

# COLLEGE OF ARTS AND SCIENCES NEW PROGRAM REVIEW FORM

	Chair's Signature	Recommendation	Review Date
<b>Department</b>	<u>John Mullican</u>	<u>Approve</u>	<u>2018-09-17</u>
<b>Division</b>	<u>Jennifer Wagner</u>	<u>Approve</u>	<u>2018-09-21</u>
<b>Dept. of Educ.</b>	<u>N/A</u>		
<small>(If relates to teacher certification program.)</small>			
<b>Dean</b>	<u>Laura Stephenson</u>	<u>Approve</u>	<u>2018-10-01</u>
<b>Curriculum Committee</b>	<u>Linzi Gibson</u>	<u>Approve</u>	<u>2018-10-31</u>
<b>Accepted by CFC</b>	<u>Laura Stephenson</u>	<u>Approve</u>	<u>2018-11-06</u>
<b>CAS Faculty</b>	<u>Michaela Saunders</u>	<u>Approve</u>	<u>2019-03-25</u>

**Approved By:**      **Faculty Senate** \_\_\_\_\_      **University Faculty** \_\_\_\_\_      **WU Board of Regents** \_\_\_\_\_

1. Title of Program.

Bachelor of Science in Forensic Biology (CIP: 26)

2. Rationale for offering this program.

The Biology Department is proposing to offer the B.S. degree in Forensic Biology to provide students with a degree program that would enable them to be competitive for jobs in the forensic biology field. This program is not only designed to meet the requirements set forth by the Federal Bureau of Investigation to obtain a position as a DNA analyst but also to meet the requirements for the Forensic Science Education Programs Accreditation Commission (FEPAC). There are less than 30 undergraduate institutions currently FEPAC accredited and none of these institutions are in the state of Kansas, meaning that Washburn University could become a regional leader in this area. Furthermore, the program would look to take advantage of the unique opportunity presented with the establishment of the Kansas Bureau of Investigation Forensic Science Center on campus in 2015. The access to a state-of-the-art forensic science facility in addition to potential internship opportunities will enhance Washburn's ability to attract and retain students interested in the forensic biology field.

3. Exact proposed catalog description.

The B.S. degree in Forensic Biology is designed to provide students with both the theoretical and practical knowledge required to obtain employment in the forensic biology field. The curriculum is rooted in a rigorous core of biology and other natural sciences, while also exposing students to legal and ethical considerations that are necessary for any career in forensic science.

**REQUIREMENTS FOR FORENSIC BIOLOGY MAJORS**

Forensic Biology majors must take the following 29 credit hours of Biology:

- BI 102 General Cellular Biology (5)
- BI 103 General Organismal Biology (5)
- BI 314 Statistics for Biologists (3)
- BI 333 General Genetics (4)
- BI 353 Molecular Genetics (3)
- BI 354 Molecular Biology Laboratory (3)
- BI 390 Biology Seminar (1) - Capstone Course
- BI 395 Biology Research (1) - Capstone Course
- BI 420 Forensic Molecular Biology (4) - Capstone Course

Forensic Biology majors must complete a minimum of 11 additional Biology electives (BI courses at the 300-level or higher).

The following non-biology correlate courses are required of Forensic Biology majors (60 credit hours total):

- CH 151/152 Fundamentals of Chemistry (1 year with lab) (10)
- CH 202 Professional Forensic Chemistry Seminar (2)
- CH 323 Advanced Forensic Chemistry (4)
- CH 340/342 Organic Chemistry I (with lab) (5)
- CH 341/343 Organic Chemistry II (with lab) (5)
- CH 350/351 Biochemistry I (5)
- MA 151 Calculus and Analytical Geometry I (5)
- PS 261/262 College Physics (1 year with lab) (10) OR  
PS 281/282 General Physics (1 year with lab) (10)
- PH 102 Ethics: Intro to Moral Problems (3) OR  
PH 214 Medical Ethics (3)
- CJ 115 Intro to Forensic Science (3)
- CJ 410 Criminal Procedure and Evidence (3)
- CJ 415 Forensic Sci Crim Justice (3)
- CJ 416 Forensic Sci Crim Justice Lab (2)

