Anthropology 510
Seminar in Human Variation and Evolution
Fall 2020
Thursdays 2-4:50pm

Contact Information
Instructor: Meradeth Snow
Email: meradeth.snow@mso.umt.edu
Office: 213 Social Sciences
Office hours: Tuesdays online from 12:30-2pm & by appointment

Preceptor: Keith Biddle
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Course Texts

Course Description
This course is designed to explore the historical and current theories that form the foundation for Molecular Anthropology and how it is encompassed within Physical Anthropology. We will be covering many broad topics that are central to current anthropological research and investigating how genetic data has allowed us to refine our understanding of modern humans and our evolution.

The class will combine presentations and discussions by students in a seminar format. Lectures/presentations and discussions are intended as a means for students to learn what practicing biological anthropologists do and highlight some of the major questions in the field of molecular anthropology today. They also allow for student to hone skills in public speaking and lecture preparation that will aid them in future employment.

Note About Graduate Courses: they are not the same as your undergraduate coursework! You will be expected to learn a good deal on your own and not all information will be distributed in neat lectures with slides. You must prepare for every lecture, spend some time researching on your own, and come ready to discuss the topic and learn from one another about the material being covered. Working together is encouraged! There is no inter-student competition here and the main goal should be to learn as much as possible.

Course Goals
There are three main goals for this course:

1. Develop skills and experiences necessary for professional academic development.
2. Acquire knowledge regarding the major issues, questions, theories, and methods in the field of molecular and biological anthropology.
3. Develop fundamental research, teaching, reading, and writing skills.

Course Grade Breakdown
Leading discussion 40% (distributed evenly between # of presentations)
Course Requirements

Leading discussion: One of the most valuable tools you can leave graduate school with is the ability to put together and deliver a lecture for peers, colleagues, and of course students. To that end, I will be providing a list of topics you will be required to sign up for. Topics will be centered on molecular anthropology and should be something that you are interested in.

The week prior to your presentation, I will give a ~30 minute overview of the subject in order to ensure everyone is up to speed on what the topic is, prior to our student-led discussion of it.

Your presentation should include:
- Rundown of particularly onerous jargon not previously covered
- Discussion of relevant background or foundational ideas
- Where the topic currently sits in terms of research
- Conflicts or debates within the field
- Handouts for your classmates of the slides/notes that you utilize
  - If you would like these printed for you, you must email them at least two hours before class!
- A list of resources utilized, to be handed in to your professor upon completion
- **Your presentation should be interactive and engaging for fellow students.**
  - This could include but is not limited to: creating phylogenies from related objects (candy bars work great!), creating a video/podcast, playing a game related to the concepts, hands-on with casts/fossils, or other means of drawing student engagement.
  - Activities that teach/reinforce the topic are encouraged—higher scores will be given to those who can combine being interactive with actual teaching. This is your chance to hone those teaching skills, which will be vital for almost any career you decide on.
  - Please consult your professor for aid or guidance!
  - This semester, with at least some of it being online, will require some extra effort on your part. There are so many resources out there that can demonstrate the effective ways to integrate zoom, online activities, and other fun ways to engage the rest of the class, that there really isn’t any excuse. These skills will be incredibly useful to you at a later date!
- Your presentation should go well beyond just the articles that are assigned and the review Dr. Snow does. You will be teaching this topic and are expected to delve deep into it (which means read widely in the area, using the assigned articles are a starting point!)

In preparation for each lecture I will provide the class with relevant readings from the textbook and journal articles. Everyone is required to read these assigned readings and type up relevant notes and at least two questions for each reading. These will be used for participation as noted below.
Those who are presenting should use the list as a jumping-off point to delve further into the topic through articles, books, and other available resources; expect to read deeply into the area. If you need help finding resources, please ask your professor.

Due to the number of students enrolled and the number of topics, you will need to work in pairs or small groups for your presentation. Please be amenable to your fellow group members and divide the work up as evenly as possible. If problems arise, please speak with your professor in order to ensure credit is accurately distributed.

**Research paper:** you will be required to write a paper on the migration and peopling of a particular region/country (please keep your region limited to avoid being overwhelmed). It is preferable that you select a region that you personally find interesting, or that is related to other coursework or research. A region should be chosen by the **fourth week** of class and submitted to your instructor at that time. Duplicate topics between students will not be allowed, so selecting early is in your favor.

Your topic should address the prehistoric and historic migration into a particular area. You are welcome to utilize information gathered through multiple lines of evidence, but the bulk of your research should address the genetic/molecular evidence (>50% of your supporting arguments!). Through your research you should form an argument regarding the peopling of the region and use your paper to support this theory, while noting the potential for debate.

**Paper format:** the paper itself should be at least ten full pages in length, 12pt Times font, with one-inch margins, double spaced. The ten pages do not include your bibliography, which should be in Chicago author-date format (see [https://vimeo.com/87083554](https://vimeo.com/87083554) for more details). Sources should be entirely peer-reviewed unless for extremely basic background information, in which case websites must be pre-approved. A draft of your paper will be due a few weeks before the end of the semester, and the final paper on the day we are scheduled for a final, although there will be no exam (see calendar below). Late papers will not be accepted, and your paper must be submitted with MS Word on Moodle.

