Bachelor of Science in Forensic Science (BSFS)



Undergraduate Student Handbook (Rev. 2024)

Bowling Green State University Bowling Green, Ohio 43403

This *Forensic Science Undergraduate Handbook* is a supplement to the BGSU Student Handbook, (https://www.bgsu.edu/student-handbook.html) University Policies, and rules which should be consulted for details concerning University policies pertaining to the undergraduate programs.

Be certain to study the *Forensic Science Undergraduate Handbook* and learn the various requirements early. **YOU**, the student, **are responsible** for fulfilling all graduation requirements.

If you have any questions about policies and programs in this handbook, please consult with your advisor in the Center for the Future of Forensic Science Program Office.

The program faculty and staff wish you all the best in your undergraduate experience at BGSU!

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1 PURPOSE AND OVERVIEW

The Bachelor of Science with a major in Forensic Science (BSFS) degree program is designed for students interested in the application of scientific principles to forensic evidence. The BGSU forensic science programs recognize the Forensic Science Education Programs Accreditation Commission (FEPAC) <u>standards</u> as its academic foundation. As such, the Forensic Science major provides students with a <u>strong</u> background in chemistry, biology, and physics. Students also receive instruction and experience with scientific instrumentation and additional exposure to all aspects of forensic science.

By offering three distinct forensic science specializations under the umbrella of the Bachelor of Science with a major in Forensic Science degree program (Forensic DNA Analysis, Forensic Drug Analysis, and Forensic Examination), BGSU students have the ability to select the precise forensic curricula that will prepare them to achieve their career goals.

- The *Forensic DNA Analysis* specialization prepares students for positions as DNA analysts, performing blood and other biological material testing on all types of physical evidence to help solve crime through the discriminating power genetic testing.
- The *Forensic Drug Analysis* specialization prepares students for positions as drug chemists and forensic toxicologists. These scientists utilize the latest technologies to identify legally controlled substances and other dangerous drugs or unknown materials.
- The *Forensic Examination* specialization prepares students for positions as trace evidence analysts, latent fingerprint examiners, firearm and toolmark examiners, and crime scene responders. Students selecting this specialization will learn how to examine impression type evidence such as finger and palm prints, footwear, tires, bullets, cartridge casings, as well as understand the science and technologies associated with the forensic analysis of paint, glass, hair, fiber, gunshot residues, vehicle lamps and more.

Students completing this major would be well prepared for a graduate Forensic Science program, medical school, or employment in a crime, research, or medical laboratory. It should be recognized that crime laboratories are seeking students with foundational knowledge of core scientific concepts, i.e. chemistry, biology, and physics, which a FEPAC accredited undergraduate program provides. Students interested in receiving more in-depth instruction and forensic-specific coursework are advised to seek out graduate education in Forensic Science.

1.1 The Center

The Bowling Green State University (BGSU) Forensic Science Degree Programs are the product of the rare placement of a world-class crime laboratory on the campus of an internationally recognized academic institution. The location of an Ohio Attorney General Bureau of Criminal Investigation (BCI) crime laboratory and investigation facility at BGSU created a natural symbiotic relationship between the two institutions. That relationship evolved

into a formal partnership agreement under the name *Ohio Attorney General's Center for the Future of Forensic Science at BGSU* (The Center). The Center serves to facilitate forensic science academic programming, research, and real-world practitioner training. https://www.bgsu.edu/forensic-science/about.html

1.2 The State of Forensic Science

Forensic science is critical to an effective justice system, which in turn is a pillar of a civil society. It is an interdisciplinary field that includes chemistry as a foundational and integral component. Physical evidence presented in courts is frequently analyzed using forensic science techniques that are often grounded in chemical principles and methods. The credibility of the legal system critically depends on forensic tests that are consistent, accurate, and scientifically valid.

However, modern forensic science faces enormous challenges. The 2009 National Academies report, *Strengthening Forensic Science in the United States: A Path Forward*, enumerated the problems of the forensic science community in detail. The report noted that due to its history, its interdisciplinary and applied nature, and its close ties to law enforcement and the legal system, forensic science has not developed a culture that reflects important aspects of how science is conducted. Therefore, the necessary work to establish validity and reliability in analytical methods that are hallmarks of other scientific fields is often weak or absent in forensic science. Therefore, strengthening the scientific foundations of forensic science with the analysis and interpretation of verifiable data, efforts to identify and avoid bias, and clear connection to and building on peer reviewed research will benefit the profession, and society, as a whole.

The Center for the Future of Forensic Science at BGSU offers unparalleled experiential learning to forensic science students and a gateway to advanced training and cutting-edge forensic science research for practicing forensic scientists, forensic science technicians, crime scene investigators, and other law enforcement professionals.

1.3 Uniqueness

- The only Forensic Education Program Accreditation Commission (FEPAC) accredited program in the State of Ohio (one of ten nationally) that offers the ability to specialize in different forensic disciplines
- Unique partnership with Ohio BCI on-campus crime lab and investigation facility
- Unique partnership with Ohio Attorney General's Center for the Future of Forensic Science that conducts cutting edge forensic science research
- A "Crime House" provides the ability to demonstrate real world crime scenes on campus

- Opportunities to learn from faculty that are all accomplished forensic and CSI professionals
- Students learn the current knowledge and skills coveted by employers across the country and around the world in state-of-the-art facilities with instrumentation used in real crime laboratories
- A partnership with the BGSU's Graduate College to offer an accelerated Master's degree option
- Student engagement and recognition through organizations such as the Forensic Science Learning Community and Delta Epsilon Forensic Science Honor Society

1.4 Program Goals and Objectives

The goal of the Forensic Science academic programs at BGSU is to maximize the Ohio BCI relationship in order to provide students the precise education and training crime laboratories seek, and to produce highly qualified candidates equipped with the correct academic foundation and current technological skills to excel in the modern forensic field.

Program objectives include continuous direct consultation with professional forensic scientists and crime laboratory managers to ensure that the curricula align with current laboratory practices. Evidence handling and analysis protocols; documentation strategies; instrumentation, equipment and supply provision; as well as professional ethics, quality assurance, applicable law and testimony instruction are all intended to accurately reflect professional practice. The ongoing professional relationship will inform timely academic adjustment, as necessary.

BGSU forensic science programs recognize the Forensic Science Education Programs Accreditation Commission (FEPAC) Standards as its academic foundation. The programs have achieved and intend to continue FEPAC accreditation as a mechanism to ensure top quality forensic science programming is maintained. This will allow both the students and employers to recognize the level of excellence in the program.

1.5 Mission Statement

As the teacher/scholars of forensic science education, we are committed to:

- Nurturing leaders in the forensic sciences;
- Developing professionals who contribute to the greater good of society by protecting the public and ensuring justice;
- Advancing the profession and practice of the forensic sciences through education and cutting-edge research.

1.6 Vision Statement

Through an innovative collaboration, we develop leaders who revolutionize the profession of forensic science.

1.7 BGSU Vision, Mission and Core Values

The Forensic Science Program further comports with the overall Mission, Vision and Core Values as expressed by Bowling Green State University (BGSU):

"Bowling Green State University provides holistic and comprehensive educational experiences that enhance the lives of our students, stakeholders, and the many publics we serve. Our graduates are prepared for lifelong personal and career growth and for engaged citizenship and leadership in a global society. Through our excellence in teaching, research, and outreach, BGSU builds a collaborative, diverse, and inclusive community where creative ideas, new knowledge, and entrepreneurial achievements can benefit others in our region, the state of Ohio, the nation, and the world."

https://www.bgsu.edu/forward.html#vision

1.8 Institutional Accreditation

BGSU is accredited by the Higher Learning Commission (HLC). The HLC is an institutional accrediting agency recognized by the U.S. Department of Education. BGSU has been continuously HLC accredited since 01/01/1916. Additional detail and accreditation verification information may be viewed at HLC Accreditation (bgsu.edu).

1.9 Forensic Science Education Programs Accreditation Commission (FEPAC) Accreditation

An assessment of forensic sciences published in 1999 by the National Institute of Justice (NIJ), entitled, "Forensic Science: Review of Status and Needs", described the educational and training needs of the forensic science community as "immense". Among the recommendations contained in the report was the establishment of the following:

- 1. National standards for education in forensic sciences;
- 2. An independent, community-wide, consensus-building, standard-setting body such as a technical working group for education in forensic sciences;
- 3. An accreditation system for forensic science education programs.

In 2004, the Forensic Science Education Programs Accreditation Commission (FEPAC) became an official standing committee of the American Academy of Forensic Sciences (AAFS) and awarded its first accreditation February 2004.

The mission of the Forensic Science Education Programs Accreditation Commission (FEPAC) is to maintain and to enhance the quality of forensic science education through a formal evaluation and recognition of college-level academic programs. The primary function of the Commission is to develop and to maintain standards and to administer an accreditation program that recognizes and distinguishes high quality undergraduate and graduate forensic science programs.

The Forensic Science program at BGSU was specifically designed with FEPAC accreditation in mind. Since the program's inception in 2016, the curriculum has followed the FEPAC standards. After a multi-year application and review process, the Bowling Green State University Bachelor of Science in Forensic Science (BSFS) program recently (March 2022) received accreditation from FEPAC. Our program is one of 32 accredited (as of June 2024) undergraduate forensic science degree programs in the United States and Canada, and one of only two in Ohio.

"BGSU has the only accredited degree in Ohio that includes specializations in Forensic DNA Analysis (Forensic Biology) and Forensic Examination as well as Forensic Drug Analysis (Forensic Chemistry). Our accreditation reaffirms the commitment and effort that our faculty and staff have contributed to creating a program that sets the stage for our students' success."

-Dr. Travis Worst, director and associate teaching professor, Center for the Future of Forensic Science.

https://www.aafs.org/FEPAC

Students completing this major would be well prepared for a graduate Forensic Science program, medical school, or employment in a crime, research, or medical laboratory. It should be recognized that crime laboratories are seeking students with foundational knowledge of core scientific concepts, i.e. chemistry, biology, and physics, which a FEPAC accredited undergraduate program provides. Students interested in receiving more in-depth instruction and forensic-specific coursework are advised to seek out graduate education in Forensic Science.

1.10 Current Employment Market

The rising level of demand for forensic science professionals has been correlated with the rising level of technological solution prominence across nearly all industries. Forensic information will be far more accessible and actionable with the assistance of cutting-edge technological developments, making those who specialize in collecting said information more valuable to their employing organizations by default. Experts have postulated that the source of the higher demand for forensic science professionals could be related to a higher overall level of public awareness about the importance of forensic science itself. Thanks in part to a higher degree of media coverage, there are now more expectations for forensic investigators to contribute their skills for clarity and closure in criminal investigations. While the forensic science field is slated to see many more employers expressing an interest in those who specialize in it, the steep requirement for expertise will demand a higher level of effort from prospective forensic science specialists to distinguish themselves from the competition. The higher level of interest in forensic science that employers will have means that potential applicants will likely be screened with more scrutiny going forward. Going forward, forensic science experts may have

a greater need to demonstrate independent proficiency in technological solutions to supplement their contributions to their respective fields.

The Bureau of Labor Statistics (BLS) estimates that the median pay for Forensic Science Technicians was \$64,940/year (\$31.22/hour) in 2023. The projected percent change in employment from 2022 to 2032 is 13%, which is much faster than average – the average growth rate for all occupations is 3%. This means that over the same time period, the projected number of forensic technician jobs increase by 2,300, though this rising demand will accompany rising competition as well. (*May 14, 2024*: https://www.bls.gov/ooh/life-physical-and-social-science/forensic-science-technicians.htm)

As suggested in job openings found on the American Academy of Forensic Sciences (AAFS) website (<u>Career Opportunities | American Academy of Forensic Sciences (aafs.org)</u>), the skills required for these positions include:

"Solid understanding of data; excellent analytical and problem solving skills; knowledge of basic statistical methods and procedures; quantitative and analytical skills; ability to think critically/analytically; expertise to acquire, manage, manipulate, and analyze data and report results; identifies, analyzes, and interprets trends or patterns in complex data sets; performs basic statistical analyses for projects and reports, develops graphs, reports and presentations for specific results; monitor, verify, and audit compliance of data with standards; strong presentation skills; strong analytical and logical reasoning skills; strong level of detail, problem solving and organizational skills; knowledge of laboratory techniques used for scientific examination of physical evidence; requires ability to maintain and establish satisfactory working relationships with coworkers, various law enforcement personnel, and legal system personnel; requires ability to communicate ideas effectively in oral and written form; requires ability to construct court exhibits and demonstration charts; requires ability to analyze and correlate data contained in reports of crime; requires ability to develop evidence and to present it convincingly in written reports or orally; requires ability to compare, analyze, and/or identify physical materials and other matters; requires ability to pass an agency background investigation."

The curriculum of the BSFS program at BGSU is designed to graduate forensic scientists with the types of skills required to be successful as a professional in this field.

1.11 Background Checks

The BGSU Forensic Science Program recognizes the importance of emphasizing the elevated personal integrity requirements particular to employment in the field of forensic science both early and often. Specifically, all students are advised that background checks similar to those required by law enforcement are likely to be a condition of employment.

Anyone considering a career in the forensic sciences must be aware that employment applications typically go well beyond normal job requirements for transcripts, employment history, references, interview and basic criminal-record checks.

Though varying by agency or employer, expect applicant background checks to extend to inquiries about use of alcohol and illegal drugs, *including marijuana*, *which is still illegal federally, and prescription drugs taken or sold illegally for academic enhancement purposes*; willingly taking, sending, receiving, or exchanging explicit photographs; family and social companions; financial history; police records; and civil court actions. In addition, personal information posted on the internet, including social media websites, may be subject to review. Candidates should expect to take drug, personality, visual acuity (depending on discipline), and polygraph tests prior to employment. As an employee, you may be subject to continued drug testing and asked to provide fingerprints and a DNA reference standard.

The above is true for permanent employment as well as internships. Students must consider all factors that could influence future employment.

