

CURRICULUM GUIDE

Forensic Science, B.S. (Forensic Biology Concentration) + Chemistry, M.S.

2017-2018

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The schedule below is an **EXAMPLE** of how you can arrange your class schedule. Please consult your advisor for specific changes that may need to be made.

	Fall Semester		Spring Semester	
Freshman Year	SCO 100C	1	BIO 111 (fulfills Gen. Ed. 4)	4
	CHE 111	3	CHE 112	3
	CHE 111L	1	CHE 112L	1
	§ MAT 234 <i>or</i> 234H (fulfills Gen. Ed. 2)	4	FOR 301	3
	Gen. Ed. 1A (ENG 101)	3	STA 270	4
	Gen. Ed. 3A (Arts)	3	Gen. Ed. 1B (ENG 102)	3
	Gen. Ed. 5A (History)	3		
TOTAL	18	TOTAL	18	
Sophomore Year	CHE 361	3	BIO 315	4
	CHE 361L	1	CHE 362	3
	PHY 131 <i>or</i> 201 (fulfills Gen. Ed. 4)	5	CHE 362L	2
	Gen. Ed. 1C (Oral Comm.)	3	FOR 331	3
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3	FOR 331L	1
	Gen. Ed. 6 (Diversity)	3	PHY 132 <i>or</i> 202	5
	TOTAL	18	TOTAL	18
Junior Year	BIO 320	4	† Restricted Elective (CHE 349 recommended (spring only))	3
	CHE 430 <i>or</i> 431	3	CHE 325	3
	CHE 450	3	CHE 325L	1
	* (FOR 310) * (1)		CHE 432 (spring only)	1
	FOR 401	3	CHE 715 (ACCT) (also fulfills MS requirement)	5
	FOR 411	3	Gen. Ed. 3B (Humanities)	3
	FOR 411L	1	Gen. Ed. 6 (Diversity)	3
TOTAL	17- (* 18)	TOTAL	19	
SUMMER (optional)	▲ NOTE: While not required, it is strongly recommended that students complete THREE (3) HOURS of FOR 349: Applied Learning in Forensic Science in a Forensic Laboratory. Students interested in the internship must complete FOR 310 training for Forensic Internship before taking FOR 349.			(3)
Senior Year	BIO 531	4	CHE 810	2
	CHE 770 (also fulfills MS requirement)	4	CHE 811 (course work or internship tracks) <i>or</i>	
	FOR 465W	3	† 881 (Thesis track)	1
	FOR 499 (fall only)	3	CHE 822, 830, 850, <i>or</i> 860	3
	<u>(Undergraduate Complete = 122 hrs)</u>		◇ 7xx Level Elective	3
TOTAL	14	TOTAL	9	
Senior +1	‡ CHE 811	1-2	CHE 822, 830, 850, <i>or</i> 860	3
	CHE 880	1	CHE 899 (Thesis track only)	(3)
	CHE 822, 830, 850, <i>or</i> 860	3	‡ CHE 839 (Internship track only)	(3)
	CHE 811 <i>or</i> 881 (Course Work and Internship tracks)	(1)	CHE 8xx Elective (Course Work track only)	(3)
	CHE 899 (Thesis track only)	(3)	GRD 858b (Thesis or Internship tracks only-Exit Requirement)	0
	‡ CHE 839 <i>or</i> 700/800 Level CHE course (Internship=track only)	(3)	GRD 858C (Course Work track only-Exit Requirement)	0
CHE 7xx/8xx Elective (Course Work track only)	(3)			
TOTAL	9	TOTAL	6	
TOTAL HOURS TO DEGREE COMPLETION				147

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division CHE and FOR courses. MAT 122 (see § below); PHY 131 and/or 201. See University catalog for details.

§ A preparatory course in mathematics may be required before admission to MAT 234.

‡ In order to take more than 18 hours per semester, you must seek approval from the Office of the Associate Dean in Roark 106.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division (300 level or above) courses distributed throughout major/Supporting/Gen Ed/Free Electives categories.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number (e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Forensic Sciences majors will fulfill ACCT with FOR 499. (Credit hours are incorporated into program requirements.)

M.S. Exit Requirements: THESIS/INTERNSHIP OPTION: A thesis/report based upon the original research project in the area of the student's research emphasis must be submitted. A final comprehensive oral examination (GRD 858b) in defense of the thesis/report and related course work is required. **COURSEWORK OPTION:** Candidates must earn a 3.0 GPA (or higher) for all program coursework for the option. In addition, the candidate for the coursework option must pass a final examination (GRD 858c). The committee will decide the format of the examination.

