ANTH 362: HUMAN BIOLOGICAL VARIATION (ONLINE)
Spring Quarter 2018
Course Dates: April 2nd– June 15th, 2018

Instructor: Monya Anderson
E-mail: monya@uoregon.edu
Office Hours: 2:00-3:00pm Monday through Friday on e-mail; also available in person by appointment in Condon 369
Graduate Employee (GE): Andrea Eller
E-mail: are@uoregon.edu
Recommended Prerequisites: ANTH 270, BI 213, BI 283H, or permission of the instructor

Please print this syllabus for your reference!

Course Description: This course examines key issues related to human biological variation with a focus on human adaptation and adaptability, as well as genetic and phenotypic variation in contemporary human populations. It begins with a historical overview of approaches to classifying human biological diversity, which includes a discussion of the rise and fall of the concept of “race” in anthropology, as well as the complex topic of racial differences in health. Moreover, this course uses an evolutionary, biocultural framework to understand how adaptation to various ecological stressors (e.g., temperature, solar radiation, and altitude) promotes human biological diversity. This section of the course also describes how genetic tools allow us to document evolutionary change and detect recent selection in human populations. In addition, the course focuses on selected topics in human biology research, including the health effects of chronic psychosocial stress. This course uses a multidisciplinary scientific approach by drawing on the methods, theories, and bodies of knowledge from various scientific disciplines, including anthropology, evolutionary biology, human physiology, medicine, global health, and epidemiology.

Learning Objectives: After successful completion of this course and its associated assignments (e.g., discussion board posts, laboratory exercises, response papers, the midterm exam, and the final exam), students will be able to:

• Discuss why race is not a useful term for describing contemporary human biological variation and describe how race is a sociocultural phenomenon that has biological consequences for health.
• Describe the pattern of global human genetic variation and how genomics provides us with the ability to document evolutionary change and detect recent selection in human populations.
• Explain how environmental stressors such as temperature, solar radiation, and hypoxia shape contemporary human biological variation.
• Elucidate the links between chronic psychosocial stress and disease, including the specific factors that influence how stress “gets under the skin” to affect health.

Course Format

Getting Started
This course is designed to be completely online. To familiarize yourself with the class, please explore the Canvas site and review all documents in the Start Here section of the Modules page.
Here, you will find the course syllabus as well as important regulations and guidelines regarding Netiquette. Given that this course discusses and explores some sensitive material in an online format, Netiquette is extremely important. Also in the Start Here section, you will also find a student readiness survey. Please take the survey to learn about how to be a successful online learner.

Weekly Schedule
Each week, we will have a schedule of events and assignments, with most weeks including a selection of the following exercises: required readings, lectures, discussion board posts, response papers, and lab/video worksheets. Your midterm and final exams will taken through the course Canvas site. A detailed schedule of the weekly assignments and their respective due dates is listed at the end of this document.

Required Readings:
Assorted articles and book chapters for each week have been posted to Canvas (see below). These readings have been selected to reinforce the lecture material and to provide fodder for your response papers and the discussion board conversations. Furthermore, your midterm and final exams will include questions focused on these readings to make sure that you have completed the assignments and have critically engaged with the literature.

Narrated Lectures:
During most weeks, you will be required to watch narrated PowerPoint presentations (approximately 1 – 2 lectures per week). These lectures will provide an overview of the key topics and ideas for the week. These lectures will also incorporate issues associated with the weekly readings to enhance your understanding of this material. Although the lecture slides are also available in pdf format, there will be material and details presented in the narration that is not on the slides that you are also responsible for knowing.

Discussion Board Posts:
On designated weeks (see schedule below), a discussion prompt will be posted based on the lecture material and required readings. These weekly discussions will provide an opportunity for you to demonstrate that you have completed the readings and critically engaged with the material. Moreover, the discussion board offers a forum for you to talk with your classmates and your instructor about course-related material. In the weeks preceding the midterm and final exams, the discussion board can also serve as an "online study group" in preparation for the upcoming tests. In general, I encourage everyone to use the discussion board as a space to ask questions and receive feedback from other students. I will be available to address questions as needed, but this will be a student-facilitated discussion. Please refer to page 12 of the syllabus for a grading rubric of the discussion posts. Discussion participation is worth 10% of your grade.

