CURRICULUM CHANGE PROPOSAL

Prepare proposal in accordance with the guidelines below and the format shown on the following pages. Should any item under the headings not pertain to your proposal, write N/A.

PROPOSAL NUMBER: Click or tap here to enter text.

REVISION (label Revision #1, #2, etc.):Click or tap here to enter text.

SECTION 1: CONTACT INFORMATION

| Name: | Jamie Miller |
|-----------------|--------------------------------|
| Title: | Assistant Professor of Biology |
| E-mail Address: | Jmiller35@fairmontstate.edu |
| Phone Number: | 304-367-4992 |

SECTION 2: PROGRAM INFORMATION

| College: | College of Science & Technology |
|--------------------------------------|---------------------------------|
| Department: | Natural Sciences |
| Title of Degree Program/Certificate: | Biology |
| Degree Program Level: | Bachelor's Degree |
| Date Originally Submitted: | 11/5/2024 |
| Implementation Date Requested: | 8/1/2025 |

APPROVAL

The Deans of the affected colleges must sign below to indicate their notification and departmental approval of this proposal. Should this proposal affect any course or program in another college, a memo must be sent to the Dean of each college impacted and a copy of the memo(s) must be included with this proposal.

By signing below, you are indicating your college and department(s)'s approval of this proposal.

| College | Dean's Signature |
|----------------------|---|
| Science & Technology | Deb Hensher |
| | S verified by signivour 11/11/2024 H843:10 UUT 0498bc3fcd294e5abb56 |
| | |

ADDITIONAL COMMENTS:

SECTION 3: Curriculum Change Request

A. PROPOSAL ABSTRACT.

Write a brief abstract, not exceeding 150 words, describing proposed changes.

The proposed changes to the Biology program include the following:

- Addition of a new Biology elective course Biol 3398 Immunology. This course has be taught previously as BIOL 1199 – SPTP Immunology.
- Addition of FORS 3301 Human Ostology as a Biology elective course

These courses will be electives and will not change the number of credits in the Biology Program.

B. DESCRIPTION OF THE PROPOSAL

| 1. Full Program Name: | Biology |
|---|------------|
| 2. Current number of credit hours required for the program: | 120 |
| 3. Is the program changing the number of credit hours required for the program? | Yes 🗆 No 🗷 |
| 4. How many credit hours will be added to the program? | 0 |
| 5. How many credit hours will be deleted from the program? | 0 |

6. Added Course(s) (If applicable): List the course(s) to be added to program (if applicable). Indicate whether the course is an existing course or will be a proposed new course.

BIOL 3398 – Immunology (Proposed new course) FORS 3301 – Human Osteology (existing course)

7. **Deleted Courses (if applicable):** List course(s) to be deleted from the program (if applicable). Indicate the term in which the course will no longer be available for students to take and the catalog in which students will not have the option to take the course.

N/A

8. **Teach-out Arrangement**: If a required course will be deleted from the program, what is the arrangement for current students in the program to complete the required course?

N/A

C. CHANGE IN PROGRAM DESCRIPTION (if applicable)

| 1. | Current | Program | Description |
|----|---------|---------|-------------|
|----|---------|---------|-------------|

N/A

2. Proposed Program Description

N/A

D. RATIONALE

1. **Description of the Rationale/Justification.** Describe the rationale for changing the program's curriculum. For example, indicate the types of assessment data (e.g., surveys, interviews, capstone courses, projects, licensure exams, nationally-normed tests, locally developed measurements, accreditation reports, etc.) collected and analyzed to determine that curricular changes were warranted. Is it due to market trends? Does it reflect changes in the discipline? What are the expected results of the change?

BIOL 3398 was offered in the Fall 2023 semester as a special topics course (BIOL 1199) in response to requests from student who were interested in increasing their knowledge in this area. It is also a commonly recommended course for professional programs in the health field. FORS 3301 is an elective course in the Forensics program and meets the topic, rigor, and content consistent with existing biology elective courses.

In 2023 the Biology program increased the number of required biology elective credit hours from 12 to 16 which we anticipate will increase demand for biology elective courses.

E. RESOURCES

1. Will new faculty, be needed to support the program change? If no new faculty are required and the revision is adding classes or substituting courses, identify how current faculty will meet the demand.

No additional faculty will be required. The proposed Immunolgy course (Biol 3398) ran in Fall 2023 as a special topics course (Biol 1199) with one lecture section and one laboratory section. It will run in rotation every other Fall semester alternating with Biol 3395. FORS 3301 runs in rotation in the Forensics department and is typically not at capacity.

 Will new facilities, equipment, space modification, and/or library materials/services be needed to support the program change? Provide an estimate of the increased cost, or reduction in cost of implementation (if applicable).

No Change

F. PROGRAM CHANGE SUMMARY

- A. **APPENDIX A**: For degree programs, majors, and concentrations (only), use the format in Appendix A to show the Current Program and Proposed Changes.
- B. For minors and certificates, attach a document showing the current program and proposed changes. You do not need to complete Appendix A for minors and certificates.

