Course Information

**Course** Human Biology F100X, 4 credits

**Prerequisites:** ENGL F111X or higher; DEVM F105 or higher, or permission of instructor

**Lecture:** Mon. 6:00-9:00 CTC Rm 303; **Lab** Sat 10:00-1:00 Murie 303

OR

**Lecture:** Tues/Thur 9:45-11:15 Gruening Rm 409; **Lab** Fri 9:00-noon Murie 303

**Course website:** Blackboard [http://classes.uaf.edu](http://classes.uaf.edu)

Instructor: Dr. Pam Wagaman

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UAF CTC, 604 Barnette St., Fairbanks, AK 99701

Office hours: By appointment


Johnson, Michael D., published by Pearson

Online Learning Center: [www.masteringbiology.com](http://www.masteringbiology.com)

Course codes: TO1—MBWAGAMAN04527

TE1---MBWAGAMAN30932

**Lab Manual:** Human Biology Laboratory Manual, Bert Atsma (to accompany 7th ed. text) Additional laboratory handouts may be provided.

**IMPORTANT NOTE:** BOTH THE LAB MANUAL AND ACCESS TO MASTERING BIOLOGY ARE REQUIRED FOR THIS COURSE.

Mastering Biology includes an electronic text. If you also want to use a hard copy, loose-leaf editions and paperback editions are available for additional cost. See the UAF Bookstore, or check with online sources such as Pearson.

Other Materials Old shirt or lab coat for lab
Course description: Introduction to scientific methodology and biological principles with a focus on humans as biological organisms. Topics include organization and function of the human body, human genetics, human development and the relationship between our bodies and health. Note: This course is intended for non-science majors and those seeking preliminary instruction before beginning study in health-related areas.

Course goals/objectives:

Goal: Students will understand the basics of the scientific method and biological principles, with an emphasis on humans as biological organisms.

Learning Objectives/Instructional Methods:

- The student will gain an understanding of the concept of scientific discovery, know the steps in the scientific method, and examine how these processes contribute to scientific knowledge.
- The student will be able to demonstrate basic knowledge of human biology, learned through use of lectures and class discussion, laboratory exercises, written activities, and online learning tools.
- The student will be able to recognize the basic relationship between the human body and health.
- The student will learn to read, research and discuss topics of importance to human biology found in everyday news media.

Course outline:

Lecture and lab topics are coordinated so that the concepts introduced in lecture are reinforced through the lab exercises. The lecture portion of the course is divided into 5 main sections:

1. Introduction to human biology
   a. Biological classification
   b. The scientific method as a process
   c. Role of science in society—ethics and policy

2. Organization of living organisms:
   a. Chemistry of life
   b. Cell structure and function
   c. Tissues and organ systems

3. Physiological systems:
   a. Movement and support in humans
   b. Cardiovascular/blood
   c. Lymphatic and immune
   d. Respiratory
   e. Digestive
   f. Urinary and excretion
4. Integration and coordination
   a. Nervous system and the senses
   b. Endocrine system
   c. Homeostasis, regulation and disease

5. Reproduction and human genetics
   a. Reproductive systems
   b. DNA
   c. Genetics and inheritance
   d. Human development and aging
   e. DNA and cancer
   f. Genetic engineering and biotechnology

Evaluation:
There are two parts to this course: lecture and lab, worth a total of 500 points. The lecture portion of the course accounts for 300 points (60%) and the lab portion accounts for 200 points (40%).

