

Approval Chart for Curriculum Changes

A = Approve I = Information Item¹ R = Advise & Respond²

Course Number **BIOL 486** _____ or Degree Plan(s) _____

State the requested change and reason. A memo may be attached if more space is necessary.

These changes have been proposed in order to allow the lab and lecture portions of courses to fulfill different areas of requirements in the degree plans for the concurrent revisions to biology majors as originally intended with the major degree plan revisions approved in 2018. Changes to the description are intended only to facilitate the splitting of lecture and lab. No changes in total hours for lab + lectures are proposed. No changes in the content of courses are intended.

4 hrs

Comparative Botany [BIOL 486] changed to:

– Comparative Botany [BIOL 486] & Comparative Botany Laboratory [BIOL 488]

3 hrs

1 hr

Please find the associated syllabi for the proposed courses.

Circle the number that corresponds to the requested change. Degree plan changes are on the second page.

				COUNCIL ³						
	Change to a Course	Dept./School	College Academic	Deans	TEC	UGEC	UAC	GRAD	Provost	President
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 (substantive change)	A	A	A		I			A	I
5.	Number of hours (lecture, lab, contact)	A	A	A		A			A	I
6.	Course number within the hundred	A	A	I		I			I	I
7.	Course number beyond the hundred	A	A	A		A			A	I
8.	Prerequisites	A	A	A		I			I	I
9.	Course fee(s)	A	--	A		--			A	I
10.	From U to G or G to U	A	A	A		A			A	I
11.	Cross list with another department: U or G level	A	A	A		A			A	I
12.	Department of record	A	A	A		A			A	I
13.	Open or close a course	A	A	A		A			A	I
14.	New course — See website for application and process. This change includes combining or splitting a course(s).	A	A	A		A			A	I

Note: When an academic unit does not have a council, the UGEC and/or UUAC will serve as its academic council, depending on the nature of the issue.

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COUNCIL ³																		
	Change to a Degree Plan	Dept./School	College Academic	Deans	TEC	UGEC	UVAC	GRAD	Provost	Faculty	President	Board of Trustees						
1.	University Requirements — Change in approved course content ⁶	A	A	A	A				A	--	A	--						
2.	University Requirements — Add or drop a required course from the University Requirements chart ⁶	A	A	A	A				A	A	A	--						
3.	University Requirements — Add or drop a course from a menu within the University Requirements ⁶	A	--	--	A				A	--	A	--						
4.	University Requirements — Change hours within a menu on the University Requirements chart ⁶	A	A	A	A				A	A	A	--						
5.	Major — Revision of major ^{4,5}	A	A	A	A				A	--	A	--						
6.	Major — Adopt or change admission requirements	A	A	A	A				A	--	A	--						
7.	Major — Add ^{4,5}	A	A	A	A				A	A	A	I						
8.	Major – Discontinue (proposed by the department or college)	A	A	A	A				A	A	A	I						
9.	Major – Discontinue (proposed by the Provost)	See below.																
10.	GPA — Revise major or cumulative requirement	A	A	A	A				A	A	A	--						
11.	Minor — Revise course selection	A	A	A	I				I	--	I	--						
12.	Minor — Add	A	A	A	A				A	--	A	--						
13.	Minor – Discontinue (proposed by the department or college)	A	A	A	A				A	--	A	--						
14.	Minor – Discontinue (proposed by the Provost)	See below.																
15.	Degree — Add	A	A	A	A				A	A	A	I						
16.	Degree – Discontinue (proposed by the department or college)	A	A	A	A				A	A	A	I						
17.	Degree – Discontinue (proposed by the Provost)	See below.																
18.	Any change to a graduate degree program	A	A	A	A				A	--	A	--						

COUNCIL ³										
	Provost-Proposed Change	Provost	Department	Dean	TEC	UUAC	Graduate	Faculty	President	Board of Trustees
1.	Major/Graduate Program – Discontinue (proposed by the Provost)	A	R	R	A			A	A	I
2.	Minor – Discontinue (proposed by the Provost)	A	R	R	A			--	A	--
3.	Degree – Discontinue (proposed by the Provost)	A	R	R	A			A	A	I

Approval Chart for Curriculum Changes

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COUNCIL ³										
	Change to the Catalog Information	Dept./School	College Academic	Deans	UGECE	UUAC	GRAD	Provost	Faculty	President
1.	General requirements for graduation including course requirements that are common to all majors for all degrees ⁷	--	--	--	A			A	A	A
2.	Admission requirements	--	--	--	A			A	A	A
3.	Policies governing academic probation and suspension	--	--	--	A			A	A	A
4.	Requirements for graduating with honors	--	--	--	A			A	A	A

¹ Councils may request additional information about "Information" items. These items are approved as "Consent Agenda."