2 ADMISSIONS

BGSU Forensic Science is committed to recruiting students who demonstrate both a passion for the study and future practice of forensic science, as well as the intellectual capability to navigate an exceptionally rigorous academic curriculum. The Program Director controls BSFS admission, maximizing opportunity for individual student success. Less than half of all program applicants are accepted. **Student Measures and Performance** provides essential metrics demonstrating incoming student quality, continued academic performance, program retention and graduation rates that inform ongoing recruiting strategies.

The BGSU Forensic Science programs employ policies and procedures for student recruitment and admissions that seek to locate and select highly qualified individuals. The program seeks individuals who have the educational prerequisites as well as the interest and motivation to pursue careers in forensic science. Our program is competitive with fewer than 41% of applicants being offered admission to the program and the admitted applicants for Fall 2024 averaging a high school GPA of 4.03 on a weighted scale.

Individual student success is the ultimate goal of the BSFS program. Student achievement is evident in the forensic science research conducted as part of the program capstone experience. Examples of recent student research are also included on the **Student Measures and Performance** page.

The BSFS program specifies standardized college admission test score requirements above those of BGSU admissions. Students accepted by the university must further apply for enrollment in the BSFS degree program and meet the following admissions criteria:

Incoming Students

- SAT Combined SAT score of 1200 or higher, with at least a 550 score on the Math section; OR
- ACT An ACT composite and math score of 25 or higher
- ** Students with scores falling below these ranges may be reviewed for acceptance on an individual basis. **

Test Optional Route

If you are not near or do not meet the scores explained above, you may want to consider going "Test Optional" on your BGSU Application. Once you go Test Optional, you cannot revert back to being evaluated by scores, even if you receive new scores.

Note that applicants that opt for the Test Optional route will be reviewed holistically with their GPA and high school transcript.

One year of biology and one year of chemistry is extremely important for consideration.

Test optional students pursuing admittance into the BSFS program will need to meet prerequisites for MATH 1280 OR MATH 1310 as well as CHEM 1230/1240 OR CHEM 1350 which are listed below. Note that a math placement test and score may be needed to qualify for a BSFS admittance decision.

If test optional students have ACT/ SAT scores, they can opt to officially submit them to BGSU for a math placement score.

If test optional students have CCP and/or AP credit they may serve as pre-requisite requirements. Please contact the Transfer Evaluation office for more information on how courses can transfer in.

MATH 1280 Prerequisite Requirements:

Prior credit in MATH 1200 or in MATH 1220 or a MATH placement score of 41 or higher is required for enrollment.

MATH 1310 Prerequisite Requirements:

Prior credit in MATH 1280, MATH 1290, or MATH 1300 required for enrollment, or Math placement test score of 61 or higher.

CHEM 1230/1240 Prerequisite Requirements:

MATH 1200 or MATH 1220 or MATH 1230 or MATH 1260 or MATH 1280 or MATH 1300 or MATH 1310 or MATH 1340 or Math placement score of 41 or higher.

CHEM 1350 Prerequisite Requirements:

High school chemistry or CHEM 1090 and MATH 1220 or higher or Math placement score of 41 or higher.

Pathway Route

If a student is not initially a forensic science major, they can follow the forensic science pathway to obtain admittance. These students will pursue the forensic science pathway while under a chemistry or biology major.

Current BGSU students and Transfer Students may be eligible for the program if they have:

- Obtained a cumulative college GPA of a 3.0 or better, and
- Earned a "C" or better in CHEM 1230 (including CHEM 1240 lab) or CHEM 1350 and

- Earned a "C" or better in CHEM 1270 (including CHEM 1280 lab) or CHEM 1370 (including CHEM 1380 lab) and
- Earned a "C" or better in the Organic Chemistry sequence: CHEM 3410 and CHEM 3440 (including CHEM 3460 lab).

Students who meet these criteria should contact the Forensic Science program regarding admission.

3 DECLARING A MINOR

BGSU requires you to have a declared major *and* a minor (or a dual or second major) in order to graduate. Specializations do not count toward this requirement.

<u>Note:</u> In order to add or change a specialization, the same form below is required to be filed with the college. However, students need to consult and should seek approval from the Forensic Science Program Office and/or Faculty Mentor <u>before</u> adding or changing a specialization.

In the Forensic Science Program, BSFS students will take all of the classes that are needed to have a Chemistry minor. However, <u>every student still needs to fill out the paperwork</u> to tell the College that they have declared Chemistry as their minor, <u>the program office cannot do this</u>, <u>and it is not automatic</u>.

If BSFS students wish to declare a minor other than Chemistry, that is allowed; however, students should recognize that declaring a different minor does <u>not</u> mean that any of the Chemistry courses are waived. All courses listed under the "Additional Requirements" section of a student's checksheet, which constitute a Chemistry minor, are required for <u>all</u> BSFS majors.

To declare the minor,

- Find the form at the following location: https://www.bgsu.edu/arts-and-sciences/student-resources.html.
 - The link for the form will be located in the grey box on the bottom, under Student Forms, you want the one called "Change in Major or Minor".
 - o "Change in Major or Minor" form: https://casit.bgsu.edu/collegeweb/student-forms/change-in-major-minor/
- Fill out the form and submit it electronically through the website. If only adding a minor, write "no change" under new major, and write "Chemistry" (or the desired minor) under new minor.

Change in Major or Minor

 $Note: This form\ is\ for\ Major/Minor\ changes\ for\ students\ within\ the\ College\ of\ Arts\ \&\ Sciences.\ Changes\ to\ your\ current\ major\ and/or\ minor\ may\ result\ in\ a\ delay\ of\ your\ graduation\ timeline.\ If\ you\ have\ any\ questions,\ call\ us\ at\ 419-372-2015.$

Name		BGSU Student ID Number	
123-456-789 Phone (Local or		BGSU Email	
Present Majo	or (1)	New Major or "no change" (1)	
Present Majo	or (2)	New Major or "no change" (2)	
Present Mind	or (1)	New Minor or "no change" (1)	
Present Mino	or (2)	New Minor or "no change" (2)	
Present Spec	cialization:	New Specialization:	
Degree Sought:	□ Bachelor of Arts □	Bachelor of Arts in Communication	□ Bachelor of Science
	□ Bachelor of Fine Arts □	Bachelor of Liberal Studies	□ Bachelor of Science in Journalism
	☐ Bachelor of Science in Fire Administration		
Term: Sprin	ng 🗸 Year:	_	
Signature		Date: mm/dd/yyyy 🗖	
I'm not a	a robot reCAPTCHA Prissy - Terra		
Submit fo	orm		

4 ACCELERATED BACHELOR'S TO MASTER'S PROGRAM

The Graduate College at Bowling Green State University has several graduate programs that permit qualified undergraduate students who are earning their bachelor's degree at BGSU to apply to an *Accelerated Bachelor's to Master's program*. Participating in an Accelerated Bachelor's to Master's program provides students with the opportunity to complete both a bachelor's degree and a master's degree in an efficient manner.

Undergraduate students who apply to and have been accepted into an Accelerated Bachelor's to Master's program will be coded as *Undergraduate Accelerated Students* until they have completed their bachelor's degree. While an "Undergraduate Accelerated Student", they may take *up to* nine (9) credit hours of graduate credit. A *maximum* of nine (9) graduate credit hours *may* be overlapped between both the bachelor's and the master's degrees. These overlapped credits can count toward both the undergraduate and graduate degrees (according to the curriculum of each program). Note, in completing the Forensic Science Accelerated program, students earn six (6) overlapping credits that count toward the MSFS degree.

See the Graduate College's Accelerated Bachelor's to Master's Program Policy for more detailed information on admissions requirements, student status, credit hour policies, tuition, financial aid, program withdrawal, and program dismissal. *Please note:* These policies pertain to students who wish to *officially* work toward both a bachelor's degree and master's degree at BGSU *simultaneously*. Students who wish to take graduate level courses during their senior year but not officially enroll in a master's degree program may apply to do so by earning Advanced Undergraduate Status (AUS).

Accelerated MSFS Admissions Requirements

 $(\underline{https://www.bgsu.edu/graduate/graduate-programs/accelerated-bachelors-to-masters-programs/accelerated-bsfs-to-msfs-program.html})$

Students interested in pursuing the Accelerated Bachelor of Science in Forensic Science (BSFS) to Master of Science in Forensic Science (MSFS) must complete the following application process:

Formally apply to the Accelerated Bachelor of Science in Forensic Science (BSFS) to Master of Science in Forensic Science (MSFS) program through the BGSU Graduate College admissions portal.

- > Eligible students will meet or complete the following application requirements:
 - By the start of Accelerated status, they must have either:
 - 75 credit hours earned <u>and</u> an overall BGSU GPA of at least 3.2, **OR**
 - 90 credit hours earned and an overall BGSU GPA of at least 3.0;
 - Have completed CHEM 1770;
 - Have completed BIOL 2040;

- Have completed BIOL 2050;
- Have completed CHEM 1230 or CHEM 1350;
- Have completed CHEM 1270 or CHEM 1370;
- Have completed CHEM 2010;
- Have completed CHEM 3410;
- Have completed CHEM 3440;
- Grades earned in the above courses will be reviewed as part of the application process;
- Have completed either:
 - FSCI 4300 (if forensic chemistry/drug analysis specialization student)
 OR
 - FSCI 4230 (if forensic biology/DNA analysis or forensic examination student)
 - o and earned a B or better.
- Please note, to be eligible for the Accelerated Bachelor's to Master's Program in Forensic Science, students must <u>NOT</u> have taken or previously received credit in as part of the BSFS program:
 - o FSCI 4400
 - o CHEM 3080
 - o CHEM 4450
 - o CRJU 4510
 - o CRJU 4400
- Complete the Accelerated Bachelor's to Master's Program Application;
 - Deadline to complete application: February 1st 11:59 pm to take graduate-level courses the following Fall semester
- Submit official transcripts from all universities attended;
- Submit *at least one letter of recommendation* from a full-time BGSU faculty member, preferably from graduate faculty within the student's major or targeted graduate program.
 - Note: The letter of recommendation should come from a faculty or staff member of BGSU with personal knowledge of student who is not a faculty/staff from the Forensic Science Program.

- Provide a *personal statement* indicating research interest (e.g. chemistry versus biology), expectations, future career goals, and any relevant background experience. The statement should indicate how the MSFS program at BGSU can aid the student in obtaining future goals. Where appropriate, this statement should provide information on educational experiences, research background, specialized training, or other matters which make the candidate suitable for admission.
- Provide a *scientific writing sample* (e.g. laboratory report, case study, research paper, published journal article, undergraduate honors thesis, etc.);
- Provide a *resume*;
- Note, the MSFS program may require more information from applicants that *could require an interview*.
- > Students will then be evaluated by Forensic Science Program faculty. If accepted, students be granted Undergraduate Accelerated Status.

Undergraduate Accelerated Status

Courses that <u>must</u> be taken while an undergraduate student with Undergraduate Accelerated Status that will overlap between the Bachelor's and Master's degrees:

- FSCI 5400
- CHEM 5450

Note, students who successfully completed their Bachelor of Science in Forensic Science degree at BGSU prior to receiving Graduate Accelerated Status will not be able to register for cross-listed courses at the graduate level that were previously completed at the undergraduate level (e.g. FSCI 4230/5230 or FSCI 4300/5300). Affected students will be granted a course substitution for CHEM 5450, approved by the Graduate Coordinator.

Accelerated MSFS students <u>should complete</u> **FSCI 4700** as their culminating experience course because it can be used as preparation for eventual thesis research.

Graduate Accelerated Status

Courses to be taken once the bachelor's degree has been completed and the student is fully enrolled as a graduate student in the MSFS master's program should include any courses not taken in the "Curriculum" section of the MSFS Graduate Student Handbook while the student was on Advanced Undergraduate Status or Undergraduate Accelerated Status. Students are

^{**}Students who change majors or transfer into the BSFS program may still be eligible for acceptance into the Accelerated Bachelor's to Master's Program in Forensic Science but should consult Forensic Science Program faculty regarding degree completion.**

expected to participate in graduate education and research throughout the year, including summer. At a minimum, master's degree completion is expected to take an additional 4 semesters, including summer, post-graduation from undergrad. This program requires you to complete a Plan I Thesis Research Project (FSCI 6990).

5 PROGRAM SUPPORT

5.1 Photo ID/BG1 Card

The BG1 Card is the official identification card for BGSU students, faculty and staff. Your BG1 Card is more than just an ID card. It provides access to meal plans, events, and campus facilities. Also, if you are a PNC Bank customer, it can be linked to your bank account to serve as an ATM card. Lastly by adding funds to your BG1 Bucks account, your card can then be used for printing, on-campus vending, and at multiple off campus locations.

Student must be registered for at least one course to be issued a student identification card. Taking a photo at BG1 Plus is simple. Just swing by the information desk in the student union. You will need to have your government issued ID with you. There is a \$25 fee for the BG1 Card. It will be billed to the student's Bursar account and this is not covered by any fee waivers from assistantships.

5.2 SOAR

BGSU calls new student orientation, **SOAR** – which stands for Student Orientation, Advising and Registration. At SOAR, you will have an opportunity to connect with current students, as well as staff members, and get to know some of your new fellow Falcons. You will be connected with an Orientation Leader who will lead you through your SOAR experience and continue to be a resource throughout the summer and Fall Welcome. You will also be able to take care of some important "to-do" list items such as finalizing your financial aid and billing, getting your BG1 card, and finalizing your fall semester class schedule. We will also provide opportunities for campus tour and residence hall tours. Every step of the way, we encourage you to ask questions – we're here for you! For more information and scheduling, visit the SOAR webpage at https://www.bgsu.edu/orientation.html

5.3 Weeks of Welcome

Weeks of Welcome is a collection of events, programs and resources put in place to welcome first-year and transfer students to the Falcon family and get familiar with campus before classes begin! Participating in as many of these events as possible will help set you up for success before classes begin.

