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ANTY 491.01: Special Topics - Advanced Human Variation

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**Anthropology 491: Special Topics
Advanced Human Variation
Spring Semester 2016**

Instructor:

Dr. Meradeth Snow

Meradeth.snow@umontana.edu

Office Hours: Monday's 2-5pm in 219 Social Sciences & by appointment

Class Information:

Tuesday and Thursdays 11:10am-12:30pm in SS 262

Occasional meetings will take place in the laboratory in SS 250B

Textbook & Readings:

1. Mielke, JH, Lyle W. Konigsberg, and John H. Relethford. *Human Biological Variation*. 2nd Edition. Oxford University Press; New York, NY.
2. Supplemental readings will be posted on the course Moodle site. These will provide material for discussion in class and are required reading. Please note, you should read each article critically; they are chosen more to make you *think*, and not for memorization.

The Purpose of Anthropology 491:

The goal of this course is to explore in greater depth the wide array of variation that exists in our species. The focus will be placed less on how variation exists, and more on why it does. An anthropological, and particularly evolutionary perspective will form the foundation of much of what we cover. Through the course students will be expected to: explain human variation from a biological perspective; understand, interpret and react to current and future human biological studies; and complete independent research on subjects covered in class. Students are also expected to complete written work on a specific topic of interest and intelligently discuss multiple topics and readings related to human variation studies.

Grades:

Exams:

Midterm Exam: 20%

Final Exam: 25%

Research Paper:

Outline: 5%

In-class presentation: 5%

Research Paper: 20%

Problem Set: 10%

Participation: 15%

Online Materials:

This course will have a significant portion of the required materials posted to Moodle. It is advised that you regularly check this resource to ensure you are up-to-date on what you might need. Also, please note that your professor is not responsible for any trouble accessing the site that may arise, especially the night before an exam.

Examinations:

The midterm and final exams will be primarily made up of term identifications, short answer, and short essay questions.

The midterm exam will test your knowledge and understanding of material covered from the start of class through Week 7. The final exam will test your knowledge and understanding of material covered during weeks 8-15, including the presentations of student papers. Although the final is not technically cumulative, many concepts are, and you may find terms and examples from the first half of the class helpful on the final exam.

Research Paper:

Your research paper will be written on a topic of your choice—something of interest to you within the realm of human biological variation, including all topics covered in this course. You are encouraged to talk to your instructor about your topic to ensure that it is suitable. You should have your topic chosen by the midterm, and a significant amount of research completed before you turn in your outline.

The paper is composed of three parts: your outline, in-class presentation, and the paper itself. Detailed instructions can be found on Moodle in the document labeled Research Paper Instructions.

This paper varies from the regular Human Variation topic in that **it must include a genetic component that accounts for at least 50% of your paper's support**. It also cannot duplicate the paper topic you completed for ANTY 310.

Problem Set:

The problem set assigned to you will be distributed via Moodle and will cover information presented during the first half of the course. You will be asked to apply formulas and reason out problems applicable to human variation studies. A practice problem set will be distributed prior to this for you to complete and which will be solved during week 6. You will be graded on your work, how well it is labeled, your explanations, and the answers you obtain. You are welcome to seek help from your instructor, but I warn against using other students as sources of help—group work often leads to group-wide point loss. This problem set will take quite a bit of time to complete; do not wait until the last minute to begin!

Participation:

The participation portion of the class will be based on your contribution to classroom discussions that will take place throughout the semester. These will be primarily composed of answering written questions which will then be discussed as a group. Your attendance and thoughtful and respectful analysis of the assigned readings for the classroom discussion will be counted toward your grade. Several weeks will also have small assignments that will accompany the reading and these will be announced widely in class.

Graduate Students

Graduate students who enroll in this course will be expected to uphold higher standards of academic performance. In order to facilitate this, several requirements must be met: the final paper for the course will be expected to be 50% longer than that of the undergraduate students, with twice as many sources (16-20pgs in length, 20-30 sources). It will be graded to a higher standard commensurate with graduate work.

