

Course Information Packet
Biology 455: Cadaver Dissection
Spring Term 2015–2016 Academic Year

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The Greatest Teachers (by Jeffery North, 1999 Deeded Body Program Memorial Service, University of Buffalo College of Medicine)

The greatest teachers we could ever ask for, were once among you and me
Walking the streets, going to work, making a living, living a life, probably very rarely
thinking about all that we could learn from them.

The greatest teachers we could ever ask for were once a friend to many.
Sharing a laugh, sharing a memory, sharing personal details, things that only the best of
friends know. Sharing a love, sharing a life, and sharing a soul with the one that they care
most about.

The greatest teachers we could ever ask for were people we don't even know, but ones that we
know everything about.
They will forever be with us, still teaching and reminding us every step of the way.
They were more than notes, or lectures, or presentations. They were the greatest people
that we will have ever met.

May God bless each of their souls, and all of their families. I thank every one of them, for the
greatest gift one could ever give.

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- 1. Required Texts: You are required** (either individually or shared with your dissection partner) to purchase the texts listed below. Both texts are available at the bookstore.

Dissection Text:

Clemente, Carmine D. (2011) *Clemente's Anatomy Dissector*. Philadelphia: Lippincott Williams & Wilkins.

Bertman, SL. (2009) *One breath apart. Facing dissection*. Amityville: Baywood Publishing.

In addition to the dissection text listed above I would urge you to keep your Human Anatomy text handy, as it will provide as an excellent resource for this course.

There are also some excellent gross anatomy sites available with dissection information. One that is excellent is at the following URL, from the University of Michigan:

2. Course Objectives:

- The course objectives that would be characterized as essential are as follows: By the end of this course you should have
 - gained factual knowledge, including knowledge regarding the anatomy of the human body;
 - developed new skills as they relate to the process of dissection and the identification of anatomical structures;
 - developed a 3-dimensional understanding of anatomical relationships for all structures discussed within each region of the body studied.
- The course objectives of this course that would be characterized as important are as follows: By the end of this course you should have
 - developed specific skills, competencies and points of view needed by anatomists;
 - acquired skills in working with others as a member of a team;
- Finally, I hope that throughout the term you will have fun and enjoy the course.

3. **Reading and dissection procedures:** You will be expected to come to class having read the dissection procedures and all appropriate anatomical material related to that day's work. In addition, you will be expected to come to class ready to, if asked, answer questions about any and all work completed by your dissection group or to present your dissection, as completed thus far, to the rest of the dissection class on any given day.

4. Reflection Assignments:

The signing of one's body for anatomical dissection is a sacred gift on part of the donor, and is also a sacred and honorable procedure to be the dissector of such a sacred gift. For you this may be the first human body you have seen up close, touched, and it will probably be the first you have ever cut into. The opening of the cadaver bag and the pulling back of the plastic is an experience that you may never have done before—one that may be very easy for you or one that may be very difficult for you. Hopefully, whether it is easy or difficult, that first day and every day will be life changing.

Whatever this experience is to you I want to know how you approach it, how you view it and how it changes you, if at all. Therefore I am asking you to write two reflections on this experience. These reflections can be in the form of an essay, poem, song, drawing (regardless of your ability or inability to draw), or any format you choose. Although I don't think it is fair to grade your "reflection" I will grade your grammar, spelling, syntax etc.

These reflections, and their content, are as follows:

- Due before the first day of class (this is your ticket into class): A reflection of what you are thinking about as you prepare for this class and anticipate making that first cut into the skin of your cadaver.

- Due on the day of your final exam: A reflection on (1) how this term's experience in cadaver dissection has changed you, (2) your concept of the anatomy of the human body, and (3) how you view the gift that was given to you by the individual that donated his/her body for anatomical study, and (4) if you could say something to the donor and/or his/her family, what would you say?

5. Blood-borne pathogens

For your safety, and for the safety of others, I require all students enrolled in my cadaver dissection sections to take the on-line course dealing with blood-borne pathogens. *Even if you have taken it already this year I would like you to take it again before the first class session.* Please go to the Moodle site listed below. It is under academic departments → Biology safety training → topic 2. The instructions and passcode are under the topic name.