The BSFS program uniquely offers one-on-one advising appointments with Forensic Science faculty throughout move-in week, where incoming Forensic Science students will have the opportunity to meet with a faculty advisor and create a personalized graduation plan.

Additionally, ALL new and transfer students need to attend Convocation and Get with the Program. At "Get with the Program", incoming students get to meet other first-year students and faculty in their department and major. Students will hear first-hand from their program faculty about what it takes to be successful, as well as expectations, guidelines and resources that will be helpful to you throughout their BGSU experience.

At the "First Class" session, senior BSFS students who completed internships over the summer will present on their internship experience and what they accomplished, including: a brief description of the agency, how they found their internship and what the application process entailed, a summary of what they did, an explanation of the impact the experience had on how they view their undergraduate experience, and a description of the biggest take-away, learning moment, or what made the experience meaningful or impactful.

For more information and scheduling, visit the Weeks of Welcome webpage at https://www.bgsu.edu/students/spring-week-of-welcome-save-the-date.html

5.4 MyBGSU

MyBGSU is a secure Intranet – Enterprise Portal environment that helps to enhance campus communications and integrate multiple administrative systems into one centralized environment. All applications and communications take place in a secure environment, accessible by authorized audiences only. With only one sign-on, students, faculty and staff are able to access e-mail, Canvas, PeopleSoft HCM, Registration Services, Financial Services, Meeting Maker, etc.

Features and benefits of the enterprise portal include:

- Unified access to multiple systems, which streamlines processes across organizational boundaries by providing unprecedented access to information interrelating multiple systems and databases.
- Personalization, which provides a Web-based experience tailored by role and job function. Single access point, which gives access to virtually all authorized systems and collaboration tools with one password.
- Advance search and navigation capacity, which streamlines navigation of multiple databases.
- Accessibility, from anywhere at any time via Internet and Web browsers.

Log on to MyBGSU by going to www.bgsu.edu and clicking on the MyBGSU icon. Then enter your BGSU user name and password.

5.5 DARS

Each semester, students should review their Degree Audit or DARS report through "MyBGSU". The report is a computer-generated document that checks your various graduation requirements. DARS reviews all BG Perspective, college and university-wide requirements. To access the report, follow these simple steps:

- 1. Log on to your "MyBGSU" from the BGSU homepage, click on "Degree Audit" under Quick Links at the top right of the screen.
- 2. Click "Run Audit" located at the bottom of the page.

- 3. On the "Completed Audit Requests" page, select the most recent audit and click "view audit".
- 4. If you have not declared a major, or wish to see how your credits will apply to a different major, use the "Run Selected Program" feature. Select the program you desire in the center drop-down list, choose the most current semester, and then click on "Run Audit."
- 5. Open the audit, navigate through individual sections by clicking on the icon to the left of each requirement or click on "Open All Sections" to open the entire audit. Color notes: purple dots indicate "In Progress;" red X indicates "Incomplete;" green check indicates "Completion."
- 6. Click on "Course History" to see a list of all your courses and a historical display of your GPA.
- 7. Review your audit and utilize it to plan your schedule for each term. Discrepancies should be reported/discussed with your advisor. If you have questions or concerns or need assistance accessing your DARS, contact the College of Arts and Sciences Office at 419-372-2015.

5.6 Advising

During your time at BGSU, you may work with an academic advisor in the Office of Academic Advising to ensure you have the appropriate coursework and advising. Please visit their website to find your advisor: https://www.bgsu.edu/academic-advising.html. In addition, faculty mentors within the BSFS program can provide support, even if you are new to the program and have not yet been assigned a faculty mentor. For Forensic DNA Analysis specializations, Dr. Oechsle is assigned, and those students who are within Forensic Drug Analysis or Forensic Examination, Dr. Worst is assigned as faculty mentor.

5.7 Forensic Science Learning Community

Given the inherent academic challenges presented by the BSFS major, BGSU Forensic Science offers added support and program engagement for undergraduate students through the Forensic Science Residential Learning Community (FSRLC). The FSRLC is designed to help forensic science students live, learn and succeed together. The community is designed to offer students a targeted support network to improve classroom learning and academic success, as well as provide unique opportunities beyond the classroom to investigate the real world of forensic science.

The Forensic Science Residential Learning Community is for any student enrolled in the BGSU Bachelor of Science in Forensic Science degree program, or seeking a pathway to enrollment through either the Biology or Chemistry Department. This community is not intended for criminal justice majors.

For more information and how to apply, visit https://www.bgsu.edu/learning-and-theme-communities/forensic-science.html

5.8 Delta Delta Epsilon

Delta Delta Epsilon, the international forensic science honor society, was founded in 2010 by the Forensic Science Institute at the University of Central Oklahoma. Delta Delta Epsilon (DDE) is dedicated to stimulating academic achievement, promoting community understanding, and advancing the fields of forensic science. Colleges and universities which grant baccalaureate or advanced degrees in one or more forensic science disciplines that support the DDE mission may establish chapters with the Society. In 2019-2020, Bowling Green State University was approved to start the Alpha Pi Chapter. Membership is limited to students within the disciplines of forensic science which meet high academic criteria and have displayed excellence during their collegiate career. As established by the national organization, students are eligible for membership into this society if they are majoring in forensic science and have maintained an undergraduate GPA of 3.5 or higher, or are in the graduate forensic science program, having maintained a graduate GPA of 3.5 or higher. DDE is intended as an academic honor society; however, community service has become an integral component of our programs. For more information on joining the organization, visit: https://www.bgsu.edu/forensic-science/BGSU-Delta-Delta-Epsilon.html

DDE at the Center for the Future of Forensic Science at BGSU also maintains a list of forensic science job resources at: https://www.bgsu.edu/forensic-science/BGSU-Delta-Delta-Epsilon/Forensic-Science Jobs.html

5.9 Professional Involvement

The BGSU Forensic Science degree programs provide service to the forensic science profession and to the community through a combination of communication, collaboration, consultation, technical assistance and continuing education programs that facilitate sharing the program's professional knowledge and competence. The purpose of this involvement is to provide opportunities for faculty and students to contribute to the advancement of the field of forensic science and to ensure the academic programming offers current technologies/methods and credible with practitioners and forensic science laboratory administrators.

Interaction with Forensic Science Laboratories

The BGSU-AGO partnership agreement creates a unique, dynamic capacity for seamless interaction between the University and the AGO's Ohio BCI. It is instructive to know, BGSU Forensic Science degree programs were developed in consultation with Ohio BCI forensic scientists; and both current and former Ohio BCI staff routinely provide degree specific course instruction. The on-campus BCI facility allows faculty and students controlled access to a professional forensic science laboratory.

Formal interaction with Forensic Science is demonstrated through multiple mechanisms, including:

- Student internships;
- Training opportunities in which the program provides instruction to laboratory personnel;
- Faculty serving on laboratory advisory committees;
- Coordinated research initiatives between the laboratory and academic program;
- Professional activities coordinated between the laboratory and the academic program; and
- Laboratory personnel serving as adjunct faculty; guest instructors; and in an advisory capacity to the academic program.

Documentation of formal interactive activities is maintained in accordance with FEPAC retention requirements.

Interaction with Forensic Science Organizations

BGSU Forensic Science recognizes on-going interaction with forensic science organizations which offers a mechanism to ensure program instruction remains current with emerging professional technologies and methods; introduces BGSU students to professional practice and prospective future employers; and creates opportunity to help advance the profession. Interactive activities include:

- Faculty membership and regular conference participation in numerous professional forensic science organizations (e.g. American Academy of Forensic Science; American Society of Crime Laboratory Directors; Association of Forensic Quality Assurance Managers; Midwestern Association of Forensic Scientists; Forensic Science Institute of Ohio);
- Student membership in professional forensic science organization;
- Student attendance/participation in forensic science conferences;
- Service activities to or for professional organizations; and
- Hosting educational, training, or outreach with external professional organizations.

5.10 Student Support Services

BGSU offers all the student support services expected of a major university, including learning commons; technology support; career center; financial aid; health and counseling; peer mentoring; legal aid; student employment; study abroad; undergraduate research; accessibility services; LGBTQ resources; non-traditional student support and more. Links to many of the services provided through:

- The Office of the Dean of Students: https://www.bgsu.edu/dean-of-students.html
- TRIO Student Support Services: https://www.bgsu.edu/trio-programs/student-support-services.html

- The Division of Diversity and Belonging: <u>Division of Inclusion and Belonging</u> (bgsu.edu)
- Student Legal Services: https://www.bgsu.edu/student-legal-services.html
- BGSU Office of Health and Wellness: https://www.bgsu.edu/recwell/wellness-connection.html

5.11 Accessibility Services

Accessibility Services is to help provide equal access and reasonable accommodations to students with disabilities attending BGSU. Students wishing to discuss their eligibility for such accommodations are encouraged to contact the office at 419-372-8495, 38 College Park Office Building, or on the web at https://www.bgsu.edu/accessibility-services.html.

5.12 BGSU Libraries (Jerome Library) & The Learning Commons

Many of the resources available through the Jerome Library are easily accessible online. These resources include but are not limited to an extensive database of journals and periodicals, local and national newspapers, books and government documents.

If you need research assistance, visit the Ask Us! webpage at http://www.bgsu.edu/library/ask-us.html to contact us by IM, text, email, or phone. You can also book a 1-hour research consultation with a librarian at https://bgsu.libcal.com/appointments/ira.

The Learning Commons provides free tutoring services to all BGSU students and is located on the 1st floor of Jerome Library. You can find some information at https://www.bgsu.edu/learning-commons.html. If you need online help with the writing process, visit https://www.bgsu.edu/learning-commons/writing.html.

5.13 OhioLINK

OhioLINK is a statewide library and information network linking universities, colleges, technical and community colleges, and the State Library of Ohio.

Some of your classes will require moderate to extensive library research. As a registered student you can make use of BGSU's Jerome Library as well as the resources of over 82 academic libraries across the state of Ohio. The following information provides a brief introduction to these resources as well as helpful websites that can further answer your questions.

The main features of OhioLINK include:

- An online central catalog of the holdings of member libraries
- Online access to research and reference databases

- A document delivery service for books, periodical articles, and other materials.
- User-initiated online borrowing

OhioLINK is a library information system provided for the faculty, students and staff of OhioLINK participating institutions. The system contains menus with instructions on how to use the resources presented. Patrons are authorized to make selections and follow keystroke instructions as provided by on-screen displays.

Any attempts to leave the menus through keystrokes not suggested by the system may be interpreted as unauthorized use of the system. Unauthorized use of OhioLINK is prohibited and will be considered to be in violation of OhioLINK's rules and policies for use of its computers and network.

OhioLINK's home page is http://www.ohiolink.edu/.

5.14 Writing Center

The Writing Center staff is committed to the success of campus and community writers throughout various stages of their writing projects, with primary emphasis on the development of student writers. The staff envisions their service as one of writers helping writers. In providing a real audience for writers, they ask writers questions to encourage them to revise their drafts for increased clarity of ideas, logical organization, and overall effectiveness. Rather than serving as a proofreading or editing service, the lab staff works with writers to help them learn to edit their own work. Because they believe ideas have consequences, they work with writers to bring their ideas into focus. The lab encourages creativity, critical thinking, and communication as a means toward building stronger communities. They look at writing not only as a static text but also as a process of learning and problem solving in order to create new meaning and greater understanding.

The Writing Center strives to create a unique space, where writers feel comfortable to discuss and develop their ideas and where they can grow confident in their ability to communicate with diverse readers.

To Schedule a Writing Appointment:

- Call the Learning Commons at 419-372-2823
- Visit the Learning Commons on the first floor of Jerome Library

Writers Lab URL: https://www.bgsu.edu/learning-commons/writing.html

5.15 Technology Support

Information Technology Services (ITS) Provides a central point of contact for faculty, staff and students for questions, problem reports, service requests and inquiries for University computer systems and communications technologies at BGSU. Students can get help by phone (419-372-0999) or by visiting their web page at https://www.bgsu.edu/its.html

5.16 Computer Resources

The University provides students, faculty, and staff with access to 13 laboratories equipped with PC and Apple computers. There are four computer laboratories located in the College of Business Administration. The entire campus has wireless networking accessibility.

5.17 Career Planning and Placement Services

The Michael and Sara Kuhlin Hub for Career Design and Connections provides comprehensive career planning and placement services for students and alumni of the University. The professional staff helps students clarify and implement their career goals. Services offered include: a Career and Life Planning course offered each semester; individual counseling appointments; personality and occupational interest inventories; SIGI+ an interactive computer career guidance and information system; classroom presentations on all phases of the career decision-making recruiters; career days and job fairs; job listings and resume referrals; credential services; the Falcon Career Connection, and alumni placement services.

Worknet, a web-based system powered by eRecruiting was adopted by Michael and Sara Kuhlin Hub for Career Design and Connections as a way to capture student and alumni resumes using the internet. It connects you with employers, co-ops, internships, and jobs at the click of a mouse. By using Worknet students can provide information for the referral system that lets potential employers know the students and their qualifications. In addition, Worknet gives students access to schedule on-campus interviews and view job listings of full-time, internship, summer, and part-time positions. Instructions explain this process can be found in the Michael and Sara Kuhlin Hub for Career Design and Connections office.

Any student who needs assistance clarifying their academic interests or related career options is encouraged to schedule a counseling appointment or participate in a career exploration group or course. It is recommended that students attend career search programs and job fairs, register for resume referral and campus interviewing, and utilize placement-counseling services.

