



Syllabus: **BIO 100N Biology Concepts**

Course Information	
Course Prefix/Number: BIO 100N	Credit Hours: 4 (including lab)
Semester: Fall 2019	Course Title: Biology Concepts
Class Days/Times: MW 12pm- 2:45pm	Room: I-We:mta Ha-Ki (IWK) Rm 5, S-cuk Du'ag Maşcamakuđ (Main Campus)

Instructor Information: Name: Kimberly Danny, M.S.	Work Phone: (520) 383-0040 Ext 1040 Cell: (928) 380-5536 – Texts only E-mail: kdanny@tocc.edu Office location: Hamascamdám Ha-Ki: Room 121 Office hours: MW 3:30-5 pm TR 12:45-1:45 pm or by appointment
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Course Description: Basic principles and concepts of biology. Includes methods of scientific inquiry, cell structure, chemistry, metabolism, reproduction, genetics, molecular biology, evolution, ecology, and current issues in biology.

Student Learning Outcomes
After completion of the course students will be able to
<ol style="list-style-type: none"> 1. Perform activities to demonstrate improvement in the general education goals of communication, critical thinking and mathematics. 2. Describe characteristics of living organisms that distinguish them from non-living constituents of the biosphere. 3. Utilize scientific methods to formulate and answer questions and discuss its strengths and limitations. 4. Describe and explain the properties and roles of biologically important molecules, including proteins, carbohydrates, lipids, and nucleic acids. 5. Describe the structure and function of cells and cellular components in single and multicellular organisms.

6. Describe how energy is acquired and used by living organisms.
7. Describe how traits are inherited and apply patterns of inheritance.
8. Explain the molecular biology of genes and their expression.
9. Describe potential impacts of genetic technologies on society.
10. Explain how the flow of energy through an ecosystem influences its structure.
11. Describe how organisms interact with each other and their environment.
12. Apply biological and ecological principles to discuss current issues in human health, and human impact on the environment.

Course Structure:

Please see the outline below for the general course structure. The final project for the course is an essay paper that involves some research on either diabetes or cancer, with students to select an area of emphasis on the topic.

Texts and Materials:

Required Texts:

Essentials of Biology – 2018 – 5th Edition
 by Sylvia Mader & Michael Windelspecht
 ISBN 978-1-259-94837-4

***** A copy of the book is on the Course Reserve Shelf in the O'ohana Ki (main library)**

Evaluation and Grading & Assignments:

Percentage of Points	Grade
100 – 90	A
89 – 80	B
79 – 70	C
69 – 60	D
59 & below	F

Your grade will be determined by the following:

Evaluation	Points	Percentage of Points
Exams	300 pts (3 x 100 pts)	30%
Labs/Participation	300 pts	30%
Readings/Reflective/Writing/ Homework Assignments	300 pts	30%
Final Essay/Presentation	100	10%
TOTAL	1,000	100%

Himdag Cultural Component:

Tohono O'odham traditions and cultural beliefs will be discussed as relevant course topics, and only as appropriate to the Tohono O'odham Nation's traditional standards for sharing information as determined by the Himdag committee.

Policies and Expectations:**Course Policies Requirements:**

(1) **Attend class regularly;** (2) Complete in-class and out-of-class assignments and submit to the instructor; (3) Attend all labs and field trips; (4) Take all exams (5) Complete all class projects & presentations.

Course Policies:

1. Students are expected to attend each class., arriving on time, except in the case of an excused emergency.
2. Students are expected to contact instructor prior to absences, coming late to class or leaving early.
3. Unexcused late arrivals or early departures will count against attendance record.
4. Class participation and preparation are essential to student success. Students must read textual material, prepare for projects, complete required research as stated on the course schedule.
5. Students are expected to come to class prepared for class and having done any preliminary work required as per the course schedule.
6. No cell phone use is allowed during class. Use of cell phones during class, unless permitted by instructor, is a violation of the T-So:son.
7. Late work is marked down 10 points for each day of tardiness.
8. Failure to submit a project results in a grade of zero (0). An F (~60 pts) is a better grade than a 0.
9. No work accepted after the last class.

Attendance Policy

You are expected to arrive to class on time and be prepared to participate in each class period. Four unexcused absences may result in withdrawal and a "W" or "Y" will be recorded. You may request to be excused from class for religious observances and practices, for illness, for school or work-related travel or for personal or family emergency. If you will be absent, please notify the instructor as soon as possible (approved by Faculty Senate April 2014).

Make-up policy

Missed exams can be made up within two days of the exam date. Late assignments that can be made up will be accepted but will be penalized 25%. Laboratories cannot be made up. At the instructor's discretion, extra credit opportunities and optional activities may be provided.

Classroom Behavior:

- Because of insurance limitations, non-registered visitors are not allowed at class sessions or on field trips.
- Possession of drugs, alcohol or firearms on college property is illegal.
- Food and beverages are allowed in classrooms.
- Pets, telephones, pagers and other electronic devices that distract students are not allowed in classrooms. Phone use during class will result in removal from the class for the rest of the period. iPads can be used during class for projects and labs, but may not be used during lecture
- Students creating disturbances that interfere with the conduct of the class or the learning of others will be asked to leave.

Academic Integrity: Violations of scholastic ethics are considered serious offenses by Tohono O’odham Community College, the Student Services Department, and by your instructor. Students may consult the TOCC Student Handbook sections on student code of conduct, on scholastic ethics and on the grade appeal procedure. Copies are available at Tohono O’odham Community College.