² The Dean and Department should respond to the Provost's recommendation to close a program in writing. Advise & Respond (R) requires that the voting body should receive the written responses at least one week prior to the vote.

³ All courses that meet University Requirements for general education must go through UGEC. Courses or degrees offered only to students seeking teacher certification must go through the Teacher Education Council. All undergraduate changes must go before the UUAC. All graduate degree plan changes must go through the Graduate Council.

⁴ A minimum of 30 hours is required for a major. A maximum is specified for each degree (e.g., BA, BS). The university minimum for elective hours is 6, unless the requirements of external accrediting bodies make it impossible.

⁵ Program or course changes that apply to any major that includes Teacher Certification will be reviewed by the college, the Teacher Education Council (TEC), and then the UUAC.

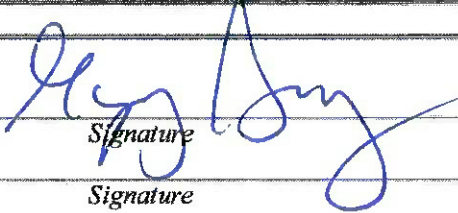
⁶ Courses that satisfy ACU's University Requirements (General Education) will normally have lower-level numbering, be free of prerequisites and co-requisites, appeal to more than one or two majors, and "not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession" (SACS 2.7.3). Departments may request exceptions to the first three criteria.

⁷ The UUAC approved the clarification that "general requirements for graduation" means the enumerated items in the "General Requirements for Bachelor's Degrees" section of the catalog.

Revised 8-26-19

Department/School Chair(s)	
 Signature	22 Jan. 2020 Approval date
_____ Signature	_____ Approval date

College Academic Council(s)	
 Signature	02/21/2020 Approval date
_____ Signature	_____ Approval date

Dean(s)	
 Signature	3/17/2020 Approval date
_____ Signature	_____ Approval date

Teacher Education Council	
_____ Chair's signature	_____ Approval date

General Education Council	
_____ Chair's signature	_____ Approval date

Undergraduate Academic Council	
_____ Chair's signature	_____ Approval date

Graduate Council	
_____ Chair's signature	_____ Approval date

Provost	
_____ Signature	_____ Approval date

Faculty	
_____ Chair of faculty senate	_____ Approval date

President	
_____ Signature	_____ Approval date

Course Syllabus for Comparative Botany

BIOL 486.01

Spring 2021

TR 9:30-10:50 am

Onstead Science Center Room 215

Mission Statements:

ACU: The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

College of Arts and Sciences: The mission of the College of Arts and Sciences is to educate students for worldwide Christian service and leadership through programs of study and other learning experiences that blend a liberal arts education with professional and career education.

Biology Department: The Department of Biology educates students for Christian service and leadership by preparing them to become biological scientists, pre-college teachers, and health care professionals.

Instructor: Dr. Joshua Brokaw, Professor

Office: Halbert-Walling, Room 214

Office Hours: 1-3 pm (MTWR) or appointment*

Phone: 325-674-2168

E-mail: josh.brokaw@acu.edu

*E-mails are welcome at any time and can be used to schedule appointments outside office hours.

Course Description:

BIOL 486 Comparative Botany (3-0-3), spring, odd years. Advanced study of the anatomy, physiology, ecology, and taxonomy of plants and their relatives from a synthetic evolutionary perspective.

Concurrent enrollment in BIOL 488 required. Prerequisite: BIOL 121/BIOL 122 and BIOL 123/BIOL 124 with minimum grade of 'C,' and BIOL 351.

