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## Syllabus: **BIO 160N-1**

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### Course Information

Course Prefix/Number: Bio 160 N 1

Credit Hours: 4

Semester: Spring 2020

Course Title: *Introduction to Anatomy and Physiology I*

Class Days/Times: *Tuesdays and Thursdays 9:15am-12:00pm*

Room: IWK 5

### Instructor Information:

Name: Teresa DeKoker

Phone/Voice Mail: n/a

E-mail: tdekoker@tocc.edu

Office location: n/a

Office hours: n/a

**Course Description:** Structure and dynamics of the human body. Includes foundations such as chemical, cellular and tissue levels of organization. Also includes major structures and functions of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems.

### Student Learning Outcomes:

**Upon completion of the course, the student will be able to do the following:**

1. Perform activities to demonstrate improvement in the general education goals of communication and critical thinking.
2. Identify key components of the scientific method and apply the scientific process.
3. List and describe the levels of organization.
4. Discuss the chemical and cellular foundations of anatomy and physiology.
5. Describe and identify the primary human tissues, and give examples of when each is used and where each can be found.
6. Identify the major selected structures of the integumentary, skeletal, muscular, nervous, endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive system.
7. Describe the functions of each significant organ and explain how these structures work together to accomplish the primary task(s) of the system

**Course Structure:**

This course is an integrated lab/lecture course where the labs are integrated into the regular class periods. Class periods will consist of PowerPoint lectures, assigned reading, films, in-class activities, discussions, virtual dissections and exams.

**Texts and Materials:**

*“Essentials of Human Anatomy and Physiology” 12<sup>th</sup> edition by Elaine Marieb and Suzanne Keller*

*“Essentials of Human Anatomy & Physiology” Lab manual 7<sup>th</sup> edition by Elaine Marieb and Pamela Jackson*

*“Anatomy and Physiology Coloring Workbook: A Complete Study Guide”, 12th Edition*

**Evaluations and Grading & Assignments:**

90 and above is an A  
80 - 89 is a B  
70 - 79 is a C  
60 - 69 is a D  
Under 60 is Failing

**Your grade will be determined by the following:**

<b>Evaluation:</b>		
Evaluation	Points	Percentage of total grade
Participation/Attendance	100	10%
Projects	100	10%
Labs/Activities	400 pts	40%
Quizzes and Homework	200 pts	20%
Exams	200	20%
<b>TOTAL</b>	1000	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:**

- 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) Students are expected to stay in class and work diligently throughout the whole time. Sleeping, frequent/continued exiting from the class during the class period will constitute one (1) absence.
- 7) **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.**
- 8) Failure to submit a project results in a grade of zero (0). An F is a better grade!
- 9) No work accepted after the last class
- 10) Students are expected to check TOCC email regularly.

### **Classroom Behavior**

- Visitors may be only allowed at class sessions or on field trips with instructor approval, visitor's safety and behavior are the responsibility of the student.
- Possession of drugs, alcohol or firearms on college property is illegal.
- Food and beverages are allowed in classrooms at discretion of the instructor.
- Cellphones should be turned off during class, unless the instructor is allowing students to use their tools (calculator, internet access).
- Students creating disturbances that interfere with the conduct of the class or the learning of others will be asked to leave.
- Student behavior is also detailed in student handbook under Student Code of Conduct Violations

### **Make-up policy:**

Late assignments that can be made up will be accepted but will be penalized 25%. Laboratories cannot be made up except in the case of college closure. At the instructor's discretion, extra credit opportunities and optional activities may be provided.

### **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, or the original work of your group. While you may discuss assignments with other class members, the final written project must clearly be original. 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. If you are uncertain about proper citations ask your instructor or the librarian.

### **Course Feedback:**

All assignments will be graded and returned to the students promptly, typically within a week after the assignment is closed for handing in. E-mail 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.

### **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).

Quizzes and exams are given out at the beginning of class time. Class activities begin at the start of class and may be missed if you do not arrive to class on time. Arriving more than 15 minutes late will be counted as an absence for the day. Because exams, labwork and/or other assignments potentially occur every class period, points potentially will be lost each class period missed. If you miss all or a portion of a class, then you are solely responsible for obtaining missed class material from fellow students. Complete attendance is mandatory during student project presentations; otherwise presentation points will be forfeited.

