BIO 1404 - BIOSCIENCES I

Component Area: 030 - Life and Physical Sciences
College: Sciences
Department: Biology
Faculty Contact: David Jaffe - david.jaffe@utsa.edu
Is this course required for a degree or certificate program? Yes
Is this course a service learning course: No

Syllabus link – https://utsacloud-my.sharepoint.com/:b:/g/personal/si_millican_utsa_edu/ERTjEUgyKbhNnAQPVOcX7WQBNTCBV0I97qCvS14ZtZAzNw?e=LTXakY

Critical Thinking

Student Learning Outcomes:

SLO1: Students will be able to examine a data set and assess how it supports a biological hypothesis or theory. SLO2: Students will be able to relate data back to biological principles and develop a hypothesis.

Assessment Method(s):

SLO1: On at least one laboratory exam, students will be required to analyze and evaluate experimental data. An average of 70% for all students on this question would be the criterion for success. SLO2: On at least one laboratory exam, students will be required to develop a hypothesis. An average of 70% for all students on this question would be the criterion for success.

Modifications:

Spring 2019 sampling indicated a 50% success rate for both learning outcomes. We will assess whether the current exam questions adequately address the learning outcome. We will have the students do more practice prior to the exam on generating and evaluating a hypothesis, and how a hypothesis fits into the scientific method. We will make sure there are repetitive questions on both midterm exams to be able to adequately assess improvement in performance. We will separate out the scores of students who do not attempt the question and receive a zero, so we can get a better estimate of understanding on those who attempt the questions.

Communication Skills (Written)

Student Learning Outcomes:

Students will be able to write a well-organized experimental proposal supported by literature evidence.

Assessment Method(s):

Students will be required to submit an experimental proposal at the end of the semester. The TA will assess the student's performance using an 8-part rubric. An average of 70% for all students on all parts of the rubric would be the criterion for success.

Modifications:

Spring 2019 sampling indicated an 84% success rate on this learning outcome which meets our criterion for success. However, the score for the proposal is a group score and may not be representative of all students. We will consider also evaluating a question on the exam for written expression to get a more independent student evaluation of written communication.

Communication Skills (Oral)

Student Learning Outcomes:

Students will be able to give an oral presentation that is well-organized, contains accurate information and conveys their knowledge on the topic.

Assessment Method(s):

Student will be required to give an oral presentation at the end of the semester on their proposal. The TA will assess the student's performance using a 4-part rubric. An average of 70% for all students on two parts of the rubric (Presentation Delivery and Answering Questions) would be the criterion for success.

Modifications:

Spring 2019 sampling indicated an 82% success rate on this learning outcome which meets our criterion for success. The students are graded individually on their oral presentation skills, during their segment of the group presentation. We will make sure that the TAs are adequately trained on the grading rubric so they can discriminate accurately between the presentation skills of different students

Communication Skills (Visual)

Student Learning Outcomes:

Students will be able to present a biological proposal in an appropriate and a visually meaningful format using PowerPoint. The TA will assess the student's performance using a 4-part rubric. An average of 70% for all students on one part of the rubric (Presentation Content) would be the criterion for success.

Assessment Method(s):

Students will be able to present a biological proposal in an appropriate and a visually meaningful format using PowerPoint. The TA will assess the student's performance using a 4-part rubric. An average of 70% for all students on one part of the rubric (Presentation Content) would be the criterion for success.

Modifications:
ing 2019 sampling indicated a 79% success rate on this learning outcome which meets our criterion for success. The students are graded individually on their understanding of the visual content presented during their segment of the group presentation. We will make sure that the TAs are adequately trained on the grading rubric so they can discern common errors related to the visual content of scientific presentations.

Empirical & Quantitative Skills

Student Learning Outcomes:
SLO1: Students will be able analyze and interpret biological problems presented in tabular and graphical form. SLO2: Students will be able analyze and interpret biological problems using appropriate statistical measures.