Recommended Textbooks:

Biology of Plants, 8th edition, by Evert, and Eichhorn (2013)

Plants & Society, 7th edition, by Levetin and McMahon (2015)

Purpose: Comparative Botany is designed to serve as an advanced biology course for students interested in a career in botany or related fields, including agriculture, ecology, environmental science, horticulture, wildlife management, medicine, and teaching. Students will apply fundamental concepts in biology, including genetics, ecology, and evolution to achieve a synthetic understanding of the roles of plants and plant relatives in ecosystems and human culture.

Anticipated Outcomes and Competency Measures: This course provides the opportunity to consider patterns and principles of botany pertaining to a wide variety of biological fields. Course competencies include demonstrated knowledge and understanding of 1) foundational importance of plants and plant relatives to **ecosystem function** and responsible **environmental stewardship**; 2) **evolutionary history** and unique characteristics of the green plant clade and other plant-like groups; 3) the basic **anatomy** of plants and plant-like groups, including cell types, tissues, and organ systems; 4) the major alternative chemical pathways for carbon dioxide reduction through **photosynthesis** and **other physiological processes** in plants and plant-like groups, including mineral nutrition and growth and development; and 5) overall importance of plants to human cultures with special emphases on **health and nutrition**.

Grade Assessment:

Grades	
3 Tests	(75%)
Term Paper	(25%)

Grade Scale

A:	(89.5%)	D:	(59.5%)
B:	(79.5%)	F:	less than (59.5%)
C:	(69.5%)		

Test and Term Paper Schedule:

Week	Day	Date	Event
1	Tue	16-Jan	First Day
5	Tue	13-Feb	<i>Term Paper Topic Due</i>
6	Tue	20-Feb	<i>Test 1</i>
	Tue	13-Mar	Spring Break

10	Tue	27-Mar	<i>Term Paper Draft 1 Due</i>
11	Tue	3-Apr	<i>Test 2</i>
12	Tue	10-Apr	<i>Term Paper Final Draft Due</i>
Finals			<i>Test 3</i>

Lecture Schedule: * Any changes to planned topics will be communicated orally and/or in writing to students.

Scheduled Topics

Systematics & Plant-like groups
 Bryophytes and Seedless Vascular Plants
 Gymnosperms
 Angiosperms
 Molecular Composition of Plant Cells
 Plant Cell and Cell Cycle
 Cells and Tissues of the Plant Body
 Roots and Shoots: Structure and Development
 Secondary Growth of Stems
 Respiration and Photosynthesis
 Hormones Regulating Growth and Development
 External Factors and Plant Growth
 Plant Nutrition
 Plants and People
 Medicinal Plants
 Stimulating & Psychoactive Plants
 Poisonous and Allergy Plants
 Sexual Reproduction & Heredity
 Evolution
 Ecology and Ecosystems

Suggested Reading

Raven Ch 12-15; Levetin Ch 8, 22, 23
 Raven Ch 16&17; Levetin Ch 9
 Raven Ch 18; Levetin Ch 9
 Raven Ch 19&20; Levetin Ch 9
 Raven Ch 2; Levetin Ch 2
 Raven Ch 3&4; Levetin Ch 2
 Raven Ch 22&23; Levetin Ch 3
 Raven Ch 24&25; Levetin Ch 4&5
 Raven Ch 25&26; Levetin Ch 3
 Raven Ch 5-7; Levetin Ch 4
 Raven Ch 27
 Raven Ch 28
 Raven Ch 29&30
 Raven Ch 21; Levetin Ch 1
 Levetin Ch 19
 Levetin Ch 16&20
 Levetin Ch 21
 Raven Ch 8; Levetin Ch 7
 Raven Ch 11; Levetin Ch 8
 Raven Ch 31-32 pdf; Levetin Ch 26

Tests: Tests will be given on dates noted in the schedule. Tests will **cover all material since the previous test**. Tests contain 50 multiple-choice and 5–15 fill-in-the-blank questions. Multiple-choice questions are worth 1 pts each. Fill-in-the-blank questions may have different point values but will have a total value of 50 pts. Tests 1 and 2 last 80 minutes, and Test 3 lasts 105 minutes; Test 3 is not comprehensive but will occur at the exam time during Finals Week.

