

Human Dissection – Biol 4000
Fall 2016, 1 credit

A. Teaching Assistants (TAs) and Undergraduate Aides (UAs):

1. TAs:
-To be announced
2. Undergraduate Aides:
-To be announced

B. Supervising Faculty Member:

1. D. Andy Anderson, PhD.
Biology Department
VSB 231
Utah State University
Logan, UT 84322-5305
Phone: 797-1913. If I am not in, leave message on my voice mail.
E-mail = andy.anderson@usu.edu

C. Meeting Times:

1. This laboratory meets on Monday and Wednesday evenings from 7:00 p.m. to 9:50 p.m. in BNR 320. **Students may only be in BNR 320 when a supervising TA or Aide is present. There will be no exceptions!**

***Note that since Wednesday, November 23 is a Holiday, that class will be held on Tuesday evening, November 22.**

D. Materials for Biol 4000:

1. Any suitable current textbook of anatomy will probably allow you to muddle through your dissections. However, I asked the USU Bookstore to order some excellent books for this class for **optional** purchase.
 - a. "Human Anatomy" – Fourth edition by McKinley and O’Laughlin.
 - b. “McMinn’s Color Atlas of Human Anatomy” – by Abrams, Hutchings, and Marks
2. $\frac{3}{4}$ length lab coat and wearing full-cover shoes (this is now a University requirement!)
 - a. A $\frac{3}{4}$ length lab coat is required in order to enter the lab!
 - 1) These can be purchased from the USU Bookstore for about \$25.00.
 - 2) Believe me; you will need a lab coat for this class!
 - 3) **I suggest you use this lab coat with the sleeves rolled up to your elbows as the cadavers, and wetting solution, will permanently stain the sleeves!**

- b. You must wear shoes that cover the entire foot! If you do not have the proper footwear, you will NOT be allowed to attend the lab.
3. Nitrile gloves are used when working with the cadavers. Moreover, face shields and face masks are in the laboratory when using the electrical saws.
 - a. The aides will provide you with such protective gear when appropriate.

E. Examinations for Biol 4000:

1. There will be two lab quizzes worth 50 points each (100 points total) and a comprehensive final exam worth 100 points. Since this is a laboratory course, all of the questions will be “fill in the blank” type. All questions will come from your instructors’ brief introductions or from the numerous structures you and your classmates discover and label. Since these quizzes are to be offered on both Monday and Wednesday evenings, there will be two different versions of the quizzes of equal difficulty. After scoring the tests, the instructors will give the quizzes/final to Andy, who will record the scores and post the corrected exams outside VSB 219.
2. Those students who score less than 70% on the first exam **should seriously seek intensive tutoring with the instructors.**

G. Pre-lab quiz, lab attendance, and lab participation (100 points possible, see schedule for week-by-week breakdown of points):

1. The TA of this class will keep a record of your pre-lab quiz scores (5 points for a short quiz administered at the beginning of the lab on the material to be presented the 8 weeks where you do **new** work) and your points for attendance (2 points for signing the roll sheet near the end of lab) and participation (3 points for doing your work, helping your partners, and keeping the lab clean) for each of the 12 active labs.
2. The TA (with the help of the UAs) will determine if you are actively participating in each of the 12 active labs (3 points) and a **SIGNED** roll will be taken towards the end of each lab (2 points).

H. Course Grade:

1. The letter grade is based upon the percentage of total points earned. **There is no extra credit.** You are welcome to see the persons who correct your exams or to see me about your exams up until my final office hour of the semester. After my last scheduled office hour I will only discuss the final exam with you. There is no extra credit offered in this class.

<u>Actual points Earned</u>	<u>Percentage of total points earned</u>	<u>Course Grade</u>
278-300	93-100	A
269-277	90-92	A-
257-268	86-89	B+
248-256	83-85	B
239-247	80-82	B-
227-238	76-79	C+
218-226	73-75	C
209-217	70-72	C-
197-208	66-69	D+
179-196	60-65	D
178-or less	59 or less	F

I. Laboratory Goals

1. The principal goal of this laboratory is to provide as many students as possible with a “hands on” opportunity to explore the structure of the human body. I expect that students who enroll in this course already have a background in human anatomy from taking my Biol 2320 course or an equivalent class.
2. The secondary goal (which is why there are so many points for attendance and participation) is to generate seven well-exposed cadavers for use in Biol 2320 in spring and summer semesters. This means that other students will be examining your work, not only this semester, but for months to come. Expose and label. Don't chop off and destroy!
3. It is expected that upon successful completion of this laboratory, the students will be able to apply their greater understanding of anatomy in more advanced courses, or in their careers.
4. As you noted above, attendance and participation is mandatory if you hope to earn the points possible for each active lab!