Assessment Method(s):
SLO1: On at least one laboratory exam students will be required to analyze tabular experimental data as well as plot a graph of this data. An average of 70% for all students on this question would be the criterion for success. SLO2: On at least one laboratory exam students will be required to calculate and interpret averages and percentages, as well as test for significant differences between control and experimental groups. An average of 70% for all students on this question would be the criterion for success.

Modifications:
Spring 2019 sampling indicated a 79% success rate on the first learning outcome, and a 53% success rate on the second learning outcome. The statistical method that the students were tested was only utilized during one laboratory period. We will change to a different statistical method that we can more easily integrate at multiple places throughout the semester. We will make sure there are repetitive questions on both midterm exams to be able to adequately assess improvement in performance. We will separate out the scores of students who do not attempt the question and receive a zero, so we can get a better estimate of understanding on those who attempt the questions.

Teamwork

Student Learning Outcomes:
Students will be able to work co-operatively as part of a team of 4 students to solve multi-step problems within a biological context.

Assessment Method(s):
A student's ability to work co-operatively, as part of a team, will be peer-assessed using a teamwork rubric near the end of the semester. A minimum of 70% of students should earn a

proficiency rating of 5/8 or higher using a scale (2 = strong participation, 1= average participation, 0 = needs improvement or absent) in four different areas

Modifications:

Spring 2019 sampling indicated a 95% success rate on this learning outcome which meets our criterion for success. Because the students rate themselves and their teammates they generally are very generous in their scoring. We are redesigning our teamwork assessment so that it will generate a more in depth and honest evaluation of how their team functioned during the semester.

(Note to the Core Curriculum Review Committee – Learning outcomes and Items used to assess the core objectives have a "C" placed next to them.)

Biosciences I – Fall 2019

BIO 1404.0Z1

Instructor:	Dr. Insert Name Here Insert.Here@utsa.edu (210) 458-1234
Office:	Flawn Sciences Building (FLN) 3.01.25
Office Hours:	MWF 12-1 PM, or by appointment
Text:	*OpenStax Biology* Free ebook can be downloaded from Blackboard or https://openstax.org/details/biology Optional Hardback: ISBN: 1938168097 available on 2-hour reserve in the library
i-Clicker2:	Student response unit required - ISBN: 9781498603041
Course WEB Site:	http://utsa.blackboard.com
Prerequisites:	Completion of, or concurrent enrollment in: STA 1053, MAT 1023, MAT 1033, MAT 1073 or higher.

Course Description: This is an introduction to the science of biology. Topics include biochemistry, cell structure and function, photosynthesis, metabolic respiration, genetics, and molecular biology. There are two components to this course; 3 hours of lecture and a 3-hour laboratory. Students need to excel in both components to do well in the course.

Grading: Student grades will be based on the following points system:

Lab (3 hours per week commitment)	350 (35%)	**C**
In-class Assessment	250 (25%)	
In-class exams	300 (30%)	
Final Exam	100 (10%)	
	1000	

Letter grades will be determined using the following scale: A ≥ 900, B ≥ 800, C ≥ 700, D ≥ 600

There are no +/- letter grades

Class participation: During the lecture responses will be solicited from the class using electronic "iClickers". For the semester there will be a total of 300 possible in-class assessment (ICA) points, 10 points per class day. Five (5) lowest or missed ICA scores will be dropped. Only electronic answers will be accepted. Answers written on paper will not be counted. Clickers can be purchased at the bookstore, but make sure you get the appropriate "i-Clicker" (iClicker2, clicker only; ISBN: 9781498603041). You must properly register your iClicker on the reef-education website (https://app.reef-education.com/#/account/create) to receive ICA credit. There is no cost for registering your iClicker. The iClicker REEF application for your phone will work, but is not recommended. Use of another student's iClicker remote, phone/computer with the REEF app is not allowed (see Policy on Cheating below).

Attendance: Because 30% of the lecture portion of your grade is based on in-class assessments (via iClickers), attendance is mandatory. This course moves quickly, covers a large amount of material, and continually builds on previous concepts. **It is expected that students prepare for class and laboratory by reading the assigned materials in advance.** Any changes to the syllabus or schedule will be announced ahead of time in class and posted on Blackboard.