All tests should be taken when scheduled. If an acceptable excuse for missing a quiz or test is given, you may take it within a week upon your return. The **only** acceptable excuses for missing class are 1) illness with doctor's letter (note: the school medical clinic **does not** provide excuse notes under most circumstances), 2) death in immediate family (parents, siblings, grandparents), 3) official school trips (with **advance** approvals). Students must notify the professor prior to the next class that they are requesting a "make-up." According to university policy, if a student misses a final examination with permission, the teacher will record an "I" (incomplete) for the course grade. The final examination may be given at a later date (within the first six weeks of the following semester), with permission from the college dean.

Term Paper. From the ‘Scheduled Topics’ list and/or the recommended textbooks, choose a plant group or plant trait of interest; you will review the adaptive history and significance of this group or trait. Share the **topic of interest and a thesis regarding its evolutionary significance** with five key references during the 5th week of class; references must be primary literature and/or books (minimum of 5 sources); failure to submit a topic will disqualify the final draft from consideration. By the 10th week of class, submit a 3000 – 5000-word rough draft of the term paper; failure to submit a rough draft will disqualify the final draft from consideration. The final draft will be due by the 12th week of class. The final draft will be graded on a 100-point scale using the sum of categories from the following rubric.

Term Paper Rubric.

Category	Exemplary (20 pts)	Effective (17 pts)	Emergent (15 pts)	Elementary (13 pts)	None (0 pts)
Thesis	Clearly and concisely articulates and develops the thesis; scope is suitable for assigned task and focuses all elements of work; firmly establishes significance of project	Effectively articulates and develops the thesis; generally focused and specific; reasonably addresses assigned task; demonstrates significance of project	The thesis of the essay is present but vague and offers limited significance of the essay.	The thesis of the essay is not clear or appropriate and offers little to no explanation of the significance of the essay.	No thesis.
Organization	Superior and carefully organized analysis and discussion of the topic. Each paragraph has a focused idea and excellent supporting detail. Sources are critically synthesized to address chosen topic. Appropriate, logical conclusions are made and connected to the thesis.	Effective analysis and discussion of the topic. Synthesis of information is coherent. Conclusions are appropriate and connected to the thesis.	Weak analysis and discussion of the topic: moderately sustained and developed ideas and acceptable analysis of topic ideas. Conclusions are made, but not entirely supported by presented information or do not attempt to fully address the thesis.	Inadequate analysis and discussion of the topic: ideas are undeveloped, confused or disconnected. Conclusions are not present or are not connected to presented information or thesis.	No discernable organization.
Integrative Learning	Relevant and critical connections exhibited from a variety of sources. Demonstrates deep understanding of connections between historical knowledge and contemporary theories.	Makes generally effective connections from a variety of sources. Shows an understanding of connections between historical knowledge and contemporary theories.	Makes weak connections between sources; shows little understanding of historical knowledge and contemporary theories.	Underdeveloped or missing connections between sources; shows no understanding of historical knowledge and contemporary theories.	No sources.
Appropriate Sources	Information appropriately and fully answers the proposed question. Sources are appropriately synthesized in a way that addresses chosen topic. Appropriate, logical conclusions are made and connected to the research question.	Information is mostly linked to the proposed question. Synthesis of information is coherent. Conclusions are appropriate and mostly connected to the research question.	Attempts are made to relate information to proposed question. Information is connected, but weakly synthesized. Conclusions are made, but not entirely supported by presented information or do not attempt to fully answer question.	No link between information presented and original proposed question. Sources are not connected with little to no synthesis. Conclusions are not present or are not connected to presented information or research question.	No question.

Mechanics and Appropriate Citation of Sources	Excellent command of standard English that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free. Student correctly implements all four of the following information use strategies: 1) selects critical sources; 2) adheres to proper citation and reference style; 3) paraphrases, summarizes, or quotes in ways that are true to original context; 4) distinguishes between common knowledge and ideas requiring attribution. Practices ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Sufficient command of standard English that adequately communicates meaning to readers with infrequent errors in grammar, punctuation or usage. Paper flows well. Student correctly uses three of the information use strategies and practices ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Weak command of standard English. Errors in grammar, punctuation, or usage are present but do not compromise meaning. Student correctly uses two of the information use strategies and practices ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Inadequate command of standard English. Major errors or repeated minor errors in grammar, punctuation, or usage obscure meaning. Student correctly use one or none of the information use strategies and practices ethical and legal restrictions on the use of published, confidential, and/or proprietary information.	Shows no regard for rules of grammar and citation.
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Attendance: Attendance is vital for success in this class. Students that exceed the maximum of 6 TR absences will be automatically withdrawn from the course. The **only** acceptable excuses for missing class are 1) illness with doctor's bill or letter (note: the school medical clinic **does not** provide excuse notes under most circumstances), 2) death in immediate family (parents, siblings, grandparents).