Stop by the office in the Bowen-Thompson Student Union on the second floor, or online: https://www.bgsu.edu/career-center.html

6 LEARNING OUTCOMES: BACHELOR OF SCIENCE IN FORENSIC SCIENCE

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

- 1. <u>Conceptual Competence</u>: The BGSU forensic scientists shall understand the foundations of the profession of forensic science and its position in criminal justice.
- 2. <u>Scientific Competence</u>: The BGSU forensic scientists shall comprehend the scientific method and its use in scientific discoveries and crime investigation.
- 3. <u>Mathematical Competence</u>: The BGSU forensic scientists shall use mathematical variables to analyze physical, chemical, biological evidence.
- 4. <u>Communication Competence</u>: The BGSU forensic scientists shall appropriately inform, educate and motivate using a variety of methods and media with clarity, sensitivity, and accuracy.
- 5. <u>Critical thinking and decision-making abilities</u>: The BGSU forensic scientists shall acquire, evaluate, synthesize and apply information, knowledge and processes relevant to the solution of an identified problem and make sound decisions.
- 6. <u>Social Awareness</u>: The BGSU forensic scientists shall demonstrate the ability to place forensic evidence and professional issues within appropriate historical, cultural, social, economic, scientific, political and philosophical frameworks, and demonstrate sensitivity and tolerance within a culturally diverse society.
- 7. <u>Professional Conduct and Demeanor</u>: The BGSU forensic scientists shall act ethically and responsibly, with integrity, compassion, empathy, and respect. The BGSU forensic scientists shall accurately self-assess behaviors and conduct, and seek, accept and apply constructive feedback.
- 8. <u>Leadership, Innovation and Advocacy</u>: The BGSU forensic scientists shall initiate or contribute to positive change on behalf of society and the profession.

BGSU Forensic Science Professional Ability Based Outcomes

I. Forensic Drug Analysis

- BGSU forensic chemists shall demonstrate the ability to apply their formal education and training to genuine crime laboratory casework.
- BGSU forensic chemists shall possess the requisite knowledge and experience to operate all scientific instrumentation typically used by crime laboratories to identify controlled substances.
- BGSU forensic chemists shall understand the full analytical process necessary to identify controlled substances for criminal proceedings.
- BGSU forensic chemists shall demonstrate the ability to record accurate and complete examination documentation; as well as the ability to use that examination documentation to prepare a laboratory report summarizing their findings.
- BGSU forensic chemists will demonstrate a strong foundation of applied scientific and ethical education sufficient to ensure their ability to evaluate suspected controlled substances objectively and without bias.

II. Forensic DNA Analysis

- BGSU forensic biologists shall demonstrate learned critical thinking and decision-making capabilities based on available case facts when analyzing evidence.
- BGSU forensic biologists shall demonstrate laboratory competence garnered through required university coursework in forensic science, biology and chemistry.
- BGSU forensic biologists will exemplify strong communication skills, as necessary to effectively perform as a productive member in a team-based analysis approach.
- BGSU forensic biologists will demonstrate the ability to complete necessary tasks in a time efficient manner.
- BGSU forensic biologists will have substantively satisfied the FBI coursework requirement for DNA analysts.

III. Forensic Examination

- BGSU forensic examiners will demonstrate comprehension of fundamental crime scene investigation techniques.
- BGSU forensic examiners shall demonstrate the ability to perform assorted latent print processing and capture techniques.
- BGSU forensic examiners shall understand microscopic theory and the ability to use a variety of microscope types in the examination of forensic evidence.
- BGSU forensic examiners shall possess the requisite knowledge and experience to operate all scientific instrumentation typically used by crime laboratories in the analysis of trace, pattern and impression evidence.
- BGSU forensic examiners shall fully comprehend the scientific foundations of the comparative forensic sciences, such that they are capable of answering legal challenges.

7 CURRICULA

Fall 2022

Bachelor of Science in Forensic Science Specialization in Forensic DNA Analysis BOWLING GREEN STATE UNIVERSITY

	3/4 Central Hall • 419-3/2-2015
BG Perspective (BGP) Requirements	FSCI Major Core Requirements (35 Hrs.)
Must complete at least 1 course in each of the following:	U- 0-4
English Composition and Oral Communication Course Credits	Hrs
Quantitative Literacy	4 BIOL 3320 Human Anatomy & Physiology II 3 CHEM 1770 Intro to Forensic Science 5 FSCI 4400 Professional Responsibility
Must Complete at least 2 courses in each of the following: Humanities and the Arts	3 MATH 2470 Fund. of Statistics 5 PHYS 2010 or 2110 University Physics I 5 PHYS 2020 or 2120 University Physics II
Natural Sciences - at least one Lab Science required	FSCI Forensic DNA Analysis Specialization Requirements (16 hrs.)
Social and Behavioral Sciences	4 BIOL 3500 Genetics 3 BIOL 4080 Molecular Biology 3 BIOL 4230 OR FSCI 4230 Forensic Biology 3 BIOL 4240 OR FSCI 4240 Forensic DNA Analysis 3 FSCI 4700 Research in Forensic Science OR
Complete total required BGP credit hours by selecting courses from any of the above categories:	FSCI 4890 Internship OR FSCI 4990 Capstone
	Additional Requirements (25-26 Hrs.) These courses also fulfill the requirements for a minor in chemistry. Consult with an advisor
	about declaring the minor.
University Requirements Designated courses in Humanities and the Arts and the Social and Behavorial Sciences domains may be used to fulfill both the BGP requirement and one of the following univerity requirements: Cultural Diversity in the US	4 CHEM 1230 General Chemistry I and 1 CHEM 1240 General Chemistry I Lab OR 5 CHEM 1350 General Chemistry 4 CHEM 1270 or 1370 General Chemistry 1 CHEM 1280 or 1380 General Chemistry Lab 3 CHEM 2010 Quantitative Chemical Analysis
Composition Requirement: WRIT 1120 Research Writing	3 CHEM 3080 Basic Biochemistry OR CHEM 4450 General Biochemistry
Total BGP Credits: Must be at least 36	5 CHEM 3410 Organic Chemistry CHEM 3440 Organic Chemistry
Arts & Sciences Requirements World Languages and Cultures (yrs of HS) Consult the Undergradate Catalog or the Arts and Sciences Student Handbook	2 CHEM 3450 Organic Chemistry Lab OR CHEM 3460 Organic Chemistry Lab
regarding approved course options in the different language and culture areas.	All core, specialization, and additional requirement courses must be taken for a
1010 1020	letter grade and passed with a C or better.
Lab Science	
Quantitative Literacy	
EITHER MATH 1310 OR MATH 1340 & MATH 1350	
Multidisciplinary Component Select from approved offerings, in consultation with an advisor and a faculty mentor. Four courses total, each with a different subject prefix. At east two courses at 3000/4000 level. Courses applied to the Arts & Sciences MDC may not be used to fulfill other Arts and Sciences degree requirements, nor may they be used to fulfill major, minor, BGP or other program requirements.	

Fall 2022

Bachelor of Science in Forensic Science



BOWLING GREEN STATE UNIVERSITY 374 Central Hall • 419-372-2015

Specialization in Forensic Drug Analysis	374 Central Hall • 419-372-2015
BG Perspective (BGP) Requirements	FSCI Major Core Requirements (35 Hrs.)
Must complete at least 1 course in each of the following:	
English Composition and Oral Communication Course Credits Quantitative Literacy	Hrs
Must Complete at least 2 courses in each of the following: Humanities and the Arts	Science Scie
Natural Sciences - at least one Lab Science required	FSCI Forensic Drug Analysis Specialization Requirements (15-16 hrs)
Social and Behavioral Sciences Complete total required BGP credit hours by selecting courses from any of the above categories:	
	FSCI 4890 Internship OR FSCI 4990 Capstone
University Requirements Designated courses in Humanities and the Arts and the Social and Behavorial Sciences domains may be used to fulfill both the BGP requirement and one of the following univerity requirements:	Additional Requirements (25-26 Hrs.) These courses also fulfill the requirements for a minor in chemistry. Consult with an advisor about declaring the minor.
Cultural Diversity in the US International Perspective	4 CHEM 1230 General Chemistry I and CHEM 1240 General Chemistry I Lab OR
Composition Requirement: WRIT 1120 Research Writing	
Arts & Sciences Requirements World Languages and Cultures (3 CHEM 2010 Quantitative Chemical Analysis 3 CHEM 3080 Basic Biochemistry OR CHEM 4450 General Biochemistry 5 CHEM 3410 Organic Chemistry 3 CHEM 3440 Organic Chemistry 1-2 CHEM 3450 Organic Chemistry Lab OR CHEM 3460 Organic Chemistry Lab
Lab Science	All core, specialization, and additional requirement courses must be taken for a letter grade and passed with a C or better.
Quantitative Literacy EITHER MATH 1310 OR MATH 1340 & MATH 1350	
Multidisciplinary Component Select from approved offerings, in consultation with an advisor and a faculty mentor. Four courses total, each with a different subject prefix. At least two courses at 3000/4000 level. Courses applied to the Arts & Sciences MDC may not be used to fulfill other Arts and Sciences degree requirements, nor may they be used to fulfill major, minor, BGP or other program requirements.	

Fall 2022 - current Bachelor of Science in Forensic Science Specialization in Forensic Examination



374 Central Hall • 419-372-2015 **BG Perspective (BGP) Requirements** FSCI Major Core Requirements (35 Hrs.) Must complete at least 1 course in each of the following: Grade English Composition and Oral Communication BIOL 2040 Concepts in Biology I Course BIOL 2050 Concepts in Biology II BIOL 3310 Human Anatomy & Physiology I BIOL 3320 Human Anatomy & Physiology II Quantitative Literacy CHEM 1770 Intro to Forensic Science FSCI 4400 Professional Responsibility MATH 2470 Fund. of Statistics Must Complete at least 2 courses in each of the following: PHYS 2010 or 2110 University Physics I Humanities and the Arts PHYS 2020 or 2120 University Physics II Natural Sciences - at least one Lab Science required FSCI Forensic Examination Specialization Requirements (15 hrs) FSCI 3110 Latent Prints FSCI 3120 Trace Evidence Analysis Social and Behavioral Sciences FSCI 4100 Principles of Crime Scene Invest. FSCI 4200 Forensic Firearms Examination OR FSCI 4230 Forensic Biology FSCI 4700 Research in Forensic Science OR Complete total required BGP credit hours by selecting courses from any FSCI 4890 Internship OR of the above categories: FSCI 4990 Capstone Additional Requirements (25-26 Hrs.) These courses also fulfill the requirements for a minor in chemistry. Consult with an advisor about declaring the minor. University Requirements Designated courses in Humanities and the Arts and the Social and Behavorial Sciences domains may be used to fulfill both the BGP requirement CHEM 1230 General Chemistry I and and one of the following univerity requirements: CHEM 1240 General Chemistry I Lab or CHEM 1350 General Chemistry Cultural Diversity in the US CHEM 1270 or 1370 General Chemistry International Perspective CHEM 1280 or 1380 General Chemistry Lab Composition Requirement: CHEM 2010 Quantitative Chemical Analysis WRIT 1120 Research Writing CHEM 3080 Basic Biochemistry OR CHEM 4450 General Biochemistry Total BGP Credits: Must be at least 36 CHEM 3410 Organic Chemistry CHEM 3440 Organic Chemistry Arts & Sciences Requirements CHEM 3450 Organic Chemistry Lab OR World Languages and Cultures (_____ _ yrs of HS_ CHEM 3460 Organic Chemistry Lab Consult the Undergradate Catalog or the Arts and Sciences Student Handbook regarding approved course options in the different language and culture areas. 1010 All core, specialization, and additional requirement courses must be taken for a 1020 letter grade and passed with a C or better. Lab Science Quantitative Literacy EITHER MATH 1310 OR MATH 1340 & MATH 1350 Multidisciplinary Component Select from approved offerings, in consultation with an advisor and a faculty mentor. Four courses total, each with a different subject prefix. At least two courses at 3000/4000 level. Courses applied to the Arts & Sciences MDC may not be used to fulfill other Arts and Sciences degree requirements, nor may they be used to fulfill major, minor, BGP or other program requirements.

SCI Requirements:
All core, specialization, and additional requirement courses must be taken for a letter grade and passed with a grade of C or better.
niversity Requirements:
☐ You must complete a minimum of 120 credit hours. (This is a typical situation; you may have to complete more depending on your particular circumstances)
☐ You must complete 30 credit hours at BGSU.☐ You must complete 40 hours at the 3000 and 4000 level.
☐ You must complete WRIT 1120.
☐ You must maintain a 2.0 cumulative GPA.
☐ You must complete 36 hours in the BG Perspective (BGP) courses.
☐ You must have a declared minor.
rts and Sciences Requirements:
☐ You must complete up through the fourth level of a foreign language.
☐ You must complete at least one Lab Science Course.
☐ You must complete Math 1310 or 1340 and 1350.
☐ You must complete the Multidisciplinary Requirement. (<i>Each class must come from a different prefix, these cannot double count anywhere else in any of your degree programs, and two must be at the 3000 or 4000 level</i>)

Any substitution or waiver of courses required for your major or minor program must originate in the department/school offering the major or minor and must be approved by the College Office.

To ensure a timely graduation, see an Academic Advisor or Faculty Mentor during the semester prior to your intended graduation.

Remember to complete an Application for Graduation by the end of the second week of classes during the fall or spring semester, or by the end of the first week of the summer semester. For the specific dates, check your DARS. You may log onto MyBGSU to complete the online application. After the deadlines, you will need to complete an application in person in the College Office.

7.1 Academic Load

A student's enrollment status is determined by the number of class hours the student is enrolled during a semester. A full-time undergraduate student is enrolled for 12 or more semester hours. A part-time undergraduate student is enrolled for fewer than 12 semester hours. Based on institutional policy, there are designated internship and co-operative education classes that are considered to be enrolled in a full-time academic experience at BGSU. Students should consult with their college office when scheduling internships and co-operative education classes if they have any questions.

The academic load of a full-time undergraduate student will not be fewer than 12 hours at any time. A full-time student normally should be registered for 15-16 hours per semester. Enrollment for more than 18 hours requires the approval of the student's college office. Email contactcas@bgsu.edu with your request.

Students who maintain an academic load of 15-16 hours per semester will make progress toward a timely degree completion and will advance in class standing each year, allowing them such benefits as priority for class registration and student housing.

