

Does Trent University Prepare its Students for Potential Careers in Environmental Forensic Science?



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Introduction

Environmental forensics can be loosely defined as the application of science to environmental law.^{1,2}

- It's an encompassing term used for investigations that pertain to natural sources including wildlife forensics, pollution audits, and water contamination investigations.
- Professionals in environmental forensic sciences need a variety of foundational knowledge in fields including chemistry, biology, environmental science, and law.
- These specific skills are hard to accumulate in an undergraduate degree as there is little room within a degree to choose electives.

The aim of this research is to determine if Trent University provides students with courses and resources to prepare for this type of career.

Methods

Analyzed job ads for careers such as:

- Conservation Officer₃
- Enforcement (Pollution) Officer₄
- Water Laboratory Analyst₅

Interviewed professionals working in:

- Municipal Water Analysis Centers
- Provincial Environmental Investigation Branches
- Provincial Conservation Organizations

Anonymously surveyed third and fourth-year environmental and forensic science students

Required Knowledge and Skills

Soft skills

- Communication
- Leadership
- Organization
- Independent Work

Hard skills

- Computer experience
- Report writing

Specialized Knowledge About:

- Investigations
- Legislation
- Environmental sampling
- Species identification

Gaps in Student Preparedness

- 40% of students did not feel confident in their specialized knowledge
- 23% of students did not feel confident in their soft skills
- 17% of students did not feel confident in their hard skills

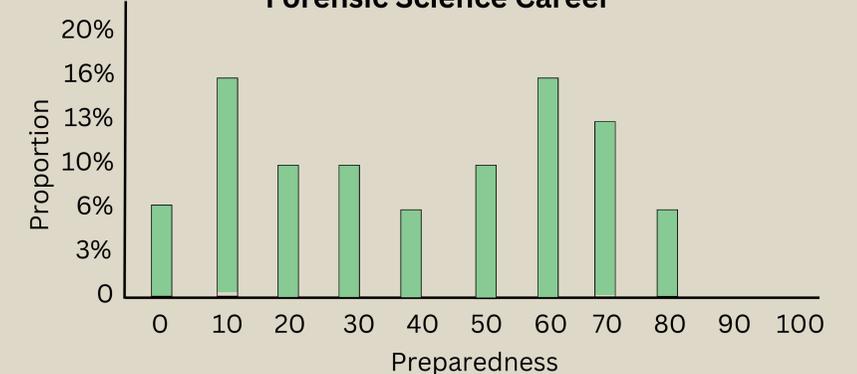
Forensic science students felt they were lacking environmental knowledge, including:

- Environmental legislation
- Environmental surveying
- Species identifications

Environmental students felt they were lacking forensic experience, including:

- Investigative techniques
- Evidence collection methods
- Investigative report writing

Preparedness for a Potential Environmental Forensic Science Career



Next Steps

The research indicates a need to better prepare students seeking careers in environmental forensic science, with a focus on the knowledge and skill areas outlined above.

These gaps could be addressed through the introduction of new cross-listed courses between the School of the Environment and Forensic Department, or by reducing barriers to interdisciplinary studies.