First Critical Response: You are required to post your first response to the discussion prompt by 11:59PM PST on Wednesday of each week. These posts should be one to two paragraphs in length and need to be well-structured responses that include reactions to the readings and lectures. Please provide appropriate citations as needed using APA format. You are welcome to include one to two questions in your response that may reflect areas of
confusion or additional areas of inquiry. These questions will provide an opportunity for your classmates to critically respond. The first critical response is worth 10 points.

- **Second Critical Response:** You are then required to respond to at least one posting from another student by 11:59PM on Friday of that same week. These posts should be a reaction to the first critical responses posted on Wednesday and should be substantive and well-composed (~1-2 paragraphs). The goal of your second response is to expand your classmates' knowledge and understanding of the key topics in the course. If appropriate, these responses should include citations using APA format. Please provide thoughtful and constructive comments for your fellow students and be respectful of their opinions. Poor behavior will reflect negatively on your grade. The second critical response is worth 10 points.

**Laboratory and Video Exercises:**
During most weeks, students will complete a laboratory- or video-based assignment that focuses on the key topics for that week. These exercises will provide an opportunity for students to acquire hands-on and interactive experiences with the course material. **These assignments will include a worksheet that must be submitted by 11:59PM PST on Sunday of each week.** Each assignment is worth 10 points total. Late assignments will be deducted one point for each day the assignment is late. Weekly assignments are worth 20% of your grade.

**Response Papers**
During the term, each student will write **three** short (2-3 page, double spaced, 12-point font) response papers on topics selected by the instructor. These response papers will provide an opportunity for critical analysis of several current topics related to human biological variation. Your response papers should be concise, focused around a couple of main points, and demonstrate that you have critically evaluated the subject in a sophisticated way. You have the option of approaching your response papers in various ways. For example, you can discuss how the topic relates to your own life and connect the material with a personal issue. Another option is to link it with material from other courses, or you could also develop a critique that brings in outside sources. Please make sure to use formal language and edit for spelling errors and grammar. Response papers are worth 20% of your grade.

**Midterm and Final Exams**
The midterm and final exam will be taken through the course Canvas site. **The midterm exam is scheduled for Weeks Six and Seven (Monday, May 7th – Friday, May 20th), and the final exam is scheduled for Week Ten and Finals Week (Monday, June 4th – Friday, June 15th).**
The midterm and final exams will be based on lectures, readings, discussions, response papers, videos, and lab exercises. They will include objective (multiple choice) and short answer (2-3 sentences) questions. The midterm and final exams are each worth 25% of your grade.

**Expectations and Grading**
Grades are based on a midterm exam, final exam, discussion board participation, response papers, and weekly laboratory or video exercises. Regular online attendance and participation are essential for this course. Moreover, reviewing the required readings and lectures are critical to passing exams and completing weekly assignments.
Exams and assignments must be posted or turned in at the scheduled time—under no circumstances will make-up exams or assignment extensions be given without a documented excuse (e.g. note from your doctor). If you will not be able to take an exam or turn in an assignment, you must notify me in advance (preferably by e-mail) or you will not receive credit.

25% Midterm Exam (during Weeks 6-7)
25% Final Exam (during Week 10 – Finals Week)
20% Weekly Assignments Based on Lab or Video Exercises (6 total; 10 points each; 60 points total)
10% Weekly Participation in Discussion Board (4 total; 10 points for first critical response; 10 points for second critical response; 80 points total)
20% Response Papers (3 total; 20 points each; 60 points total)

Grades will be assigned as follows: A = 90-100%, B = 80-89%, C = 70-69%, D = 60-69%, F < 60% (with minus and plus grades assigned at appropriate cutoffs). The grading system used in this course is as follows:

A – Outstanding performance relative to that required to meet course requirements; demonstrates a mastery of course content at the highest level.
B – Performance that is significantly above that required to meet course requirements; demonstrates a mastery of course content at a high level.
C – Performance that meets the course requirements in every respect; demonstrates an adequate understanding of course content.
D – Performance that is at the minimal level necessary to pass the course but does not fully meet the course requirements; demonstrates a marginal understanding of course content.
F – Performance in the course, for whatever reason, is unacceptable and does not meet the course requirements; demonstrates an inadequate understanding of the course content.

