Bachelor of Science in Forensic Science
Ability-Based Outcomes

BGSU Forensic Science Practice Foundations

Forensic Scientists are vital members of the criminal justice system and are able to:

- critically think and analyze complex data for the benefit of the criminal justice system.
- apply diverse information to solve a real problem.
- provide laboratory skills to exacting standards and precision of care to solving crimes.

BGSU Forensic Science General Ability Based Outcomes

The BGSU forensic scientists shall be proficient in the following Ability Based Outcome measures:

1. **Conceptual Competence**
   ...understand the foundations of the profession of forensic science and its position in criminal justice (Comprehension).

2. **Scientific Competence**:
   ...design forensic studies based on the scientific method to produce evidence-based discoveries and use in crime investigations (Synthesis).

3. **Mathematical Competence**:
   ...use mathematical variables to analyze physical or chemical or biological evidence (Application).

4. **Communication Competence**:
   ...create verbal and written documents that inform, educate and motivate a wide range of audiences using a variety of methods and media with clarity, sensitivity, and accuracy (Synthesis).

5. **Critical thinking and decision making abilities**:
   ...appraise forensic evidence relevant to the solution of an identified problem and make sound evidence-based decisions (Evaluation).

6. **Social Awareness**
   ...express how forensic evidence and professional issues are placed within appropriate historical, cultural, social, economic, scientific, political and philosophical frameworks; and demonstrate sensitivity and tolerance within a culturally diverse society (Comprehension).

7. **Professional Conduct and Demeanor**:
   ...demonstrate ethical and responsible practices with integrity, compassion, empathy, and respect (Application).

8. **Leadership, Innovation and Advocacy**:
   ...contribute to positive change in the forensic sciences on behalf of society and the profession (Synthesis).
BGSU Forensic Science Professional Ability Based Outcomes

I. Forensic Chemistry

BGSU forensic chemists shall...

i. demonstrate formal education and training in genuine crime laboratory casework (Application).
ii. operate all scientific instrumentation typically used by crime laboratories to identify controlled substances (Application).
iii. understand analytical processes necessary to identify controlled substances for criminal proceedings (Comprehension).
iv. record accurate and complete examination documentation; as well as use that examination documentation to prepare a laboratory report summarizing their findings (Application).
v. implement the foundation of applied scientific and ethical education to ensure an objective evaluation of suspected controlled substances without bias (Application).

II. Forensic Biology

BGSU forensic biologists shall...

i. demonstrate learned critical thinking and decision making capabilities based on available case facts when analyzing evidence (Application).
ii. use laboratory competence garnered through required university coursework in forensic science, biology and chemistry (Application).
iii. implement strong communication skills, as necessary to effectively perform as a productive member in a team based analysis approach (Application).
iv. complete necessary tasks in a time efficient manner (Application).
v. comply with the educational requirements of the FBI for DNA analysis (Synthesis).

III. Forensic Examination

BGSU forensic examiners will...

i. demonstrate fundamental crime scene investigation techniques (Application).
ii. perform assorted latent print processing and capture techniques (Application).
iii. understand microscopic theory and the ability to use a variety of microscope types in the examination of forensic evidence (Comprehension).
iv. operate all scientific instrumentation typically used by crime laboratories in the analysis of trace, pattern and impression evidence (Application).
v. describe and defend the scientific foundations of the comparative forensic sciences in a fashion consistent with answering legal challenges (Comprehension).