Additionally, graduate students will be expected to prepare and present on one of the assigned topics for a single class meeting, which will include researching the assigned topic, preparing, and presenting to the rest of the class. Topics must be chosen by the third class meeting and should be signed off on by the professor at least one class meeting before the presentation date (ex: for a Tuesday presentation, the proposed lecture should be sent and okayed by the professor no later than the previous Thursday).

Make-up or Missed Exams:

Exams will **not** be re-administered unless approval is obtained at least 24 hours prior to the exam, with a legitimate excuse (such as health reasons, with a doctor's confirmation). If you miss an exam you must contact your professor within 24 hours, with a documented excuse, in order to obtain permission to take the exam. If you know you will miss an exam ahead of time you must make an appointment at least **two weeks** in advance to take it early.

Late Assignments:

Assignments submitted after the due date will **not** be accepted unless you have a documented, legitimate excuse and have contacted your instructor within **24 hours** of the due date. This includes participation activities. Please contact your instructor well in advance if you know there will be a problem submitting your assignment. Email submissions will **never** be accepted.

How to Succeed in ANTY491:

Those students who have completed my courses successfully often display similar tendencies. I highly recommend taking these into account when judging what grade you hope to achieve in the course. These include:

- 1) Attend every lecture and take notes on the material.
- 2) Ask questions when confused about a topic or concept, either in class or during office hours, well before an exam.
- 3) Complete readings before class, annotating or taking notes while doing so.
- 4) Participate in discussions of the material, either in class or with the TA and instructor.
- 5) Maintain a positive, self-motivated attitude.

Code of Academic Conduct:

With regard to academic dishonesty, this class has a zero-tolerance policy and will promptly deal with any acts of academic dishonesty (cheating, plagiarism, or unauthorized help on assignments, etc.) according to university policy. For further information on what falls into these categories see: http://www.umt.edu/vpsa/policies/student_conduct.php. If you have questions or concerns, please feel free to contact your professor.

Students with Disabilities:

Students with disabilities may request reasonable modifications by contacting your instructor. The University of Montana assures equal access to instruction through collaboration between students with disabilities, instructors, and Disability Services for Students (DSS). "Reasonable" means the University permits no fundamental alterations of academic standards or retroactive modifications. (For other options see <http://www.umt.edu/disability>).

Week		Date	Topic	Reading & assignments
1	1	1/26	Syllabus & Introduction to Course	Course Syllabus
	2	1/28	Refresher on basic genetics	Mielke Chap. 2
2	3	2/2	Refresher on basic genetics	
	4	2/4	mtDNA and Y-Chromosome Migrations	Mielke pg.317-324 & 336-341
3	5	2/9	Journey of Man: A Genetic Odyssey film	
	6	2/11	Molecular Anthropology & Clock	Mielke Chap. 9
4	7	2/16	Next Generation Sequencing	
	8	2/18	Ancient DNA	
5	9	2/23	Review of HWE and Chi-squared	Mielke Chap. 3
	10	2/25	Population Genetics I	Mielke pg. 256-258
6	11	3/1	Population Genetics II	Mielke pg. 329-336
	12	3/3	Signs of Selection	
7	13	3/8	Review for midterm	
	14	3/10	MIDTERM EXAM	
8	15	3/15	Overview of lab exercise	
	16	3/17	Laboratory Exercises	Meet in 250B
9	17	3/22	Finish in Lab	Meet in 250B
	18	3/24	Review Practice Problem Set	Review PPS before class!
10	19	3/29	Disease Selection	
	20	3/31	Epigenetics	Problem Set DUE
11	-	4/5	Spring Break	No Class
	-	4/7	Spring Break	No Class
12	21	4/12	Forensic Applications	
	22	4/14	Peopling of the New World	Milke pg. 222-225
13	23	4/19	Blood Tests: Native American gamble film	Outline DUE
	24	4/21	Human Heritability	
14	25	4/26	Body Doubles: the twin experience film	
	26	4/28	Evolution of Attractiveness	Mielke pg. 147-155
15	27	5/3	Student Presentations	
	28	5/5	Review for final exam	Paper DUE
		5/13	FINAL EXAM at 8-10am in our regular classroom	

*Small changes to this syllabus may be made, but will be announced widely!