I. Student's Responsibilities:

1. Since we have only 12 active laboratory meetings, each student is expected to attend every laboratory (**the lab room will typically be open by 6:30 PM and will stay open if any students would like, until 9:50 PM**). To optimize this limited laboratory time, each student is expected to come prepared for the planned dissections (hence the pre-lab quizzes at the start of the labs with new information!). The TAs and Aides of this laboratory will be most pleased if each student in this laboratory scores over 90% on each exam and attends and participates in every lab.
2. In the event there is some difficulty, it is the student's responsibility to contact the instructors or supervising faculty member for advice or assistance. Free tutoring is provided by the TAs and Aides immediately before each laboratory begins (typically 6:30 PM) or at times the instructors specify.

3. Students are also expected to assist in the cleaning of whatever laboratory they are located in (this is part of your participation points).

J. Teaching Assistants' and Undergraduate Aides' Responsibilities:

1. Based upon previous experiences in this class, students prefer guided laboratories with an opportunity to perform "special projects". They also like the enrollment to be limited so those admitted have ample opportunity to perform their own work in an unrushed manner. That is what we will do this semester.
2. I don't expect your TAs and Aides to know or identify everything you find. That is your job as much as theirs. I do expect your TAs and Aides to consult references, or me, so at your next meeting they can do better. "I don't know. How about you and I read up on this and see if we can identify and label this structure, or feature, accurately next week?"
3. The TAs and Aides **should limit most introductions or instructions to 20 minutes or less.**
4. The TAs and Aides are expected to prepare examinations which are fair and representative of the structures discussed in their introductions, or items discovered and labeled by you. The TAs and Aides will correct their exams promptly and give the scored exams to Andy for tabulation and posting outside VSB 219.
5. **The TA will provide me of a complete list of points earned for the 8 pre-lab quizzes, classroom attendance, and participation at the end of the semester (100 points total possible).**
6. The TAs and Aides are required to be available in the lab 30 minutes before the beginning of the laboratory to provide assistance to any students who require it. The TAs and Aides are expected to stay until 9:50 PM if any students desire to continue their work until that time. **The TAs and Aides must insure that no students are allowed in the lab unless a TA or Aide is present. There will be no exceptions!**

K. Responsibilities of Supervising Faculty Member:

1. I will be available at posted office hours during the day and to meet with the TAs and Aides as needed to insure all supplies are available and to solve any problems. I will also periodically visit during Monday and Wednesday evenings to provide assistance as needed. I do not consider myself to be the instructor of this class (I just plan on visiting). Your TAs and UAs will jointly fill that role.

L. Below you will find a University statement on Academic Honesty.

1. **DO NOT REMOVE ANY EXAMINATION MATERIALS FROM THE LABORATORY ON EXAM DAYS!**
2. **DO NOT COPY OR REMOVE ANY EXAMINATION MATERIAL FROM THE TAS' OR AIDES' OFFICES!**
3. If you fail to follow these rules, I will make every effort to subject the offender to the disciplinary procedures designated by the University:

Honor Pledge

Students will be held accountable to the Honor Pledge which they have agreed to: “I pledge, on my honor, to conduct myself with the foremost level of academic integrity.”

Academic Dishonesty

The Instructor of this course will take appropriate actions in response to Academic Dishonesty, as defined the University’s Student Code:

Acts of academic dishonesty include but are not limited to:

1. Cheating: (1) using or attempting to use or providing others with any unauthorized assistance in taking quizzes, tests, examinations, or in any other academic exercise or activity, including working in a group when the instructor has designated that the quiz, test, examination, or any other academic exercise or activity be done “individually”; (2) depending on the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or carrying out other assignments; (3) substituting for another student, or permitting another student to substitute for oneself, in taking an examination or preparing academic work; (4) acquiring tests or other academic material belonging to a faculty member, staff member, or another student without express permission; (5) continuing to write after time has been called on a quiz, test, examination, or any other academic exercise or activity; (6) submitting substantially the same work for credit in more than one class, except with prior approval of the instructor; or (7) engaging in any form of research fraud.
2. Falsification: altering or fabricating any information or citation in an academic exercise or activity.
3. Plagiarism: representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes using materials prepared by another person or by an agency engaged in the sale of term papers or other academic materials.

Full text of the Student Code available at available at available at

<http://www.usu.edu/studentervices/pdf/StudentCode.pdf>:

M. Students with Disabilities

1. Students with physical, sensory, emotional or medical impairments may be eligible for reasonable accommodations in accordance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973. All accommodations are coordinated through the Disability Resource Center (DRC) in Room 101 of the University Inn, 797-2444, 797-0740 TTY, or toll free at 1-800-259-2966. Please contact the DRC as early in the semester as possible. Alternate format materials (Braille, large print or digital) are available with advance notice.