Exams: Each student will need to purchase **eight (8)** ParSCORE Test Forms (X-101864). No electronic equipment of any kind is permitted during exams including, but not limited to, phones, blue-tooth earpieces, calculators, laptop computers, tablets, etc. You must present a valid UTSA ID to turn in your ParSCORE test form. Exam questions will be distributed until the first student finishes and leaves the room (don't be late!). **The final exam must be taken to pass the course.** Each exam is worth 50 points. Six of the seven 50-minute exams (5% each) will be counted. One missed or lowest exam score is automatically dropped, allowing for one (1) un-excused absence from an exam (i.e. illness, emergency, etc.).

Laboratory: The laboratory is a mandatory 3-hour section worth 35% of the final grade. The syllabus for the lab is separate. Students must attend the laboratory for which they are registered; they cannot receive credit for assignments completed in another section. There are no make-up assignments for the laboratory. A missed lab will count as a zero (24 points lost!).

Policy on Cheating: Students are expected to be above reproach in scholastic activities. Students who violate University rules on scholastic dishonesty are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the University. "Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, any act designed to give unfair advantage to a student of the attempt to commit such acts." Regents' Rules of Regulations, Part one, Chapter VI, section 3, Subsection 3.2 Subdivision 3.22. Since scholastic dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

The Roadrunner Creed and Honor code can be found at the following links:

www.utsa.edu/about/creed
www.utsa.edu/about/creed/honorcode.html

Learning Objectives

Course Goals

Understand the chemical and physical foundations that support living organisms.
Understand the role of genetic inheritance in both the unity and diversity of life.
Understand the process of scientific inquiry and the utilization of scientific techniques. **C**

Course Learning Outcomes

By the end of the course students should be able to:

- Relate the structure of the four biological macromolecules to their function.
- Identify the cellular properties of prokaryotic and eukaryotic organisms.
- Illustrate the mechanisms of energy production and consumption of living organisms.
- Explain the relationship between genotype and phenotype and the transmission of traits between generations.
- Outline the flow and regulation of genetic information from DNA to protein.
- Test a hypothesis by designing an experiment and evaluating experimental data. **C**
- Use quantitative methods to solve biological problems and to analyze biological data. **C**
- Report and interpret experimental data in a concise and persuasive format, both written and oral.**C**
- Apply effective strategies for communication, organization, and success within a team. **C**

Unit Learning Objectives

Chapter 1

1. Understand that evolution accounts for life's unity and diversity

Chapter 2 – The Chemical Foundation of Life

1. Understand how the properties of an atom allow the formation of chemical bonds.
2. Recognize the difference between a covalent bond, ionic bond, hydrogen bond and Van der Waals interactions.
3. Understand that chemical reactions make and break chemical bonds as reactants are converted to products.
4. Knowledge that hydrogen bonding between water molecules allows for the its unique properties of cohesion, moderation of temperature and solvency of ionic and polar substances.
5. Understand the principle of pH, how it is measured and how buffers minimize changes in pH.
6. Recognize that carbon atoms can form diverse molecules by covalently bonding up to four other atoms.
7. Understand how functional groups change the properties of organic compounds along with a structural knowledge of several common types.

Chapter 3 – Biological Macromolecules

1. Understand that many large biological molecules are polymers synthesized from dehydration of monomer units and broken down by hydrolytic reactions.
2. Recognize the general structures and functions of carbohydrates, lipids, proteins and nucleic acids.

Chapter 4 – Cell Structure

1. Knowledge of what differentiates a eukaryotic from a prokaryotic cell.
2. Understand similarities and differences between plant and animal cells.
3. Knowledge of the structure and function of the nucleus, chromatin, ribosomes, smooth endoplasmic reticulum, rough endoplasmic reticulum, the Glogi apparatus, lysosomes, vacuoles, mitochondria, chloroplasts, peroxisomes, cytoskelaton, cell wall, plasmodesmata, extra cellular matrix and cellular junctions.

Chapter 5 – Structure and Function of Plasma Membranes

1. Understand the general structure and function of biological membrane and have knowledge of the functional role of several types of membrane proteins.
2. Understand that membranes have selective permeability.
3. Understand the difference between passive transport, osmosis, facilitated diffusion, active transport, exocytosis and endocytosis.

