



# Request for Approval of Modification(s) to Program

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First Name	Last Name	Person ID	Email
Rickey	Cothran	0725389	rickey.cothran@swosu.edu

**Department**

Biological & Biomed Sciences

## Program Information

**Official Degree Designation and Program Title**

e.g. Associate in Science in Cybersecurity, Bachelor of Fine Arts in Music Performance, Master of Science in Accounting

Bachelor of Science - Microbiology

**Program Code**

Please list the 3-digit OSRHE program code.

034

**This program has approved options**

Yes

**Approved Program Options**

Please list all current options within the program. Use a separate line for each option.

MICRO.BS  
MLSCI.BS (Medical Laboratory Science Option)  
BIOSC.BS and MLSCI.BS (Biology & Microbiology Medical Lab Science Option)

**Is this program part of a cooperative agreement?**

No

**Does this change impact an embedded certificate?**

No

**Does the CIP Code for this program need to be updated?**

No

## Type of Request(s)

**Program Suspension?**

No

**Electronic Delivery of Existing Program**

NOTE: Electronic delivery is recognized at the program level. If the existing program has options that are offered via electronic delivery and the program meets State Regents' policy for electronic delivery, the program MUST be approved for electronic delivery.

 No

#### Option Additions?

 No

#### Option Deletion?

 No

#### Option Name Change?

 No

#### Program Requirement Change(s)?

 Yes

#### Explanation of changes

Please provide a brief summary of changes being made.

- 1) Adding Research Methods in Biology as a required course.
- 2) Changing Ecology from a 3-hr to 4-hr course with lab.
- 3) Removing the Plant & Field course requirement from degree options.
- 4) Deleting redundant General Comparative Physiology course entry from list of electives.

#### Total Credit Hour Change?

 No

#### Justification for program requirement changes\*

Please provide a brief summary of the reason for the program requirement changes.

The Research Methods course will introduce incoming Biology students to professional skills and opportunities in the Department of Biological & Biomedical Sciences. This orientation course allow students in the cohort to spend more time together and with faculty to build camaraderie and make for a smoother transition to college curriculum.

Adding a lab to the Ecology course allows us to give majors field and plant biology experience without requiring them to take upper-division plant biology and field biology courses. This will provide students with more flexibility when selecting electives in their major.

The General Comparative Physiology course was listed twice under the major electives section of the dual degree option (BIOSCI.BS and MLCI.BS).

#### Program Reinstatement?

 No

#### Program Name Change?

 No

#### Degree Designation Change?

Changes formerly classified as substantive and non-substantive will now be combined as program requirement changes. (e.g. course credit hour changes, changes in courses required for graduation, changing credit hours required for electives, course prefix changes, course title changes, removing courses from list of electives)

 No

## Documents

If applicable, submit any documentation related to the requested action.

Created By: Ryan Henson per Academic Affairs

Current Curriculum	Proposed Curriculum
<b>MEDICAL LABORATORY SCIENCE OPTION</b>	<b>MEDICAL LABORATORY SCIENCE OPTION</b>
<i>Courses marked with ‡ must be completed with a grade of C or better in order to apply for admission to clinical coursework.</i>	<i>Courses marked with ‡ must be completed with a grade of C or better in order to apply for admission to clinical coursework.</i>
<b>Required Courses.....16</b>	<b>Required Courses.....18</b>
BIOL1254 Principles of Biology II BIOL3355 General Microbiology ‡ BIOL3704 Human Anatomy ‡ BIOL4213 Immunology ‡	BIOL 1032 Research Methods in Biology BIOL1254 Principles of Biology II BIOL3355 General Microbiology ‡ BIOL3704 Human Anatomy ‡ BIOL4213 Immunology ‡
<b>Electives.....14</b>	<b>Electives.....12</b>
BIOL3053 Cell Biology BIOL3152 Genetics and Cell Biology Lab BIOL3253 Genetics BIOL3904 Human Physiology ‡ BIOL4031-4 Special Topics in Microbiology BIOL4284 Parasitology BIOL4343 Applied Microbiology BIOL4404 Pathogenic Microbiology BIOL4463 Virology BIOL4503 Microbial Physiology BIOL4524 Environmental Microbiology BIOL4703 Infectious Disease Epidemiology BIOL4853 Evolution BIOL4914 General and Comparative Physiology BIOL4915 General & Comparative Anatomy & Physiology BIOL4935 Cell and Molecular Biology	BIOL3053 Cell Biology BIOL3152 Genetics and Cell Biology Lab BIOL3253 Genetics BIOL3904 Human Physiology ‡ BIOL4031-4 Special Topics in Microbiology BIOL4284 Parasitology BIOL4343 Applied Microbiology BIOL4404 Pathogenic Microbiology BIOL4463 Virology BIOL4503 Microbial Physiology BIOL4524 Environmental Microbiology BIOL4703 Infectious Disease Epidemiology BIOL4853 Evolution BIOL4914 General and Comparative Physiology BIOL4915 General & Comparative Anatomy & Physiology BIOL4935 Cell and Molecular Biology

