Course: Fetal Structure, Function & Controversies, HC 441H, 04 cr, CRN 32201, Lecture/Discussion: 16:00-16:50 M 303 Chapman (CHA) + Laboratory: 17:00-18:50 M 112 Huestis (HUE), Spring 2007.

Instructor: V. Pat Lombardi

Office, Phone & Electronic Mail: 116 Huestis (HUE), 346-4536, lombardi@uoregon.edu

Office Hours: M, 10:00-11:00 & by appointment.

Texts/Resources:
1. Sadler, T (TSL). Langman’s Essential Medical Embryology. Hagerstown, MD: Lippincott Williams & Wilkins, 2005. [Required text for course.]

See Course Reserve List http://libweb.uoregon.edu/index.php for additional excellent references. NB: Click on green tab Course Reserves, then type in Lombardi as Instructor.

Tentative Outline


Apr 9  I. Lecture/Discussion: Early Development: Fertilization to Gastrulation + II. Panel Presentation/Discussion: When does life begin? Thoughts on abortion. Community service organizations: Leslie Finley, Program Manager, Birth-to-Three; Kellie DeVore, Vice President of Public Affairs & Mary Gossart, Vice President of Education & Training, Planned Parenthood. III. Lab Dissections (time permitting): Pig uterus with embryos.


Apr 30  I. Lecture/Discussion: Heart & Cardiovascular System. Fetal circulation: A fetus has it all mixed up? L. Sherwood. II. Lab: Fetal pig dissections + cf: anatomy & physiology of human, cow & pig hearts.


May 28  No Session. Happy Memorial Day! Field trip W/F courtesy Reverend Oswin Hollenbeck, Prior, Eugene Buddhist Priory, 85415 Teague Loop, Eugene, OR 97405. [Hilyard to E Amazon to Dillard to Teague Loop.]

May 31R Final Paper Due. By 5 pm, place double-sided, stapled, hard-copy (without folder or title page) in Pat Lombardi’s box in the Main Biology Department Office, 77 Klamath Hall.

Jun 4 Presentations Group I & II.

Jun 14 R 15:15 - 17:15 Final Exam Period: I. Presentations Group II (continued) & Group III. II. Farewell Comments & Course evaluations.

Grading: Final grade will be based on the following:

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<th>Component</th>
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<tr>
<td>Attendance</td>
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<td>Labs/Activities</td>
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<td>Paper</td>
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<td>Presentation</td>
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1. Course description. This course explores human embryology, fetal anatomy and physiology, and controversies related to fetal and neonatal development. Each week, we investigate fetal structural and functional relationships, emphasize basic concepts, and examine controversies. The lectures include basic principles of development, fertilization to gastrulation, neurulation and establishment of body form, musculoskeletal system, heart & cardiovascular system, lungs, gut, urogenital system, craniofacial development, central nervous system, eye, ear, fetal period, birth, and birth defects. In the laboratory, we have many opportunities to observe, dissect and compare specimens of human, pig, cow, and sheep origin. In small and large groups, we discuss several topics including stem cell research and abortion. Experts from local government and private agencies, health groups and religious organizations attend open panel discussions on these topics. The course is designed for Honors College students interested in biology, bioethics, and controversial issues in allied health and medicine. It assumes no prior background in vertebrate anatomy, evolution, development, or physiology. The course’s broad and controversial coverage should ensure an enjoyable and memorable learning experience for all.

2. Course structure. Includes engaging electronic media presentations, multiple lab activities (eg, multi-media slide, films, models, specimen dissections), and controversy group and panel discussions. See tentative outline for details. All will be encouraged to participate freely and ask questions.

3. Tentative course outline by week. Please see attached outline for tentative schedule of topics.

4. Course requirements. Mandatory attendance at all lecture-discussions, laboratories, and class presentations; participation in laboratories, discussions, and activities; completion of term research paper (on a topic of personal choice), completion of end-of-term presentation, and fulfillment of peer-grading requirements.

5. Grading structure. Attendance and participation in lecture-discussions make up 25% of grade (graded according to percentage, eg, 10/10 3-hr sessions = 100%, 9/10 = 90%,...). The lab and other activities account for 25% of grade (25 total points, heavy emphasis due to more lab dissections and activity-based nature of course). The term paper makes up 25% of grade. The paper is graded using a 25-point scale with each of the following sections worth 5 points: introduction, content accuracy & depth of coverage, continuity & integration, summary & conclusions + directions for future research/inquiry, and selected references (graded based on peer-review and up-to-date nature). The presentation is the same topic as the paper and uses a 25-point scale with 5 points awarded for each of the following sections: clarity of introduction/initial focus, content accuracy & depth of coverage, appropriateness of medium (electronic, overhead, poster,...), question & answer/discussion period, and subjective evaluation of overall participation in the project. The final presentation score is based upon 50% instructor- and 50% peer-review.