Chapter 6 – Introduction to Metabolism

1. Understand the first and second laws of thermodynamics.
2. Recognize the difference between and exergonic and endergonic reaction.
3. Understand how ATP powers cellular work by coupling exergonic and endergonic reactions.
4. Understand how enzymes catalyze chemical reactions.
5. Understand how physical conditions, small molecules or allosteric regulation can affect enzyme function.

Chapter 7 – Cellular Respiration

1. Understand the chemical pathways for the three stages of cellular respiration: glycolysis, citric acid cycle and oxidative phosphorylation.
2. Understand the chemical pathways for fermentation.
3. Understand how cellular respiration may be regulated.

Chapter 8 - Photosynthesis

1. Understand the chemical pathways for the two stages of photosynthesis: the light reactions and the Calvin cycle.
2. Understand the relationship between photosynthesis and cellular respiration.

Chapter 9 – Cell Communication

1. Understand the three steps of cell communication: response, transduction and response.
2. Understand how signals can be amplified, coordinated and terminated.

Chapter 10 – Cell Reproduction

1. Have an understanding of the events that occur in the four different phases of the eukaryotic cell cycle
2. Understand the regulation of the eukaryotic cell cycle and how loss of control can result in cancer.
3. Understand how cancer results from changes in proto-oncogenes or tumor suppressor genes that affect cell cycle control.
4. Recognize the events that occur in the five phases of mitosis and cytokinesis.
5. Understand how signaling can lead to programmed cell death.
6. Understand prokaryotic binary fission.

Chapter 11 - Meiosis

1. Understand the difference between haploid gametes and diploid cells.
2. Understand the physical events of the four phases of meiosis I, and the four phases of meiosis II.
3. Understand how genetic diversity is created from meiosis and sexual reproduction.

Chapter 12 – Mendel's Experiments and Heredity

1. Understand the Law of Segregation and the Law of Independent Assortment.
2. Recognize the difference between genotype and phenotype.
3. Understand the function of a testcross.
4. Knowledge and understanding of exceptions to Mendel's Laws: incomplete dominance, codominance, multiple alleles, epistasis, and environmental influence.
5. Understand how pedigrees are used to determine human genotypes.

Chapter 13 – Modern Understanding of Inheritance

1. Understand how the behavior of chromosomes during meiosis can account for the Law of Segregation and the Law of Independent Assortment.
2. Understand the chromosomal basis of XX/XY sex determination.
3. Understand the concept of linked genes and how recombination frequencies can be used to map chromosomal distances.
4. Understand how nondisjunction can cause aneuploidy or polyploidy and the consequence of these events.
5. Understand the difference between and consequence of chromosomal deletions, duplications, inversions and translocations.

Chapter 14 – DNA Structure and Function

1. Understand the experiments that led to solving the structure of DNA, including experiments by: Griffith, Hershey and Chase, Chargaff and Franklin.
2. Understand the chemical structure of the DNA double helix.
3. Understand the process of replication and how the Meselson-Stahl experiment proved replication was semi-conservative.
4. Understand the process of replication.
5. Knowledge of the structure and function of chromatin.

Chapter 15 – Genes and Proteins

1. Understand the transfer of genetic information from a gene to a polypeptide, and how experiment with Neurospora nutritional mutants made this connection.
2. Understand the events that occur in the three stages of transcription: initiation, elongation and termination.
3. Understand how eukaryotic cells modify the primary transcript to produce mRNA.
4. Understand the basis of the genetic code and its universality.
5. Knowledge of the structure of the tRNA and ribosome.
6. Understand the events that occur in the three stages of translation: initiation, elongation and termination.
7. Recognize how point mutations can affect protein structure and function.
8. Understand how prokaryotic transcription and translation can occur simultaneously.

