

**Anatomy and Physiology 2
Biology 50-174
Fall 2004**

Instructor: John M. Hranitz, Ph.D.	Office hours: M 10-10:50 pm, W 10-11:50 am, TU/TH 2-2:50 pm or by appointment.
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Required Textbooks: Martini, F.H. 2004. Fundamentals of Anatomy and Physiology, 6th Edition. Benjamin Cummings Publ. San Francisco.

Packaged with your text book:

FAP Interactive, a CD-ROM to accompany Fundamentals of A&P: compatible with Macintosh or Windows PC platforms. The CD contains tutorials, animations, case studies, and test questions. You may load the CD-ROM on computers on the second floor of the Andruss library.

Companion Web Site: www.aw.com/martini/

The purchase of the textbook entitles the owner to an 18-month subscription to the web site. The pre-assigned access code is in the front of your text before the title page. After going to this web site and typing in the access code, you will select your own ID and password. This web site includes quizzes, image banks, links to other web sites, guided activities, and an e-book version of the text.

Lecture Guide for Anatomy & Physiology 2 (required). Fall 2004. If the lecture guide is not available at the book store, you may download it from my BU web site. The lecture guide provides lecture outlines and pictures to assist in note-taking. Additional materials may be available from my web site. If necessary (will be announced in class), follow the links: **Courses > scroll to the A&P 2 links > Lecture Guide > select lecture guides**

Optional: Study Guide to Accompany Fundamentals of Anatomy and Physiology, Sixth Edition by Charles M. Seiger. 2004. Benjamin Cummings Publ. San Francisco.

A.D.A.M. Interactive Anatomy Student Laboratory Guide by Lafferty and Panella, 2nd Edition. (On reserve at Andruss Library under reserve numbers: 1997, 1998, 1999, 2000)

Other Materials: colored pens or pencils

COURSE DESCRIPTION AND OBJECTIVES

Anatomy and Physiology is an introduction to human form and function for students planning careers in medicine or the allied health professions. The second semester of the two-semester series, Anatomy and Physiology 2, covers cardiovascular system, lymphatics, nonspecific immune defense mechanisms, specific immunity, respiration, digestion, metabolism, urinary system, acid-base-balance, endocrine system, reproduction, pregnancy, and development.

COURSE ORGANIZATION

Anatomy and Physiology 2 is a 4 credit course consisting of three (3) 50-minute lectures per week and one (1) 3-hour laboratory per week.

Lecture: MWF 12-12:50 pm in HSC 86 with Dr. Hranitz

Laboratory: 114 HSC

Section 1	TH 9:30 am - 12:15 pm	Dr. Hranitz (HSC 113C)
Section 2	TH 2:00 – 4:50 pm	Dr. Wassmer (HSC 132)
Section 3	TH 6:00 – 8:50 pm	Dr. Wassmer (HSC 132)
Section 4	F 9-11:50 am	Dr. Wassmer (HSC 132)

A & P 2 LABORATORY

Textbook: Required: The Joy of Lab: Anatomy and Physiology II, Surmacz, Till, and Shonis. (1999) Burgess Publishing Company. Available shrink-wrapped with the textbook in the BU Bookstore.

Optional: A Photographic Atlas for the Anatomy & Physiology Laboratory, 4th Edition. Van de Graaf and Crawley (2002), Morton Publishing Co.

Materials required for each of two students:

Dissection Kit (larger dissecting kit available at the University Store in school supplies area.)

Bring the following to EACH lab session:

1. Lab manual (read lab exercises before lab)
2. Lecture guide and text (to help relate lecture to the hands-on experiences in the lab)
3. Dissecting kit (shared by 2 students)
4. Lab notebook
5. Pencils, pens, colored pencils.
6. Gloves for dissection (These may be purchased at the University Store (\$0.19 per pair) or by the box at the local pharmacy)

COMMUNICATION

Lecture: Announcements will typically be made at the beginning of lecture each day. Course handouts, supplements, etc. will be made available on my BU web site (see above web site address). I also encourage e-mail communication by using Blackboard. **All students will be required to establish a Blackboard account (see below). Grades will be posted in Blackboard.** I will also use Blackboard to communicate with students via e-mail. Practice exams will be posted on the Blackboard web site.

