

IB 140: HUMAN REPRODUCTION

Integrative Biology 140, 4 credits, Spring 2015

Lecture on Tuesdays & Thursdays, 2:00 PM – 3:30 PM, Wheeler Auditorium

Discussion Section one hour a week

Instructor: Tom Carlson E-mail: <tcarlson@berkeley.edu>

Office Hours: Tuesday 3:40-4:30 PM, Wednesday 11:10-12:00, Thursday 12:40 -1:30

Office hours will be in Valley Life Sciences Building room 1098. This room is on the ground floor on the west side of the building. To get to the office, walk south from the feet of the T. rex dinosaur and enter the last door on the left (east) before reaching the south exit doors.

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Course Description:

This course focuses on the biological and cultural aspects of human reproduction including conception, embryology, pregnancy, labor & delivery, lactation, infant/child development, puberty, and reproductive aging. This includes the study of factors that diminish and factors that enhance fertility, reproduction, and maternal-child health. We explore evolutionary, ecological, environmental, cultural, ethnobiological, and nutritional determinants of fertility, reproductive rate, infant survival, and population growth.

Required Textbook: Human Reproductive Biology, 4th Edition, by Richard E. Jones & Kristin Lopez, ISBN: 9780123821843. It is fine to use the 3rd Edition.

Required Reader: All Carlson powerpoint presentations are in this required reader. The reader can be purchased at Krishna Copy Center at 2111 University Ave. in Berkeley.

Lectures are based primarily, but not exclusively, on information in the required text. Additional information not in the book is integrated into some of the lectures. This additional information will typically include a citation of the scientific publication source of the information.

Exam material will be based only on material presented in the lectures.

Midterm #1 on 2/17/14 at 2:00 PM: (30% of grade) 50 questions = 50 points

Midterm #2 on 3/31/14 at 2:00 PM: (30% of grade) 50 questions = 50 points

Final Exam on 5/11/14 at 11:30 AM: (34% of grade) 57 questions = 57 points

Discussion section: (6% of grade) = 10 points

Total possible points for course = 167 points

Sequence of Lecture Topics:

with corresponding Reader Pages and Jones & Lopez Book Chapters

Syllabus: Pages 1-2

- 1) Lecture Topic #1, **Neuro-endocrine system, hormone biology, and hormone sensitive tissues:** Reader Pages 3-28; Book Ed 3 & 4, Chap 1
- 2) Lecture Topic #2, **Female reproductive system:** Reader Pages 29-51; Book Ed 3 & 4, Chap 2
- 3) Lecture Topic #3, **Menstrual cycle:** Reader Pages 52-62; Book Ed 3 & 4, Chap 3
- 4) Lecture Topic #4, **Male reproductive system:** Reader Pages 63-84; Book Ed 3&4, Chap 4
- 5) Lecture Topic #5, **Sexual differentiation:** Reader Pages 85-107; Book Ed 3, Chap 5 & 17; Ed 4, Chap 5 & 16
- 6) Lecture Topic #6, **Puberty & adolescent development:** Reader Pages 108-125; Book Ed 3 & 4, Chap 6
- 7) Lecture Topic #7, **Reproductive aging:** Reader Pages 126-143; Book Ed 3 & 4, Chap 7
- 8) Lecture Topic #8, **Human sexual response, sex, & gender:** Reader Pages 144-178; Book Ed 3 & 4, Chap 8
- 9) Lecture Topic #9, **Sexually transmitted infections:** Reader Pages 179-196; Book Ed 3, Chap 18; Ed 4, Chap 17
- 10) Lecture Topic #10, **Contraception & induced abortion:** Reader Pages 197-214; Book Ed 3, Chap 14 & 15; Ed 4, Chap 13 & 14
- 11) Lecture Topic #11, **Infertility:** Reader Pages 215-224; Book Ed 3, Chap 16; Ed 4, Chap 15
- 12) Lecture Topic #12, **Gamete transport, & fertilization:** Reader Pages 225-236; Book Ed 3 & 4, Chap 9
- 13) Lecture Topic #13, **Pregnancy:** Reader Pages 237-273; Book Ed 3 & 4, Chap 10
- 14) Lecture Topic #14, **Labor & delivery:** Reader Pages 274-318; Book Ed 3 & 4, Chap 11
- 15) Lecture Topic #15, **Neonate, parental bonding, breastfeeding:** Reader Pages 319-333; Book Ed 3, Chap 12 & 13; Ed 4, Chap 12