Chapter 16 - Gene Expression

1. Knowledge of the structure and function of a bacterial operon.
2. Understand the regulation of a repressible operon (the trp operon) and an inducible operon (the lac operon).
3. Understand mechanisms for regulating eukaryotic gene expression including: chromatin modifications, transcriptional regulation, post-transcriptional regulation, translational regulation, post-translational regulation and regulation by noncoding RNAs.

Chapter 17 – Biotechnology and Genomics

1. Understand how DNA sequencing and bioinformatics can be used to analyze the characteristics of genomes.
2. Understand how comparing genome sequences provides information on evolution and development.

Chapter 21 – Viruses

1. Understand the structure and composition of a virus.
2. Understand the life cycles of different types viruses including: bacteria phage, DNA viruses, RNA viruses and retroviruses.
3. Understand the pathogenic nature of viruses.

Lecture & Exam Schedule*

Date			Topic	Chapter	Laboratory
August	26	M	Introduction to the course		
	28	W	The chemical foundation of life	2	Measurements/Microscopes
	30	F	The chemical foundation of life	2	
September	2	M	**LABOR DAY HOLIDAY**		
	4	W	Biological macromolecules	3	Macromolecules
	6	F	Biological macromolecules	3	
	9	M	Biological macromolecules	3	
	11	W	**Exam 1**		Cell Structure
	13	F	Cell Structure	4	
	16	M	Cell Structure	4	
	18	W	Structure and function of plasma membranes	5	Enzymes
	20	F	Structure and function of plasma membranes	5	
	23	M	**Exam 2**		
	25	W	Metabolism	6	Cell Respiration
	27	F	Cellular Respiration	7	
	30	M	Cellular Respiration	7	
October	2	W	Photosynthesis	8	Photosynthesis
	4	F	Photosynthesis	8	
	7	M	Fermentation science (review)		
	9	W	**Exam 3**		Lab Practical I
	11	F	Cell communication	9	
	14	M	Cell cycle and mitosis	10	
	16	W	Cell cycle and mitosis	10	Cell Division
	18	F	Meiosis and sexual reproduction	11	
	21	M	Meiosis and sexual reproduction	11	
	23	W	Seedless fruit (review)		Molecular Biology
	25	F	**Exam 4**		
	28	M	Mendel's experiments and heredity	12	
	30	W	Mendel's experiments and heredity	12	Genetics
November	1	F	Modern understanding of inheritance	13	
	4	M	Modern understanding of inheritance	13	
	6	W	DNA structure and function	14	Molecular Genetics
	8	F	**Exam 5**		
	11	M	Genes and proteins	15	
	13	W	Genes and proteins	15	Lab Practical II
	15	F	Gene expression	16	
	18	M	Gene expression	16	
	20	W	What is gene therapy? (review)		Oral Presentation
	22	F	**Exam 6**		
	25	M	Biotechnology and genomics	17	
	27	W	Biotechnology and genomics	17	
	29	F	**THANKSGIVING HOLIDAY**		
December	2	M	Viruses	21	
	4	W	**Exam 7**		
	9	M	**Final Exam 7:00 AM to 9:30 AM**		

*All exam and quiz dates are fixed. Topics may lag or lead indicated dates as necessary. Read chapters well ahead of lectures: the schedule of chapter presentation may advance faster than scheduled.

Biology 1404 Laboratory Syllabus

Lab Coordinator: Richard Nuckels, PhD
Email: Richard.nuckels@utsa.edu
Office/Phone: FLN 3.02.38 / 210-458-7206

Instructor/TA name:_____ Instructor/TA email: _____

As part of the University's Quality Enhancement Plan (QEP), Biosciences 1 (BIO 1404) is designated as a Q-course and satisfies the University's Quantitative Scholarship requirement. Designed to enhance quantitative reasoning and critical thinking skills, this requirement will help students understand and evaluate data, assess risks and benefits, and make informed decisions in all aspects of their personal and professional lives.

Objective: Through a combination of data collection and analysis, online assignments, and both written and oral assignments, the student will: 1) apply and reinforce introductory biological concepts presented in the lecture in a real-world, data-driven context and 2) convey knowledge and understanding of basic biology in using clear and effective communication skills.

Course Content: During the laboratory component of Biology 1404 you will work on nine laboratory modules, take two practical examinations, and design and present one group research project.

