# **Program Change Request**

Date Submitted: 04/29/21 2:53 pm

Viewing: SC-BA-BIOL: Biology, BA

Last approved: 03/04/21 2:04 pm

Last edit: 04/29/21 2:53 pm

Changes proposed by: jbazaz

Catalog Pages
Using this Program
Biology, BA

Are you completing this form on someone else's behalf?

Yes

**Requestor:** 

#### In Workflow

- 1. BIOL Program Chair
- 2. SC Curriculum
  Committee
- 3. SC Associate Dean
- 4. SC CAT Editor
- Assoc Provost-Undergraduate
- 6. Registrar-Programs:Duration
- 7. Registrar-Programs

### **Approval Path**

1. 04/29/21 3:41 pm Geraldine Grant (ggrant1): Approved for BIOL Program Chair

# History

- 1. Oct 23, 2017 by clmig-jwehrheim
- 2. Mar 16, 2018 by rzachari
- 3. Dec 4, 2018 by Jennifer Bazaz Gettys (jbazaz)
- 4. Feb 1, 2019 by Jennifer Bazaz Gettys (jbazaz)
- 5. Mar 11, 2019 by Tory Sarro (vsarro)
- 6. Feb 10, 2020 by Jennifer Bazaz Gettys (jbazaz)

- 7. Mar 24, 2020 by Jennifer Bazaz Gettys (jbazaz)
- 8. Apr 2, 2020 by Johanna Riemen (jriemen)
- 9. Oct 30, 2020 by Tory Sarro (vsarro)
- 10. Mar 4, 2021 by Jennifer Bazaz Gettys (jbazaz)

Name	Extension	Email
Deborah Polayes	4543	dpolayes@gmu.edu

**Effective Catalog:** 2022-2023

Program Level: Undergraduate

**Program Type:** Bachelor's

**Degree Type:** Bachelor of Arts

Title: Biology, BA

Biology, BA

Is this a retitling of

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Registrar/OAPI Use

Only – SCHEV

Status

**Registrar's Office** 

Use Only -

**Program Start Term** 

Registrar/OAPI Use

Only - SCHEV

Letter

Registrar/OAPI Use

Only - SACSCOC

**Status** 

Concentration(s):

	Associated Concentrations	Registrar's Office Use Only: Concentration Code
1	Biological Illustration	BIOI

**Approved** 

Registrar/IRR Use

Only -

**Concentration CIP** 

Code

College/School: College of Science

Department /

**Biology** 

No

**Academic Unit:** 

**Jointly Owned** 

Program?

#### Justification

What: In the policies, updating BIOL 103 to BIOL 102; BIOL BIOL 107 to BIOL 103; BIOL 106 to

Why: To enhance student learning, the content of these courses were rearranged earlier this semester and the program needs to follow suit.

**Total Credits** 

Total credits: minimum 120

Required:

Registrar's Office Use Only - Program Code:

SC-BA-BIOL

Registrar/IRR Use

26.0101 - Biology/Biological Sciences,

Only – Program CIP

General.

Code

Admission

**Requirements:** 

# Admissions

University-wide admissions policies can be found in the <u>Undergraduate Admissions Policies</u> section of this catalog. To apply for this program, please complete the **George Mason University Admissions Application**.

**Program-Specific** 

**Policies:** 

# **Policies**

Students must fulfill all Requirements for Bachelor's Degrees, including the Mason Core. Students in this bachelor's program must also complete the additional College Requirements for the BA Degree (see Requirements). The writing intensive requirement is fulfilled by **BIOL 308** Foundations of Ecology and Evolution. Transfer students who have transferred in **BIOL 308** Foundations of Ecology and Evolution but did not meet the writing intensive requirement may take MLAB 300 Science Writing to meet the writing intensive requirement. Important information and departmental policies are listed with the **Department of Biology**.

For policies governing all undergraduate programs, see AP.5 Undergraduate Policies.