Current Curriculum	Proposed Curriculum
<b>MICROBIOLOGY MAJOR</b>	
<b>Core Courses (Required).....</b> <b>28</b>	<b>Core Courses (Required).....</b> <b>31</b>
BIOL 1254 Principles of Biology II	BIOL 1032 Research Methods in Biology
BIOL 3053 Cell Biology	BIOL 1254 Principles of Biology II
BIOL 3152 Genetics and Cell Biology Lab	BIOL 3053 Cell Biology
BIOL 3253 Genetics	BIOL 3152 Genetics and Cell Biology Lab
BIOL 3283 Ecology	BIOL 3253 Genetics
BIOL 3355 General Microbiology	BIOL 3284 Ecology
BIOL 3704 Human Anatomy	BIOL 3355 General Microbiology
BIOL 4213 Immunology	BIOL 3704 Human Anatomy
BIOL 4901 Biological Sciences Capstone	BIOL 4213 Immunology
<b>Major Electives.....</b> <b>21</b>	BIOL 4901 Biological Sciences Capstone
Choose one of the following courses:	<b>Major Electives.....</b> <b>18</b>
BIOL 3304 Aquatic Ecology	Choose one of the following courses:
BIOL 4524 Environmental Microbiology	BIOL 3304 Aquatic Ecology
BIOL 4604 Terrestrial Ecology	BIOL 4524 Environmental Microbiology
Choose the remaining 17 credit hours from the following list: <i>(A maximum of 4 hours total of Independent Studies may be counted toward the major.)</i>	BIOL 4604 Terrestrial Ecology
BIOL 4001-4 Independent Studies in Biological Sciences <i>(A maximum of 4 hours total of Independent Studies may be counted toward the major.)</i>	Choose the remaining 17 credit hours from the following list: <i>(A maximum of 4 hours total of Independent Studies may be counted toward the major.)</i>
BIOL 4031-4 Special Topics in Microbiology	BIOL 4031-4 Special Topics in Microbiology
BIOL 4284 Parasitology	BIOL 4284 Parasitology
BIOL 4343 Applied Microbiology	BIOL 4343 Applied Microbiology
BIOL 4404 Pathogenic Microbiology	BIOL 4404 Pathogenic Microbiology
BIOL 4503 Microbial Physiology	BIOL 4503 Microbial Physiology
BIOL 4463 Virology	BIOL 4524 Environmental Microbiology
BIOL 4703 Infectious Disease Epidemiology	BIOL 4463 Virology
BIOL 4853 Evolution	BIOL 4703 Infectious Disease Epidemiology
BIOL 4864 Human Genetics	BIOL 4853 Evolution
BIOL 4914 General and Comparative Physiology	BIOL 4864 Human Genetics
BIOL 4915 General and Comparative Anatomy & Physiology	BIOL 4914 General and Comparative Physiology
BIOL 4935 Cell and Molecular Biology	BIOL 4915 General and Comparative Anatomy & Physiology
BIOL 4944 Neuroscience	BIOL 4935 Cell and Molecular Biology
	BIOL 4944 Neuroscience