Laboratory Schedule

Month	Date (Tue-Fri)	Lab Activity	Relevant Focus Chapter
August	27-30	Introduction/Safety/Microscope Use	
September	3-6	Macromolecules	Chapter 3
	10-13	Cell structure	Chapters 4 and 5
	17-20	Enzymes	Chapter 6
	24-27	Cell respiration	Chapter 7
October	1-4	Photosynthesis	Chapter 8
	8-11	**Practical I C**	
	15-18	Cell Division	Chapters 10 and 11
	22-25	Molecular Biology	Sections 14.1, 14.2, 17.1
	29-1	Genetics **Pre-proposal due**	Chapter 12 and 13
November	5-8	Molecular Genetics	Chapter 15.1 and 17.1
	12-15	**Practical II C**	
	19-22	**Oral Presentation C** **Proposal due**	
	26-29	**NO LAB-Thanksgiving Break (Thurs/Fri)**	
December		**NO LAB (Study Day Friday Dec 6th)**	

***Note: Dates Subject to Change**

Attendance: Attendance is required. Students ***must*** attend the section for which they are registered; you will not receive credit for activities performed in another section. The day/time/location for your laboratory is based on the section of the course for which you registered. There are no make-up laboratories, except in cases of

University excused absences. If you have a University excused absence, then you must **contact your instructor** by 8am Monday the week of the missed lab **(before you miss the lab)**. You will not receive credit for a missed lab. You should notify your laboratory instructor immediately of any absence. If you miss a lab, you are still responsible for the material for the practical and final examinations. **Please see the policy on what constitutes a University Excused Absence:** http://utsa.edu/hop/chapter5/5-9.html

Laboratory Rules:

- You may not enter lab without the proper attire, which includes: long pants, socks, and shoes that cover the entire foot. No open-toed, high heel shoes or bare ankles are allowed. A student denied access to the lab for improper attire will receive a zero for the laboratory, unless he/she can quickly change and return to lab.
- No eating or drinking in the lab is allowed, unless it is part of the lab.
- Cellular phones and all communication devices should be turned off. Do not send or receive calls and/or messages during the lab. **Using your phone or a similar device** for anything other than lab related activities **may incur a penalty** for the lab assignment and exit questions.
- Some laboratories involve working with live organisms. Alternatives to these experiments are available and participation in the lab or the alternative is required.

Materials: The laboratory written materials are posted on Blackboard Learn. There is no textbook to purchase but you will use the free e-book required for you're the lecture part of the course. You will need to bring a **printout of either the Lab Module or the Result Page** to your laboratory section each week in order to collect your data. Lab safety goggles or glasses are required for some experiments. Also you will need to have a **Sharpie labeling pen**. You will need to bring a **ParScore form (F-14507-PAR-L) to each** of the lab practical exams. These are small, purple, 20 question, multiple choice forms available in the bookstores or kiosks.

Grading: The laboratory component is **350** points of your total Bio 1404 score (35% of your total course grade!). Below is a table showing the distribution of points. **There is no extra credit or credit for late assignments.**

	Number	Points	Total
Pre-Laboratory Online Quiz:	8	5	40
Laboratory Exit Questions:	8	4	32
Post-Laboratory Assignment:	8	10	80
Post-Laboratory Online Quiz:	8	5	40
Practical Exams: ***C***	2	50	100
Pre-Proposal	1	10	10
Proposal: ***C***	1	26	26
Presentation: ***C***	1	14	14
Peer Evaluation: ***C***	1	8	8
Total			**350**

Laboratory Modules: (Total 192 points)

There are 9 laboratory modules during the semester.

"Module Score" = {pre-lab quiz + exit questions + post-lab assignment + Post-lab quiz} = 24 points.

The best 8 out of 9 module scores will be counted; thus the lowest Module Score will be dropped.

Because the lowest Module Score will be dropped, **there are no make-up quizzes, assignments, or laboratories**, except in cases of University excused activities and if you contacted your instructor by 8am Monday before the missed lab.