Academic Integrity: Academic integrity is defined as academic work completed as assigned for each class. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent. Academic misconduct includes, but is not limited to, the following: 1) Cheating on tests and quizzes, 2) Failure to give credit to sources used in a work in an attempt to present the work as one's own, 3) Submission of papers or projects obtained from another source (e.g., research service or club paper file) as one's own, and 4) Falsifying information orally or in writing. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of the College of Arts and Sciences, and the Dean of Student Life will be notified. See the full university policy, including how to appeal a decision, by following this link: <https://www.acu.edu/community/offices/administrative/office-of-the-provost/academic-integrity-policy/overview.html>

Learning Disabilities: If you have a documented disability and wish to discuss academic accommodations, you must contact the *ACU Student Disability Services Office* (part of *Alpha Academic Service*) at (325) 674-2667 to make an appointment with the Director of Disability Services. In order to receive accommodations, you must be registered with them for each class in which you need accommodations. They will make necessary arrangements in cooperation with instructors.

Behavior/Dress Code: Clothing and behavior should be appropriate to promote learning under lecture and/or laboratory conditions. Any behavior or dress that distracts other students or inhibits learning will receive one warning. If there is a second infringement, you will be asked to leave class. Harassment will not be tolerated: <http://www.acu.edu/community/offices/hr-finance/hr/title-ix/overview.html>

Faith and Inquiry: As with all areas worthy of inquiry, material in this course **will** challenge your understanding of the world (i.e. challenge your worldview). It is my objective as a mentor and a brother in Christ to provide the space for your questions and your personal development during this process because I believe that it is essential that we temper our faith through adversity. "Then we will no longer be infants, tossed back and forth by the waves, and blown here and there by every wind of teaching and by the cunning and craftiness of people in their deceitful scheming." (Ephesians 4:14).

Course Syllabus for Comparative Botany Laboratory

BIOL 488.L1 Spring 2021

W 2:00-4:50 pm

Onstead Science Center Room 215

Mission Statements:

ACU: The mission of Abilene Christian University is to educate students for Christian service and leadership throughout the world.

College of Arts and Sciences: The mission of the College of Arts and Sciences is to educate students for worldwide Christian service and leadership through programs of study and other learning experiences that blend a liberal arts education with professional and career education.

Biology Department: The Department of Biology educates students for Christian service and leadership by preparing them to become biological scientists, pre-college teachers, and health care professionals.

Instructor: Dr. Joshua Brokaw, Professor

Office: Halbert-Walling, Room 214

Office Hours: 1-3 pm (MTWR) or appointment*

Phone: 325-674-2168

E-mail: josh.brokaw@acu.edu

*E-mails are welcome at any time and can be used to schedule appointments outside office hours.

Course Description:

BIOL 488 Comparative Botany Laboratory (0-3-1), spring, odd years. Laboratory study of the anatomy, physiology, ecology, and taxonomy of plants and their relatives from a synthetic evolutionary perspective. Concurrent enrollment in BIOL 486 required. Prerequisite: BIOL 121/BIOL 122 and BIOL 123/BIOL 124 with minimum grade of 'C,' and BIOL 351. Course fee.

Recommended Textbooks:

Biology of Plants, 8th edition, by Evert, and Eichhorn (2013)

Plants & Society, 7th edition, by Levetin and McMahon (2015)

Purpose: Comparative Botany Laboratory is designed to give students experience in modern field and laboratory methods commonly incorporated in botany or related fields. Students will apply fundamental concepts in biology, including genetics, ecology, and evolution to achieve a synthetic understanding of the roles of plants and plant relatives in ecosystems and human culture.

Anticipated Outcomes and Competency Measures: This course provides the opportunity to observe and apply patterns and principles of botany in a laboratory setting. Course competencies include application of 1) methods of data collection and analysis from **molecular and morphological phylogenetic systematics**; 2) macro- and microscopic **plant anatomy**; 3) plant growth associated with **hormones and nutrition** and other **physiological processes** in plants; 4) **medicinal applications** of plants and plant-like groups; and 5) **field botany and ecology**. Competency in this biological knowledge will be assessed by your performance on lab quizzes and a project as outlined below.

