

CURRICULUM GUIDE

Forensic Science, B.S. (Forensic Biology Concentration) + Chemistry, M.S. 2015-2016

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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	ASO 100C 1 CHE 111 3 CHE 111L 1 § MAT 234 <i>or</i> 234H (fulfills Gen. Ed. 2) 4 Gen. Ed. 1A (ENG 101) 3 Gen. Ed. 3A (Arts) 3 Gen. Ed. 5A (History) 3	BIO 111 (fulfills Gen. Ed. 4) 4 CHE 112 3 CHE 112L 1 FOR 301 3 STA 270 3 Gen. Ed. 1B (ENG 102) 3
	TOTAL 18	TOTAL 17
Sophomore Year	CHE 361 3 CHE 361L 1 PHY 131 <i>or</i> 201 (fulfills Gen. Ed. 4) 5 Gen. Ed. 1C (Oral Comm.) 3 Gen. Ed. 5B (Soc. & Behav. Sci.) 3 Gen. Ed. 6 (Diversity) 3	BIO 315 4 CHE 362 3 CHE 362L 2 FOR 331 3 FOR 331L 1 PHY 132 <i>or</i> 202 5
	TOTAL 18	TOTAL 18
Junior Year	BIO 320 4 CHE 430 (fall only) 3 CHE 450 3 * (FOR 310) * (1) FOR 401 3 FOR 411 3 FOR 411L 1	† Restricted Elective (CHE 349 recommended (spring only)) 3 CHE 325 3 CHE 325L 1 CHE 432 (spring only) 1 CHE 715 (ACCT) (also fulfills MS requirement) 5 Gen. Ed. 3B (Humanities) 3 Gen. Ed. 6 (Diversity) 3
	TOTAL 17- (18)	TOTAL 19
SUMMER	▲ 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 770 (also fulfills MS requirement) 4 FOR 465W 3 FOR 499 (fall only) 3 Wellness 3	CHE 810 2 CHE 811 (course work or internship tracks) 1 <i>or</i> † 881 (Thesis track) 3 CHE 822, 830, 850, <i>or</i> 860 3 ♦ 7xx Level Elective
	TOTAL 17	TOTAL 9
Senior +1	† CHE 811 1-2 CHE 880 1 CHE 822, 830, 850, <i>or</i> 860 3 CHE 899 (Thesis track only) (4) ‡ CHE 839 <i>or</i> 700/800 Level CHE course (Applied Learning track only) (3) CHE 7xx/8xx Elective (Course Work track only) (3)	CHE 880 1 CHE 822, 830, 850, <i>or</i> 860 3 CHE 899 (Thesis track only) (2) ‡ CHE 839 (Applied Learning track only) (3) CHE 7xx/8xx Elective (Course Work track only) (3) GRD 858b (Thesis or Applied Learning tracks only- Exit Requirement) 0 GRD 858C (Course Work track only-Exit Requirement) 0
	TOTAL 8-9	TOTAL 6-7
TOTAL HOURS TO DEGREE COMPLETION 148		

* **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 (MAT 122) 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)	
ASO 100C	Student Success Seminar for Chemistry (1)
CORE COURSE REQUIREMENTS (52)	
CHE 111	General Chemistry I
CHE 111L	General Chemistry Lab I (1)
CHE 112	General Chemistry II
CHE 112L	General Chemistry Lab II (1)
CHE 325	Analytical Chemistry
CHE 325L	Analytical Chemistry Lab (2)
CHE 361	Organic Chemistry I
CHE 361L	Organic Chemistry Lab I (1)
CHE 362	Organic Chemistry II
CHE 362L	Organic Chemistry Lab II (1)
CHE 430 <i>or</i> CHE 431	Biochemistry of Macromolecules Metabolic Biochemistry
CHE 450	Inorganic Chemistry
CHE 715	Chemistry Colloquium (5)
CHE 770	Chemistry Seminar (4)
FOR 301	Synthetic & Analytical Methods
FOR 401	Forensic Professional Practice
FOR 411	Instrumental Analysis
FOR 411L	Forensic Instrumental Lab (1)
FOR 465W	Expert Witness Testimony
FOR 499	Forensic Science Capstone
<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
BIO 528	Virology
BIO 533	Bioinformatics: Principles and Applications
BIO 546	Histology
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 (12)	
BIO 111	Cell and Molecular Biology (4)
MAT 234/234H	Calculus I (4)/Honors Calculus (4)
PHY 131 <i>or</i> PHY 201	College Physics I (5) University Physics I (5)
PHY 132 <i>or</i> PHY 202	College Physics II (5) University Physics II (5)
STA 270	Applied Statistics I
M.S. CHEMISTRY REQUIREMENTS	
CORE COURSE REQUIREMENTS (24) (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 (2)
♦ 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> CHE 881	Chemistry Practicum (1-2) Graduate Colloquium (1)
♦ PLUS THREE (3) COURSES selected from the following:	
CHE 822	Advanced Analytical Chemistry
CHE 830	Applied Biochemistry
CHE 850	Advanced Inorganic Chemistry
CHE 860	Advanced Organic Chemistry
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 700/800 Level Courses (6 hrs.)	

All courses listed above are worth 3 credit hrs. unless otherwise noted.

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

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