Pre-Laboratory Quiz: In order to make efficient use of the laboratory time, you should read the online material prior to class. You can attempt the pre-laboratory quiz twice. The highest score will be counted. The quiz deadline is 11:58:59 pm the night before your laboratory.

Laboratory Exit Questions: During the laboratory, your instructor will distribute a set of questions that must be turned in at the end of each laboratory session. The score for the exit questions will be posted on Blackboard. You can ask your TA to examine the grading of these questions, but you must return the form to your teaching assistant; otherwise, you will receive a zero for this part of the laboratory.

Post-Laboratory Assignment: You must attend the laboratory to get credit for the post-laboratory assignments. It is suggested that, if there is sufficient time, you begin working on the post-laboratory assignment during your laboratory session. Templates for the post-laboratory assignment will be provided online and must be uploaded by 11:58:59 pm the night before your next laboratory.

Assignments must be uploaded in Excel (.xlsx) format. You will receive a zero if the assignments are submitted in the wrong format, with the wrong extension. You should check that your report has been submitted correctly by using the check submission button in Blackboard. Please review the document on Blackboard on "How to Upload an Assignment." If you are using a Mac or iOS operating system, then you will need to convert your file to an Excel format.

Although you are encouraged to discuss the questions on the assignment with your lab partners and help each other with generating any graphs or calculations, you should complete the writing component independently. DO NOT SUBMIT A COPY OF YOUR PARTNER'S OR ANYONE ELSE'S ASSIGNMENT. Plagiarism will be check for by automated software; please read the plagiarism policy below.

Post-Laboratory Quiz: The post-lab quiz will become available the day after your laboratory on Blackboard Learn. You can attempt the post-laboratory quiz twice. The highest score will be counted. The quiz deadline is 11:58:59 pm the night before your next laboratory.

Practical Exams: (Total 100 points) **C**
Practical exams will test your knowledge and the laboratory skills you develop during the semester and will be administered during your laboratory period.

Independent Inquiry Project: (Total 50 points) **C**
During the semester, your group will be developing a proposal for an independent project of your own design. This project will actually be performed in Biosciences II. Only one project per group will be submitted. The first step is to submit a **project pre-proposal,** which must be approved by the TA. Next you will submit a **full proposal.** Finally, during the last week of the semester, your group will make an **oral presentation of your proposal** to the rest of your laboratory class. The formats and grading rubrics for all stages of the project are posted on Blackboard Learn.

Peer Evaluation: (Total 8 points) **C**
At the end of the semester, you will rate how well each member of your group has participated in the laboratory modules and the independent inquiry proposal. Rubrics for these evaluations are posted on Blackboard Learn.

Point Penalties: Blackboard considers 11:59:00 as late if the deadline is 11:59.

- **If you do not do the pre-laboratory quiz** you will receive a zero. If you complete the pre-lab quiz after the deadline and before the start of lab time you will lose 2 points. After your lab time starts, you cannot earn pre-lab quiz points.
- **If you do not attend lab**, you will receive a zero for the post-laboratory assignment and the exit questions (a total of 14 points).
- **If you are late to lab by more than 15 minutes,** you will lose half of the exit question points (2 points).
- **If you are late by one hour or more,** you will not receive credit for both the exit questions and the post-laboratory assignment (a total of 14 points).

- **If you upload the post-assignment late,** you will lose 2 points, but if late by more than 1 hour you will lose 3 points. If you work on submitting a late post lab assignment during lab then you will not receive any points. A post lab assignment submitted later than the start of lab will receive a 5 point deduction plus 1 point per extra day late
- **If are not wearing appropriate lab attire** you will be asked to leave the lab (even if you have already started the experiments) and you will receive a zero for the post-laboratory assignment as well as for the lab exit questions (a total of 14 points).
- **If you do not submit the peer evaluation** at the end of the course you will receive a zero for your peer evaluation (a total of 8 points).