The information in your paper should address a central thesis/argument that you will support with your evidence (which will be mostly genetic based as noted above). Subheaders to organize your information are highly encouraged.

**Participation:** In order to be prepared for each lecture you should read all of the assigned readings (both the textbook and articles) before class and take notes. While reading, pay particular attention to the main questions being asked, what theoretical background is being addressed, terms and concepts, and any critical omissions or questions regarding the work.

In order to obtain full participation credit, you will need to **submit a short paragraph or bulleted list that reviews each of the assigned readings and provides two possible discussion questions for each. These must be typed and submitted to class before we meet each week.**
During our final meeting, each student will be asked to present their research paper briefly to the class (~10 minutes). You will be asked to note the main source of evidence for your argument, as well as your conclusion of how individuals arrived and settled in the area you researched.

**Code of Academic Misconduct**

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

**Students with Disabilities**

Students with disabilities may request reasonable modifications by contacting me. 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).

**COVID-19**

Your Professor is fully aware of the worldwide pandemic taking place and asks that you be understanding and are flexible enough to handle changes that happen. This course is designed to be moved to remote teaching if necessary, in order to minimize all of our health risks, as well as interruptions to the course. That being said, there are personal concerns regarding your health. Please stay safe, wash your hands, and maintain social distancing. Additionally, please be sure to be mindful of your mental health—we are all struggling right now, so be as kind as possible and recognize that no one is in an idea situation (this goes for your classmates, fellow UM students, and your professors!). Should you or someone in your household become sick, please alert your Professor to ensure she is able to advise you regarding completing the semester. Other extenuating circumstances are understandable, and indeed expected.

Please email or set up an appointment to talk in order to ensure that your needs are being met. I am here for you to aid you in succeeding in this course, even if there is a lot going on in the world around us all!

**Basic Needs Statement**

Any student who faces challenges securing food or housing and believes that this could affect their performance in this course is urged to contact any or all of the following campuses resources. If you are comfortable, please feel free to email your Professor as well; I will do my best to help connect you with additional resources.

**Food Pantry Program:** UM offers a food pantry that students can access for emergency food. The pantry is open on Tuesdays from 9 to 2, on Fridays from 10-5. The pantry is located in UC 119. Pantry staff operate several satellite food cupboards on campus (including one at Missoula College). For more information about this program, email umpantry@mso.umt.edu, visit the pantry’s website (https://www.umt.edu/uc/food-pantry/default.php) or contact the pantry on social media (@pantryUm on twitter, @UMPantry on Facebook, um_pantry on Instagram).
ASUM Renter Center: The Renter Center has compiled a list of resources for UM students at risk of homelessness or food insecurity here: [http://www.umt.edu/asum/agencies/renter-center/default.php](http://www.umt.edu/asum/agencies/renter-center/default.php) and here: [https://medium.com/griz-renter-blog](https://medium.com/griz-renter-blog). Students can schedule an appointment with Renter Center staff to discuss their situation and receive information, support, and referrals.

**Course Calendar**

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<thead>
<tr>
<th>Week &amp; Date</th>
<th>Topic</th>
<th>Textbook Readings</th>
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<tbody>
<tr>
<td>1. August 20</td>
<td>Introduction &amp; scheduling</td>
<td>Ioannidis article</td>
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<tr>
<td>2. August 27</td>
<td>Basic DNA introduction</td>
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<tr>
<td>3. September 3</td>
<td>History of Molecular Anthropology</td>
<td>Chapter 1</td>
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<td>4. September 10</td>
<td>Evolution &amp; Speciation</td>
<td>Chapter 14</td>
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<td>5. September 17</td>
<td>Mitochondrial &amp; Y-Chromosome DNA</td>
<td>Paper topics selected</td>
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<td>6. September 24</td>
<td>Ancient DNA</td>
<td>Chapter 13</td>
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<td>7. October 1</td>
<td>Human Origins &amp; Hominin Relations</td>
<td>Chapter 6</td>
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<td>8. October 8</td>
<td>Human Diaspora</td>
<td>Chapter 9 &amp; 10</td>
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<td>9. October 15</td>
<td>Selection on Modern Humans</td>
<td>Chapter 15 &amp; 17</td>
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<td>10. October 22</td>
<td>Ancestry</td>
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<td>11. October 29</td>
<td>Molecular Forensic Approaches</td>
<td>Draft of Paper Due</td>
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<td>12. November 5</td>
<td>Personal Genome Analysis &amp; Ethics</td>
<td>Chapter 2 &amp; 3</td>
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<td>13. November 12</td>
<td>Student Presentations on Papers</td>
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<tr>
<td>-- November 24</td>
<td>No class</td>
<td>Final Papers Due by noon</td>
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* Changes may occur to this syllabus and will be announced widely. Please keep a close eye on your email and Moodle.