A full-time student who drops enough hours to become a part-time student is eligible to remain in University-owned housing and to retain membership in University organizations; however, the student is subject to the following restrictions:

- Ineligibility for intercollegiate athletics;
- Possible reduction of financial aid awards.

7.2 Sample Academic Plan - Forensic DNA Analysis*

* Individual academic plans will vary by student due to: years of high school foreign language completed, math placement, writing placement, and attainment of transfer credits, advanced placement, or college credit plus. Students should meet with their academic advisor and/or faculty mentor to discuss their personal situation and preferences. The sample academic plan is meant to provide a general outline and timing of when students should complete the core Forensic Science coursework and does not include all course requirements, such as Bowling Green Perspective (BGP) and Multi-Disciplinary Component (MDC) courses.

Please utilize this planning tool in conjunction with your Forensic Science DNA Analysis Check Sheet and your Degree Audit. It is important to note that the College office utilizes your Degree Audit to verify all requirements are met upon graduation.

First Year

Fall Semester (credits)	Spring Semester (credits)	
BIOL 2040 or BIOL 2050 (4)	BIOL 2040 or BIOL 2050 (4)	
(Must take both, order doesn't matter)	(Must take both, order doesn't matter)	
(BIOL 2050 is Prerequisite for BIOL 3500,	(BIOL 2050 is Prerequisite for BIOL 3500,	
BIOL 3310, & FSCI 4230)	BIOL 3310, & FSCI 4230)	
CHEM 1770 (3)		
CHEM 1230 & 1240	CHEM 1270 & 1280	
or CHEM 1350 (5)	or CHEM 1370 & 1380 (5)	
(Prerequisite for CHEM 1270/1370)	(Prerequisite for CHEM 2010 & CHEM 3410)	
MATH 1310 (5)	WRIT 1120 (3)	
(Prerequisites or placement required) (Prerequisites including prior completi		
(Prerequisite for MATH 2470)	credit in WRIT 1110 or placement required)	

Second Year

Fall Semester (credits)	Spring Semester (credits)
PHYS 2010 or 2110 (5) (Prerequisite for PHYS 2020/2120)	PHYS 2020 or 2120 (5)
CHEM 3410 (5) (Prerequisite for CHEM 3440)	CHEM 3440 (5) (Corequisite for CHEM 3450/60) (Prerequisite for CHEM 3080 or 4450)
MATH 2470 (3)	CHEM 3450 or 3460 (1-2) (Corequisite for CHEM 3440)
BIOL 3500 (4) (Prerequisite for FSCI 4240 & BIOL 4080)	CHEM 2010 (3)

Third Year

Fall Semester (credits)	Spring Semester (credits)	
BIOL 3310 (4) (Prerequisite for BIOL 3320)	BIOL 3320 (4)	
FSCI 4230 (3)	FSCI 4240 (3)	
(Prerequisite for FSCI 4240)	(Prerequisite for FSCI 4990) ♦	

♦ As a culminating experience, Forensic Science majors have the choice of completing FSCI 4700 (Research), FSCI 4890 (Internship), or FSCI 4990 (Capstone). FSCI 4700 may be a laboratory or library research project; students will work with their faculty adviser to determine the scope of the project. Honors College students are encouraged to complete FSCI 4700H to receive dual credit for their forensic science culminating experience course and their honors project. Students completing an honors project are required to take the project planning course (HNRS 4980) the semester before they wish to register for and complete their honors project. Accelerated MSFS students should complete FSCI 4700 as the course will be used as preparation for eventual thesis research. FSCI 4890 is an external internship that students find themselves, usually at a crime laboratory although other options may be allowed at the discretion of the faculty advisor, and is typically completed over the summer. To receive course credit, students doing an external internship must still register for FSCI 4890 even if the internship is not physically being completed at BGSU. The capstone (FSCI 4990) is traditionally

offered in the Summer and Spring semesters. Forensic DNA Analysis Specialization students take this course with <u>Dr. Oechsle</u> and must complete FSCI 4230, BIOL 3500, and FSCI 4240 prior to registering for FSCI 4990.

Fourth Year

Fall Semester (credits)	Spring Semester (credits)
FSCI 4400 (3) (Accelerated MS students <u>must</u> take FSCI 5400)	FSCI 4990 (3) (If not completed during Summer)
BIOL 4080 (3)	
CHEM 4450 (3) (May take CHEM 3080 typically offered in Spring) (Accelerated MS students <i>must</i> take CHEM 5450)	CHEM 3080 (3) (May take CHEM 4450 typically offered in Fall) (Accelerated MS students <u>must</u> take CHEM 5450 typically offered in Fall)

7.3 Sample Academic Plan - Forensic Drug Analysis*

* Individual academic plans will vary by student due to: years of high school foreign language completed, math placement, writing placement, and attainment of transfer credits, advanced placement, or college credit plus. Students should meet with their academic advisor and/or faculty mentor to discuss their personal situation and preferences. The sample academic plan is meant to provide a general outline and timing of when students should complete the core Forensic Science coursework and does not include all course requirements, such as Bowling Green Perspective (BGP) and Multi-Disciplinary Component (MDC) courses.

Please utilize this planning tool in conjunction with your Forensic Science Drug Analysis Check Sheet and your Degree Audit. It is important to note that the College office utilizes your Degree Audit to verify all requirements are met upon graduation.

First Year

Fall Semester (credits)	Spring Semester (credits)
CHEM 1770 (3)	
CHEM 1230 & 1240	CHEM 1270 & 1280
or CHEM 1350 (5)	or CHEM 1370 & 1380 (5)
(Prerequisite for CHEM 1270/1370)	(Prerequisite for CHEM 2010 & CHEM 3410)
MATH 1310 (5)	WRIT 1120 (3)
(Prerequisites or placement required)	(Prerequisites including prior completion or
(Prerequisite for CHEM 3520, CHEM 4220,	credit in WRIT 1110 or placement required)
& MATH 2470)	create in wikiri 1110 of placement required)

Second Year

Fall Semester (cr	edits)	Spring Semester (credits)
BIOL 2040 or BIOL 20	50 (4)	BIOL 2040 or BIOL 2050 (4)
(Must take both, order doesn't (BIOL 2050 is Prerequisite for	,	(Must take both, order doesn't matter) (BIOL 2050 is Prerequisite for BIOL 3310)
CHEM 3410 (Prerequisite for CHEM 3440)	(5)	CHEM 3440 (5) (Corequisite for CHEM 3450/60) (Prerequisite for CHEM 3080 or 4450) (Prerequisite for CHEM 4220)
MATH 2470	(3)	CHEM 3450 or 3460 (1-2) (Corequisite for CHEM 3440) (Prerequisite for CHEM 4220)
		CHEM 2010 (3) (Prerequisite for CHEM 4220)

Third Year

Fall Semester (credits)	Spring Semester (credits)
PHYS 2010 or 2110 (5)	PHYS 2020 or 2120 (5)
(Prerequisite for PHYS 2020/2120)	(Pre- or Co-requisite for CHEM 3520)
FSCI 4300 (3) (Prerequisite for FSCI 4990) ♦	CHEM 3520 (3) (May take CHEM 4050 typically offered in Fall)

♦ *As a culminating experience, Forensic Science majors have the choice of* completing FSCI 4700 (Research), FSCI 4890 (Internship), or FSCI 4990 (Capstone). FSCI 4700 may be a laboratory or library research project; students will work with their faculty adviser to determine the scope of the project. Honors College students are encouraged to complete FSCI 4700H to receive dual credit for their forensic science culminating experience course and their honors project. Students completing an honors project are required to take the project planning course (HNRS 4980) the semester before they wish to register for and complete their honors project. Accelerated MSFS students should complete FSCI 4700 as the course will be used as preparation for eventual thesis research. FSCI 4890 is an external internship that students find themselves, usually at a crime laboratory although other options may be allowed at the discretion of the faculty advisor, and is typically completed over the summer. To receive course credit, students doing an external internship must still register for FSCI 4890 even if the internship is not physically being completed at BGSU. The capstone (FSCI 4990) is traditionally offered in the Summer and Spring semesters. Forensic Drug Analysis Specialization students take this course with Dr. Worst and must complete FSCI 4300 prior to registering for FSCI 4990.

Fourth Year

Fall Semester (credits)	Spring Semester (credits)
FSCI 4400 (3) (Accelerated MS students <u>must</u> take FSCI 5400)	FSCI 4990 (3) (If not completed during Summer)
BIOL 3310 (4) (Prerequisite for BIOL 3320)	BIOL 3320 (4)
CHEM 4660 (3)	CHEM 4220 (3)
CHEM 4450 (3) (May take CHEM 3080 typically offered in Spring) (Accelerated MS students <u>must</u> take CHEM 5450)	CHEM 3080 (3) (May take CHEM 4450 typically offered in Fall) (Accelerated MS students <u>must</u> take CHEM 5450 typically offered in Fall)
CHEM 4050 (3) (May take CHEM 3520 typically offered in Spring)	

7.4 Sample Academic Plan - Forensic Examinations*

* Individual academic plans will vary by student due to: years of high school foreign language completed, math placement, writing placement, and attainment of transfer credits, advanced placement, or college credit plus. Students should meet with their academic advisor and/or faculty mentor to discuss their personal situation and preferences. The sample academic plan is meant to provide a general outline and timing of when students should complete the core Forensic Science coursework and does not include all course requirements, such as Bowling Green Perspective (BGP) and Multi-Disciplinary Component (MDC) courses.

Please utilize this planning tool in conjunction with your Forensic Science Examinations Check Sheet and your Degree Audit. It is important to note that the College office utilizes your Degree Audit to verify all requirements are met upon graduation.

First Year

Fall Semester (credits)	Spring Semester (credits)
BIOL 2040 or BIOL 2050 (4)	BIOL 2040 or BIOL 2050 (4)
(Must take both, order doesn't matter)	(Must take both, order doesn't matter)
(BIOL 2050 is Prerequisite for BIOL 3310 &	(BIOL 2050 is Prerequisite for BIOL 3310 &
FSCI 4230)	FSCI 4230)
CHEM 1770 (3)	
CHEM 1230 & 1240	CHEM 1270 & 1280
or CHEM 1350 (5)	or CHEM 1370 & 1380 (5)
(Prerequisite for CHEM 1270/1370)	(Prerequisite for CHEM 2010 & CHEM 3410)
MATH 1310 (5)	WRIT 1120 (3)
(Prerequisites or placement required)	(Prerequisites or placement required)
(Prerequisite for MATH 2470)	(1 rerequisites of placement required)

Second Year

Fall Semester (credits)	Spring Semester (credits)
PHYS 2010 or 2110 (5) (Prerequisite for PHYS 2020/2120)	PHYS 2020 or 2120 (5)
CHEM 3410 (5) (Prerequisite for CHEM 3440)	CHEM 3440 (5) (Corequisite for CHEM 3450/60) (Prerequisite for CHEM 3080 or 4450)
MATH 2470 (3)	CHEM 3450 or 3460 (1-2) (Corequisite for CHEM 3440)
	CHEM 2010 (3)

Third Year

Fall Semester (credits)	Spring Seme	ster (credits)
FSCI 3120 (3)	FSCI 3110	(3)
BIOL 3310 (4) (Prerequisite for BIOL 3320)	BIOL 3320	(4)
FSCI 4230 or FSCI 4200 (3) (This course may be taken in Fall of the 3 rd or 4 th year; however, prospective Accelerated MS students <u>must</u> take FSCI 4230 prior to application)		

♦ *As a culminating experience, Forensic Science majors have the choice of* completing FSCI 4700 (Research), FSCI 4890 (Internship), or FSCI 4990 (Capstone). FSCI 4700 may be a laboratory or library research project; students will work with their faculty adviser to determine the scope of the project. Honors College students are encouraged to complete FSCI 4700H to receive dual credit for their forensic science culminating experience course and their honors project. Students completing an honors project are required to take the project planning course (HNRS 4980) the semester before they wish to register for and complete their honors project. Accelerated MSFS students should complete FSCI 4700 as the course will be used as preparation for eventual thesis research. FSCI 4890 is an external internship that students find themselves, usually at a crime laboratory although other options may be allowed at the discretion of the faculty advisor, and is typically completed over the summer. To receive course credit, students doing an external internship must still register for FSCI 4890 even if the internship is not physically being completed at BGSU. The capstone (FSCI 4990) is traditionally offered in the Spring, Summer, and Fall semesters. Forensic Examination Specialization students take this course with Mr. Lynn and must complete FSCI 4100 prior to registering for FSCI 4990.

Fourth Year

Fall Semester (credits)	Spring Semester (credits)
FSCI 4400 (3) (Accelerated MS students <u>must</u> take FSCI 5400)	FSCI 4990 (3) (If not completed during Summer or Fall)
FSCI 4230 or FSCI 4200 (3) (This course may be taken in Fall of the 3 rd or 4 th year; however, prospective Accelerated MS students <u>must</u> take FSCI 4230 prior to application)	FSCI 4100 (3) (Typically offered Fall & Spring) (Prerequisite for FSCI 4990) ◆
CHEM 4450 (3) (May take CHEM 3080 typically offered in Spring) (Accelerated MS students <i>must</i> take CHEM 5450)	CHEM 3080 (3) (May take CHEM 4450 typically offered in Fall) (Accelerated MS students <u>must</u> take CHEM 5450 typically offered in Fall)

8 COURSE DESCRIPTIONS

BGSU 1910 First Year Seminar (1)

Year Seminar program offers first time, first year BGSU students an opportunity to explore an academic topic of interest to engage them in the academic life of the university. Offered in a variety of intriguing topics, the FYF seminars are limited to 20 students each, providing new students the opportunity to engage with faculty and other first-year students in a small class setting.

WRIT 1120 Seminar in Research Writing (3)

Builds on foundational understandings of academic reading and writing with a focus on inquiry-based writing. By engaging a range of writing tasks, both informal and formal, students pursue person- and library-based research writing that has meaning to them personally. Students also continue to build confidence as readers, writers, and critical thinkers, adding their voices to ongoing conversations. Using a workshop approach, students practice strategies for representing, through reflective writing, their research and composing processes to a range of audiences. ePortfolio based. Placement through UWP online pre-screening or prior credit for WRIT 1110. Graded ABC/No Credit.