APPENDIX A B.S. Degree in Biology Current Program

Degree Requirements

| Core Curriculum Courses If a core curriculum course is also listed as a required major course, place an X in the 'credits' column. | | |
|---|---|-----------------|
| Core Area | Course Prefix and Number | Credit Hours |
| First Year Seminar | SOAR 1199, HONR 1100, BSBA 1100, NURS 1025 | 1-3 |
| Written Communication | ENGL 1101, ENG 1102, ENG 1103 | 6-7 |
| Oral Communication | COMM 2200, COMM 2201, or COMM 2202 | 3 |
| Mathematics | MATH 1407, MATH 1410, MATH 1507, MATH 1430, MATH 1530, MATH 1540, MATH 2501 | Х |
| Humanities | ENGL 2220, ENGL 2221, ENGL 2240, FOLK 2200, HIST 2211, HIST 2212, HIST 2213, PHIL 2200, PHIL 2250, PHIL 2275 | 3 |
| Fine Arts | ART 1120, ART 1141, MUSI 1106, MUSI 1120, MUSI 1167, MUSI 1168, MUSI 1169, MUSI 2247, MUSI 2277, MUSI 2279, THEA 1120 | 2-3 |
| Natural Science | BIOL 1104, BIOL 1105, BIOL 1106, BIOL 1180 & 1181, CHEM 1101, CHEM 1105, GEOL 1101, GEOL 1102, PHYS 1101, PHYS 1105, SCIE 1100, SCIE 1103, SCIE 1105 SCIE 1107, SCIE 1115, SCIE 1120, SCIE 1130, SCIE 1210, SCIE 1250, SCIE 2200 | Х |
| Social Science | BSBA 2200, BSBA 2211, CRIM 1100, CRIM 2202, GEOG 2210, MANF 2205, POLI 2200, PSYC 1101, SOCY 1110, SOCY 2205, TECH 1100 | 3 |
| Citizenship | HIST 1107, HIST 1108, POLI 1100, RECR 1141 | 3 |
| Personal | Global Awareness: FREN 2202, SPAN 2202, LANG 1110, POLI 2210, POLI 2220 Fitness & Wellness: CRIM 2212, CHEP 1100, CHEP 1110, HLTA 1100, HLTA 2203, NUTR 1110, PHED 1100 | х |
| Development | Technology : ART 2245, BISM 1200, CIVL 2210, EDUC 2201, MATH 1550, MANF 2250, MUSM 1100, TECH 1101 | |

| Required Major Courses (62 Credit Hours) | | |
|--|---------------------------------------|-----------------|
| Course Prefix & Number | Course Name | Credit Hours |
| BIOL 1105 | Biological Principles I | 4 |
| BIOL 1106 | Biological Principles II | 4 |
| BIOL 2202 | General Botany | 4 |
| BIOL 2203 | General Zoology | 4 |
| BIOL 2224 | Microbiology | 4 |
| BIOL 3306 | Fundamentals of Ecology | 4 |
| BIOL 3368 or BIOL 3370 | Animal Physiology OR Plant Physiology | 4 |
| BIOL 3380 | Genetics | 4 |
| BIOL 3390 | Molecular Biotechnology | 4 |
| BIOL 4485 | Senior Seminar | 2 |
| CHEM 1105 | Chemical Principles | 5 |
| CHEM 2200 | Foundational Biochemistry | 4 |
| CHEM 2201 | Organic Chemistry I | 4 |
| CHEM 2202 | Organic Chemistry II | 4 |
| MATH 1550 | Applied Statistics | 3 |
| MATH 2510 | Calculus I | 4 |
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| Major Elective Courses (16 Credit Hours) – IF APPLICABLE [Electives are selected from a specific major or program] | | |
|---|--|-----------------|
| Course Prefix & Number | Course Name | Credit Hours |
| BIOL 3301 | Advanced Human Anatomy and Physiology I | 4 |
| BIOL 3302 | Advanced Human Anatomy and Physiology II | 4 |
| BIOL 3312 | Advanced Botany I | 4 |
| BIOL 3315 | Invertebrate Zoology | 4 |
| BIOL 3316 | Vertebrate Zoology | 4 |
| BIOL 3330 | Aquatic Ecology | 4 |
| BIOL 3331 | Terrestrial Ecology | 4 |
| BIOL 3360 | Biochemistry | 4 |
| BIOL 3395 | Cell Biology | 4 |
| BIOL 4420 | Developmental Biology | 4 |
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Concentration Courses (XX Credit Hours) – IF APPLICABLE

[A concentration is a focused curriculum within an approved major; adds a specialization within a major area of study. Undergraduate concentrations comprise 12-18 credits; Graduate concentrations comprise 6-15 credits. Concentrations associated with certification or licensure requirements may exceed the credit limit.

| Course Prefix & Number | Course Name | Credit Hours |
|------------------------|-------------|-----------------|
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| Total Core Curriculum Credit Hours: | 21-23 |
|--|-------|
| Total Required Major Courses Credit Hours: | 62 |
| Total Required Concentration Credit Hours: | 0 |
| Total Elective Credit Hours (If applicable): | 16 |
| Total Free Electives Credit Hours: | 19-21 |
| TOTAL CREDIT HOURS | 120 |