Undergraduate students in the 3+2 who have applied for graduation for their baccalaureate degree, applied for admission to the Graduate School, and are enrolled in at least 3 hours of eligible coursework will be eligible for support as a graduate assistant. GA support is limited to one semester in a 3+2 program and no more than 4 semesters (excluding summers) for the combined 3+2 and master's degree program. In order to qualify, students may not be signed up for more than 15 credit hours combined (graduate and undergraduate).

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (40)	
SCO 100C	Student Success Seminar for Chemistry (1)
CORE COURSE REQUIREMENTS (52)	
CHE 111	General Chemistry I (3)
CHE 111L	General Chemistry Lab I (1)
CHE 112	General Chemistry II (3)
CHE 112L	General Chemistry Lab II (1)
CHE 325	Analytical Chemistry (3)
CHE 325L	Analytical Chemistry Lab (2)
CHE 361	Organic Chemistry I (3)
CHE 361L	Organic Chemistry Lab I (1)
CHE 362	Organic Chemistry II (3)
CHE 362L	Organic Chemistry Lab II (1)
CHE 430 <i>or</i>	Biochemistry of Macromolecules (3)
CHE 431	Metabolic Biochemistry (3)
CHE 450	Inorganic Chemistry (3)
CHE 715	Chemistry Colloquium (5)
CHE 770	Chemistry Seminar (4)
FOR 301	Synthetic & Analytical Methods (3)
FOR 401	Forensic Professional Practice (3)
FOR 411	Instrumental Analysis (3)
FOR 411L	Forensic Instrumental Lab (1)
FOR 465W	Expert Witness Testimony (3)
FOR 499	Forensic Science Capstone (3) (fall only)
<i>Bracketed items must be taken concurrently.</i>	
FORENSIC BIOLOGY OPTION REQUIREMENTS (20)	
BIO 315	Genetics (4)
BIO 320	Principles of Microbiology (4)
BIO 531	Principles of Molecular Biology (4)
CHE 432	Biochemistry Laboratory (1)
FOR 331	DNA Profiling (3)
FOR 331L	DNA Profiling Lab (1)
† PLUS THREE (3) HOURS selected from:	
BIO 527	Immunology (3)
BIO 528	Virology (3)
BIO 533	Bioinformatics: Principles and Applications (3)
BIO 546	Histology (3)
FOR 349	Applied Learning in Forensic Science (0.5-8)
While not required of either option, an internship (FOR 495) in a forensic science laboratory is highly recommended.	
SUPPORTING COURSE REQUIREMENTS (13)	
§ MAT 234/234H	Cell and Molecular Biology (4)
§ MAT 234/234H	Calculus I (4)/Honors Calculus (4)
§ PHY 131 <i>or</i>	College Physics I (5)
PHY 201	University Physics I (5)
* PHY 132 <i>or</i>	College Physics II (5)
PHY 202	University Physics II (5)
* STA 270	Applied Statistics I (4)
M.S. CHEMISTRY REQUIREMENTS	
CORE COURSE REQUIREMENTS (24) (33 total: Nine (9) credits from CHE 715 and 770 are counted in the undergraduate program)	
CHE 715	Synthetic & Analytical Methods (5)
CHE 770	Biophysical Chemistry (4)
CHE 810	Professional Training (2)
‡ CHE 811	Chemistry Practicum (1-2)
CHE 880	Graduate Seminar (1)
‡ Graduate students are required to have a minimum of 2 credit hours from CHE 811. If CHE 881 is elected for the † PLUS ONE (1) HOUR (see below), you must take 2 hours of 811 as part of the core.	
◆ PLUS THREE (3) HOURS of any 700-level course in chemical/biological science or mathematics.	
◆ PLUS ONE (1) HOUR selected from:	
CHE 811 <i>or</i>	Chemistry Practicum (1-2)
CHE 881	Graduate Colloquium (1)
PLUS THREE (3) COURSES selected from the following:	
CHE 822	Advanced Analytical Chemistry (3)
CHE 830	Applied Biochemistry (3)
CHE 850	Advanced Inorganic Chemistry (3)
CHE 860	Advanced Organic Chemistry (3)
Graduate Students must also select ONE (1) of the following tracks:	
† THESIS TRACK: Graduate Research (Written Thesis Required)	
CHE 899: Thesis (6 hrs.)	
† INTERNSHIP TRACK: Applied Learning in Chemistry (Written Report Req.)	
‡ CHE 839: Applied Learning in Chemistry (6 hrs) <i>OR</i>	
‡ CHE 839 (3 hrs.) PLUS THREE (3) HOURS 700/800 Level Courses	
† COURSEWORK TRACK	
THREE (3) HOURS CHE 800 Level courses PLUS THREE (3) HOURS 700/800 Level Courses (6 hrs.)	

§ Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.