



E107 Forensic Science Capstone Experience: The Thesis, the Review, and the Practicum

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After attending this presentation, attendees will learn how students' personal and professional skills are encouraged through academic capstone experiences.

This presentation will impact the forensic science community by highlighting the three capstone experience options available to University of Ontario Institute of Technology (UOIT) Forensic Science undergraduate students. An overview of the curricula, assessment methods, and learning outcomes will be discussed.

In the UOIT Forensic Science Program, a capstone course is a required curriculum component prior to graduation. The course is delivered using active learning strategies emphasizing experiential learning and independent study. Combining interactive curriculum with traditional lecture material promotes a deeper understanding and a more engaged learner.

A capstone experience may take the form of an honors research thesis, a literature review, or a mock crime scene practicum project. A thesis project provides students an opportunity to conduct novel research by identifying a hypothesis and working through the methods, results, and significance of their work. The literature review course focuses on independent library-based scholarly research. Students synthesize information and provide a critical appraisal of experimental principles where necessary. The mock practicum course provides students with the opportunity to investigate a simulated crime scene and participate in all aspects of the investigation, from crime scene to lab, culminating in expert witness testimony in a mock court setting.

Each capstone project is conducted under the supervision of a forensic professional and allows the student to integrate and synthesize the knowledge gained throughout their program of study. Students' personal and professional skills are encouraged through this academic capstone experience. What's more, career paths and personal goals are fostered by creating a personalized course experience.

Emphasis is placed on developing students' practical and theoretical science skills. These *hard skills* are considered to be the foundational aptitudes that students acquire through lecture and laboratory content. *Soft skills* are also identified and nurtured. Otherwise referred to as interpersonal or social skills, these may include communication, self-motivation, problem-solving, time-management, leadership, and decision-making skills. Both oral and written communications are practiced with a strong focus on scientific report writing. Students are assessed on scientific validity, organization, completeness, and overall style and grammar. Finally, importance is placed on the student's ability to address relevant hypotheses and how the results address the latter.

Both hard and soft skill-sets are assessed in various capacities and all capstone experiences culminate with the submission of a written thesis or report as well as presentation at the year-end Annual Forensic Science Research Day.

Education, Capstone, Experiential Learning