

Abilene Approval Chart for Curriculum Changes

A = Approve I = Information Item R = Respond In Writing

Course Number:

or Degree Plan(s): Middle School Science (4-8)

BIOL 351 (Genetics) has been determined by the biology faculty to be more advanced in content than is needed for this certification. They suggested removing the course and instead using **BIOL 362 (Ecology)**. After examining the standards and certification exams for middle school science certification, they believe this course is a better fit for the program. **BIOL 253/254** were previously identified in the catalog as **BIOL 353/354**. They have changed course numbers but the content has remained the same. This change is simply to reflect the catalog listings. These changes have all been made in partnership with the biology faculty.

		Dept./School	College	Dean	TEC	AUAC/Grad	Provost
	Campus-Level Academic Review¹						
	Change to a Course Include signatures from all chairs/program directors for cross-listed courses. ¹						
1.	Title (description unchanged)	A	A	A	I	I	I
2.	Description (not affecting content)	A	A	A	I	I	I
3.	Course term(s)	A	I	A	I	I	I
4.	Content (change of course outcomes)	A	A	A	I	I	A
5.	Number of credit hours	A	A	A	A	A	A
6.	Course number within the hundred	A	A	I	I	I	I
7.	Course number beyond the hundred	A	A	A	A	A	A
8.	Prerequisites	A	A	A	I	I	I
9.	Course restriction (e.g., majors only, junior standing)	A	A	A	A	A	A
10.	Level change (U to G or G to U)	A	A	A	A	A	A
11.	Cross list course	A	A	A	A	A	A
12.	Department of record	A	A	A	A	A	A
13.	Open or close a course	A	A	A	A	A	A
	Change to a Degree Plan						
14.	Educational Program — Revise	A	A	A	A	A	A
15.	Educational Program — Adopt/revise admission requirements	A	A	A	A	A	A
16.	GPA — Revise program-required GPA	A	A	A	A	A	A
17.	Minor — Revise	A	A	A	A	A	A

		Dept./School	College	Dean	TEC	AUAC/Grad	Provost	Campus Faculty	Senior VPAA	President
	Full Review									
	Change to Catalog Information (for Campus)									
18.	General requirements for Bachelor's and Associate Degrees	-	-	-	-	A	A	A	A	I
19.	Policies governing academic probation and suspension	-	-	-	-	A	A	A	A	I
20.	Requirements for graduating with honors	-	-	-	-	A	A	A	A	I
	Change to a Degree Plan									
21.	Educational Program — Add or Discontinue ²³	A	A	A	A	A	A	A	A	I
22.	Educational Program — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I
23.	Minor — Add or Discontinue	A	A	A	A	A	A	-	A	I
24.	Minor — Discontinue (Provost-proposed)	R	-	R	A	A	A	-	A	I
25.	Degree — Add or Discontinue	A	A	A	A	A	A	A	A	I
26.	Degree — Discontinue (Provost-proposed)	R	-	R	A	A	A	A	A	I

		Dept./School	College	Dean	AUAC	Provost	UGEC	University Faculty	Senior VPAA	President
	Change to General Education Requirements for Undergraduates (System)									
27.	Change course outcomes of an included course	A	A	A	A	A	A	-	A	I
28.	Add or drop a required course from the General Education Requirements	A	-	A	-	A	A	A	A	I
29.	Add or drop a course from a menu within the General Education Requirements	A	-	A	-	A	A	-	A	I
30.	Comprehensive revision of General Education Requirements	-	-	-	-	A	A	A	A	I

Notes

² Any change to a cross-listed course requires the signature of both department chairs or program directors overseeing the course to ensure that the courses stay in sync. This includes courses taught at other campuses (e.g. BIBL 101 and BIBO 101).

³ For undergraduate majors, a minimum of 30 hours is required. These programs must have a minimum of 6 elective hours, unless the requirements of external accrediting bodies make it impossible. Master's programs must include a minimum of 30 hours, and doctoral programs must include a minimum of 30 hours beyond the master's.

⁴ When a department/school or dean proposes closing a program, approval routing follows the typical process beginning with the department/school. An administrative proposal by the provost or senior vice president for academic affairs would follow the "provost-proposed" routing on the chart.

Updated 8/1/2023

Middle School Education (Grades 4-8), Science, BS (MSED-MSSC)

Return to: [Academic Programs A-Z](#)

Middle School Education (Grades 4-8), Science, BS (MSED-MSSC)

← Return to: [Academic Programs A-Z](#)

BS: Middle School Education Degree Plan (MSED)

General Education Requirements

Please see the [General Education](#) section of this catalog.

Professional Education Sequence

- [EDUC 211 - Introduction to Education: Culture and Contexts](#) Credit Hours: 3 *
- [EDUC 335 - Teaching in the Middle School](#) Credit Hours: 4
- [SPED 371 - Teaching Exceptional Students](#) Credit Hours: 3
- [READ 322 - Disciplinary Literacies](#) Credit Hours: 3
- [EDUC 412 - Secondary Curriculum and Media](#) Credit Hours: 3
- [EDUC 432 - Secondary Management and Methods](#) Credit Hours: 3 (capstone and writing-intensive course)
- [EDUC 476 - Effective Teaching Strategies for English Learners](#) Credit Hours: 3
- [EDUC 490 - Clinical Teaching](#) Credit Hours: 6

Choose 1 of the following courses:

- [EDUC 221 - Educational Psychology](#) Credit Hours: 3 *
- [PSYC 232 - Developmental Psychology](#) Credit Hours: 3 *
- [PSYC 241 - Cognition and Learning](#) Credit Hours: 3
-
- *Hours may also fulfill general education requirements and are not included in total major hours

