

# Forensic Science MS

## Ability to Conduct Original Research

**Goal Description:**

Students and faculty engaged in research will publish or present results in the form of peer-reviewed journal articles or national conference proceedings.

**Providing Department:** Forensic Science MS

**Progress:** Ongoing

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

**Students will Prepare Written Research of Publishable Quality**

**Learning Objective Description:**

Students actively engaged in research projects sponsored by program faculty will develop the technical writing skills and scientific abilities required to publish their findings in journals or present their data at scientific meetings.

RELATED ITEM LEVEL 2

**Student Preparation of Research Materials for Publication/Presentation**

**Indicator Description:**

Students will contribute to the knowledge base of forensic science and produce research directed at improving the practice of forensic science. This may be demonstrated by publication of research in a peer reviewed scientific journal or national/international conference proceeding (e.g. American Academy of Forensic Sciences Annual Meeting). Publication of student research in journals and at national or international conferences serves to demonstrate the value and quality of the work to the forensic science and/or scientific community.

**Criterion Description:**

Program-sponsored research will result publication rates of 0.5 publication/student (50%) at the MS level. Publication rates will be calculated as follows: Number of publications involving MS students / number of full-time students enrolled during the academic year. Publications may include peer-reviewed journal articles or conference proceedings.

**Findings Description:**

In AY 23-24, there were 0.6 publications per MS student, which exceeded the objective for this criterion. This included 13 publications from 23 MS students. The 13 publications included 5 peer-reviewed journal articles and 8 conference proceedings. The 0.6 publications per MS student average is the highest in program history since this metric has been recorded in AY 14-25. In general, it is difficult to produce conference papers or publications during the MS program due to the timing of abstract deadlines and the fact that publications are typically submitted post-graduation. The recent increase in publications per MS student since AY 21-22 may reflect increased opportunities for virtual or hybrid conference presentations, but also likely reflects our increased efforts to publish MS student research (i.e., 3 peer-reviewed publications in AY 22-23 and 5 peer-reviewed publications in AY 23-24 compared to only 1 peer-reviewed publication in AY 21-22).

Attached Files

 [Publications by AY 23-24.pdf](#)

RELATED ITEM LEVEL 3

**Student Preparation of Research Materials for Publication/Presentation**

**Action Description:**

While it is too early to determine the impact of our updated timeline and formatting for the capstone project, the emphasis the faculty have placed on MS student publications has delivered promising returns. The 0.6 publications per student average in AY 23-24 is the highest in program history since this metric began to be tracked in AY 14-15. The department will keep the updated capstone timeline and report formatting in place for the next assessment cycle to gauge the impact of these changes. Tentatively, it appears that encouraging first-year MS students to start talking to potential research advisors in the fall semester of their first year and formatting the capstone paper as a manuscript rather than a thesis will enable increased MS student peer-reviewed journal publications and conference proceedings.

Integration of Knowledge, Skills, and Abilities

Goal Description:

Students completing the MSFS will integrate knowledge, skills and abilities learned in the curriculum and formulate an independent research project to be conducted in an environment conducive to research and scholarly inquiry.

Providing Department: Forensic Science MS

Progress: Ongoing

RELATED ITEMS/ELEMENTS -----

RELATED ITEM LEVEL 1

MS Students will Demonstrate Competency in Research

Learning Objective Description:

Students completing the Master of Science in Forensic Science will demonstrate competency in technical writing and technical laboratory performance during their independent research project.

RELATED ITEM LEVEL 2

Capstone Research Report Scoring Methodology

Indicator Description:

Consistent faculty-developed scoring methodology will be applied to the capstone research report for FORS 6014 – Forensic Science Research. The scholarly report will demonstrate advanced discipline-specific knowledge, investigation, and problem-solving ability.

Criterion Description:

At least 90% of students will be assessed as “satisfactory” (comparable to a B) or higher (A) using the uniform faculty-developed rubric. The final report will be scored by each member of the committee, consisting of a minimum of three individuals (one of whom must be external to the department).

Findings Description:

There were 9 students who completed capstone research in AY 23-24. This does not include the 3 additional doctoral students who were involved in capstone research. All final report evaluations were satisfactory (earning a B or higher). All students received evaluations from two internal faculty and one external evaluator. The oral defenses were conducted in person and with a virtual Zoom option, which enabled increased participation from external evaluators. All students received satisfactory (B or higher) evaluations for their laboratory performance (100% As), technical writing (78% As and 22% Bs), and oral presentation (89% As and 11% Bs). The criterion for this objective was met during AY 23-24.

Attached Files

 [MS Research Performance AY 23-24.pdf](#)

RELATED ITEM LEVEL 3

Capstone Research Report Scoring Methodology

Action Description: