

FACULTY AGENDA ITEM

Date: 3/18/2024

Submitted by: John Mullican, x. 2079

Subject: Significant Program Changes – Biology with Secondary Education Specialization, BS

Description / Rationale: The rationale for these changes is, in large measure, to comply with the new KBOR Gen Ed changes but also to better align with the Kansas Department of Education's science standards.

Changes include:

- Course number changes for BI 192 and BI 194 (formerly BI 102 and BI 103, respectively)
- Removed anatomy and physiology as requirements
- Removed BI 155 (STD) requirement
- Removed the required behavior course
- Added BI 203 as a requirement
- Added 6 hours of biology electives at 200-level or higher (one course should be animal-focused and the other, plant-focused)
- Updated Education course changes for 2024 catalog.
- For degree auditors, we included MA 116 as the minimum Math requirement for this degree.

Financial Implications: None indicated.

Proposed Effective Date: Fall 2024

Request for Action: Approval by AAC/FS/ Gen Fac/WUBOR

Approved by: AAC on 3/18/2024

Faculty Senate on date

Attachments: **Yes X** No **_**

Program Change Request

Date Submitted: 12/01/23 5:02 pm

Viewing: **TBI-BS : BI: Biology BS Sec Ed Spec.**

Last approved: 10/26/22 4:48 pm

Last edit: 03/19/24 9:08 am

Changes proposed by: John Mullican (john.mullican)

Catalog Pages Using this Program [Biology Major with Secondary Education Specialization, BS](#)

Final Catalog Edition
Rationale for Revision

Change Type [Significant](#)

Summarize Changes and Include Rationale

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General Information

Effective Catalog Edition 2024-2025

Department Biology

College College of Arts and Sciences

Division Natural Science & Mathematics

Degree Level Undergraduate

Program Title BI: Biology BS Sec Ed Spec.

Degree to be Offered Bachelor of Science (BS)

Is there a Washburn Articulation Related

Is this program offered completely online? [No](#)

Does this program lead to a teaching certification? Yes

Program Code TBI-BS

Concentration

Is this program an interdisciplinary program? No

Interdisciplinary Department

CIP Code [131322 - Biology Teacher Education.](#)

In Workflow

- 1. Acad Ops
- 2. BI Chair
- 3. Library
- 4. ED Chair
- 5. NSM Chair
- 6. CA Dean
- 7. CFCCC Chair
- 8. Assoc Dean CFC
- 9. CA Assoc Dean
- 10. Governance Check
- 11. AA Committee
- 12. Faculty Senate
- 13. General Faculty
- 14. WUBOR
- 15. Final Acad Ops
- 16. Registrar

Approval Path

- 1. 12/04/23 9:16 am
Holly Broxterman (holly.broxterman):
Approved for Acad Ops
- 2. 12/04/23 12:47 pm
John Mullican (john.mullican):
Approved for BI Chair
- 3. 12/04/23 12:57 pm
Sean Bird (sean.bird):
Approved for Library
- 4. 01/25/24 1:31 pm
Cherry Steffen (cherry.steffen):
Approved for ED Chair
- 5. 02/16/24 3:28 pm
Andrew Herbig (andrew.herbig):
Approved for NSM Chair
- 6. 02/19/24 9:00 am
Kelly Erby (kelly.erby):
Approved for CA Dean
- 7. 02/21/24 3:38 pm
Bruce Mactavish (bruce.mactavish):
Approved for CFCCC Chair
- 8. 02/26/24 9:21 pm
Kelly Erby (kelly.erby):
Approved for Assoc Dean CFC
- 9. 03/05/24 9:57 pm
Kelly Erby (kelly.erby):
Approved for CA

New Program Header

Statement of Justification/Rationale for Offering the Program

Program Demand

Projected Enrollment for the Initial Three Years of the Program

Implementation

Full-Time Headcount Per	Part-Time Headcount Per
Full-Time Sem Credit Hrs Per	Part-Time Sem Credit Hrs Per Year

Year 2

Full-Time Headcount Per Year	Part-Time Headcount Per Year
Full-Time Sem Credit Hrs Per Year	Part-Time Sem Credit Hrs Per Year

Year 3

Full-Time Headcount Per Year	Part-Time Headcount Per Year
Full-Time Sem Credit Hrs Per Year	Part-Time Sem Credit Hrs Per Year

Admission and Curriculum

Admission Criteria

Total Number of Semester Credit Hours for the Degree

Curriculum

Degree Requirements

In addition to the requirements stated below, students must complete 34-35 hours of General Education, all requirements for a Bachelor of Science degree, and any additional hours needed to reach the minimum 120 credit hours required for graduation. Some of the courses below may also fulfill general education or other degree requirements. Please see your advisor for more information.