Current Curriculum	Proposed Curriculum
<b>DUAL DEGREE PROGRAM</b> <b>B.S. Biological Sciences – BIOSC.BS</b> <b>B.S. Microbiology, Med Lab Sci Option MLSCI.BS</b> <i>Courses marked with ‡ must be completed with a grade of C or better in order to apply for admission to clinical coursework</i>	<b>DUAL DEGREE PROGRAM</b> <b>B.S. Biological Sciences – BIOSC.BS</b> <b>B.S. Microbiology, Med Lab Sci Option MLSCI.BS</b> <i>Courses marked with ‡ must be completed with a grade of C or better in order to apply for admission to clinical coursework</i>
<b>Biological Sciences Core Courses (Required).....</b> <b>28</b>	<b>Biological Sciences Core Courses (Required).....</b> <b>31</b>
BIOL 1254 Principles of Biology II BIOL 3053 Cell Biology BIOL 3152 Genetics and Cell Biology Lab BIOL 3253 Genetics BIOL 3283 Ecology BIOL 3355 General Microbiology ‡ BIOL 3704 Human Anatomy ‡ BIOL 4213 Immunology ‡ BIOL 4901 Biological Sciences Capstone	BIOL 1032 Research Methods in Biology BIOL 1254 Principles of Biology II BIOL 3053 Cell Biology BIOL 3152 Genetics and Cell Biology Lab BIOL 3253 Genetics BIOL 3284 Ecology BIOL 3355 General Microbiology ‡ BIOL 3704 Human Anatomy ‡ BIOL 4213 Immunology ‡ BIOL 4901 Biological Sciences Capstone
<b>Major Electives.....</b> <b>28</b>	<b>Major Electives.....</b> <b>25</b>
BIOL 3904 Human Physiology ‡ OR BIOL 4914 General and Comparative Physiology ‡	BIOL 3904 Human Physiology ‡ OR BIOL 4914 General and Comparative Physiology ‡
<b>OR</b>	<b>OR</b>
BIOL 4915 General & Comparative Anatomy & Physiology ‡ BIOL 4031-4 Special Topics in Microbiology BIOL 4284 Parasitology BIOL 4343 Applied Microbiology BIOL 4404 Pathogenic Microbiology BIOL 4463 Virology BIOL 4503 Microbial Physiology BIOL 4524 Environmental Microbiology BIOL 4703 Infectious Disease Epidemiology BIOL 4853 Evolution BIOL 4914 General and Comparative Physiology	BIOL 4915 General & Comparative Anatomy & Physiology ‡ BIOL 4031-4 Special Topics in Microbiology BIOL 4284 Parasitology BIOL 4343 Applied Microbiology BIOL 4404 Pathogenic Microbiology BIOL 4463 Virology BIOL 4503 Microbial Physiology BIOL 4524 Environmental Microbiology BIOL 4703 Infectious Disease Epidemiology BIOL 4853 Evolution BIOL-4914—General and Comparative Physiology
<b>Recommend the following for Plant/Field Biol Requirement:</b> BIOL 4454 Plant Taxonomy OR BIOL 4604 Terrestrial Ecology	<b>Recommend the following for Plant/Field Biol Requirement:</b> BIOL-4454—Plant Taxonomy OR BIOL-4604 Terrestrial Ecology

# Package History

Date	User	Action
12/17/2024 2:07:37 PM	Cothran, Rickey	Added attachment 'MICRO.BS.docx'
12/17/2024 2:07:37 PM	Cothran, Rickey	Added attachment 'MLSCI.BS.docx'
12/17/2024 2:07:37 PM	Cothran, Rickey	Added attachment 'BIOSC.BS%20%26%20MLSCI.BS.docx'
12/17/2024 2:07:37 PM	Cothran, Rickey	Submitted 'Program Modification'
12/17/2024 2:07:59 PM	Johnson, Jason	Received
12/17/2024 2:09:45 PM	Johnson, Jason	Decision Approved on step 'FLOW-Deans'
12/17/2024 2:10:00 PM	FLOW- Provost's Executive Assistant	Received