CHEM 1770 Introduction to Forensic Science (3)

A survey of the field of forensic science--the application of science to the law. Topics include the identification, proper collection/documentation, and analysis of evidence through microscopy, wet chemistry, spectroscopic methods, toxicology, serology, DNA typing, and fingerprinting. Prerequisite: Forensic Science majors specializing in Forensic DNA Analysis, Forensic Drug Analysis, or Forensic Examination.

(Typically offered in Fall)

(Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

MATH 1310 Calculus and Analytical Geometry (5)

Differential and integral calculus including applications. The MATH 1310-2320-2330 sequence is a traditional calculus course for well-prepared students and is prerequisite for all advanced mathematics and statistics courses. Prerequisites: (1) two years of high school algebra, one year of geometry, one-half year of trigonometry, ACT math score of 24 or higher and satisfactory score on department placement test; or (2) grade of C or higher in MATH 1280, MATH 1290 or MATH 1300.

(Students have the option to complete MATH 1340 and MATH 1350 instead)

MATH 1340 Calculus and Analytical Geometry 1A (3)

Limits, the derivative, differentiation techniques and applications of the derivative. MATH 1340 and MATH 1350 is a two-semester sequence which includes all the topics from MATH 1310. Not open to students with a grade of C or higher in MATH 1310 or MATH 1260. Prerequisites: same as MATH 1310.

(Students have the option to complete MATH 1310 instead, but must also take MATH 1350 if taking MATH 1340)

MATH 1350 Calculus and Analytical Geometry 1B (3)

The definite integral; the fundamental theorem; indefinite integrals; integration by parts, by substitution and using tables; and applications of definite and indefinite integrals. Prerequisite: grade of C or higher in MATH 1340.

(Students have the option to complete MATH 1310 instead, but must also take MATH 1340 if taking MATH 1350)

MATH 2470 Fundamentals of Statistics (5)

Descriptive statistics. Discrete probability models, sampling distributions, statistical estimation, and testing. Prerequisite: C or better in MATH 1260, MATH 1310, or MATH 1350.

PHYS 2010 College Physics I (5)

First term of an introductory physics sequence using algebra and trigonometry, but not calculus. Topics include motion, forces, energy, fluids, heat and simple harmonic motion. Four lecture-recitations and one two-hour laboratory. Prerequisite: satisfactory score on the math placement exam or a grade of C or higher in MATH 1120 or in MATH 1200 or above. (Students have the option to complete PHYS 2110 instead)

PHYS 2110 University Physics I (5)

Introductory calculus-based physics sequence for science and engineering majors. Kinematics in one, two and three dimensions; Newtonian mechanics; gravitation; heat and thermodynamics. Corequisite: MATH 1310.

(Students have the option to complete PHYS 2010 instead)

PHYS 2020 College Physics II (5)

PHYS 2010 continued. Simple harmonic motion, wave motion, sound, electricity, magnetism, electrical measurements, optics; atomic, nuclear and solid-state physics. Prerequisite: PHYS 2010. (Students have the option to complete PHYS 2120 instead)

PHYS 2120 University Physics II (5)

PHYS 2110 continued. Wave motion, sound, optics, electricity and magnetism. Prerequisite: PHYS 2110. Corequisite: MATH 2320.

(Students have the option to complete PHYS 2020 instead)

BIOL 2040 Concepts in Biology I (4)

Introduction to ecological and evolutionary biology, Mendelian and population genetics, and the major groups of plants, animals and microbes.

(Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

BIOL 2050 Concepts in Biology II (4)

Introduction to molecular and cellular biology, physiology and organ systems. Prerequisite: BIOL 2040.

(Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

BIOL 3130 Microbiology (4)

Methods of isolation, culture and identification; physiological, genetic and applied aspects of microorganisms. Prerequisites: Grade of C or better in BIOL 2050, and CHEM 1230 and CHEM 1240 or CHEM 1250 or CHEM 1350.

(Not required for the FSCI major, but many pre-med and dual-major students elect to take this course)

BIOL 3310 Human Anatomy and Physiology I (4)

Anatomical and physiological aspects of cells and tissues and the integumentary, skeletal, muscular and nervous systems. Prerequisite: BIOL 2050.

BIOL 3320 Human Anatomy and Physiology II (4)

Anatomical and physiological aspects of circulation, respiration, digestion, excretion, endocrinology and reproduction. Prerequisite: BIOL 2050.

BIOL 3500 General Genetics (4)

Theoretical and applied aspects of inheritance. Molecular, chromosomal and population levels of heredity in both prokaryotes and eukaryotes. Prerequisites: BIOL 2040 and BIOL 2050. (Required for the FSCI Majors Specializing in Forensic DNA Analysis Only)

BIOL 4080 Molecular Biology (3)

Function and structural relationship of genes and gene products, with emphasis on the applications of molecular biology to the diverse fields of biological research. Prerequisite: BIOL 3500 or permission of instructor.

(Typically offered in Fall)

(Required for the FSCI Majors Specializing in Forensic DNA Analysis Only)

CHEM 1230 General Chemistry I (4)

The first in a two-course sequence for science majors and students in other science-related programs. Topics include atomic structure, molecular structure and bonding, common classes of chemical reactions, stoichiometric calculations, thermochemistry, and properties of gases. Both conceptual understanding and problem-solving skills are emphasized. Prerequisite: MATH 1200 or MATH 1220 or MATH 1230 or MATH 1260 or MATH 1280 or MATH 1300 or MATH 1310 or MATH 1340 or Math placement score of 41 or higher. High school chemistry is recommended. Corequisite: CHEM 1240.

(Students have the option to complete CHEM 1350 instead)

(Prospective Accelerated MS students <u>must</u> complete this course (or CHEM 1350) <u>prior to applying</u> to the Accelerated Program)

CHEM 1240 General Chemistry I Laboratory (1)

Laboratory course taken in conjunction with CHEM 1230. (Students have the option to complete CHEM 1350 instead)

CHEM 1350 General Chemistry (5)

The first in a two-course sequence for well-prepared chemistry majors, science majors, and students in other science-related programs. Topics include atomic structure, molecular structure and bonding, common classes of chemical reactions, stoichiometric calculations,

thermochemistry, and properties of gases. Both conceptual understanding and problem-solving skills are emphasized. Prerequisites: high school chemistry or CHEM 1090 and MATH 1220 or higher or Math placement score of 41 or higher.

(Students have the option to complete CHEM 1230 and CHEM 1240 instead) (Prospective Accelerated MS students <u>must</u> complete this course (or CHEM 1230) <u>prior to applying</u> to the Accelerated Program)

CHEM 1270 General Chemistry II (4)

Continuation of the sequence beginning with CHEM 1230 and CHEM 1240. Chemical equilibrium is a major theme of the course. Acid-base chemistry, buffers, and titration curves are studied in detail, as are solubility equilibria. Additional topics include chemical kinetics, entropy, Gibbs energy, and electrochemistry. Prerequisite: 1) C or better in CHEM 1230 and CHEM 1240 or CHEM 1350, and 2) MATH 1200 or MATH 1220 or MATH 1230 or MATH 1260 or MATH 1280 or MATH 1300 or MATH 1340 or Math Placement score of 41 or higher. Corequisite: CHEM 1280.

(Students have the option to complete CHEM 1370 instead)

(Prospective Accelerated MS students <u>must</u> complete this course (or CHEM 1370) <u>prior to applying</u> to the Accelerated Program)

CHEM 1280 General Chemistry II Laboratory (1)

A laboratory course taken in conjunction with CHEM 1270. Prerequisite: C or better in CHEM 1230 and CHEM 1240 or CHEM 1350. Corequisite: CHEM 1270.

(Students have the option to complete CHEM 1380 instead)

CHEM 1370 General Chemistry (4)

CHEM 1350 continued. Prerequisites: C or better in CHEM 1350, or B or better in CHEM 1250 and consent of instructor. Corequisite: CHEM 1380.

(Students have the option to complete CHEM 1270 instead)

(Prospective Accelerated MS students <u>must</u> complete this course (or CHEM 1270) <u>prior to applying</u> to the Accelerated Program)

CHEM 1380 General Chemistry Laboratory (1)

Emphasis on quantitative procedures. Prerequisite: C or better in CHEM 1250 or CHEM 1350. Corequisite: CHEM 1370.

(Students have the option to complete CHEM 1280 instead)

CHEM 2010 Quantitative Chemical Analysis (3)

Sampling, sample preparation, calibration, sources of error, propagation of uncertainty, statistics, and quality assurance as they relate to various analytical methods including titrations, gravimetry, electrochemistry, spectrophotometry, and chromatography. Prerequisite: C or better in CHEM 1270 and CHEM 1280 or CHEM 1370 and CHEM 1380.

(Typically offered in Spring)

(Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

CHEM 3410 Organic Chemistry (5)

The first course in a two-semester sequence of organic chemistry. The structure and reactivity of organic molecules are examined. Topics include mechanisms, stereochemistry, molecular orbital theory, conformational analysis, synthesis and modern instrumental techniques. In lab students will synthesize and study the properties of organic compounds. Prerequisites: CHEM 1270 and 1280 or CHEM 1370 and 1380. Credit allowed for only one of CHEM 3060, 3410. (FSCI students do <u>not</u> have the option to complete CHEM 3060 instead) (Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

CHEM 3440 Organic Chemistry (3)

Continuation of CHEM 3410. The second of a two-semester sequence of organic chemistry. Taken in conjunction with laboratory course CHEM 3450 or CHEM 3460. Biological compounds such as carbohydrates, lipids, amino acids, proteins and nucleic acids are studied in addition to the continued study of common functional groups. Other topics include polymers, catalysis, oxidation and reduction reactions, metabolism, percyclic reactions, and the chemistry of drugs. Prerequisite: C or better in CHEM 3410. Corequisite: CHEM 3450 or CHEM 3460. (Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program)

CHEM 3450 Organic Chemistry Laboratory (2)

A laboratory course taken in conjunction with CHEM 3440. Experiences include chemical separations, examination of reaction selectivity, and multi-step synthesis. Chemical tests and modern instrumental techniques are used to identify compounds. Two three-hour lab periods. Prerequisite: C or better in CHEM 3410. Corequisite: CHEM 3440. (Students have the option to complete CHEM 3460 instead)

CHEM 3460 Organic Chemistry Laboratory (1)

A laboratory course taken in conjunction with CHEM 3440. One three-hour lab period. Experiences include chemical separations and examination of reaction selectivity. Chemical tests and modern instrumental techniques are used to identify compounds. Prerequisite: C or better in CHEM 3410. Corequisite: CHEM 3440.

(Students have the option to complete CHEM 3450 instead)

CHEM 3080 Basic Biochemistry (3)

A survey course of biochemistry including biomacromolecules and metabolism. For students whose program does not require full-year course. Prerequisite: C or better in CHEM 3060 or previous credit in CHEM 3440 or concurrent enrollment in CHEM 3440; BIOL 2050 recommended. Credit allowed for only one of CHEM 3080, 4450.

(Typically offered in Spring)

(Students have the option to complete CHEM 4450 instead) (Accelerated MS students **must** complete CHEM 5450 instead)

CHEM 4450 General Biochemistry (3)

Structure, function, chemical, and physical properties of biomolecules with an emphasis on biomacromolecules. Prerequisite: CHEM 3440 and CHEM 3450 or CHEM 3460. BIOL 2050 is strongly recommended. Credit allowed for only one of CHEM 3080, 4450. (*Typically offered in Fall*)

(Students have the option to complete CHEM 3080 instead) (Accelerated MS students **must** complete CHEM 5450 instead)

CHEM 3520 Essentials of Physical Chemistry (3)

A survey course of Physical Chemistry. For students whose program does not require full-year course. Prerequisites: CHEM 1270-CHEM 1280 or CHEM 1370-CHEM 1380, MATH 1310 or MATH 1340-1350. Prerequisites or corequisite: PHYS 2020 or PHYS 2120.

(Students have the option to complete CHEM 4050 instead; Required for the FSCI Majors Specializing in Forensic Drug Analysis Only) (Typically offered in Spring)

CHEM 4050 Physical Chemistry (3)

Thermodynamics and quantum chemistry. Prerequisites: MATH 2320 and either PHYS 2120 or PHYS 2020 and either CHEM 1370 or CHEM 1270.

(Students have the option to complete CHEM 3520 instead; Required for the FSCI Majors Specializing in Forensic Drug Analysis Only) (Typically offered in Fall)

CHEM 4220 Chemical Separations (3)

Theory and practice of chemical separations including gas, high performance liquid, thin layer, and supercritical fluid chromatography as well as electrophoresis and potential driven chromatography. Prerequisites: CHEM 2010, CHEM 3440, CHEM 3450, and MATH 1310. (Required for the FSCI Majors Specializing in Forensic Drug Analysis Only) (Typically offered in Spring)

CHEM 4660 Spectroscopic Methods in Organic Chemistry (3)

Organic structure determination by spectroscopic techniques, with emphasis on infrared, ultraviolet and nuclear magnetic resonance spectroscopy, and mass spectrometry. Prerequisite: CHEM 3440 and CHEM 3450 or CHEM 3460.

(Required for the FSCI Majors Specializing in Forensic Drug Analysis Only) (Typically offered in Fall)

FSCI 3110 Latent Prints (3)

This course assists students in understanding the principles, probative value, and methodologies utilized by crime laboratories in the collection, examination, and comparison of evidentiary materials for latent print impressions. This course is primarily lecture based, but students will also complete hands-on practical exercises. Prerequisite: CHEM 1770.

(Required for the FSCI Majors Specializing in Forensic Examinations Only) (Typically offered in Spring)

FSCI 3120 Microscopy, Materials, and Trace Evidence Analysis (3)

This course assists students in understanding the principles, probative value, and methodologies utilized by crime laboratories in the analysis and comparison of trace evidence. This course is primarily lecture based, but students will also complete hands-on practical exercises. Prerequisite: CHEM 1770.