B.S. Degree in Biology Proposed Program

Degree Requirements

| Core Area | Course Prefix and Number | Credi Hours |
|-----------------------|---|----------------|
| First Year Seminar | SOAR 1199, HONR 1100, BSBA 1100, NURS 1025 | 1-3 |
| Written Communication | ENGL 1101, ENG 1102, ENG 1103 | 6-7 |
| Oral Communication | COMM 2200, COMM 2201, or COMM 2202 | 3 |
| Mathematics | MATH 1407, MATH 1410, MATH 1507, MATH 1430, MATH 1530, MATH 1540, MATH 2501 | Х |
| Humanities | ENGL 2220, ENGL 2221, ENGL 2240, FOLK 2200, HIST 2211, HIST 2212, HIST 2213, PHIL 2200, PHIL 2250, PHIL 2275 | 3 |
| Fine Arts | ART 1120, ART 1141, MUSI 1106, MUSI 1120, MUSI 1167, MUSI 1168, MUSI 1169, MUSI 2247, MUSI 2277, MUSI 2279, THEA 1120 | 2-3 |
| Natural Science | BIOL 1104, BIOL 1105, BIOL 1106, BIOL 1180 & 1181, CHEM 1101, CHEM 1105, GEOL 1101, GEOL 1102, PHYS 1101, PHYS 1105, SCIE 1100, SCIE 1103, SCIE 1105 SCIE 1107, SCIE 1115, SCIE 1120, SCIE 1130, SCIE 1210, SCIE 1250, SCIE 2200 | х |
| Social Science | BSBA 2200, BSBA 2211, CRIM 1100, CRIM 2202, GEOG 2210, MANG 2205, POLI 2200, PSYC 1101, SOCY 1110, SOCY 2205, TECH 1100 | 3 |
| Citizenship | HIST 1107, HIST 1108, POLI 1100, RECR 1141 | 3 |
| Personal | Global Awareness: FREN 2202, SPAN 2202, LANG 1110, POLI 2210, POLI 2220 Fitness & Wellness: CRIM 2212, CHEP 1100, CHEP 1110, HLTA | х |
| Development | 1100, HLTA 2203, NUTR 1110, PHED 1100 Technology : ART 2245, BISM 1200, CIVL 2210, EDUC 2201, MATH 1550, MANF 2250, MUSM 1100, TECH 1101 | |

| Required Major Courses (62 Credit Hours) | | |
|--|---------------------------------------|-----------------|
| Course Prefix & Number | Course Name | Credit Hours |
| BIOL 1105 | Biological Principles I | 4 |
| BIOL 1106 | Biological Principles II | 4 |
| BIOL 2202 | General Botany | 4 |
| BIOL 2203 | General Zoology | 4 |
| BIOL 2224 | Microbiology | 4 |
| BIOL 3306 | Fundamentals of Ecology | 4 |
| BIOL 3368 or BIOL 3370 | Animal Physiology OR Plant Physiology | 4 |
| BIOL 3380 | Genetics | 4 |
| BIOL 3390 | Molecular Biotechnology | 4 |
| BIOL 4485 | Senior Seminar | 2 |
| CHEM 1105 | Chemical Principles | 5 |
| CHEM 2200 | Foundational Biochemistry | 4 |
| CHEM 2201 | Organic Chemistry I | 4 |
| CHEM 2202 | Organic Chemistry II | 4 |
| MATH 1550 | Applied Statistics | 3 |
| MATH 2510 | Calculus I | 4 |
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| Course Prefix & Number | Course Name | Credit Hours |
|------------------------|--|-----------------|
| BIOL 3301 | Advanced Human Anatomy and Physiology I | 4 |
| BIOL 3302 | Advanced Human Anatomy and Physiology II | 4 |
| BIOL 3312 | Advanced Botany I | 4 |
| BIOL 3315 | Invertebrate Zoology | 4 |
| BIOL 3316 | Vertebrate Zoology | 4 |
| BIOL 3330 | Aquatic Ecology | 4 |
| BIOL 3331 | Terrestrial Ecology | 4 |
| BIOL 3360 | Biochemistry | 4 |
| BIOL 3395 | Cell Biology | 4 |
| BIOL 4420 | Developmental Biology | 4 |
| BIOL 3398 | Immunology | 4 |
| FORS 3301 | Human Osteology | 4 |
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Concentration Courses (XX Credit Hours) – IF APPLICABLE

[A concentration is a focused curriculum within an approved major; adds a specialization within a major area of study. Undergraduate concentrations comprise 12-18 credits; Graduate concentrations comprise 6-15 credits. Concentrations associated with certification or licensure requirements may exceed the credit limit.

| Course Prefix & Number | Course Name | Credit Hours |
|------------------------|-------------|-----------------|
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| Total Core Curriculum Credit Hours | 21-23 |
|---|-------|
| Total Required Major Courses Credit Hours | 62 |
| Total Required Concentration Credit Hours (if applicable) | 0 |
| Total Elective Credit Hours (if applicable) | 16 |
| Total Free Electives Credit Hours (if applicable) | 19-21 |
| TOTAL CREDIT HOURS | 120 |