Laboratory: Announcements will be made in laboratory. Sign-up sheets for laboratory exams will be posted on the bulletin board outside of the lab (HSC 114). Check this bulletin board for other announcements throughout the course.

Internet Resources: Students will use two internet resources throughout the semester:

1) Blackboard (follow the blackboard link from my BU web page). The Blackboard web site is a virtual classroom/e-learning system that I will use to post practice quizzes, practice exams, 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.

(a) Web site = follow the link from my BU web page (see below).

(b) 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.

(c) Click on the "Enroll" button at the right of the web page to enter into the class. Enter the ACCESS CODE given to you in class. Access to the course materials will not be possible until you have successfully enrolled in the course.

2) A&P 2 at BU (<http://facstaff.bloomu.edu/jhrantz>): This is a web site that I maintain to provide class resources. All lecture guides and links to internet resources 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 A&P 2 materials go to the web site and select "Courses" from the top of the page.

ASSIGNMENTS - Assignments help you prepare for exams and are from a variety of sources to allow you to see course material from many different perspectives. Assignments will not be collected or graded.

Lecture: Lecture Assignments are outlined in the lecture guide at the end of each chapter. Questions are from three sources: lecture guide (my own, home-made questions), textbook (end of the chapter review questions with answers in Appendix I), and study guide (optional study guide).

A.D.A.M. Interactive Anatomy Assignments: A.D.A.M. interactive anatomy is a multimedia software tool containing images of 20,000 anatomical structures dissectible in hundreds of layers and in four views. The packet A.D.A.M.'s APPLE describes how to access A.D.A.M. in the Andruss library and outlines various assignments using the A/A Student Lab Guide, 2nd Edition by Panella and Rafferty. A.D.A.M. is another tool by which you may review the anatomy for the course.

Interactive Physiology Modules: Two Interactive Physiology Modules (CD-ROMs) can help you understand the physiology (function, generally accepted as difficult) part of the course. These two modules will help with two of the more difficult topics: Muscle Physiology and Nervous System.

Laboratory Assignments: Reading assignments in the lab manual are outlined on the laboratory syllabus. **It is essential that you READ EACH EXERCISE BEFORE COMING TO LABORATORY.**

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 not check attendance. 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) NO INTERPERSONAL CONVERSATIONS DURING**

LECTURE.

GRADING - 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 A&P. All grades are explained below.

A(>92-100%)/A-(89-91.9%)	Excellent	You are able to synthesize and apply the material in new situations.
B+(86-88.9%)/B(82-85.9%)	Good	You know and understand and can apply the material sometimes.
B-(79-81.9%)		
C+(76-78.9%)/C(70-75.9%)	Average	You know and understand the material. You are not as skilled in synthesis and application.
D+(67-69.9%)/D(59-66.9%)	Below Average	You have learned some of the material but are not competent in all the concepts.
E (<59%)	Failing	You may have learned, but not to a passable level.

Evaluation Component	Tentative Date	Percent Value of Total Grade
Unit 1 Exam	Friday, 1 Oct 2004	13%
Unit 2 Exam	Friday, 22 Oct 2004	13%
Unit 3 Exam	Friday, 12 Nov 2004	13%
Unit 4 Exam	Friday, 3 Dec 2004	13%
Final Exam	Monday, 13 Dec 2004: 8-10 am	20%
Laboratory (28%)	Lab Exam 1 (7 Oct)	8%
	Lab Exam 2 (4-5 Nov)	8%
	Lab Exam 3 (9-10 Dec)	8%
	Prequizzes (lowest prequiz dropped)	4%
Total Possible Percentage		100%

EXAM POLICIES - (1) Unit Exams will be 50 multiple-choice questions, each question worth two points. (2) **No make-up exams** will be given without prior arrangements with the instructor along with a documented and approved absence. (See The Pilot for the standards for approved absences.) (3) Make-up exams may be **essay format (at my discretion)**. (4) Bring a #2 pencil and a good eraser 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). The Final Exam is part new material (about 30%) and part comprehensive (about 70%).