(Required for the FSCI Majors Specializing in Forensic Examinations Only) (Typically offered in Fall)

FSCI 4100 Principles of Crime Scene Investigation (3)

This course familiarizes forensic science students across all specializations with the practical issues faced by crime scene investigators and the methods used in the collection, preservation and analysis of crime scene evidence. The course will employ both lecture and hands-on learning strategies through the university crime house and forensic laboratories. Prerequisite: CHEM 1770.

(Required for the FSCI Majors Specializing in Forensic Examinations Only) (Typically offered in Fall and Spring; Prerequisite for FSCI 4990)

FSCI 4200 Forensic Firearm Examination (3)

Principles, probative value, and methodologies used by crime laboratories in the collection, examination, and comparison of ballistics, gunshot residue, and firearms evidence. Lecture-based with hands-on practical exercises.

(Required for the FSCI Majors Specializing in Forensic Examinations Only; Students have the option to complete FSCI 4230 instead)

(Prospective Accelerated MS students <u>must</u> complete FSCI 4230 instead, <u>prior to applying</u> to the Accelerated Program)

(Typically offered in Fall)

FSCI 4230 Forensic Biology (3)

This course provides students with an overview of the various sub-disciplines that comprise forensic biology and introduces students to biological evidence examination typically performed in a crime laboratory. This course is primarily lecture based, but students will also complete hands-on practical exercises. Prerequisite: BIOL 2050.

(Required for the FSCI Majors Specializing in Forensic Examinations or Forensic DNA Analysis; Forensic Examination Students have the option to complete FSCI 4200 instead) (Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program <u>and</u> earn a B or better)

(Typically offered in Fall; Prerequisite for FSCI 4240)

FSCI 4240 Forensic DNA Analysis (3)

This course provides students with an overview of modern DNA typing in a forensic setting and a comprehensive description of the DNA analysis techniques used in a typical forensic laboratory. This course is primarily lecture based, but students will also complete hands-on practical exercises. Prerequisite: BIOL 3500 and FSCI 4230.

(Required for the FSCI Majors Specializing in Forensic DNA Analysis Only) (Typically offered in Spring; Prerequisite for FSCI 4990)

FSCI 4300 Pharmacology/Toxicology of Drug Addiction (3)

This course assists students in understanding why some drugs are addictive, how addiction can be treated, and the social and toxicologic consequences of drug addiction. Prerequisite: CHEM 1770.

(Required for the FSCI Majors Specializing in Forensic Drug Analysis Only)
(Prospective Accelerated MS students <u>must</u> complete this course <u>prior to applying</u> to the Accelerated Program <u>and</u> earn a B or better)
(Typically offered in Fall; Prerequisite for FSCI 4990)

FSCI 4400 Professional Responsibility (3)

Examination of the interface of law, science, and ethics in Forensic Science. Overview of the legal aspects of physical evidence including rules of evidence, procedural rules, and the role of expert witnesses. Focus on ethics, professional responsibility and codes of conduct, and bias related to forensic science.

(Accelerated MS students <u>must</u> complete FSCI 5400 instead) (Typically offered in Fall)

FSCI 4700 Research in Forensic Science (3-6)

Introduction to research in area of forensic science. Projects chosen in consultation with adviser and may include library and laboratory work. Prerequisite: Consent of instructor. May be repeated up to 6 hours total.

(Students have the option to complete FSCI 4890 or FSCI 4990 instead; Honors College and Accelerated BSFS to MSFS students should complete this course)

FSCI 4890 Forensic Science Internship (External) (3-6)

This course provides Forensic Science majors with hands-on experience in a professional setting. Prerequisite: FSCI majors only, consent of the instructor. Graded S/U. Note: A background check may be required by the employing organization. (Students have the option to complete FSCI 4700 or FSCI 4990 instead)

FSCI 4990 Forensic Science Capstone (3)

This course intends to develop students' abilities to properly conduct biological and/or chemical analyses as applied to the law. Students will use, troubleshoot, and maintain instrumentation; handle, analyze, and compare mock evidence samples; draw conclusions, apply statistics, and report results. The course will culminate in a moot court experience where students provide expert testimony. Prerequisite: FSCI 4240 or FSCI 4300 or FSCI 4100. (Students have the option to complete FSCI 4700 or FSCI 4890 instead)

9 INTERNSHIP REQUIRMENTS (FSCI 4890)

Students in the BSFS program have the opportunity to tailor the end of their academic career to their specific needs with a choice between three culminating experience courses: Research (FSCI 4700), External Internship (FSCI 4890), and Capstone (FSCI 4990). All BSFS students must complete one culminating experience course. *Note: It may not be possible to accommodate requests for more than one culminating experience.*

FSCI 4890 is an external internship that <u>students find themselves</u>, usually at a crime laboratory although other options may be allowed at the discretion of the faculty advisor. External internships are off-campus experiential learning activities designed to provide students with opportunities to make connections between the theory and practice of forensic science study and the practical application of that study in a professional work environment. External internships offer the opportunity to observe real-life applications while gaining relevant experience and professional connections. Any student may complete an external internship on their own, but to count as a culminating experience, the student must meet pre-requisites, ensure the internship experience meets specific requirements, receive approval from the BGSU instructor, and register for course credit (FSCI 4890). External internships that are approved as culminating experiences are completed under the guidance of an on-site supervisor and a BGSU instructor, who in combination with the student will create a framework for learning and reflection. The specific topics covered will be dependent upon the individual experience.

Students must complete and submit the signed "Employer Internship Agreement" (below) for review and approval by the first day of the semester in which the internship is to take place. Generally, for an internship to be approved for course credit and to satisfy the requirements of a culminating experience it must meet the following requirements and a student must agree to the following terms:

Internship Requirements and Terms:

- 1) Students must have senior status/be 4th year Forensic Science majors enrolled in the BSFS program. Typically, internships take place during the summer semester between junior and senior year. Pre-requisites to be eligible for the internship to qualify as a culminating experience include prior credit in FSCI 4240 (Forensic DNA Analysis Specialization) or FSCI 4300 (Forensic Drug Analysis Specialization) or FSCI 3110 and FSCI 3120 (Forensic Examination Specialization).
- 2) Internship must be located at or with a crime laboratory, coroner's offices, law enforcement agency, court/prosecutor/defense office, or other qualified "laboratory" or research setting.
 - a. Regardless of the setting, the student intern's duties/responsibilities/assigned project/task/research must have a hands-on/experiential learning component that is somehow demonstrably related to forensic science.
 - i. Per FEPAC accreditation (standard 4.1c), "...that should result in a capstone presentation, publication, or similar scholarly product."
- 3) The FSCI 4890: External Internship is graded as Satisfactory (S)/Unsatisfactory (U).

- 4) A minimum of **200** hours at an internship setting is required for an internship to count as coursework.
 - a. Students are required to complete the full internship schedule as specified by the employer and agreed upon by the instructor in the "Employer Internship Agreement" form (below) to earn a satisfactory grade, even if that is more than 200 hours. Ending an internship early, without completing the full agreed upon schedule, will result in a grade of unsatisfactory (U).
 - b. The internship hours are to be completed between the first and last day of the semester and are to be recorded by the student in their activity log.
 - c. Confirmation of the total hours worked will be required by the employer supervisor overseeing the student (or responsible employee, as assigned) through the "Supervisor Evaluation Form".
- 5) Students are required to meet with their BGSU instructor of record, virtually or inperson, for 4 scheduled meetings over the course of the semester.
 - a. These meetings will cover the following topics: 1) Internship Requirements; 2) Additional FEPAC Topics (e.g. Quality Assurance/Quality Control in the Crime Laboratory, Ethics in Forensic Science, Forensic Science Applicable Laws); 3) Employment (Job Postings and Applications, Interviewing, Social Media, Background Checks, and Polygraphs) and Resume/Cover Letter Writing; and 4) Mock Job Interview.
 - b. Ideally, the meeting covering Internship Requirements will occur after the student has submitted the "Employer Internship Agreement" form to the Forensic Science office for review, but prior to the student being approved and registered for FSCI 4890.
 - c. Failure to attend the 4 scheduled meetings with the BGSU instructor may result in a grade of unsatisfactory (U).
- 6) Students are required to complete all BGSU course assignments, including: a resume, cover letter, activity log, journal, reflection essay, and presentation about their internship. Students are required to give a formal oral presentation on their internship, which will be open to all Forensic Science Undergraduate Students, typically held during Fall Welcome week activities, unless otherwise specified by the instructor.
- 7) Employers will be asked to evaluate student performance using the "Supervisor Evaluation Form". While it is important for the student to receive constructive criticism and feedback regarding their performance, they are not entitled to view the employer evaluation form. Students must receive a satisfactory or better evaluation from the employer; an unsatisfactory employer evaluation is grounds for a grade of unsatisfactory (U).
- 8) Students must be enrolled in FSCI 4890 by the deadline for the "Last day to add classes WITHOUT college permission", typically by the end of the first week of classes. For summer session, this deadline is typically by the first day of summer semester. The application (**Employer Internship Agreement**") form must be received by the Forensic Science office for review no later than 1 week prior to the enrollment deadline.

If the internship does not meet the criteria outlined above, students may still participate in the internship experience, but they will not be able to receive course credit for that internship as their culminating experience.

Examples of "non-traditional" internships that have been approved in the past include: 1) A student who wanted to pursue an advanced degree in forensic anthropology, so they interned at a museum learning how to care for, catalogue, and inventory items. 2) A student that secured a research internship at University of Dayton. They did perform some PCR as well as shadowed in a variety of labs. 3) A student who was a camp counselor/TA for the National Student Leadership Conference forensic science camp in Washington DC.

External internships (FSCI 4890) may be completed any semester but are typically completed over the summer. However, the internship must be complete in the semester in which the student is registered. To receive course credit, students doing an external internship must still register for FSCI 4890 even if the internship is not physically being completed at BGSU.

9.1 Employer Internship Agreement



BGSU Forensic Science Program 116 Life Sciences Building Bowling Green, Ohio 43403 419-372-1224

This form must be completed by the student requesting the internship <u>and</u> their prospective employer. The form must be submitted by the student to the Forensic Science Office <u>one week prior to the first day of classes</u> for the term in which the internship is requested to take place. The requested internship must be approved by the forensic science instructor of record in order for the student to be enrolled in FSCI 4890 and receive course credit for the internship.

Employer Internship Agreement

Student Name:				
Host Organization:				
Description of Job Duties/Assigned Project/Research to be Completed by Student Intern:				
Supervisor:Title/Position:				
Supervisor Contact E-mail:				
Internship Period:				
Start Date:				
End Date:				
Number of Hours to be Completed:				

For the Student:

I understand that the FSCI 4890: External Internship is graded as Satisfactory (S)/Unsatisfactory (U).

I understand that a minimum of 200 hours at an internship setting is required for an internship to count as coursework.

I understand that I am required to complete the full schedule as specified by the employer above and agreed upon by the instructor to earn a satisfactory grade, even if that is more than 200 hours. Ending an internship early, without completing the full agreed upon schedule, will result in a grade of unsatisfactory (U).

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I understand that I am required to meet with my BGSU instructor, virtually or in-person, for 4 scheduled meetings over the course of the semester. Failure to do so may result in a grade of unsatisfactory (U).

I understand that I am required to complete all BGSU course assignments, including: a resume, cover letter, activity log, journal, reflection essay, and presentation about my internship experience during the Forensic Science Internship Symposium (typically held during Fall Welcome week activities). Grades

•	rmined as a percentage of all points achieved ng, the student must earn 70% of the availab		е
review that evaluatio	employer will be asked to evaluate my perfo n. I further understand that I must receive a atisfactory employer evaluation is grounds fo	satisfactory or better evaluation from	1
Student Signature:		Date:	
For the Employer/	Supervisor:		
I have read and inform of my knowledge it is	mation regarding the requested internship at accurate.	the top of this form, and to the best	
as coursework. I und the employer above a than 200 hours. Endir	ninimum of 200 hours at an internship setting erstand that the student is required to compl and agreed upon by the instructor to earn a s ng an internship early, without completing the actory (U). The term/hours specified above h	lete the full schedule as specified by atisfactory grade, even if that is more e full agreed upon schedule, will resul	1
the internship. The B agreement. While it regarding their perfor of the total hours wo	ill be asked to provide an evaluation of studer GGSU instructor will initiate the survey near th is important for the student to receive constr rmance, they are not entitled to view the emp rked will be required by the employer superv e, as assigned) through the internship evaluat	ne conclusion of the employment ructive criticism and feedback ployer evaluation form. Confirmation risor overseeing the student (or	1
BGSU Forensic Scienc valued feedback.	e sincerely appreciates the student internshi	p opportunity provided and your	
Thank you!			
Supervisor Signature:		Date:	

For FSCI Office Use Only:

☐ The location and description of the internship described above meet the requirements for enrollment					
in FSCI 4890. The proposed schedule of hours is acceptable and meets minimum requirements. The					
student is APPROVED for enrollment in FSCI 4890 for theterm.					
☐ The location and description of the internship described above do NOT meet the requirements for					
enrollment in FSCI 4890, and/or the proposed schedule of hours is NOT acceptable. The request for					
enrollment in FSCI 4890 for the term is DENIED .					
BGSU Instructor Signature: Date:					

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Supervisor Evaluation Form - External Internships 9.2