<http://moodle.augustana.edu/course/view.php?id=2869>

6. Course Objectives:

- The course objectives that would be characterized as essential are as follows: By the end of this course you should have
 - gained factual knowledge, including new terminology and knowledge regarding the anatomy of the human body;
 - developed the skills and competencies of dissection;
 - developed a 3-dimensional understanding of anatomical relationships for all structures found within the region of the body you will be dissecting during this term.
- The course objectives of this course that would be characterized as important are as follows: By the end of this course you should have
 - developed specific skills, competencies and points of view needed by anatomists in the practice of anatomy;
 - acquired skills in working with others as a member of a dissection team;

7. What you can expect of me this term: I am a firm believer that a college education is a two-way street. As a professor, I hope you learn things from me. However, I also hope that I will learn things from you. In addition, I don't think it is appropriate to list what I expect of you without telling you what you can (and should) expect of me. So, during this term you can expect that I will:

- I was told by a very good friend and excellent teacher the following: "Students won't give a damn about what you know until they know you give a damn." You *can and should expect me to give a damn*—about you as a person and as a student.
- Help you accomplish all of the goals and objectives listed above
- Help you with your recall of previously learned anatomical information.

8. Course Assumptions: This course is conducted with several key assumptions:

- It is assumed that you enter this course with an excellent understanding of human anatomy. Because of this assumption, and because of the teaching style that will be employed in this course, no questions will be answered that a student with a fundamental understanding of human

anatomy (i.e. completion of Human Anatomy, as taught by this department or any other college or community college) should know. Therefore, it is highly recommended that your review *all of the information covered in human anatomy for the region of the body you will be responsible for*.

- The class will be divided into working pairs (sometimes working trios) of students. You are all expected to work simultaneously on the cadaver, and to do an equal amount of work on the dissection. Since you will be graded on the quality of your *group's* dissection (see grading below) it is important for all of you to work on the cadaver together at all times.
- In order to facilitate one-on-one help with dissection and the learning of the material you will be expected to come to your assigned class time. You may want to (or need to) come in for additional work. However, you may not work on the cadaver without notifying me, and without me being present in the building. Should you need to come in for additional work please work with me so we can come up with a mutually agreeable time for you to work and for me to be available.
- You will need to do a large amount of reading from your text from Human Anatomy and any other high-quality anatomy texts, and you need to start doing this reading *before* you attempt any significant dissection, *including* the initial incision and skinning. Be aware of the fact that any text brought into the dissection room will become a “greaser” and will not be the type of text you will want to handle with bare hands.

9. What you are expected to know this term: Cadaver Dissection is a 400-level course, and Human Anatomy is required in order to take Cadaver Dissection. Therefore you will be asked to know considerably more material in this course than you were in Human Anatomy. So...simply put...you are required to know *everything* about the region you are dissecting. For example (but not limited to):

- Bones
 - All of the landmarks on the bones for your region of the body.
- All muscles, including
 - Origin, insertion, action, innervation
- All vasculature, including
 - Areas supplied by arteries, and areas drained by veins
- All nerves, including
 - Information carried (somatic motor, sensory, ANS motor {and branch of the ANS system}, ANS sensory, destination, origin)
- All organs, including
 - All details of the organs
 - Motor innervation, sensory afferents
 - Vascular supply

10. Everyday routine in cadaver dissection: The bullet points below outline how the everyday routine will work in cadaver dissection this term.

- You are expected to arrive at the cadaver lab approximately 5 minutes before the start of class, dressed in scrubs and a lab coat and with protective glasses in tow.

- You are expected to have reviewed the dissection process for the day (and a little beyond in case the day goes really well) before arriving to class.
- You are also expected to have reviewed all of the pertinent anatomy for the day.
- If the cadaver tank is unlocked, open the tank, secure the lids, and get to work. If the tank isn't unlocked then please ask for the key.
- Don't be surprised if
 - I answer your question with a question. You will remember your anatomy much, much better if you figure out the answer to your question. So...I will probably answer your question with a question like "What does it lie deep to?" or "What does it lie superficial to?" etc.
 - I don't answer your question at all. If this is the case then you asked something that you should know (and should have remembered) from Human Anatomy and your preparation for the day. If this is the case you will be expected to *stop dissection and leave the cadaver room in order to find the information you just asked for. No one* in your dissection group will be allowed to continue the dissection until everyone in the group knows and understands the answer to the question.

11. Grades: Your grading will be based upon the following factors:

- Reflection writings are worth 10% of your final grade.
- Quality of dissection is worth 20% of your final grade.
- Oral exam on dissected area during finals week. This is worth 70% of your final grade. You will be responsible for *all anatomical structures in your area of dissection other than superficial cutaneous vessels and nerves*. This includes all information listed under #9 above.

