

Epigenetics and Reproductive Behavior
Course Number: ABEH-A 501; Wed 9:00-11:00 CISAB
Instructor: Jennifer Hackney hackneyj@indiana.edu
Office Hours: By Arrangement

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COURSE DESCRIPTION: This class will investigate the mechanisms and function of epigenetics as it relates to sexual and reproductive behavior. The course will include exploring research in epigenetics as it relates to reproductive behavior through both discussion/analysis of current research articles and seminars by leaders in the field of epigenetics.

COURSE OBJECTIVES: This course should enable the student to:

- Gain general understanding of the molecular basis of epigenetics.
- Identify non-molecular epigenetic phenomena.
- Explore the epigenetic basis of certain reproductive behaviors.
- Explore the effects of reproductive behavior on epigenetic states.

GRADING PROCEDURES: Your grade in this class will be based on the following:

Article Presentation: Students will be asked to select a topic (from the schedule below), identify a current (within the last 5 years) research article relevant to the topic, and lead a classroom discussion of the chosen article (including main ideas, methods, findings, etc).

Participation: Students will be expected to contribute to classroom discussion and should be ready to interact with classmates, instructors, assistants and invited speakers.

COURSE CONTENT: Anticipated topics are listed below; however the schedule is subject to change based on class progression and speaker availability.

Week 1	Jan 12	Epigenetics Defined
Week 2	Jan 19	Sex Differences
Week 3	Jan 26	Genomic Imprinting
Week 4	Feb 2	Mate Choice & Courtship
Week 5	Feb 9	Speaker: TBA
Week 6	Feb 16	Fertility & Pregnancy
Week 7	Feb 23	Environmental Effects
Week 8	Mar 2	Speaker: David Crews (University of Texas at Austin)
Week 9	Mar 9	<i>Spring Break</i>
Week 10	Mar 16	Intrauterine Environment
Week 11	Mar 23	Maternal Care
Week 12	Mar 30	Speaker : Bridget Nugent (University of Maryland School of Medicine)
Week 13	Apr 6	Social Behavior
Week 14	Apr 13	Epigenetics and Disease States
Week 15	Apr 20	Is it epigenetics?
Week 16	Apr 27	Speaker: Melinda Wilson (University of Kentucky)
Week 17	May 4	<i>Finals Week – no class</i>