BGSU Forensic Science Program 116 Life Sciences Building Bowling Green, Ohio 43403 419-372-1224

g Green, Ohio 43403 72-1224	Please complete and return to	by			
	STUDENT INTERN EVALU	ATION			
Student Intern:	Evaluation Dat				
Host Organization:					
Evaluator:	Title/Position:				
A minimum of 200 hours at an internship setting is required for an internship to count as coursework. However, students are required to complete the full schedule as specified by the employer and agreed upon by the instructor to earn a satisfactory grade, even if that is more than 200 hours. Ending an internship early, without completing the full agreed upon schedule, will result in an unsatisfactory grade.					
	igned representative of the above-named stu hours of work as an intern wit				
Rating Scale 1 - Unsatisfactory (Never demonstrates this ability/does not meet expectations) 2 - Fair (Sometimes demonstrates this ability/meets expectations) 3 - Commendable (Usually demonstrates this ability/sometimes exceeds expectations) 4 - Exceptional (Always demonstrates this ability/consistently exceeds expectations) If any criteria are not applicable to this internship experience, please leave the response blank. Note: The completed form is not intended for student review. Although the default is no, if you					
Yes, pl	feedback form shared with the student, indicease share my feedback with the student	cate by checking the box.			
Ability to Learn 1. Asks pertinent and p	ourposeful questions	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐			
2. Seeks out and utilize	es appropriate resources	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐			
3. Accepts responsibilit	ty for mistakes and learns from experiences	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐			
Reading/Writing/Com 1. Reads/comprehends	nputation Skills s/follows written materials	1 2 3 4 Not Assessed			
2. Communicates ideas	s and concepts clearly in writing	1 2 3 4 Not Assessed			
3. Demonstrates mathe	ematical skills appropriate to the job	1 2 3 4 Not Assessed			
Listening & Oral Com 1. Listens to others in a	nmunication an active and attentive manner	1 2 3 4 Not Assessed			
2. Effectively participat	tes in meetings or group settings	1 □ 2 □ 3 □ 4 □ Not Assessed □			
3. Demonstrates effect	tive verbal communication	1 2 3 4 Not Assessed			

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BGSU. Bowling Green State University

Creative Thinking & Problem Solving Skills 1. Breaks down complex tasks/problems into manageable pieces	1 2 3 4 Not Assessed		
2. Brainstorms/develops options and ideas	1 □ 2 □ 3 □ 4 □ Not Assessed □		
Professional & Career Development Skills 1. Exhibits self-motivated approach to work	1 2 3 4 Not Assessed		
2. Demonstrates ability to set appropriate priorities/goals	1 □ 2 □ 3 □ 4 □ Not Assessed □		
3. Exhibits professional behavior and attitude	1 2 3 4 Not Assessed		
Interpersonal & Teamwork Skills 1. Manages and resolves conflict in an effective manner	1 2 3 4 Not Assessed		
2. Supports and contributes to a team atmosphere	1 □ 2 □ 3 □ 4 □ Not Assessed □		
3. Demonstrates assertive but appropriate behavior	1 □ 2 □ 3 □ 4 □ Not Assessed □		
Organizational Effectiveness Skills 1. Seeks to understand and support the organization's mission/goals	1 2 3 4 Not Assessed		
2. Adapts to the norms and expectations of the organization	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐		
3. Works within appropriate authority and decision-making channels	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐		
Basic Work Habits 1. Reports to work as scheduled and on-time	1 2 3 4 Not Assessed		
2. Exhibits a positive and constructive attitude	1 □ 2 □ 3 □ 4 □ Not Assessed □		
3. Dress and appearance are appropriate for the organization	1 □ 2 □ 3 □ 4 □ Not Assessed □		
Character Attributes 1. Brings a sense of values and integrity to the job	1 2 3 4 Not Assessed		
2. Behaves in an ethical manner	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐		
3. Respects the diversity (religious/cultural/ethnic) of co-workers	1 ☐ 2 ☐ 3 ☐ 4 ☐ Not Assessed ☐		
Forensic Educational Program Accreditation Commission (FEPAC) Instructional Topics Please mark any of the topics identified below that may have been addressed during this internship. Testimony Law QA Ethics Evidence Handling Chain of Custody Report Writing/Case Preparation Cognitive Bias and Human Factors (e.g. vicarious trauma and workforce resiliency)			
Overall Performance Assessment			
Unsatisfactory Fair Commendable Excellent			

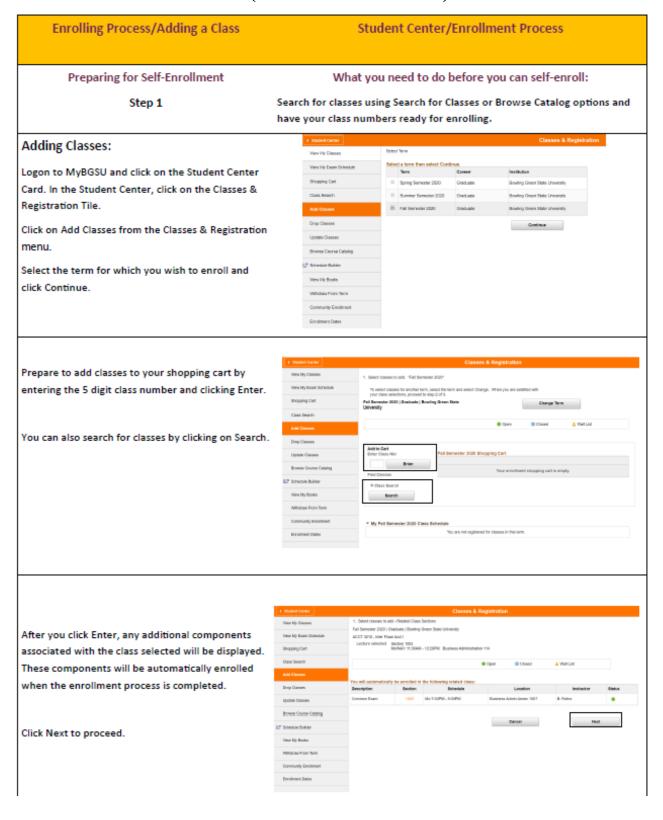
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Additional Comments (optional):

BGSU Forensic Science sincerely appreciates the student internship opportunity provided and your valued feedback.

Thank you!

10 SELF-DIRECTED COURSE ENROLLMENT (ADDING CLASSES)



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Enrolling Process/Adding a Class

Student Center/Enrollment Process

Course specific information will be displayed on the Enrollment Preferences screen.

If applicable:

Check the box to put yourself on a <u>waitlist</u> if the class is full when you attempt to register.

Enter the <u>permission number</u> provided by academic department.

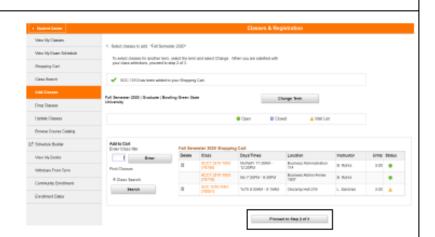
Update the grading option using the Grading drop -down menu.

<u>Credit hours</u> can be adjusted on this screen for variable credit courses.

Click Next to proceed with putting the course in your shopping cart.



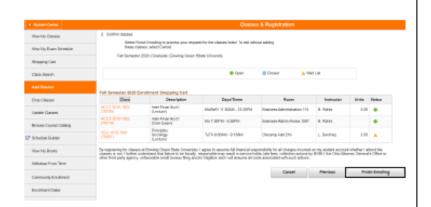
Continue to add courses as needed, set enrollment preferences as needed per course, and then click Proceed to Step 2 of 3 when you are satisfied with your class selections.

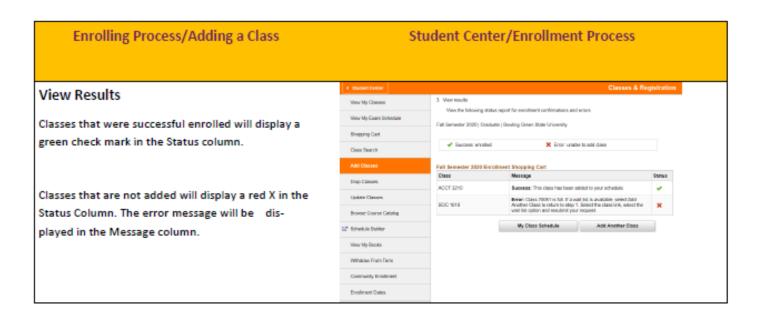


Review the classes in your shopping cart.

Click Previous to return and remove or add additional courses.

Click Finish Enrolling to process your request.





Note: Many FSCI classes have closed enrollment or instructor permission required. If you find that you are unable to enroll yourself in a course, that might be why. To get added to a closed FSCI course, please e-mail Christina Guinsler (cguinsl@bgsu.edu) for permission.

11 PROGRESSION AND PERFORMANCE POLICY

The BGSU Undergraduate Catalog outlines "Unsatisfactory Academic Progress" (Unsatisfactory Academic Progress - Bowling Green State University - Acalog ACMSTM (bgsu.edu)) and describes criteria for academic progress, including to policies for academic probation, suspension, and dismissal.

A student whose cumulative BGSU grade point average is at least 2.0 is considered to be in good academic standing at the University.

A student whose cumulative BGSU GPA falls below 2.0 at the end of the semester will be placed on academic warning, unless the student's GPA falls in the probation/suspension/dismissal range. If the student's GPA is in the probation/suspension/dismissal range, the student will be:

- Placed on probation if the student has attempted* fewer than 12 letter-graded credit hours at BGSU, or if the student's cumulative GPA is in the probation/suspension/dismissal range for the first time;
- Placed on suspension if the student has attempted* 12 or more letter-graded credit hours at BGSU, and if the student has been placed on probation in any previous semester.
- Dismissed if the student has attempted* 12 or more letter-graded credit hours at BGSU, and if the student has been placed on suspension in any previous semester.

*Attempted hours include all courses that contribute to the GPA, including those for which the student received credit by earning grades of A, B, C, or D or for which the student did not receive credit due to grades of F, WF, or I.

Students who are not in good academic standing at the University may not transfer credits from another institution until they have returned to good standing at BGSU. Because grades are not transferred to BGSU, courses taken at another institution may not be used to improve a student's GPA at BGSU.

12 ACADEMIC CALENDARS

The BGSU Office of Academic and Student Affairs create academic calendars. The BSFS program recognizes the academic calendar is an essential instruction-planning tool. Current, as well as past and future academic calendars are posted on the BGSU website <u>Academic Calendars (bgsu.edu)</u>.

BSFS students are encouraged to consult the academic calendar to identify semester/session start and end dates, holidays, breaks, final exam weeks, commencement and other campus-wide scheduled events.

13 BGSU CATALOG

The BGSU Office of Registration and Records maintains an electronic Catalog as a guide to the programs, policies, and courses that are part of undergraduate life at BGSU. The Catalog informs students of opportunities and requirements at several levels to guarantee they take advantage of all that BGSU has to offer and make steady progress toward their academic goals. BSFS students are encouraged to review the breadth of information available and utilize this valuable resource. The Catalog is available at https://www.bgsu.edu/catalog.html.

14 GRADING POLICY

The BSFS degree program follows grading policies specified by the university in the <u>BGSU</u> <u>Catalog</u>.

15 ACADEMIC HONESTY

Academic Honesty Policy and will be strictly enforced. Dishonesty in any form will not be tolerated. Please be aware that academic dishonesty includes (but is not limited to) cheating, plagiarism, and collusion. Plagiarism is defined as representing as one's own in any academic exercise the words or ideas of another, including but not limited to, quoting or paraphrasing without proper citation. For a first offense, the course professor is normally allowed to establish the punishment for cheating or plagiarizing in a course. For a second offense, jurisdiction lies with the College office, but dismissal is encouraged. Cheating or plagiarizing in the scientific research arena will result in dismissal from our graduate program. Clearly, unethical academic or scientific behaviors will have a negative impact on a developing career. Formal letters detailing the cheating, or plagiarism are kept in the student's file and are available to potential employers, as well as journal editors.

BGSU is a community of scholars. As members of this community, we each have the individual and collective responsibility to conduct our personal lives in the context of mutual regard for the rights, property and privileges of others.

In addition, to the above policies, the <u>Student Code of Academic Conduct</u> and the <u>Student Code of Conduct</u> can both be found at: https://www.bgsu.edu/student-handbook/code-of-conduct.html. These Codes create a set of expectations for student conduct, ensure a fair process for determining responsibility when student behavior may have deviated from those expectations and provide appropriate sanctions when a student and/or student organization has violated the Code(s).

16 GRIEVANCES

16.1 Student Complaint Procedure

The following describes the BGSU Forensic Science program procedure for handling student complaints. The procedure describes the mechanisms by which students are informed of their right to file a complaint; identify the institutional processes for filing such a complaint; as well as program requirements for the maintenance of records pursuant to complaints and resolutions.

16.2 Student Rights Notification

Forensic Science program students are notified of their right to lodge a complaint via provision of this document and detailed discussion in a new cohort welcoming event.

16.3 Complaint Process

If a student wishes to lodge a formal complaint against a member of the faculty or staff of the BGSU Forensic Science programs, the following procedure applies:

- 1. As circumstances permit, students should meet directly with the instructor or staff member to discuss the issue and seek resolution.
- 2. If direct meeting is not advisable or does not resolve the issue, the student should make an appointment with the Program Director for a confidential discussion of the complaint. The Program Director will seek to resolve the issue.
- 3. If there is no resolution at Step 2, the student will be referred to institutional student complaint procedures as specified by the Division of Student Affairs in the BGSU Student Handbook (https://www.bgsu.edu/student-handbook.html) or other applicable process as might be defined by the department, college or university.
- 4. If the complaint is against the Program Director and Step 1 of this procedure is unadvised, the student should move directly to the procedure described in the BGSU Student Handbook.
- 5. If the complaint is not resolved through the process specified above, students have the further right to contact the Forensic Science Education Programs Accreditation Commission (FEPAC).
- 6. Students are advised to consult the FEPAC Policy and Procedures Manual (Section 4.2) for procedural details. The FEPAC Policy and Procedures Manual and associated contact information may be found at https://www.aafs.org/FEPAC.

16.4 Complaint Record

Record of student complaints lodged against the program are maintained under authority of the Program Director in accordance with FEPAC retention requirements. Individual complaint records include, at minimum:

- Submitted written complaint or summation of the student issue
- Decisions at each step of the complaint process
- Complaint resolution or active status information