Canvas
This course is delivered on a computer using Canvas. This learning management site will allow you to complete academic work in a flexible manner on your computer. The syllabus, videos, readings, PowerPoint lectures, assignments, and discussion boards are all included on the course site. When you register for the class, you will automatically be enrolled to the site. Issues related to Canvas as well as the design and accessibility of this course should be directed to the UO Academic Extension Distance Education (http://de.uoregon.edu/) and an email can be sent to Disted@uoregon.edu.

Be Computer Ready!
Make sure your computer is ready for this course. If you don’t have the following installed on your computer, make sure you do as soon as possible.

• Microsoft Office Suite software, Mac’s Pages, Open Office Suite software, or a compatible word-processing suite
• Adobe® Reader® software (available as a free download at http://get.adobe.com/reader/)
• QuickTime player, VLC, or any other free video player download
**Accommodations**
Appropriate accommodations will be provided for students with documented disabilities. *If you anticipate needing accommodations in this course, please make arrangements to talk with me soon.* You will need to provide a notification letter from Disability Services outlining your approved accommodations.

**Personal Issues**
If there is a serious issue related to your ability to participate in our course, you need to contact me immediately. Delay in asking for help will cause you to fall behind in the course, and make-up work will not be accepted unless prior accommodations have been made. Please contact me if you have any questions or concerns.

**Academic Honesty**
Academic honesty is essential for each student’s intellectual development. As a student who enrolls in this course, you agree to acknowledge the research and ideas of others in your work and to abide by those rules for exams, response papers, discussion posts, and weekly assignments. For further information about the UO policy on plagiarism, please refer to your student handbook. The UO also provides resources to help you avoid plagiarism. Check out: http://library.uoregon.edu/guides/plagiarism/students/index.html. Additionally, I will be monitoring all work for evidence of plagiarism. Software is now available that can scan a paper or paragraph and compare it to hundreds of sources on the Internet to analyze the degree of its originality. In cases in which plagiarism is observed, it is my responsibility to take appropriate action. *Please, for your protection and development, cite your sources properly and do not plagiarize.* You can find proper use and examples of the APA citation method at the University of Oregon library website: http://researchguides.uoregon.edu/citing-plagiarism.

**Keep Copies of Your Work!**
Given that this is an online course, you should consider storing all your work on a personal external hard drive to protect your material from possible hard drive failures. Your instructor is not responsible for lost or missing coursework. *Please be safe and back up your work.*
## Schedule and Readings:

<table>
<thead>
<tr>
<th>Week/Date</th>
<th>Topics</th>
<th>Assignments</th>
<th>Required Readings</th>
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</thead>
<tbody>
<tr>
<td><strong>Week One</strong></td>
<td>1) <strong>Setting the Stage</strong>: Human Evolutionary Biology</td>
<td>1) <strong>Required Readings</strong></td>
<td>1) Stinson et al. 2012</td>
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<td>April 2-7</td>
<td>2) Are Humans Still Evolving?</td>
<td>2) Narrated Lectures</td>
<td>2) Frisancho 2010</td>
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<td>3) Human Evolutionary Biology</td>
<td>3) Discussion Board: <strong>Course Introduction</strong></td>
<td>3) Gibbons 2010</td>
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<td><strong>Today</strong>: Adaptation and adaptability</td>
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<td>4) Tyson 2009</td>
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<td>4) Video Exercise: <strong>BBC Horizon—Are We Still Evolving?</strong></td>
<td>5) Supplementary Reading for Discussion Board: Ward 2009</td>
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<tr>
<td><strong>Week Two</strong></td>
<td>1) Human Genetic Variation</td>
<td>1) <strong>Required Readings</strong></td>
<td>1) Meier &amp; Raff 2010</td>
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<td>April 8-15</td>
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<td>2) Narrated Lectures</td>
<td>2) Steiper 2010</td>
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<tr>
<td><strong>Week Three</strong></td>
<td>1) <strong>Population Genetics</strong>: Documenting Evolutionary Change</td>
<td>1) <strong>Required Readings</strong></td>
<td>1) Jurmain 2010</td>
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<td>April 16-22</td>
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<td>2) Narrated Lectures</td>
<td>2) Relethford &amp; Harding 2001</td>
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<td>3) Discussion Board: <strong>Modern Genetics Research</strong></td>
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<td>4) <strong>Lab Exercise</strong>: <strong>Population Genetics</strong></td>
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| Week Four  | April 23-29 | 1) Historical Perspectives on Human Variation: The Rise and Fall of the Race Concept  
2) Applied Skeletal Variation and the Concept of Race | 1) Required Readings  
2) Narrated Lectures  
3) Lab Exercise: *Understanding Race*  
- Upload lab worksheet by 11:59PM PST on Sunday, April 29th | 1) Mielke et al. 2011:Chapter One  
2) Ousley et al. 2009 |
| Week Five  | April 30-May 6 | 1) Genetics and the Concept of Race  
2) Race as a Sociocultural Phenomenon | 1) Required Readings  
2) Narrated Lectures  
3) Response Paper: *Rachel Dolezal’s story*  
2) Madrigal & Barbujani 2007  
3) Response Paper  
| Week Six  | May 7-13 | 1) Midterm Exam  
2) Discussion Board for Midterm Review  
First post by 11:59PM PST on Wednesday, May 9th  
- Respond to at least one posting from another student by 11:59PM PST on Friday, May 11th | 1) Midterm Exam:  
- Exam will be available Monday, May 7th thru Friday, May 20th  
2) Discussion Board for Midterm Review  
First post by 11:59PM PST on Wednesday, May 9th  
- Respond to at least one posting from another student by 11:59PM PST on Friday, May 11th | No required readings for this week |
| Week Seven  | May 14-20 | 1) Midterm Exam Continued  
2) Heat Adaptations: Hot-Dry vs. Warm-Humid Adaptations  
3) Climatic Adaptations to Cold Stress: Metabolic Strategies | 1) Required Readings  
2) Narrated Lectures  
3) Lab Exercise: *Body Size and Proportions*  
- Upload lab worksheet by 11:59PM PST on Sunday, May 20th | 1) Brown 2010  
2) Leonard & Katzmarzyk 2010  
3) Snodgrass et al. 2007 |
| Week Eight  | May 21-27 | 1) High Altitude Adaptations: Hypoxia  
2) Solar Radiation Adaptations: Selection in High vs. Low Sunlight Environments | 1) Required Readings  
2) Narrated Lectures  
3) Discussion Board  
First post by 11:59PM PST on Wednesday, May 23rd  
- Respond to at least one posting from another student by 11:59PM PST on Friday, May 25th | 1) Brutsaert 2010  
2) Mielke et al. 2011:Chapter Twelve |
### Anthology 362: Human Biological Variation (Spring 2018)  
*Required and Supplementary Course Readings*