# **Important Program Requirements**

Students must complete the degree requirements with:

- A minimum GPA of 2.00 in the BIOL courses listed in the degree program
- A minimum GPA of 2.00 in the supporting courses listed in the degree program

#### Additionally:

- Students may apply no more than 4 credits of <u>BIOL 102</u> Introductory Biology II-Survey of Biodiversity and Ecology (<u>Mason Core</u>) or <u>BIOL 103</u> Introductory Biology II-Survey of Cell and Molecular Biology (<u>Mason Core</u>) and <u>BIOL 105</u> Introductory Biology II Laboratory (<u>Mason Core</u>) toward <u>BIOL 103</u> Introductory Biology III-Survey of Cell and Molecular Biology (Mason Core) or <u>BIOL 107</u> Intro Biology II Lecture (<u>Mason Core</u>) and <u>BIOL 106</u> Introductory Biology II Laboratory (<u>Mason Core</u>) toward elective credit (or equivalent transfer credit at the 100 to 200-level) if taken before the successful completion of <u>BIOL 213</u> Cell Structure and Function (<u>Mason Core</u>).
- Biology majors must earn a minimum grade of 'C' in all of the biology core courses. A grade of 'C' or better must be earned in <u>BIOL 213</u> Cell Structure and Function (<u>Mason Core</u>) in order to advance to other core requirements.
- Students may repeat <u>BIOL 213</u> Cell Structure and Function (<u>Mason Core</u>) once, but a second time only with permission of the <u>Department of Biology</u>.
- Students may not count <u>BIOL 124</u> Human Anatomy and Physiology and/or <u>BIOL 125</u> Human Anatomy and Physiology toward any biology major requirement.
- Students who take <u>BIOL 300</u> BioDiversity may **not** count <u>BIOL 303</u> Animal Biology and/or <u>BIOL 304</u> Plant Biology toward any biology major requirement.
- <u>BIOL 308</u> Foundations of Ecology and Evolution meets the writing intensive requirement for this major. Transfer students who have transferred in <u>BIOL 308</u> Foundations of Ecology and Evolution but did not meet the writing intensive requirement may take <u>MLAB 300</u> Science Writing to meet the writing intensive requirement.
- <u>BIOL 493</u> Honors Research in Biology, <u>BIOL 495</u> Directed Studies in Biology, and <u>BIOL 497</u> Special Problems in Biology do not satisfy the requirements of the BA degree which state that students must complete at least one upper division course that includes a laboratory. The courses do, however, count as non-laboratory electives. The total limit for <u>BIOL 493</u> Honors Research in Biology, <u>BIOL 495</u> Directed Studies in Biology and <u>BIOL 497</u> Special Problems in Biology combined is 3 credits toward 32 credits for the BA.

# **Teacher Licensure**

Students majoring in biology who wish to pursue a career teaching secondary school may consider applying for the <u>Secondary Education - Biology (6-12) Undergraduate Certificate</u> offered by the <u>College of Education and Human</u> <u>Development</u> as an option in seeking an initial Virginia teaching license.

Other routes to licensure include the <u>Biology, BA or BS/Curriculum and Instruction, Accelerated MEd</u> (Secondary Education Biology Concentration) or select traditional Master's programs. Please contact the undergraduate advisor in the <u>College of Education and Human Development</u> for more information.

#### **Degree Requirements:**

Students should refer to the Admissions & Policies tab for specific policies related to this program.

Biology, BA majors are required to complete the following coursework with the option of also completing the Biological Illustration Concentration.

# **Biology Core Courses**

BIOL 213	Cell Structure and Function (Mason Core)	4
BIOL 214	Biostatistics for Biology Majors	4
BIOL 300	BioDiversity	4
BIOL 308	Foundations of Ecology and Evolution 1	5
BIOL 311	General Genetics	4
Total Credits		21

1Fulfills the writing intensive requirement.

Transfer students who have transferred in **BIOL 308** Foundations of Ecology and Evolution but did not meet the writing intensive requirement may take MLAB 300 Science Writing to meet the writing intensive requirement.

# **Biology Electives**

### Complete 11 credits of additional biology courses 1

11

10f which, at least 7 credits must be upper division, and at least one of these upper division courses must include a laboratory.

# **Chemistry**

General Chemistry I (Mason Core)	4
and General Chemistry Laboratory I (Mason Core) (Natural Science course)	
General Chemistry II (Mason Core)	4
and General Chemistry Laboratory II (Mason Core) (Natural Science course)	
	8
	and General Chemistry Laboratory I ( <u>Mason Core</u> ) (Natural Science course) General Chemistry II ( <u>Mason Core</u> )

# Math

Select one from the following:

3-6

**MATH 111** Linear Mathematical Modeling (Mason Core) (Quantitative Reasoning courses)

or MATH 113 Analytic Geometry and Calculus I (Mason Core) **MATH 123** 

Calculus with Algebra/Trigonometry, Part A

and Calculus with Algebra/Trigonometry, Part B (Mason Core) & MATH 124

**Total Credits** 

# **Computer Science**

Select one from the following:

3

3-6

Computing for Scientists 1 **CDS 130** 

Any course(s) that fulfills the Mason Core: Information Technology requirement

8/20/2021 SC-BA-BIOL: Biology, BA

Total Credits 3

1 Recommended by the Department of Biology

### **Natural Science**

Select 6-7 credits fro	om the following Mason Core: Natural Science courses:	6-7
<u>ASTR 103</u>	Astronomy (Mason Core)	
<u>ASTR 111</u>	The Solar System (Mason Core)	
<u>ASTR 113</u>	Stars, Galaxies, and the Universe (Mason Core)	
<b>GEOL 101</b>	Introductory Geology I (Mason Core)	
<b>GEOL 102</b>	Historical Geology (Mason Core)	
PHYS 160	University Physics I (Mason Core)	
PHYS 243	College Physics I (Mason Core)	
PHYS 245	College Physics II (Mason Core)	
PHYS 260	University Physics II (Mason Core)	
Total Credits		6-7

# **Concentration in Biological Illustration (BIOI)**

This optional concentration consists of a selection of courses designed to address the needs and interests of students who wish to study biology and simultaneously have the aptitude to draw, animate, or design art for textbooks, videos, papers, etc. This concentration has significant biology, chemistry, and physics components like all biology majors, and includes art classes that will prepare students for the opportunity to use their love of biology and art in one degree.

<u>AVT 180</u>	New Media in the Creative Arts	3
<u>AVT 222</u>	Drawing I (Mason Core)	3
<u>AVT 385</u>	EcoArt (Mason Core)	3
or <u>AVT 497</u>	Senior Project (Mason Core)	
Choose 12 additional art credits from the following courses:		12
<u>AVT 323</u>	Drawing II	
AVT 324	Figure Drawing	
<u>AVT 327</u>	Illustration	
<u>AVT 328</u>	Mixed Media	
AVT 382	2D Experimental Animation	
<u>AVT 383</u>	3D Experimental Animation	
<u>AVT 422</u>	Drawing III	
Total Credits		21

# **Note for Students Expecting to Enter Graduate or Professional School**

Students expecting to enter graduate or professional school are strongly encouraged to complete:

MATH 113 Analytic Geometry and Calculus I (Mason Core)

& MATH 114 and Analytic Geometry and Calculus II

8

<u>CHEM 313</u>	Organic Chemistry I	5
& <u>CHEM 315</u>	and Organic Chemistry Lab I	
<u>CHEM 314</u>	Organic Chemistry II	5
& <u>CHEM 318</u>	and Organic Chemistry Lab II	
PHYS 243	College Physics I (Mason Core)	4
& <u>PHYS 244</u>	and College Physics I Lab (Mason Core)	
PHYS 245	College Physics II (Mason Core)	4
& <u>PHYS 246</u>	and College Physics II Lab (Mason Core)	

Retroactive Requirements Updates:

Plan of Study:

Honors Information:

# Honors in the Major

### **Admissions**

Minimum requirements for invitation:

- GPA in biology courses must be 3.33 or better
- GPA in supporting requirements (math and other science) must be 3.00 or better
- Grade of 'B' or better in <u>BIOL 213</u> Cell Structure and Function (<u>Mason Core</u>)

Students should apply for admission to the Honors Program during their first or second year at the university. Contact the <u>Department of Biology</u> for information on applying.