Total: 25-28 Credit Hours

Science Track

- [MATH 124 - Precalculus II](#) Credit Hours: 3 *
- [EDUC 323 - Integrated Math and Science: PreK-2](#) Credit Hours: 3
- [EDUC 370 - Teaching Math in Elementary Grades 3-6](#) Credit Hours: 3
- [BIOL 121 - Introductory Biology I](#) Credit Hours: 3 *
- [BIOL 122 - Introductory Biology I Laboratory](#) Credit Hours: 1
- [BIOL 123 - Introductory Biology II](#) Credit Hours: 3
- [BIOL 124 - Introductory Biology II Laboratory](#) Credit Hours: 1
- ~~BIOL 351 - Genetics~~ Credit Hours: 3
- ~~BIOL 362 - Ecology~~
- [CHEM 113 - Introductory Chemistry](#) Credit Hours: 3
- [CHEM 111 - Introductory Chemistry Laboratory](#) Credit Hours: 1
- [CHEM 114 - Introductory Organic and Biological Chemistry](#) Credit Hours: 3
- [CHEM 112 - Introductory Organic and Biological Chemistry Laboratory](#) Credit Hours: 1
- [CHEM 203 - General Science for Elementary Teachers](#) Credit Hours: 4
- [PHYS 101 - Astronomy](#) Credit Hours: 3
- [PHYS 110 - General Physics I](#) Credit Hours: 3
- [PHYS 111 - General Physics I Laboratory](#) Credit Hours: 1
- [PHYS 203 - Physical Science for Teachers](#) Credit Hours: 3 *
- [PHYS 204 - Physical Science for Teachers Laboratory](#) Credit Hours: 1
-
- [BIOL 401 - Secondary Science Teaching Methods](#) Credit Hours: 3
- *or*
- [CHEM 401 - Secondary Science Teaching Methods](#) Credit Hours: 3
- *or*
- [PHYS 401 - Secondary Science Methods](#) Credit Hours: 3
-
- *Hours may also fulfill general education requirements and are not included in total major hours

Choose one of the following blocks (3-4 hours):

- [BIOL 345 - Range and Wildland Plants](#) Credit Hours: 2
- [BIOL 346 - Range and Wildland Plants Laboratory](#) Credit Hours: 1
-
- ~~[BIOL 353 - General Microbiology](#)~~ Credit Hours: 3 (Change to BIOL 253)
- BIOL 253—General Microbiology
- ~~[BIOL 354 - General Microbiology Laboratory](#)~~ Credit Hours: 1 (Change to BIOL 254)
- BIOL 254—General Microbiology Lab
-
- ~~[BIOL 362 - Ecology](#)~~ Credit Hours: 3
- ~~[BIOL 364 - Ecology Laboratory](#)~~ Credit Hours: 1
-
- [BIOL 403 - Marine Biology](#) Credit Hours: 3
- [BIOL 404 - Marine Biology Laboratory](#) Credit Hours: 1
-
- [BIOL 408 - General Mammalogy](#) Credit Hours: 3
- [BIOL 409 - General Mammalogy Laboratory](#) Credit Hours: 1
-
- [BIOL 413 - Plant Systematics](#) Credit Hours: 3
- [BIOL 414 - Plant Systematics Laboratory](#) Credit Hours: 1
-
- [BIOL 370 - Field Ornithology](#) Credit Hours: 4

Total Track Hours: 40-41

Electives

Minimum - 5-9 Credit Hours

Total Major Hours: 74

Other Graduation Requirements

Minimum grade for major courses: C

Minimum GPA for graduation: 2.75

Minimum advanced hours: 33

Minimum total hours: 128

Minimum total hours (MEd acceptance): 123

Department/School(s)

STalley

4/1/25

Chair Signature

Date

STalley

4/1/25

Chair/Program Director Signature

Date

Duke

College Academic Council(s)

Chair Signature

Date

4-4-2025

Chair Signature

Date

Duke

Dean(s)

Signature

Date

4-4-2025

Signature

Date

Teacher Education Council

Stallery

4.8.2025

Signature

Date

**Campus Academic Council:
Abilene Undergraduate or Abilene Graduate**

Signature

Date

Provost

Signature

Date

University General Education Council

Signature

Date

University Faculty

Abilene Faculty Senate Chair signature

Date

Dallas Faculty Council Chair signature

Date

Senior Vice President for Academic Affairs

Signature

Date

President

Signature

Date

Dr. Jennifer R. Huddleston
Associate Professor
Department Chair
Department of Biology
Abilene Christian University
ACU Box 27868
Abilene, Texas 79699-7868
jennifer.huddleston@acu.edu

April 1, 2025

Dear ACU Academic Councils and Administrators:

The Department of Biology recently made several changes that affect the courses on the Middle School Science track. Currently, BIOL 351 Genetics is a requirement. We have proposed to add BIOL 312 Cell Biology as a prerequisite, and we have added BIOL 352 Genetics Lab as a corequisite. This would add four additional hours to this education track. After looking at the competencies required for middle school science teachers, the Department of Biology recommended that BIOL 351 be removed from the required menu and BIOL 362 Ecology be added in its place. The content of this course is more important to the content needed for students on this track.

We also recently changed the level (number) of two of the courses on the menu from 353/354 to 253/254. Furthermore, we changed the name from "General Microbiology" to "Microbiology in Nursing and Allied Health." These changes are reflective of the level and the content that the course has always included.

I support the changes proposed on the Middle School Science track. I believe these changes will serve our students better.

Sincerely,



Jennifer Huddleston, Ph.D.