Breakdown of assignments:
Lecture:
- Lecture quizzes (3 @ 50 points each) 150 pts
- Final exam (cumulative) 100 pts
- Online assignments (Mastering Biology) 50 pts (10 @ 5 pts each)

Lab:
- Lab exercises, attendance and participation 120 pts
- Lab quizzes (2 @ 25 points each) 50 pts
- BioEthics Forum and paper 30 pts

BioEthics Forum: Students will be assigned to small groups and will be given a topic to research as a team. The focus of this exercise will be for students to explore research tools (for non-science majors) as a means to gather information on science topics, and also to discuss (individually and as a group) the importance of scientific discovery to bioethics and policy development. Topics will be presented to the class by each team during an open forum, and each student will submit a paper for evaluation.
Grades:
Grades are calculated as follows:
- A: 90% of total or higher
- B: 80%-89%
- C: 70%-79%
- D: 60%-69%
- F: <60%

If you have concerns about your grades, please come to me for help as soon as possible—I may be able to offer suggestions for study. Remember that the objective of this course is for you to learn enough basic human biology to read news articles, listen intelligently to the media, discuss scientific topics with peers, and understand basic biological principles.

Lab:
Lab exercises are an integral part of this course and intended to reinforce the biological principles introduced in lecture. I have tried to arrange the labs so that they correlate with lecture topics as much as possible. In general, missed labs cannot be made up due to the individual prep work that goes into setting up the lab. If you must miss a lab, please let me know as soon as possible so that I can attempt to accommodate you. Completion of the assigned lab exercises (recording results and observations, answering review questions) is critical to successful completion of this course. Please come to lab prepared (review the lab exercises beforehand), be on time, and plan to spend the assigned period in lab. As you do each exercise, be sure to ask questions and to complete the thought questions embedded in each exercise—this will help you with both the lecture and lab quizzes.

To receive full credit for each weekly lab, you need to be on time, do the assigned work, and complete the review questions at the end of the exercise. The review questions will be collected for grading no later than the first lecture after the lab. Tardiness, failure to completely and thoughtfully answer questions, leaving lab before all work is completed, and failure to participate fully in laboratory exercises will result in partial credit being given. Be sure to include any handouts from appropriate labs with your lab manual—you can either staple them to the inside of your lab manual or keep them in a separate paper binder.

Course Policies:
Communication: I will communicate with the class via BlackBoard, which uses your UAF login info. It is imperative that you check your alaska.edu email at least weekly.

Food: Both food and drink are strictly prohibited in lab. Covered drinks may be brought into lecture, however food is not permitted in lecture. Please eat before coming to class; a 5-10 minute break will be taken during the evening lecture.
Cell phone: Use of cell phones will not be permitted during either lab or lecture. Please turn them off and leave them stored. Messages may be returned during break or after class. Please DO NOT TEXT or play games during lab or lecture.

Students are not permitted to use earbuds/headphones during exams.

Children or other persons not enrolled in the class are not permitted in the classroom or lab.

You will be expected to attend lectures and labs. Points will be deducted from your final grade for missed labs; lectures will provide you an opportunity to engage in class discussions and ask for clarification on concepts that are not clear.

Dates for quizzes and exams are listed on the course calendar—please plan ahead for these dates! This includes the dates assigned by the university for the final exams! Makeup exams and quizzes will be scheduled only at my discretion. Online assignments must be completed by Mondays at 6 PM (section TO1) or by Mondays at 8 AM (section TE1) unless otherwise noted. No credit will be given for assignments that are completed after the due date.

Academic integrity:
It is assumed that the work you do for this course is your own, and not that of someone else. All aspects of the UAF Student Code of Conduct apply (see the UAF academic catalog). Plagiarism or cheating may be punished by failure of an exam and possible failure and/or expulsion from the course. In lab we will sometimes be working with partners or in teams, and it is expected that each partner will contribute equally to the exercise, so hold each other accountable!

Disabilities Services:
UAF has a Disability Services office that operates in conjunction with the UAF Community and Technical College. Disability Services, located in room 208 of the Whitaker Building, provides academic accommodations to enrolled students who are identified as being eligible for these services. If you believe you are eligible, please visit http://www.uaf.edu/disability on the web or contact CTC’s Student Assistance and Advising Center (455-2800). You can also contact Disability Services on the Fairbanks Campus at (907)-474-5655, uaf-disabilityservices@alaska.edu.

Student Support Services:
CTC maintains a Student Assistance Center to help students succeed. Computers in the Center are available for student use during posted hours or you can call 455-2899 for information on availability.