

Department of Biological and Allied Health Sciences  
Bloomsburg University of Pennsylvania  
Bloomsburg, PA 17815

## **HUMAN BIOLOGY (50.101)** **Fall 2003**

### **Instructor - John M. Hranitz, PhD.**

Office: HSC 113C

Office Hours: MWF 12-1 p/TR 11-12

Or by appointment

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### **CLASS TIMES Section 2: MWF 11-1150 a**

**IMPORTANT DATES** Classes begin on Monday, 25 Aug 2003  
Schedule changes begin on Tuesday, 26 Aug 2003  
Schedule changes end on Friday, 29 Aug 2003  
Last day to apply for December graduation is Friday, 19 Sep 2003  
Last day to withdraw from class is Tuesday, 4 Nov 2003  
Finals begin on Monday, 8 Dec 2003

**HOLIDAYS** Labor Day on Monday, 2 Sep 2003  
Thanksgiving Recess Wednesday, 25 Nov through Sunday, 30 Nov 2003

### **TEXTBOOK AND ANCILLARIES**

Textbook: Human Biology, 8<sup>th</sup> Ed. Sylvia Mader

Lecture Guides, assignments (available on my Human Biology web page at  
<http://facstaff.bloomu.edu/jhranitz/>)

I recommend that students have the following items:

3-ring binder, colored pencils, several #2 pencils with good erasers.

### **COURSE OBJECTIVES -**

**“There can be no future for the human experiment unless a critical mass of people understands that the laws of nature constrain our activities and that our solutions to these problems must be based on knowledge and not blind adherence to fads.” - John A. Moore, author of *Science as a Way of Knowing*.**

Human Biology introduces non-Biology majors to biological principles and concepts from a human perspective needed to be a scientifically-literate citizen in the 21<sup>st</sup> Century. Specific goals include obtaining an understanding of how science is conducted, the function of the human body, and the interdependence among humans, the nonliving and the living components of the environment.

**PREREQUISITES** - None, other than a willingness to work and act responsibly for your learning.

**ATTENDANCE** - Attendance of all lectures is required of all students. If you are absent, YOU are responsible for all information, announcements, handouts, etc. from the classes missed. This includes being prepared with assignments or prepared for quizzes on your return. I will check attendance by calling the names of students at the beginning of class. Those students are to meet with me briefly following class and present their BU ID to confirm their attendance. With a large class size, it is critical to not disturb the class so please afford your fellow classmates the following courtesies: **(1) no listening devices (e.g., walkman), (2) turn off cell phones, (3) nobody is permitted to sit in the back rows, (4) arrive to lecture on time, (5) plan to not leave class during lecture, and (6) NO INTERPERSONAL CONVERSATIONS DURING LECTURE.**

**GRADING** - The majority of students make C's in college science courses. A letter grade of C indicates that you performed as expected for an average grade. For an average grade, I expect students to: 1) attend all classes, 2) work hard, and 3) master the basic material. I encourage you to set your sights on more ambitious grades and work to acquire the corresponding level of mastery of Human Biology. All grades and the explanations are below.

- A = 92 - 100%
- A- = 89 - 91.9%
- B+ = 86 - 88.9%
- B = 82 - 85.9%
- B- = 79 - 81.9%
- C+ = 76 - 78.9%
- C = 72 - 75.9%
- C- = 69 - 71.9%
- D+ = 66 - 68.9%
- D = 59 - 65.9%
- E = below 59%

| Evaluation Component  | Date                | Point Value |
|-----------------------|---------------------|-------------|
|                       | Section 2           |             |
| Exam 1                | F: 26 Sep           | 100         |
| Exam 2                | F: 17 Oct           | 100         |
| Exam 3                | F: 21 Nov           | 100         |
| Final Exam            | TH- 11 Dec, 8-10 am | 150         |
| Quizzes               | TBA                 | 25          |
| Total Possible Points |                     | 475 points  |

† = online at my Human Biology web page <http://facstaff.bloomu.edu/jhranitz/>

**EXAM/QUIZ POLICIES** - (1) Exams and quizzes will be multiple-choice, each exam question worth two points and quizzes worth ½ pt per question. (2) **No make-up exams** will be given without prior arrangements with the instructor along with a documented and approved absence. (See Pilot for the standards for approved absences.) No make up quizzes will be given under any circumstances. (3) Make-up exams will be all **essay format**. (4) Bring two #2 pencils and a scantron to the exams. (5) The exam results (scantron) will be returned but the exam questions will not be returned. You are encouraged to review the exam questions during my office hours (or by appointment if office hours conflict with your schedule). (6) To contest an answer on your exam, please state **in writing** the reason(s) your answer should be accepted as correct and submit the written documentation **within one week** of the return of the exam results.

**ACADEMIC INTEGRITY POLICY** - (taken in part from the BU policy #3512; please see The Pilot, Student Standards for the full policy): *“Academic integrity refers to the adherence to agreed upon moral and ethical principles when engaging in academic or scholarly pursuits. The university's academic integrity policy is part of an effort to nurture a community where trust, honesty, and personal integrity guide all of our dealings with one another. Personal integrity is vital to our pursuit of educating and becoming educated.”*

The policy then describes various forms of academic dishonesty (I offer a few examples below):

*“Cheating: (a) Using notes, study aids, or information on an examination which are not approved by faculty; (b) Altering graded work after it has been returned and submitting the work for regrading; (c) Allowing another person to do one's work and submitting that work under one's own name; (d) Submitting identical or similar papers for credit in more than one course without prior permission from the course instructors.”*

*“Impersonation: (a) Representing oneself as another student in an examination; (b) Signing another's name on an attendance roster; (c) In general doing the work required of another student and/or allowing another to do your work.”*

*“Misrepresenting Circumstances: (a) Lying; (b) Presenting a professor (verbally or in writing) with false or incomplete information.”*

Because **academic integrity is the cornerstone of a fair grading system** wherein you and your peers are evaluated honestly, I WILL support the letter and the spirit of the university policy strictly. This means I will take preventative measures as well as report violations to the Office of Student Standards. If you have questions about what constitutes academic dishonestly, ask in advance. Ignorance is no excuse.

