



Anatomy of the Thorax and Abdomen: A Short Graduate Course in Cadaver- based Human Anatomy for Instructors of Undergraduate Anatomy and Physiology

(3 Credits)

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WHO SHOULD TAKE THIS COURSE:

- Faculty who currently use or are planning to use cadavers and wish to acquire advanced knowledge of human structures of the thorax and abdomen
- Faculty who are not planning to use cadavers in teaching but want additional cadaver-based training and experience to enhance their development as effective instructors
- Faculty who currently use or are planning to use cadavers in their curriculum and want to exchange ideas, solve problems, and explore best practices in cadaver based investigation of thoracic and abdominal anatomy
- Faculty who wish to generate a teaching and learning project that focuses on cadaver-based thoracic and abdominal anatomy
- Faculty who have a basic understanding at the undergraduate level of thoracic and abdominal anatomy

COURSE FORMAT:

1. Assessment and directed learning activities prior to attending workshop – at least 28 hours.
2. Weekend workshop – a total of 20 hours in on-site sessions and small-group discussions to be distributed as follows:
 - Friday: - approximately 3 hours in the evening.
 - Saturday: - at least 14 hours (9 hours during the day and 5 hours of evening discussion).
 - Sunday: - approximately 3 hours in the morning.
3. Post-session discussions—at least 10 hours of moderated discussions of topics relating to the on-site experience and the course objectives
4. Direct on-line instruction – at least 10 hours of instruction by Course Moderator and Director of HAPS-I.
5. Creation and peer-review of final projects (developing a plan for implementing cadavers directly or indirectly into the teaching and learning process at the individual's college): approximately 30 hours.

Total estimated hours: 98 hours.

COURSE DESCRIPTION:

The purpose of this course is to explore best practices in using cadavers in teaching and learning thoracic and abdominal human anatomy in an undergraduate anatomy or anatomy & physiology course.

A workshop, which serves as a core activity of this course, will be conducted in the prosectorium (human anatomy laboratory) at San Diego Miramar College in San Diego, California. The workshop will begin on a Friday evening and end noon Sunday. Enrollment is limited to 16 participants.

Prior to the workshop, participants will have assigned readings, directed learning activities and discussion to explore fundamental information on the use of cadavers and on techniques of thoracic and abdominal dissection. Participants will also have the opportunity to work with the prosected cadavers and isolated specimens present in the laboratory for the purpose of identifying normal anatomical structures as well as specific pathologies.

After the weekend workshop, members of the course learning community will progress onward with discussion and processing of the concepts discovered in the workshop. Individuals or teams will develop a final project detailing how to best use cadavers for teaching thoracic and abdominal anatomy at their respective learning institutions. The final projects will be peer-reviewed within the course learning community and will be published at the ***HAPSweb.org Archive***. Projects judged to be exceptional by a peer-review process will be forwarded to the ***HAPS Institute Collection*** at the ***APS Archive of Teaching Resources***.

Successful completion of this course earns three graduate credits in biology from the University of Washington (Seattle).

LEARNING OBJECTIVES:

Upon completion of this course, participants will be able to:

- Master thoracic and abdominal anatomy dissection utilizing appropriate techniques and instruments.
- Observe and interpret thoracic and abdominal structures of the human body, and understand the interrelationship of body structures.
- Develop the understanding that the human body does not always conform to textbook illustrations.
- Implement a plan for integrating cadaver-based thoracic and abdominal anatomy teaching and learning into the curriculum.
- Understand techniques for the acquisition, handling, storage, and disposal of preserved human specimens.
- Demonstrate respectful handling of human cadavers.
- Evaluate the ethical and personal issues surrounding death and the human donation program for science and medicine.

REQUIRED MATERIALS:

Texts: Students will be expected to have access to an atlas of anatomy and a dissection guide. The recommended atlas is Gray's Atlas of Anatomy. The recommended dissection guide is Gray's Dissection Guide for Human Anatomy. Both of these texts are published under the Elsevier umbrella and will be provided to all students, free of charge, as a component of Elsevier's generous support for the HAPS-Institute. These texts will be shipped to you upon completion of the registration process. Students are requested to travel to the class with both of these texts.

Miscellaneous: Due to the nature of conducting dissection on cadavers during the workshop component, students will wear lab coats in class. Please travel with your lab coat. There are a few lab coats available in the lab for those who do not own their own lab coat. Items such as latex gloves and dissection instruments will be provided by Miramar College. Students who have specific requirements pertaining to latex gloves (allergies) are requested to supply their own.

EVALUATION:

Participants will be evaluated on a "credit/no credit" basis. A total of 100 points may be earned with a passing grade being designated as a 70%. Points will be distributed as follows:

1) Assessment and pre-workshop activities	15 pts
2) Participation in workshop activities	40 pts
3) Post-workshop activities	15 pts
4) Final project	<u>30 pts</u>
	100 pts - total

1) Pre-workshop activities

Far in advance of the weekend workshop, participants will be asked to complete an assessment form in order to help customize the workshop to better meet everyone's needs. This will be submitted electronically to the instructor via the Angel course platform. Directed readings and electronic presentations will also be assigned that will include topics such as the appropriate use of cadavers, and thoracic and abdominal anatomy review and dissection techniques. Initial online discussions will help begin building the learning community and will prepare everyone for an effective workshop experience. Members of the course learning community, including the course moderator, will communicate with one other through Angel on a regular basis.

2) Workshop participation

The weekend workshop will run Friday evening, all day and evening Saturday, and all morning on Sunday. Attendance on all three days for the full time period is required. Participants are expected to actively engage in all discussions and group learning activities. Sharing of information between participants is a wonderful way to learn and will be strongly encouraged. Working with cadavers for the purpose of identifying specific anatomical structures and pathologies is also required.

[NOTE: Nearby hotel accommodations have been arranged at a discounted price for those coming in from a distance. Please check hapsweb.org (navigate to HAPS Institute and this course) for details.]

3) Post-workshop activities

An online discussion forum after the workshop will explore some of the concepts that come up in the workshop. These discussions also facilitate the process of designing, collaborating, creating and reviewing the final project (see next item).

4) Final project

All course participants will create a final project. The goal is to allow participants to apply what they have learned to their specific college or university setting. They will demonstrate and/or explain cadaver-based thoracic and abdominal anatomy into the teaching and learning process. It may take any reasonable form, such as a PowerPoint presentation, written proposal or curriculum document, specific learning activity or module, or other teaching/learning resource. General guidelines for the project will be provided, including the required peer-review process and publication (uploading) process.