All work done for this class must be your own. While you may discuss assignments with other class members, the final written project must clearly be your own. You may use work from books and other materials if it is properly cited. Copying from a book without proper reference or from a person under any circumstances will result in an “F” for the assignment, and at the instructor’s discretion, possibly an “F” for the course.

Incomplete Policy

Incomplete (I) grades are not awarded automatically. The student must request an "I" from the instructor who can choose to award an Incomplete only if all three of the following conditions are met:

1. The student must be in compliance with the attendance policy.
2. There must be an unavoidable circumstance that would prohibit the student from completing the course.
3. The student must have completed over 75% of the course requirements with at least a “C” grade.

Incompletes are not a substitute for incomplete work due to frequent absences or poor academic performance. Incomplete grades that are not made up by the end of the ninth week of the following Spring or Fall semester will be automatically changed to an F if the agreed upon work, as stipulated on the written form signed by the instructor and the student when the I grade is awarded, is not completed.

Course Feedback:

All assignments, written papers and quizzes will be graded and returned to the students one week after the assignment is due. E-mail and phone messages will be returned within two days. A student or the instructor may request a student conference at any time during the semester. Quarterly grade reports will be

provided to each student, either in person, by email or via the electronic system of Canvas.

Instructor Withdrawals

Students who have missed four consecutive classes (or the equivalent) and have not submitted any assignments nor taken any quizzes by the 45th day census report, due on October 3, 2019 are assumed NOT to be participating in the class and may be withdrawn at the faculty member's discretion.

Student Withdrawals

Students may withdraw from class at any time during the first 2/3 of the semester without instructor permission and without incurring any grade penalty. Please be sure to withdraw yourself by November 4, 2019 if you do not expect to complete the class, otherwise you may receive an "F" grade.

Special Withdrawal (Y) Grade

The "Y" grade is an administrative withdrawal given at the instructor's option when no other grade is deemed appropriate. Your instructor must file a form stating the specific rationale for awarding this grade. "Y" grades are discouraged since they often affect students negatively. Your instructor will not award a "Y" grade without a strong reason

Reasonable Disability Accommodations (Americans with Disabilities Act)

TOCC seeks to provide reasonable accommodations for all qualified individuals. The College will comply with all applicable federal, state and local laws, regulations, and guidelines with respect to providing reasonable accommodations as required to provide an equal educational opportunity. It is the student's responsibility to make known to the appropriate administrator that his or her specific needs in order to determine reasonable accommodations. We will work together in order to develop an Accommodation Plan specifically designed to meet the individual student's requirements.

Title IX

Tohono O'odham Community College faculty and all staff are dedicated to creating a safe and supportive campus. Title IX and our school policy prohibit discrimination on the basis of sex- this includes sexual misconduct; harassment, stalking, domestic and dating violence and sexual assault.

Sexual discrimination and sexual violence can undermine students' academic success and quality of life on campus and beyond. We encourage students who have experienced any form of sexual misconduct to talk about their experience and seek the support they need.

Confidential support and academic advocacy can be found with: Student Services

Course Outline:

DISCLAIMER: This syllabus is designed to evolve and change throughout the semester based on class progress and interests. You will be notified of any changes as they occur.

	Topic	Schedule
I.	The Nature and Science of Biology (Ch. 1) A. Characteristics of Living Things B. Scientific Processes C. APA Writing Style	Weeks 1 - 2 Aug. 19-30
Friday 8/23: Last day to add/drop without instructor's signature Friday 8/30: Last day to add/drop with instructor's signature Monday 9/2: Labor Day – College Closed Tuesday 9/3: Last day to drop/full refund		
II.	The Chemical & Molecular Foundations of Life (Ch. 2,3) A. Fundamentals of General and Organic Chemistry B. Atoms C. Carbohydrates, Lipids, Proteins and Nucleic Acids	Weeks 3 - 4 Sept. 2-13
III.	The Cell (Ch. 5 & 6) A. Inside the Cell B. Energy for Life	Week 5 - 6 Sept. 16-26
Friday 9/27: O'odham Tas – College Closed 9/30 – 10/3: Fall break – No Classes Thursday 10/3: 45 th Day Census Friday 10/4: St Francis Day – College Closed		
IV.	Energy, Patterns of Inheritance (Ch. 7, 8 & 10) A. Photosynthesis B. Cellular Reproduction C. Inheritance	Week 7 – 8 Oct. 7-18
V.	Molecular Biology (Ch. 11 & 12) A. Genetics B. DNA Structure & Function C. Biotechnology	Week 9-10 Oct. 21-31
Monday 11/4: Withdrawal Deadline Monday 11/12: Veterans Day – College Closed		
VI.	Evolution & Diversity of Life (Ch. 14, 15 & 16) A. Principles of Evolution B. Diversity of Life	Week 11-12 Nov. 4 -15
VII.	Ecology (Ch. 30 & 31) A. Populations, Communities, & Ecosystems B. Organismal Structure & Function	Week 13-14 Nov. 18-27
11/28 – 11/29: Thanksgiving Break – College Closed		
VIII.	Current Issues in Biology (Ch. 32) A. Human impact on the biosphere B. Conservation biology C. Sustainability D. Human Health	Week 14-15 Dec. 2-5
IX.	Final project presentations Final Exam	Week 16 Dec. 9-13

