Biology 489 – Human Cadaver Dissection
Spring 2013

Course Syllabus and Schedule

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Course Description
BIOL 489 - Human Cadaver Dissection 2 Unit(s)
Prerequisite(s): BIOL 103
This Biol 489 is an internship in which students dissect a human cadaver and prepare anatomical specimens for use in Chico State Human Anatomy classes. Students will learn proper dissection techniques and pertinent details of the human form needed to complete quality dissection work

Course Objectives
Upon successful completion of this course, the student will be able to:
1. Demonstrate effective dissection techniques.
2. Explain the details of human anatomical structure beyond the knowledge obtained in a general human anatomy course.
2. Demonstrate an increased appreciation for the intricacies of the human form.

Meetings:

There is a required one-hour meeting each Wednesday 5pm in the human anatomy lab (Holt 245). Wednesday meetings will discuss techniques of dissection, report on dissection progress, coordinate future dissection and present individual projects and discuss any hurdles regarding the dissection student’s encounter. It is essential that you make these meetings.

Each student must also complete an additional 3 each week of actual dissection work. Student will work in groups over the course of the semester.

Scheduled Activities:

The primary goal of this class is to prepare a human cadaver for instructional use in the Chico State Human Anatomy courses. In the process, you will learn and utilize effective dissections techniques, review and enhance your knowledge of human anatomy and gain a real, experiential appreciation for the human form. We will dissect specific anatomical regions in sequence. The timing for when each region will be covered must remain somewhat flexible as this depends on a number of variables, including the nature of the cadaver specimen and the dissection skills of students in the course. A tentative schedule is provided on a following page. Once the cadaver is adequately dissected for
specific needs in the anatomy classes, you will conduct individual projects of your choosing. Examples of individual projects are: knee dissection, spinal cord dissection, eye dissection, ect. Individual projects will be determined later in the semester. The last segment of the course will be used to develop short individual visual presentations. You will capture anatomical images from the internet or from other resources I provide to construct a short PowerPoint presentation on a topic of your choice. The specifics of this project will depend on the interest and experience of each student.

**Materials:**

There is no textbook that is specifically applicable to this course that you need to purchase at the college bookstore. Instead, the Biology department has a collection of dissection guides and photographic and illustration atlases that we will use for guidance in cadaver dissection work. Your textbook from when you took a Human Anatomy course will also be a valuable aid. In addition, the instructor will supply pages from medical school dissection guides where appropriate.

It is essential that you prepare before attempting a dissection. This means studying appropriate photographs and illustrations in the reference atlases and anatomy texts. This may also mean reading specific written instructions from one of the available dissection guides. Our Wednesday meetings will include a discussion of the dissection(s) of that week.

You will be provided with all necessary dissecting instruments, disposable gloves and protective eye goggles. You will also need a lab coat. This can be chosen from the supply of lab coats made available in the biology prep area or you may acquire your own coat if you prefer.

Access to Blackboard will be necessary, as instructions, course updates, and tutorials will be provided via the blackboard environment.

**Attendance/Participation/Expectations:**

A special course like this is entirely dependent on you committed participation. It is through your dissection time that you will learn and gain unparalleled experience. Grading criteria for the course reflect this. A roll sheet will be posted on the door of the cadaver room. Please sign-in on this sheet. This will be my semester record for college attendance purposes and it is a crucial part of college accounting for a “TBA” course like this.

It is expected that you will do your very best to complete quality dissections. In addition, you should review your anatomy terminology and use it appropriately (not just be "dissectors"). I will expect you to know the names of structures associated with your dissections and to learn a few new terms too!

Finally, although you will not all dissect the same things (e.g. one individual may dissect the upper arm while another dissects the thigh, one may dissect the ducts and blood vessels associated with the liver while another dissects reproductive structures), I expect everyone to take an active interest in dissection work beyond their own. You will gain the most from this course by examining and understanding the work of your classmates.
Methods of Evaluation - Course Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
<th>Grade Range</th>
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<tbody>
<tr>
<td>Participation</td>
<td>75</td>
<td>A= 90-100 %</td>
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<tr>
<td>Quality of Dissections</td>
<td>40</td>
<td>B= 80-89.5 %</td>
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<tr>
<td>Presentation</td>
<td>40</td>
<td>C= 70-79.5 %</td>
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<td></td>
<td>155</td>
<td>D= 60-69.5 %</td>
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<td></td>
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<td>F= &lt;60 %</td>
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Policies and Procedures

Maintaining integrity and respect for the cadaver will be of the utmost importance to all students associated with the anatomical preparation lab. No images of the cadaver will be allowed to be made by students out of respect for the individual that donated their body to be studied, and per our agreement with the UC Davis Body Donation Program. Any derogatory, disrespectful, or offensive comments made about the cadaver, or the class in general, to other students, or on any social network (Myspace, Facebook, Twitter, etc.) will not be tolerated.

Biology 489 Safety Rules

A door must be open at all times while in the cadaver room.

No cell phones, cameras (digital recording devices) allowed in the lab

No food or drink allowed in lab

No visitors/guests are allowed in the lab without permission of instructor.

All students are required to wear gloves while dissecting.

All students must wear a lab coat while dissecting

Appropriate clothing will be worn. Closed toe shoes (no flip-flops/sandals) are to be worn in lab. Long Hair should be pulled back for protection.

Masks will be worn when using the electric bone saw to reduce inhalation of fine bone particles that may be released into the air.

Safety glasses are required while dissecting.

Great care should be taken when using any of the surgical instruments (i.e., scalpels, saws, and knives). When instruments are not in use, they should be placed back in the instrument tray. At the end of class all instruments should be cleaned and placed back in their proper storage compartment/tray.
Any scratches or cuts must be treated immediately by the person sustaining them. If any accident does occur please notify the faculty immediately.

All scratches, abrasions, and open skin lesions must be completely covered when in lab.

Students must keep the cadaver, cadaver table, body bag, and counters as clean as possible. Make sure all instruments are returned to their proper location.

While dissecting, students should utilize water to keep work area moist. At the end of a dissection period, the phenol based cadaver wetting solution should be utilized to moisten the cadaver to reduce drying out.

### Tentative Schedule Sequence – Spring 2012

<table>
<thead>
<tr>
<th>Dates</th>
<th>Projects</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>Introduction and Procedures, Start skin removal and muscles dissection</td>
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<table>
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<tr>
<th>Week 2-6</th>
<th>Muscles:</th>
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<tr>
<td></td>
<td>Anterior neck, cheek and throat</td>
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<tr>
<td></td>
<td>Anterior abdominal muscles</td>
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<td></td>
<td>Anterior thorax and shoulder</td>
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<tr>
<td></td>
<td>Posterior shoulder and neck</td>
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<tr>
<td></td>
<td>Back muscles</td>
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<tr>
<td></td>
<td>Upper extremities: arm, forearm and hand</td>
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<tr>
<td></td>
<td>Lower extremities: hip, thigh, leg and foot</td>
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<table>
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<tr>
<th>Week 8-10</th>
<th>Open thoracic and abdominopelvic cavities</th>
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<tbody>
<tr>
<td></td>
<td>Organs of the neck and facial regions, including superior blood vessels</td>
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Organs of the thoracic cavity, including heart and lungs
Organs of the abdominal region, including digestive structures, kidneys and blood vessels
Organs of the pelvic cavity, including urinary and reproductive structures

Week 11 Cranial cavity - remove brain; Start Individual cadaver projects

Week 12-13 Individual cadaver projects

Week 14-15 Work on individual PowerPoint projects
Week 16 PowerPoint Presentation to class