### **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 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.

### **Instructor Withdrawals**

Students who have missed four consecutive classes (or the equivalent) not submitted any assignments nor taken any quizzes by the 45th day census report, due on 2/27/2020, 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 3/30/2020 if you do not expect to complete the class, otherwise you may receive an "F" grade.

### **Special Withdrawals (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.

### **Equal Access Statement/Disability Accommodations**

Tohono O'odham Community College seeks to provide reasonable accommodations for qualified individuals with disabilities. The College will comply with all applicable regulations, and guidelines with respect to providing reasonable accommodations as required to ensure an equal educational opportunity. This process includes self-identifying as a student with a disability, providing supporting documentation of their disability, and being approved for services through the Disability Resources Office (DRO). It is the student's responsibility to make known to their instructor(s) the student's specific needs within the context of each class in order to receive appropriate accommodations. We will work together in order to develop an accommodation plan specifically designed to meet the individual student's requirements.

For more information or to request academic accommodations, please contact: Anthony Osborn, TOCC Disabilities Resource Coordinator, aosborn@tocc.edu, or 520-360-5044 for additional information and assistance.

### **Title IX**

Tohono O'odham Community College encourages each student to have the knowledge and skills to be an active bystander who intervenes when anyone is observed or being harassed or endangered by sexual violence. Sexual discrimination and sexual violence can

undermine students' academic success and quality of life on campus and beyond. We encourage students who have experienced or witnessed 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 Title IX Coordinator/Counselor, Alberta Espinoza, M.Ed. located in I-We:mta Ki: Room 18. Phone 520-383-0033 email: aespinoza@tocc.edu

**Conduct: Bias, Bullying, Discrimination and Harassment**

Tohono O'odham Community College faculty and staff are dedicated to creating a safe and supportive campus environment as a core value. Harassment based on age, class, color, culture, disability and ability, ethnicity, gender, gender identity and expression, immigration status, marital status, political ideology, race, religion/spirituality, sex, sexual orientation, and tribal sovereign status will not be tolerated.

**Course Outline:**

I. Scientific Process

- A. Scientific experimentation
- B. Analyzing and reporting results

II. Introduction to Anatomy and Physiology

- A. Levels of organization
- B. Organ systems overview
- C. Homeostasis and disease

III. Chemical Foundations of Anatomy and Physiology

- A. General chemistry
- B. Introduction to biochemistry and macromolecules
- C. Introduction to reactions, enzymes, and catalysis

IV. Cellular and Histological Foundations of Anatomy and Physiology

- A. Structure and function of cellular organelles
- B. Introduction to the gene and protein synthesis
- C. Structure and functions of selected human tissues

V. The Integumentary System

- A. Functions of the integumentary system
- B. Structures of the epidermis, dermis, and hypodermis

VI. The Skeletal System

- A. Identification of selected human bones
- B. Bone tissue

VII. The Muscular System

- A. Skeletal, cardiac, and smooth muscle tissue
- B. Physiology of muscle contraction including glucose energy needs and oxygen demand
- C. Identification of major muscle groups and selected superficial muscles

VIII. The Nervous System and Sensory Organs

- A. Organization of the nervous system
- B. Identification of selected nerves

- C. Nervous tissue and the action potential
- D. Conduction of the signal to other neurons and effector organs
- E. Structure and function of selected special senses
- IX. The Endocrine System
  - A. Hormone production and function
  - B. Structure and function of selected endocrine organs
- X. The Cardiovascular System and Blood
  - A. Structure of arteries, veins, capillaries, and the heart
  - B. The circulatory pathway including identification of major arteries and veins
  - C. The heart beat and blood flow through the cardiovascular system
  - D. Components of blood
- XI. The Lymphatic System and Body Defenses
  - A. Lymph vessels and lymph nodes
  - B. The immune response
- XII. The Respiratory System
  - A. Functional anatomy of the respiratory system
  - B. Respiratory physiology
- XIII. The Digestive System
  - A. Structure of the digestive organs
  - B. Chemical and mechanical digestion
- XIV. The Urinary System
  - A. Organs of the urinary system
  - B. Structure of the nephron and urine formation
- XV. The Reproductive System
  - A. Anatomy of the male and female reproductive systems
  - B. Sperm production
  - C. Egg production and the menstrual cycle
  - D. Fertilization

**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.**