12. Access to the Cadaver Room and General Safety Instructions:

- Other than individuals enrolled in Biology 455 **no one is allowed entrance into the cadaver lab.**
- The *door to the cadaver lab must be closed at all times* for the ventilation system to function properly. The ventilation system in the lab is designed to prevent the embalming chemicals and odors from leaving the lab and entering the hallway. It remains on at all times. Do not leave the door open. If you notice an odor while in the outer lab when the door to the cadaver lab is closed, contact me immediately.
- The use of any and all photographic devices (cameras, cell phones, etc.) is strictly forbidden at any time in the cadaver lab or ante room.
- Cadaver lab works just like any other lab, so all laboratory safety rules will be in affect. Under no circumstances will you be allowed into the cadaver lab without the proper clothing, footwear and protective eyewear.

- Protective eyewear is required; you are required to provide your own protective eyewear. *Contact lenses should not be worn if you plan to remain in the lab for more than 15 minutes.* Lenses can absorb chemical vapors. *If you must wear contacts*, you are required to wear vapor-proof goggles that you provide.
- A lab coat is highly recommended. Wearing of scrubs over a long-sleeved shirt or old clothes (long sleeves and long pants) under the lab coat is also required. The wearing of old closed-toe shoes is required.
- Your dissection clothing is *not* to remain in the cadaver storeroom overnight. It is also required that you wash your dissection clothing thoroughly before the next dissection session. *(Indeed, I would recommend that you wash your dissection clothing that night. Before washing store your dissection clothing separately; do not store it with clothes that were not worn while dissecting.)*
- Cadavers are embalmed with a fluid containing ethyl alcohol, glycerin, formaldehyde and phenol. Physical contact of your skin and clothing with the cadaver should be avoided. Gloves are required and *must be worn at all times in the cadaver lab*; latex and vinyl gloves will be provided.
- *If you are pregnant, or believe you may be pregnant, you may NOT participate in laboratory activities unless you provide written documentation from your obstetrician to the course instructor that verifies an understanding of the chemicals to which you and your fetus are being exposed while in the presence of the cadavers.*
- If you experience *respiratory difficulties* while in the lab, leave immediately and inform me immediately.
- All necessary dissection equipment will be provided.
- When you have finished dissecting please remove and dispose of scalpel blades *in the red "sharps" box*.
- All injuries, no matter how insignificant they may appear, must be reported immediately to me. If injured, it is recommended that you check your medical records to be sure your tetanus vaccine is up to date. *First aid supplies* are available near the sink.

In the situation in which someone gets cut (or any other cause of bleeding), let the person who is bleeding treat their own wound. Every effort should be made to avoid exposure to blood or other potentially infectious fluids. Gloves should be worn when such contact is unavoidable, but injured persons either should treat themselves or be treated by trained medical personnel or first-responders.

In case of an EMERGENCY, dial extension 7711.

- Please check your medical records to make sure your tetanus vaccine is up to date. If it isn't it is advisable to get a tetanus shot before starting the class.

13. Working with human cadaveric material: Working with human cadaver material requires respect for the deceased. The following information and rules will help you understand your responsibilities regarding the proper use of human cadaveric material.

- Respect for Human Anatomical Gifts: Our cadavers were obtained from the Deeded Body Program at the University of Iowa (to learn more about this program visit: <http://www.medicine.uiowa.edu/acb/deededbody/> . Cadavers are donated to the University of Iowa to be used for educational purposes. Persons donating their body receive no financial compensation; this is truly their ultimate gift. Hence it is imperative that proper respect be paid to the cadaver at all times. *Disrespect for the cadaver will not be tolerated. You will maintain professional conduct while in this lab and outside of the lab, particularly if you discuss anything related to the cadavers in a public place.*

The cadavers are returned to the University of Iowa at the end of the academic year and are cremated. The University holds a memorial service in the fall for all of the cadavers used during the previous year where students, faculty and staff pay their respects to the donors and their families. If you wish to attend the service, I will work to make that possible.

- Care of Cadavers and Tissues:
 - Body parts: All body parts (skin, adipose tissue, connective tissue etc.) that is removed from the cadavers must be placed in plastic zip-lock “bits bags” and stored with the cadaver in the body bag. No body parts are to be discarded into the garbage.
 - The cadavers have to be kept moist at all times. The cadavers are to be covered with cloth moistened with embalming fluid. Only uncover the area you are studying. Occasionally mist the area you are working on using the spray bottle containing “wetting solution.” When you are through, replace the cloth and cover the entire body with the plastic sheet and zip the blue bag closed.

14. Lab Fee: A \$50 lab fee is charged for this course to help offset the high cost of the specimens & equipment.

NOTE: All students MUST read, understand, and sign the Augustana College Cadaver Laboratory Policies form before they are allowed to work in the Cadaver Lab.

I have read the rules and regulations of the cadaver laboratory. I understand that any violation thereof is a breach of professional conduct and may constitute a violation of the Augustana Code of Conduct and will result in my removal from the laboratory and from the course.

Printed Name

Signature

Date