Grade Assessment:

Grades	
Lab Quizzes	(75%)
Systematics Project	(25%)

Grade Scale

A:	(89.5%)
B:	(79.5%)
C:	(69.5%)
D:	(59.5%)
F:	less than (59.5%)

Lab Activities:

Lab handouts will be provided on the weeks preceding labs. Labs will provide students opportunities to make observations and conduct experiments illustrating concepts covered in lectures. Due to the nature of the experiments, several labs will require collection and analysis of data in subsequent weeks.

Lab Schedule: * Any changes to planned topics will be communicated orally and/or in writing to students.

Week	Date	Topic/Activity
1	17 Jan	No Lab
2	24 Jan	Introduction to Lab Projects and Systematics
3	31 Jan	Quiz L1 Tues. , Plant Molecules
4	7 Feb	Quiz L2 Tues. , Molecular Systematics Project
5	14 Feb	Molecular Systematics Project
6	21 Feb	Quiz L3 Tues. , Molecular Systematics Project
7	28 Feb	Taxonomy and Diversity
8	7 Mar	Quiz L4 Tues. , Molecular Systematics Project
	14 Mar	Spring Break
9	21 Mar	Quiz L5 Tues. , Cells and Tissues
10	28 Mar	Quiz L6 Tues. , Anatomy
11	4 Apr	Quiz L7 Tues. , Growth and Hormones
12	11 Apr	Quiz L8 Tues. , Medicinal Plants
13	18 Apr	Quiz L9 Tues. , Field Botany and Plant Identification
14	25 Apr	Quiz L10 Tues. , Community Ecology
15	2 May	Quiz L11 Tues. , Project Presentation

Lab Quizzes: Eleven online quizzes will be taken throughout the semester on Tuesdays. These quizzes will cover **material from the previous lab handout**. All quizzes will be taken in Canvas and will be timed with automatic grading. Beginning on the second week of the semester, students will have access to quizzes starting at 12:01 a.m. each Tuesday morning. The quiz must be taken by 11:59 p.m. each Tuesday night. In order to comply with the course academic integrity policy, quizzes must be taken **INDIVIDUALLY**. Quizzes will include ten questions (multiple choice) worth one point each (ten-point scale). Seven minutes will be allotted for each quiz. Grades will be available immediately, however, correct answers will not be available until the deadline for all students to have completed the quiz. Correct answers will be available on Canvas from 12:01 a.m. Thursday morning through 6 p.m. Friday evening of each week. Thus, it is each student's responsibility to review their quizzes on Canvas during the appropriate time frame.

Lab Project: The **Systematics Project** labs will result in a **poster (25% of the final lab grade)** to be presented after chapel during the Biology Research Club Spring Poster Session. The poster is graded as a group project involving 3 or 4 group members. Projects can be submitted by students to the ACU Undergraduate Research Festival with instructor approval, but this is not required, and the Research

Festival has an early deadline that must be met for abstract acceptance. Posters submitted as pdf files are due **April 18**. Group members are expected to attend the Poster Session.

Research Poster Grade (average of 3 components): based on the following rubric.

	A-100	B-85	C-75	D-65	F-0
Clarity and Completion	Product is well-written, void of mistakes, and makes purpose, relevance, and methods clear. Product contains and appropriately distinguishes introduction, methods, results, and discussion. Sources are appropriately cited.	Product is mostly well written, leaving only minimal lack of clarity. Product contains and usually distinguishes introduction, methods, results, and discussion appropriately. Sources are cited.	Product is poorly written, leaving questions about the purpose, relevance, and methods of the research. Product lacks or fails to appropriately distinguish one or two of the following: introduction, methods, results, and discussion. Most sources are cited.	Poor writing quality and clarity make it difficult to judge the product at all. Product lacks or fails to appropriately distinguish three or all of the following: introduction, methods, results, and discussion. Most/all sources are not appropriately cited.	No product/ plagiarism
Results and Analysis	Research is innovative and original with obvious relevance to the field. Analysis is appropriate and complete, given the data.	Research is original with clear relevance to the field. Analysis is appropriate, given the data, but more thorough analysis would be preferable.	Review of literature or previous research with inadequate originality of findings, or research is original but lacks analysis of data.	Review of literature or previous research: does not appear relevant and/or the findings are merely a summary of previous work.	No product/ plagiarism
Review and Discussion	Review of preexisting knowledge is thorough and demonstrates context and relevance of the research. Discussion appropriately interprets the results while fully considering caveats without making claims not supported by the data.	Review of preexisting knowledge is satisfactory to demonstrate context and relevance of the research. Discussion interprets the results but does not fully consider caveats or makes some claims not clearly supported by the data.	There is some review of preexisting knowledge but does not demonstrate context and relevance of the research. Discussion merely restates the results and does not consider caveats or makes claims not supported by the data.	Review and discussion are merely a summary of previous work and/or unsupported claims.	No product/ plagiarism