The Bachelor of Science (B.S.) in Forensic Biology requires a minimum of 40 BI hours plus the additional 60 credit hours of non-biology correlate courses as listed above. The coursework for the B.S. in Forensic Biology satisfies the 30-hour natural science concentration and is designed to meet the requirements for accreditation as outlined by the Forensic Science Education Programs Accreditation Commission (FEPAC). Depending upon a student's math competency, it will take approximately 124-127 credits to complete the B.S. degree in Forensic Biology.

#### 4. List any financial implications.

With a conservative prediction of 9\* B.S. students over the next 5 years (beginning 2019), we might predict a potential increase of \$175,784 in tuition revenue with little to no negative financial impact. The proposed degree program will utilize current faculty members and teaching laboratories in the Washburn University portion of the KBI Forensic Science Center (KBI 200). At least one new course will be developed for this program, BI 420 Forensic Molecular Biology. A budget exists to support courses in the forensic biology degree program, including this new course. Following Year 5, there will be an anticipated one-time cost of approximately \$5,000 to apply for FEPAC accreditation. Please see the attached pro forma document for details.

\*The pro forma assumes that 3 students will graduate after Year 4 and that tuition will not

increase over the next 5 years.

5. Are any other departments affected by this new program? Yes

New students seeking the B.S. in Forensic Biology degree will increase the number of students taking courses in the following departments: CH, PS, MA, PH, CJ, and possibly PY and AN.

Department of Biology  
Bachelor of Science (B.S.) in Forensic Biology

Program Name	Bachelor of Science in Forensic Biology	(e.g., FY13, FY14, etc.)										
		Year 0 - Preparation		Year 1 FY20		Year 2 FY21		Year 3 FY22		Year 4 FY23		Year 5 FY24
Revenue:		# Students	# Cr Hrs	# Students	# Cr Hrs	# Students	# Cr Hrs	# Students	# Cr Hrs	# Students	# Cr Hrs	
Est. Students/Cr Hrs		0	1	32	2	32	4	32	6	31	6	32
Total Credit Hours		0	32	64	128	192	331	345				
Tuition Rate*			\$292	\$304	\$317	\$331	\$345					
Other Revenue Sources												
<b>Total Revenue</b>		<b>0</b>	<b>\$9,344</b>	<b>\$19,486</b>	<b>\$40,636</b>	<b>\$61,571</b>	<b>\$66,271</b>	<b>\$197,307</b>				

Ongoing Expenses:	Year 0 - Preparation	Year 1	FTE	Year 2	FTE	Year 3	FTE	Year 4	FTE	Year 5	FTE
<b>Total Expenses</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

Total Net Revenue	Year 0 - Preparation	Year 1	Year 2	Year 3	Year 4	Year 5
	\$ -	\$ 9,344	\$ 19,486	\$ 40,636	\$ 61,571	\$ 66,271
<b>One-time Startup Costs</b>						
Furniture						
Office Equipment						
Computer/Software						
Other Electronic Hardware						
Renovation						
Program Equipment						
Initial Accreditation Costs						
Program Development						
Membership						
Release Time to Develop						
Consultant						
Site/Visit						
Inservice/Preservice Prep						

Footnotes:  
The B.S. in Forensic Biology requires a minimum of 120 credits. Students should be advised that it may take 124-127 credits to earn the degree, depending upon their math competency. This pro forma is based on 127 credit hours. The number of students listed as 6 in Year 5 anticipates 3 graduating students and 3 new, incoming students.  
Please Note: After Year 5, we plan to apply for FEPAC accreditation, which is a one-time cost of \$5,000. Annual FEPAC membership dues following accreditation are \$1,500. These values fall outside the scope of this 5-year pro forma.  
\*Tuition is estimated to increase by 4.27% annually. These numbers are reflected in years 2-5, rounded to a whole number.