# **Retention Requirements**

Students in honors biology must maintain a biology GPA of 3.33 or better and a supporting GPA of 3.00 or better from the time they have accumulated 30 hours and thereafter. Students who fall below this standard will be given a one semester probationary period in which to bring their GPA back up to the minimum standard.

# **Requirements to Graduate with Biology Honors**

Students are required to take 6 to 8 credits in honors courses in BIOL including three semesters of <u>BIOL 494</u> Honors Seminar in Biology or two semesters of <u>BIOL 494</u> Honors Seminar in Biology and one semester of <u>BIOL 493</u> Honors Research in Biology. <u>BIOL 498</u> Research Seminar may count toward one of the semester requirements of <u>BIOL 494</u> Honors Seminar in Biology. The GPA requirements are as follows:

- Minimum 3.33 GPA in honors biology courses
- Minimum 3.33 GPA in biology requirements
- Minimum 3.00 GPA in supporting requirements

Minimum 3.00 GPA overall

Accelerated
Description/Dual
Degree
Description:

INTO-Mason Requirements:

College Requirements & Policies:

Department / Academic Unit Requirements & Policies:

### **Program Outcomes**

# **Additional Program Information**

This information is required by the Office of Accreditation and Program Integrity.

Courses offered via distance (if applicable):

**Indicate whether** 

What is the primary delivery format for the program?

Face-to-Face Only

Does any portion of this program occur off-campus?

No

000 1 1 1

Are you working with a vendor / other collaborators to offer your program?

No

m1 1 1

Related Departments

Could this program prepare students for any type of professional licensure, in Virginia or elsewhere?

No

m1 1 +

Are you adding or removing a licensure component?

No

BI I I

#### Additional SCHEV & SACSCOC Information

Are you changing the total number of credits required for this program?

No

Are you changing the delivery format in any way (e.g adding an online option)?

No

Are you adding/removing a licensure option which was approved by SCHEV?

No

Will any portion of this program be offered at an off-campus location?

No

What off-campus location(s)? List all What percentage of credits toward this program

Will this program change affect any specialized accreditation?

No

Is the content of the new program closely related to that of an existing approved program?

No

Which existing approved program(s)?

Is this new program considered to be "advancing the degree level of a currently approved program" (i.e. existing content is at lower degree level, new content is at the higher degree level)?

No

Which existing approved program(s)?

Is this new program considered to be "lowering the degree level of a currently approved program" (i.e. existing content is at higher degree level, new content is at the lower degree level)?

No

Which existing approved program(s)?

Does this change represent a repackaging of content in an existing approved degree/certificate program?

No

Which existing approved program(s)?

Percentage of total credits containing new course content, excluding gen ed courses for undergraduate program: ("New content" means content that is not currently included in an existing approved degree/certificate program.) Please choose a percentage (i.e. 0%-100%)

less than 25%

Are the total credits for the program increasing or decreasing by more than 3 credits?

No

Will any additional equipment/facilites be needed?

No

**Description of institutional impact:** 

Will any additional faculty be required?

No

**Description of institutional impact:** 

Will any additional financial resources be needed?

No

**Description of institutional impact:** 

Will any additional library/learning resources needed?

No

**Description of institutional impact:** 

### **OAPI Use Only – Determination of SACSCOC Impact**

**Comments or Notes** 

# **Green Leaf Program Designation**

# Is this a Green Leaf No program?

**Green Leaf** 

Sustainability-focused academic programs require at least one green

Relationship to

Relationship to

List sustainability-

focused courses

Sustainability-related academic programs either require at leas

List sustainabilityrelated courses

Does this program cover material which crosses into another department?

No

**Impacted** 

**Additional** 

**Attachments** 

**SCHEV Proposal** 

**Executive Summary** 

Reviewer

**Comments** 

**Additional** 

**Comments** 

Is this course required of all students in this degree program?

%wi\_required.eschtml%

**Attached** 

Key: 16