All quizzes and project due dates should be taken/submitted when scheduled. If an acceptable excuse for missing a quiz is given, you may take it within a week upon your return. The **only** acceptable excuses for missing class are 1) illness with doctor's letter (note: the school medical clinic **does not** provide excuse notes under most circumstances), 2) death in immediate family (parents, siblings, grandparents), 3) official school trips (with **advance** approvals). Students must notify the professor prior to the next class that they are requesting a "make-up." According to university policy, if a student misses a final examination with permission, the teacher will record an "I" (incomplete) for the course grade. The final examination may be given at a later date (within the first six weeks of the following semester), with permission from the college dean.

There will be NO course incompletes given for failure to complete assignments. Students can make an appeal to the department chair for an exception. This appeal must be submitted in writing during the term of the course. The appeal must include a written detailed plan of action to complete the course that outlines how each assignment will be completed. After the final day of class, no appeal can be made. There will be no exceptions to these rules. However, assignments can be turned in early for opportunities for review and revision in order obtain a higher grade.

Attendance: Attendance is vital for success in this class. Students that exceed the maximum of 3 weekly absences for any reason will be automatically withdrawn from the course.

Academic Integrity: Academic integrity is defined as academic work completed as assigned for each class. Violations of academic integrity and other forms of cheating involve the intention to deceive, mislead, or misrepresent. Academic misconduct includes, but is not limited to, the following: 1) Cheating on tests and quizzes, 2) Failure to give credit to sources used in a work in an attempt to present the work as one's own, 3) Submission of papers or projects obtained from another source (e.g., research service or club paper file) as one's own, and 4) Falsifying information orally or in writing. Academic misconduct may result in, but is not limited to, a zero on the assignment and/or an F in the course. Additionally, the department chair, Dean of the College of Arts and Sciences, and the Dean of Student Life will be notified. See the full university policy, including how to appeal a decision, by following this link: <https://www.acu.edu/community/offices/administrative/office-of-the-provost/academic-integrity-policy/overview.html>

Learning Disabilities: If you have a documented disability and wish to discuss academic accommodations, you must contact the *ACU Student Disability Services Office* (part of *Alpha Academic Service*) at (325) 674-2667 to make an appointment with the Director of Disability Services. In order to receive accommodations, you must be registered with them for each class in which you need accommodations. They will make necessary arrangements in cooperation with instructors.

Behavior/Dress Code: Clothing and behavior should be appropriate to promote learning under lecture and/or laboratory conditions. Any behavior or dress that distracts other students or inhibits learning will receive one warning. If there is a second infringement, you will be asked to leave class. Harassment will not be tolerated: <http://www.acu.edu/community/offices/hr-finance/hr/title-ix/overview.html>

Faith and Inquiry: As with all areas worthy of inquiry, material in this course **will** challenge your understanding of the world (i.e. challenge your worldview). It is my objective as a mentor and a brother in Christ to provide the space for your questions and your personal development during this process because I believe that it is essential that we temper our faith through adversity. "Then we will no longer be infants, tossed back and forth by the waves, and blown here and there by every wind of teaching and by the cunning and craftiness of people in their deceitful scheming." (**Ephesians 4:14**).

Current:

Prerequisite: BIOL 112/BIOL 114 and BIOL 113/BIOL 115 with a minimum grade of "C"

This should be changed to:

Prerequisite: BIOL 121/BIOL 122 and BIOL 123/BIOL 124 with a minimum grade of "C"