N. University Policy on Withdrawals and Incomplete Grades.

1. I direct your attention to the current USU policy on withdrawing from courses in the USU Catalog.
2. You will note that “incomplete grades” are only given for conditions beyond the students’ control and not due to poor performance. A student who receives an

incomplete must retain all the scores they earned up to the date of the incomplete and later will ONLY be allowed to finish the remaining quizzes or exams.

O. Notice on Lab Fees (approximately \$170)

1. As part of your registration for this class you were required to pay a "lab fee". This fee is used by me to buy lab supplies (including the cadavers), obtain specimens, and purchase learning materials. All of your lab fees are used to enhance your learning opportunities in this course and to help your TAs, Aides, and your instructor, to hopefully make it easier for you to succeed in this challenging subject.

P. Laboratory Safety

1. After death bodies will begin to decompose. Bacteria, mold and fungi can begin to grow on tissue. In order to slow down these events, bodies are treated in a process called "embalming." Embalming involves injecting specific fluids into the arteries (often the carotid artery) where they will spread through the arteries, capillaries and veins to the organs and tissues of the body, aiding in preservation. The primary embalming chemical is formaldehyde. Formaldehyde functions by cross-linking proteins. It is toxic and a known carcinogen, meaning there is evidence that exposure to this chemical can increase susceptibility to cancer. Cadavers arrive at our lab with formaldehyde perfused within the cadaver. While in our lab, cadavers will be regularly doused with a wetting solution. Wetting solutions can contain toxic chemicals meant to inhibit microbial growth on the cadavers. Cadavers are placed on specially designed tables with built in ventilation that vacuums away fumes and odors, thus minimizing exposure. Besides specialized venting, exposure to toxic chemicals in the laboratory is minimized by the use of protective clothing.
2. The following use of personal protective gear is expected of anyone entering the laboratory:
 - Nitrile gloves, which prevent toxic chemicals from reaching your skin when working with the cadavers
 - ¾ length lab coat and shoes that cover the entire foot. The lab coats can be purchased at the USU Bookstore.
 - All gloves must be placed in waste containers upon removal.
 - Wash your hands before you leave the laboratory with the soap and water provided in the lab.
3. If for any reason you feel hot or faint, it is important to tell someone and sit down on the floor (or lie down) immediately! If instead you try to walk out of the lab you risk passing out and suffering a bad fall onto a hard floor!
4. Although data is inconclusive, exposure to the chemicals while participating in the lab (more so if one is participating in active dissections) may be harmful to a developing fetus. Therefore, it is advisable to pregnant women (especially in the

first trimester) or those who plan on becoming pregnant during the semester to consider this issue when determining the timing of taking the class. If the course must be taken at this time, please discuss options with the Instructor. If there are concerns regarding this issue that the Instructor cannot answer, please contact Rachel Curry in USU's Environmental Health and Safety Office (435-797-2892, rachel.curry@usu.edu), or seek advice from your obstetrician.

General Information for Interested Students Biol 4000

Some students may be interested in taking further courses with me. This sheet will provide that information.

A. Courses Taught by D. Andy Anderson

1. Fall Semester 2016
 - a. Elementary Microbiology (Biol 2060) 4 credits
 - c. Human Dissection (Biol 4000) 1 credit
2. Spring Semester 2017
 - a. Human Anatomy (Biol 2320) 4 credits
 - b. Bioethics (Biol 3100) 3 credits
 - c. Advanced Human Physiology (Biol 4600) 5 credits
3. Summer Semester 2017
 - a. Human Anatomy (Biol 2320) 4 credits
 - b. Human Physiology (Biol 220) **if** there is enough enrollment.
4. Others
 - a. Independent Study (Biol 3760) 1-2 credits – available every semester
 - 1) Students earn 1-2 credits from Andy by writing one or more term papers on a mutually agreed topic.
 - b. Teaching Internship (Biol 4710) 1-2 credits – available every semester
 - 1) This credit is available to students who wish to volunteer as an undergraduate aide in a class they have previously excelled in.
 - c. I oversee a Medical College Admissions Test (MCAT) review course (Biol 1030: MCAT Preparation), one credit, pass-fail) that is offered in the spring.
 - d. I oversee a Dental Admissions Test (DAT) review course (Biol 1040: DAT Preparation), once credit, pass-fail) that is offered in the spring.

B. Other Courses of Interest

1. Emergency Medical Technician (EMT), college credits possible (see EMT instructor)
 - a. Contact Bridgerland Applied Technology College (435-753-6780).
 - 1) These classes have limited enrollment.