Grading Appeals: All assignments will be graded within one week of submission. Check your Blackboard grade-book regularly; if you do not have a grade one week after submission, contact your TA. If you feel a question was graded incorrectly, please fill out the dispute form located on Blackboard Learn. Be sure to include your section # on any communication. **Your dispute must be submitted to your laboratory instructor within one week of receiving your grade.**

Policy on Plagiarism: When your assignments are uploaded to Blackboard, they will be automatically checked by software for plagiarism. Do not copy work from your lab partner or some other source, such as textbooks or the internet. Plagiarism will lead to a zero for all components of the lab. This penalty will apply to **all** individuals found to have copied material in their assignments.

Policy on Student Behavior: Students are expected to maintain civil behavior in class and never to interfere with the learning experience of other students. You are expected to assist in maintaining a lab environment that is conducive to learning. This includes proper safety procedures, proper use and care of equipment, appropriate cleaning of your work area, and seriously focusing on the laboratory exercise. Students who have inappropriate behavior will be asked to leave the class and will lose the points for that laboratory.

Policy on Cheating: Students are expected to be above reproach in scholastic activities. Students who violate University rules on scholastic integrity are subject to disciplinary penalties, including the possibility of failure in the course and dismissal from the University. “Scholastic dishonesty includes, but is not limited to, cheating, plagiarism, collusion, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an exam for another person, entering electronic clicker responses for another person, any act designed to give unfair advantage to a student of the attempt to commit such acts” (Regents’ Rules of Regulations, Part one, Chapter VI, section 3, Subsection 3.2 Subdivision 3.22). Since scholastic dishonesty harms the individual, all students, and the integrity of the University, policies on scholastic dishonesty will be strictly enforced.

UTSA The University of Texas at San Antonio™

Undergraduate Studies

2/4/2020

Professor Jaffe,

The Core Curriculum Committee recently completed its periodic review of BIO 1404 - BIOSCIENCES I as per the guidelines outlined on the UTSA Core Curriculum website. The overall recommendation by the committee members for this course is:

- ☑ **Recommend to remain in the UTSA Core Curriculum**
- ☐ **Revisions recommended to remain in the UTSA Core Curriculum**
- ☐ **Substantive revisions required to remain in the UTSA Core Curricum**
- ☐ **Recommend removal from the UTSA Core Curriculum**

The committee was extremely impressed with the alignment of the clear student learning outcomes with the state-required course objectives. This is a model review packet, and we would like to share this with other faculty in the future as a guide. The committee recognized that a lot of work has been dedicated to this course.

On the next page, you should find summary comments from the committee on the availability of BIO 1404 as well as comments related to the syllabus and information that you submitted through the review portal prior to November 1. There may be recommendations for follow-up at the end of the document.

I'd like to extend the invitation to visit with me personally if I can be of any assistance or provide you with more detailed information about the review process or the Committee's findings. Our office is here to assist you in any way.

If you have not already done so, I would also encourage you to consult the course design and assessment resources found on the Core Curriculum Resource Page found on the Teaching and Learning Services website. This site can be accessed at teaching.utsa.edu/utsa-core-curriculum-resource-page.

Sincerely,

Dr. Si Millican
Associate Vice Provost - Undergraduate Studies
Professor of Music Education

CC: Kristi Johnson, Management Analyst - University College
Garry Sunter, Chair - Biology

One UTSA Circle San Antonio, Texas 78249-0645 (210) 458-5191
(210) 458-5189 fax

Course prefix and title: BIO 1404 - BIOSCIENCES I

Point of contact: David Jaffe

The course is offered regularly: Yes
Comments on course availability: The committee encourages creating options for students at the Downtown campus including face-to-face or online options if possible.

SYLLABUS COMMENTS

It was unclear how Communication Skills would be addressed. One committee member noted that different sections have sometimes used different syllabi in the past based on a review of Bluebook syllabi.

MODIFICATIONS COMMENTS (submitted via online portal)

Student Learning Outcomes:

Nice work.

Assessment:

Some redundancy in assessment methods, but clearly acceptable.

Changes or Modifications Implemented:

These very detailed assessment results and modifications can help us triangulate our university-wide assessment data within the core curriculum.

Follow Up Actions:

Please feel free to reach out to my office if you have any questions on these comments. Please let me know if I may share this with our peers across the university.