**SPACE FOR GRADE RECORD-KEEPING**

| <b>Evaluation Component</b> | <b>(A)<br/>Possible Points</b> | <b>(B)<br/>Sum of Points Possible<br/><math>\sum A</math></b> | <b>(C)<br/>Points Earned</b> | <b>(D)<br/>Sum of Points Earned<br/><math>\sum C</math></b> | <b>(E)<br/>Percent Score<br/>D(100)/B</b> |
|-----------------------------|--------------------------------|---|------------------------------|---|---|
| Unit 1 Exam                 | 100                            | 100   |                              |   |   |
| Unit 2 Exam                 | 100                            | 200   |                              |   |   |
| Unit 3 Exam                 | 100                            | 300   |                              |   |   |
| Final exam                  | 150                            | 450   |                              |   |   |
| Quizzes                     | 25                             | 475   |                              |   |   |
| <b>Total</b>                | <b>475</b>                     | <b>475</b>  |                              |   |   |

**Internet Resources:** Students will be required to use two internet resources throughout the semester:

1) Blackboard (<http://cde.sshe.edu:8092/>): The Blackboard web site is a virtual classroom/e-learning system that I will use to administer quizzes, assignments, and to post grades. In order to access Blackboard, you will have to visit the web site, create an account (skip this step if you have an existing account), and enroll in the course.

- ❖ Web site = <http://cde.sshe.edu:8092/>
- ❖ Click on the “Create an account button”, then enter your personal information. Be certain to enter an e-mail address that you check frequently (daily). Write your login and password exactly as entered in Blackboard in a safe place.
- ❖ Click on the “Enroll” button at the right of the web page to enter into the class. Enter the password given to you in class. Access to the course materials will not be possible until you have successfully enrolled in the course.

Quizzes - short multiple-choice quizzes (2-4 points) that test over new reading and lecture material will be given in Blackboard. Quizzes are open notebook and textbook and must be completed in 5 minutes. The quizzes will only be available for a 24-hour period.

2) Human Biology at BU (<http://facstaff.bloomu.edu/jhranitz>): This is a web site that I maintain to provide class resources. All lecture guides, links to journal articles on the web, and assignments will be available here. I provide files in the Adobe Acrobat Reader format (5.0), PDF files. If you do not already have Adobe Acrobat Reader 5.0, it is available (freeware) on my web site. You will have to download the installation file and install the reader on your computer. To access the Human Biology materials go to the web site and select “Teaching” from the top of the page.

**Human Biology - Fall 2003**  
**Lecture Topics Outline**

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|  | Reading |           |
|--|---------|-----------|
|  | Chapter | Pages     |
| <b>UNIT 1: HUMAN BIOLOGY BASICS</b>                |         |           |
| Course Introduction/Human Perspectives             | 1       | 1 - 13    |
| Human Evolution & Ecology                          | 23      | 461-469   |
|  | 24      | 477-484   |
|  | 25      | 497-508   |
| Chemistry of Life                                  | 2       | 15-39     |
| Cells  | 3       | 41-56, 58 |
| Tissues, Systems, and Homeostasis                  | 4       | 62-78     |
| <b>UNIT 2: SUPPORT SYSTEMS</b>                     |         |           |
| Skeletal System                                    | 11      | 205-220   |
| Muscular System                                    | 12      | 225-240   |
| Nervous System                                     | 13      | 245-266   |
| Senses   | 14      | 271-287   |
| <b>UNIT 3: CIRCULATING AND ACQUIRING NUTRIENTS</b> |         |           |
| Cardiovascular System: Blood                       | 6       | 111-121   |
| Cardiovascular System: Heart and Blood Vessels     | 7       | 126-139   |
| Lymphatics/Immune System                           | 8       | 145-161   |
| Respiratory System                                 | 9       | 166-184   |
| Digestive System                                   | 5       | 81-95     |
| Metabolism   | 4       | 55-57     |
| <b>UNIT 4: WASTE REMOVAL AND ENDOCRINE CONTROL</b> |         |           |
| Urinary System                                     | 10      | 187-200   |
| Endocrine System                                   | 15      | 294-309   |
| Reproductive System                                | 16      | 317-333   |
| STD's  | 17      | 339-360   |
| Development  | 18      | 363-378   |
| <b>SUPPLEMENTAL CHAPTERS</b>                       |         |           |
| Genetics   | 19      | 385-395   |
|  | 20      | 403-414   |
|  | 21      | 421-432   |
| Cancer   | 22      | 443-450   |

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# I. INTRODUCTION

READ CHAPTER 1 (pages 1-13)

## **A. Human Biology =**

1. Human -
2. Biology -

## **B. Ways of Knowing About the World Around Us:**

1. Direct personal experience -
2. Intuition -
3. Instinct -
4. Authority -
5. Custom, culture, socialization -
6. Faith -
7. Magic, superstition -
8. Education, training -
9. Scientific method, empiricism -

## **C. The Scientific Method:**

1. Objective -

2. Methodology -