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

Anatomy & Physiology 2 Syllabus - J. Hranitz

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 dishonesty, ask in advance. Ignorance is no excuse.

SPACE FOR GRADE RECORD-KEEPING

Evaluation Component	(A) Earned Percentage on Evaluation (%)	(B) Percentage of Total Score X	(C) Percentage Points Earned (%)																				
Unit 1 Exam		x 0.13																					
Unit 2 Exam		x 0.13																					
Unit 3 Exam		x 0.13																					
Unit 4 Exam		x 0.13																					
Final exam		x 0.20																					
Lab Prequizzes	<table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> <td style="width: 20px; height: 20px;"></td> </tr> </table>																					avg. x 0.04	
Lab Exam 1		x 0.08																					
Lab Exam 2		x 0.08																					
Lab Exam 3		x 0.08																					
Total		1.00																					

TENTATIVE A&P 2 LECTURE SCHEDULE–Fall 2004

DATE & WEEK		TOPIC	CHAPTER	PAGES
30 Aug – 3 Sep	1	Introduction/Blood	19	651-677
6 – 10 Sep	2	Labor Day/Blood/Heart	19, 20	651-677, 683-692
13 - 17 Sep	3	Heart	20	693-715
20 – 24 Sep	4	Blood vessels and circulation	21	723-733, 736
27 Sep – 1 Oct	5	Lymphatics / Immunity/ Unit 1 Exam (Blood – Circulation)	21, 22	735-739 779-800
4 – 8 Oct	6	Immune System / Respiratory System / Reading Day (no class Friday)	23	827-842
11 – 15 Oct	7	Respiratory System	23	844-860
18 – 22 Oct	8	Respiratory System/ Digestive System/ Unit 2 Exam (Lymphatics – Respiratory System)	23, 24	861-866, 875-894
25 – 29 Oct	9	Digestive System	24	894-920
1 – 5 Nov	10	Digestive System / Metabolism / Urinary System	24, 25, 26	894-920 929-939 948-953 971-980
8 – 12 Nov	11	Urinary System / Endocrine System / Unit 3 Exam (Digestion and Metabolism)	26, 18	981-1007 605-612
15 – 19 Nov	12	Endocrine System	18	612-634
22 – 26 Nov	13	Reproduction / Thanksgiving Break	28	1047-1064
29 Nov – 3 Dec	14	Reproduction / Pregnancy / Unit 4 Exam (Urinary System and Endocrine System)	28	1065-1087
6 – 10 Dec	15	Pregnancy and Development	28	1065-1087 1095-1116
13 – 17 Dec	16	Comprehensive Final Exam (Mon, 13 Dec: 8-10 am)		

TENTATIVE LABORATORY SCHEDULE– Fall 2004

Section 01: TH 9:30 – 12:15 Section 02: TH 2:00-4:50 pm
 Section 04: F 9-11:50 am

Section 03: TH 6-8:50 pm

WEEK	LAB	EXERCISE	DATES
1	1	Introduction, Hematology	2-3 Sep
2	2	Anatomy and Physiology of the Heart (read lab supplement AP2.1)	9-10 Sep
3	3	Human Cardiovascular Physiology (read lab supplement AP2.2)	16-17 Sep
4	4	Circulatory Routes	23-24 Sep
5	5	Anatomy of the Respiratory System	30 Sep -1 Oct
6		Lab Exam 1 (Labs 1-4) - sign up for a time to take the exam on Thursday; no lab on Friday (mid-term reading day).	7 Oct
7	6	Respiratory Physiology (read lab supplement AP2.3)	14 -15 Oct
8	7	Anatomy of the Digestive System	21-22 Oct
9	8	Anatomy of the Urinary System and Urinalysis	29-30 Oct
10		Lab Exam 2 (Labs 5-8) – at normally scheduled lab times.	4-5 Nov
11	9	Fluid and Electrolyte Balance	11-12 Nov
12	10	Endocrine System	18-19 Nov
13		Thanksgiving Break – no lab.	25-26 Nov
14	11	Reproduction and Development	2-3 Dec
15	12	Lab Exam 3 (Labs 9-11) – at normally scheduled lab times.	9-10 Dec