~~Degree Requirements Biology Majors with Secondary Education Specialization The Bachelor of Science (BS) degree in Biology with Secondary Education Specialization requires a minimum of 38hours:the 20-hour core and at least 18 hours of required supportingcourses.Natural Sciences Concentration The BS degree also requires a 30-hour Concentration to be chosen from the Natural Sciences (Biology, Chemistry, Mathematics & Statistics, Physics & Astronomy, or Computer InformationScience).This Natural Sciences Concentration must be in departments other than the major, and must have at least 20 hours in onedepartment.Natural Sciences Concentrations for the BS degree are limited to thesecourses:CH 151 Fundamentals of Chemistry I or above, PS 261 College Physics I or above, MA 116 College Algebra or above, CM 111 Introduction to Structured Programming orabove.To receive departmental approval as having competency for licensure in teaching biology at the secondary level, majors must complete a BS in Biology Secondary Education Specialization as outlinedabove.Completion of the 20-hour core, other major requirements, and appropriate course work within the Department of Education in science teaching methods will satisfy the State competency requirements for licensure inbiology.See the Department of Biology and the Department of Education fordetails.The number of credit hours to graduate varies but is at least 140 credithours.~~ Students seeking certification licensure to teach Biology ~~biology~~ must also be formally admitted to the University's Professional Teacher Education Programs. ~~Programs.~~

Required Courses Inside Biology Department

BI 102	General Cellular Biology	5
BI 103	General Organismal Biology	5
<u>BI 192</u>	<u>General Cellular Biology</u>	<u>5</u>
<u>BI 194</u>	<u>General Organismal Biology</u>	<u>5</u>
<u>BI 203</u>	<u>Human Impact on the Environment</u>	<u>3</u>
<u>BI 301</u>	General Microbiology	4

Assoc Dean
10. 03/06/24 9:27 am
Beth O'Neill
(beth.oneill):
Approved for
Governance Check
11. 03/19/24 9:08 am
Holly Broxterman
(holly.broxterman):
Approved for AA
Committee

History

1. Apr 21, 2022 by clmig-jwillgling
2. Oct 4, 2022 by Holly Broxterman (holly.broxterman)
3. Oct 26, 2022 by Holly Broxterman (holly.broxterman)

BI 310	Ecology	4
BI 319	Biology for STEM Educators	3
BI 333	General Genetics	4
BI 340	Evolutionary Biology	3
BI 390	Biology Seminar (Capstone Course)	1
BI 395	Research in Biology (Capstone Course)	1
Select a minimum of 6 credits of Biology at the 200 level or higher. One course must be animal focused and the other, plant focused.		6
Subtotal		39
Required Courses Inside Education Department		
Students must complete the following courses to satisfy Kansas Teaching Standards:		
Select 18 credit hours of supporting courses:		18
BI 155	Sexually Transmitted Disease	1-5
or BI 325	Microbiology of Human Disease	
BI 202	Biology of Behavior	3
BI 250	Introduction to Human Anatomy	3-4
or BI 275	Human Anatomy	
BI 255	Human Physiology	4
or BI 330	Animal Physiology	
ED 155	Teaching, Learning, Leadership	3
ED 165	Ed. 1, Examining Teaching as a Profession: Diversity 1, Literacy 1, Technology 1	3
ED 275	Ed. 2 Exploring Teaching as a Profession (Classroom Management 1, Diversity 2, Technology 2) Ed. 2	3
ED 285	Educational Psychology	3
ED 295	Ed. 3 Experiencing Teaching as a Profession (Classroom Management 2, Diversity 3, Literacy 2)	3
ED 302	Teaching Exceptional Learners	3
ED 350	General Secondary Methods	3
ED 354	Curriculum and Assessment	3
ED 395	Ed. 4 Extending Teaching as a Profession (Classroom Management 3, Literacy 3, Technology 3)	3
Professional Semester		
ED 410	Secondary Student Teaching	12
Subtotal		39
Required Courses Inside Other Departments ¹		
CH 151 & CH 152	Fundamentals of Chemistry I and Fundamentals of Chemistry II	10
CH 340 & CH 342	Organic Chemistry I and Organic Chemistry Lab I	5
MA 116	College Algebra	3
MA 140	Statistics	3-5
or MA 151	Calculus & Analytic Geometry I	
Select one of the following physics sequences:		10
PS 261 & PS 262	College Physics I and College Physics II	
PS 281 & PS 282	General Physics I and General Physics II	
Subtotal		31-33
Total Hours		109-111

¹

These courses may be used to partially satisfy the 30-hour Natural Sciences Concentration

~~For admission requirements, see Education in this catalog.~~

Pathway

Faculty Workload Analysis

Faculty Workload Analysis (describe how the course offering schedule and anticipated enrollments correlate to faculty lines)

Supplemental Files

Reviewer	Beth O'Neill (beth.oneill) (03/06/24 9:27 am): 3/6/24-Updated formatting to align with other
Comments	BEd programs. Holly Broxterman (holly.broxterman) (03/19/24 9:08 am): Approved in 3/18/24 Academic Affairs Committee Meeting.