation skills and confidence in public speaking in a scientific or legal environment.

##### **Related Measures:**

#### **M 4: Faculty evaluations of presentations**

All students who make the presentation will cover areas related to the forensic science discipline. The evaluation instrument will cover presentation style, content, professionalism and student response during question and answer.

Source of Evidence: Academic direct measure of learning - other

**Target:**

75% of the evaluators will grade the presentation as satisfactory or higher (3 or higher in a 5 point scale).

**Findings (2012-2013) - Target: Met**

Fall 2012: FSC 580 class is not offered in Fall 2012 semester.

Spring 2013: No MS FSC student was enrolled in the FSC 580 class during Spring 2013 semester.

**M 6:Thesis defense**

All MS students must successfully defend their research and written thesis before their committee in order to complete their degree program.

Source of Evidence: Senior thesis or culminating major project

**Target:**

90% of all MS students will present their Thesis using Power Point slides that clearly demonstrate all aspects of their research to include Research Title, Research Hypothesis, Literature Review, Data and Results of their experiment as well as what its value is to the forensic community.

**Findings (2012-2013) - Target: Met**

Spring 2013: 100% of the students (3/3) successfully defended the thesis and answered questions pertaining to the research performed. The students used powerpoint slides to demonstrate the hypothesis, literature review, data, results and the value to the forensic community. All the three theses were approved by the thesis committee.

**Details of Action Plans for This Cycle (by Established cycle, then alpha)**

**Comprehensive examination**

The faculties are evaluating the structure of the comprehensive examination for the graduate program.

**Established in Cycle:** 2011-2012

**Implementation Status:** In-Progress

**Priority:** Medium

**Responsible Person/Group:** Lisa Nored

**Analysis Questions and Analysis Answers**

**What specifically did your assessments show regarding proven strengths or progress you made on outcomes/objectives?**

Graduate students within the forensic science program of the School of Criminal Justice met all target goals pertaining to written communication skills (Qualifying examination, Objective 3) for Spring 2013,

Oral communications in FSC 691(Objective 3) for Spring 2013, and Research skills in FSC 698 (Objective 2, Thesis defense). Two students (100%) successfully defended the thesis and answered questions pertaining to the research performed. Both the thesis was approved by the thesis committee. The set target of 90% was exceeded (100%) in Professional presentation (Objective 5) in FSC 698, thesis. 100% of MS students presented their Thesis using Power Point slides that clearly demonstrated all aspects of their research to include Research Title, Research Hypothesis, Literature Review, Data and Results of their experiment as well as what its value is to the forensic community. These data provide measures that the MS forensic science program is accomplishing what is was designed to do.

### **What specifically did your assessments show regarding any outcomes/objectives that will require continued attention?**

Assessments regarding the graduate Forensic Science program revealed that students met all the targets set forth in the outcome/objective. There are no specific areas that require continued attention. Every effort is taken to increase the quality of the graduate students. The qualifying/comprehensive examinations are used to test the overall knowledge of the students in the field of forensic science, and reflect the stringent quality as well as broad knowledge that are required from the students who graduate from the forensic science graduate program. We continue to monitor the quality of the thesis work and thesis presentation (Objective 5, Professional presentation) by the graduating students. All students from the forensic science program are encouraged to present their research findings in national and international meetings. Students are encouraged to publish their research findings in peer reviewed journals, so they are more marketable in the field of forensic science or elsewhere.

## **Annual Report Section Responses**

### **Program Summary**

The data collected during this academic year, and the analysis indicate that the program is accomplishing the objectives as specified in the assessment process. For the academic year 2012-2013, the School of Criminal Justice Forensic Science program graduated three MS students while three other students have successfully proposed their thesis work. One of the graduate students has successfully completed the qualifying/comprehensive examination during spring 2013 semester. Of the three students who have graduated this year, one student has already been employed by a federal agency. We are satisfied with quality and quantity of the graduating students graduating from the program. Several students presented papers at national and international professional conferences. Given the complexity and fast changing technology in forensics, students must be challenged to a higher standard for our program to continue to grow and meet the needs of employers looking to hire our students

### **Continuous Improvement Initiatives/Additional Action Plans**

The School of Criminal Justice forensic science program is pleased with its efforts to place graduating MS students into competitive, desirable jobs at private, national and federal laboratories. One of our graduates has gone on to continue her studies in a Ph.D. program. Several other students have secured positions with private, and government agencies, at the local, state, and federal level. One of the most important qualities a forensic science student must possess is the ability to communicate both in writing and speaking. The need to look at the curriculum for all areas and ensure that these qualities are emphasized in each area is going to be a critical component of the program. Special attention is given to the FSC 691 (Research) class. Not only that the students have to do laboratory based research, they are also required to write a summary at the end of the semester as well as do an oral presentation involving their research work. This writing and speaking requirements enhance the

speaking and writing skills of the students. We continue to monitor the performance of students in other areas as well such as qualifying/comprehensive examination, and thesis work.

### **Closing the Loop/Action Plan Tracking**

The School of Criminal Justice (forensic science program) made numerous revisions to the forensic science assessment plan. Several initiatives were implemented to address deficiencies which persisted earlier in areas such as oral communication and writing skills. The School of Criminal Justice forensic science program is pleased with its efforts to place graduating MS students into competitive, desirable jobs at private, national and federal laboratories. One of our graduates has gone on to continue her studies in a Ph.D. program. Even though the target for outcomes/objectives are met this year, we will continue to monitor the performance of the students in all areas related to the outcome and see if raising the target will achieve better quality in the overall performance of the students. We will continue to monitor the areas that need improvement and make every effort to achieve the target. The results from this assessment indicate the program is meeting or exceeding those objectives and standards measured in this analysis.

The future of the Forensic Science program depends on the successful recruitment of college graduates from local, outside, and out of state schools. Additional scholarships, tuition waiver, and financial aid to the students are some of the means of increasing student enrollment in the program. We believe the strength of our program is measured in the success of our students. The employment market for the Forensic Science students is very strong and several students who have graduated have secured positions with private and public entities including law enforcement. We will continue to assist the students in securing positions by announcing job opportunities in various agencies as well as providing strong recommendation to quality students, so they become successful in their career.