

Natural Science II: Human Reproduction Fall 2015

LECTURE SYLLABUS

CORE-UA.315.001 Mon and Wed 3:30pm-4:45pm Silver Building Room 207

Course Director: Frederick Naftolin, MD, PhD (frederick.naftolin@nyumc.org)

Laboratory Director: Ahmed Fadiel, MS, PhD (ahmed.fadiel@nyumc.org)

Course Administrator: Keri Kalmbach, MS, PhD (keri.kalmbach@gmail.com)

Teaching Assistants: Julia Buldo-Licciardi, BA (jbl307@nyu.edu)
Rushpinder (Rupa) Kaur Gill, BA (rkg243@nyu.edu)
Mitra Ahmad, MS (mitra.ahmedi@nyumc.org)

Reference Textbook: Human Reproductive Biology, 4th Edition; Jones and Lopez, Academic Press, 2014

Supplemental Reading: Middlesex, Jeffrey Eugenides, Picador, New York, 2002

Course Organization: The course has two components: lecture and lab. The lecture portion will account for 80% of your final grade. This 80% is comprised of two exams each worth 35% and a term paper worth 10%. The lab component will account for 20% of your final grade.

Dates	Lectures
Module 1: Development and Functions of Reproductive Systems	
W Sept 2	INTRODUCTION AND OVERVIEW OF MALE AND FEMALE REPRODUCTION/COURSE ORGANIZATION Frederick Naftolin, MD, PhD
M Sept 7	No Lecture - Labor Day
W Sept 9	THE GONADS AND THEIR HORMONES (HRB P. 3-21) Frederick Naftolin, MD, PhD
M Sept 14	FEMALE REPRODUCTIVE SYSTEM (HRB P. 23-49) Keri Kalmbach, MS, PhD
W Sept 16	OVARIAN AND ENDOMETRIAL CYCLES (HRB P. 51-65) Frederick Naftolin, MD, PhD
M Sept 21	MALE REPRODUCTIVE SYSTEM (HRB P. 67-83) Frederick Naftolin, MD, PhD
W Sept 23	PUBERTY AND ADULT REPRODUCTION (HRB P. 103-118) David Keefe, MD
M Sept 28	SEXUAL DIFFERENTIATION, GENDER IDENTITY (HRB P. 87-102, 303-319) Frederick Naftolin, MD, PhD

Module 2: Adult Reproduction	
W Sept 30	HUMAN SEXUAL RESPONSE Frederick Naftolin, MD, PhD
M Oct 5	GAMETES AND FERTILIZATION Keri Kalmbach, MS, PhD
W Oct 7	GENETIC TESTING AND PRENATAL DIAGNOSIS Keri Kalmbach, MS, PhD
M Oct 12	No Lecture - Columbus Day
Tuesday Oct 13	PREGNANCY, EMBRYO DEVELOPMENT AND BIRTH Frederick Naftolin, MD, PhD
W Oct 14	HEALTH RELATED CONSEQUENCES OF PREGNANCY Frederick Naftolin, MD, PhD
M Oct 19	DEBATE #1 - DO THE MERITS OF RITUAL MALE AND FEMALE CIRCUMCISION OUTWEIGH THE LIBILITIES? Frederick Naftolin, MD, PhD
W Oct 21	GLOBAL REPRODUCTIVE INEQUITIES Veronica Ades, MD
M Oct 26	MIDTERM EXAM
Module 3: Reproduction Management and Diseases	
W Oct 28	FAMILY PLANNING AND SEXUALLY TRANSMITTED DISEASES Amitasrigowri Murthy, MD
M Nov 2	INFERTILITY AND ITS TREATMENT Frederick Licciardi, MD
W Nov 4	REPRODUCTIVE GENOMICS James Grifo, MD, PhD
M Nov 9	REPRODUCTIVE TOXICOLOGY Alan Arslan, MD
W Nov 11	EVOLUTION OF HUMAN REPRODUCTION AND ITS CONSEQUENCES Ahmed Fadiel, MS, PhD
M Nov 16	DEBATE #2 - WHO OWNS THE EMBRYO? Frederick Naftolin, MD, PhD
W Nov 18	ETHICS AND LEGAL ASPECTS OF HUMAN REPRODUCTION Frank Chervenak, MD
Module 4: Reproductive Aging and its Consequences	
M Nov 23	To be determined Frederick Naftolin, MD, PhD
W Nov 25	No Lecture - Thanksgiving Break
M Nov 30	REPRODUCTIVE AGING David Keefe, MD

W Dec 2	MENOPAUSE/ANDROPAUSE Frederick Naftolin, MD, PhD
M Dec 7	DEBATE # 3 – TO WHAT AGE SHOULD FECUNDITY BE EXTENDED BY ARTIFICIAL MEANS? Frederick Naftolin, MD, PhD
W Dec 9	REPRODUCTIVE AGING-RELATED DISEASES/MENOPAUSE TREATMENT Lila Nachtigall, MD
M Dec 14	ETHICS AND POST REPRODUCTIVE LIFE Arthur Caplan, PhD
W Dec 23	FINAL EXAM 4:00-5:50PM

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LAB SYLLABUS

CORE-UA.315.002	Thurs	10:15am-11:55am	180 Varick St. Room 806
CORE-UA.315.003	Thurs	1:00pm-2:40pm	180 Varick St. Room 806
CORE-UA.315.004	Thurs	3:30pm-4:55pm	180 Varick St. Room 806

Laboratory Director: Ahmed Fadiel, MS, PhD (ahmed.fadiel@nyumc.org)

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Rushpinder (Rupa) Kaur Gill, BA (rkg243@nyu.edu)
Mitra Ahmadi, MS (mitra.ahmedi@nyumc.org)

Lab Organization: The lab portion of the course will account for 20% of your final course grade. Lab attendance will account for 40%, lab assignments will account for another 40% and the final lab exam will account for 20% of your final lab grade.

Date	Title
Sept 10	Introduction to Human Reproduction
Sept 17	The endocrine system
Sept 24	Female and male reproductive systems
Oct 1	Ovarian and endometrial cycles
Oct 8	Gametes and fertilization
Oct 15	Embryology and the fetus
Oct 22	In vitro fertilization
Oct 29	No Lab - TAs at Varick Street #806 by appointment
Nov 5	The placenta and uterus
Nov 12	Cytogenetics
Nov 19	Reproductive toxicology
Nov 26	No Lab - Thanksgiving Break
Dec 3	Reproductive genomics
Dec 10	Final Lab Exam