#### WEEK 1

<table>
<thead>
<tr>
<th>Week Nine</th>
<th>Required Readings</th>
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<tr>
<td>1) Social Determinants of Health</td>
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<td>2) Social Inequality and Health Disparities</td>
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<td>3) Psychosocial Dimensions of Stress</td>
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<td>4) Cumulative Measures of Stress: Allostatic Load</td>
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<td>May 25th</td>
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<td>4) Lab Exercise: <em>High Altitude and Solar Radiation</em></td>
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<td>• Upload lab worksheet by 11:59PM PST on Sunday, May 27th</td>
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<tr>
<th>Week Ten</th>
<th>Final Exam</th>
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<tbody>
<tr>
<td>1) Final Exam</td>
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<td>2) Course Wrap-Up</td>
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<td>May 28-June 3</td>
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<th>Week Nine</th>
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<tr>
<th>Week Ten</th>
<th>Final Exam</th>
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<tr>
<td>1) Final Exam</td>
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<td>• Exam will be available Monday, June 4th - Friday, June 15th</td>
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<td>2) Video Exercise: <em>Stress - Portrait of a Killer</em></td>
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<td>• Upload video question worksheet by 11:59PM PST on Sunday, June 10th</td>
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<tr>
<th>Finals Week</th>
<th>Final Exam Continued</th>
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<tr>
<td>June 11-15</td>
<td></td>
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</tbody>
</table>
• Tyson P. 2009. Are we still evolving? *Nova Online* (5 pages); 
  http://www.pbs.org/wgbh/nova/evolution/are-we-still-evolving.html

**WEEK 2**
• Meier RJ, Raff JA. 2010. Genetics in human biology (Ch. 4). In: Muehlenbein MP (ed.) Human 
• Steiper ME. 2010. DNA markers of human variation (Ch. 14). In: Muehlenbein MP (ed.) Human 

**WEEK 3**
• Jurmain R et al. 2010. Population genetics section of Modern Human Biology: Patterns of 
  Variation (Ch. 15). In: Jurmain et al. *Introduction to Physical Anthropology*, Wadsworth/Cengage, 

**WEEK 4**
• Mielke JH et al. 2011. Comprehending human biological diversity (Ch1) In: Human Biological 
• Ousley S et al. 2009. Understanding race and human variation: Why forensic anthropologists are 

**WEEK 5**
• Madrigal L & Barbujani G. 2007. Partitioning of genetic variation in human populations and the 
  concept of race. In: Crawford MH (ed.) *Anthropological Genetics: Theory, Methods, and 
  after-naacp-resignation-t26371.
• Peralta E. 2015. Spokane NAACP Leader's Race Becomes Subject Of Controversy. NPR. Retrieved 
  from http://www.npr.org/sections/thetwo-way/2015/06/12/413882989/race-of-spokanes-
  naacp-leader-becomes-subject-of-controversy.
• Shalby C. 2015. The problem with trying to label Rachel Dolezal. PBS Newsroom. Retrieved from 
• Kim EK. 2016. Rachel Dolezal 1 year later: 'I don't have any regrets about how I identify'. Today 
  any-t85871.

**WEEK 6**
No required readings for this week
WEEK 7

WEEK 8

WEEK 9

WEEK 10
No required readings for this week.
### Discussion Board Rubric

This rubric assesses language skills, content, communication, and critical thinking for all of your posts. Each post is worth 10 points for a total of 20 points total towards your final grade.

<table>
<thead>
<tr>
<th>Score</th>
<th>Writing Comprehension</th>
<th>Language Accuracy/Usage</th>
<th>Critical Thinking</th>
<th>Relevance/ Creativity of Content</th>
<th>Interactivity</th>
<th>Format &amp; Structure</th>
<th>Preparation Process</th>
</tr>
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<tbody>
<tr>
<td>9 - 10</td>
<td>Not difficult for instructor or peers to understand</td>
<td>Few or no significant errors; Consistent evidence of sensitivity to language and culture norms</td>
<td>Minimal recitation of reading material; Appropriate use of material learned outside of class; Great advice offered to peers</td>
<td>Strong relevance and creativity of posted content to weekly readings and to the class in general</td>
<td>Discussion and response posts are thought provoking, engaging, and interactive</td>
<td>Fully followed all directions for post</td>
<td>Excellent degree of preparation, editing, and development of ideas and thoughts</td>
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<td>7 - 8</td>
<td>Minor difficulty for instructor or peers to understand</td>
<td>Some minor errors, but does not impede written responses</td>
<td>Minimal regurgitation of reading material; Some evidence of external learning; Good advice offered to peers</td>
<td>High degree of relevance and creativity of posted content to weekly readings and to the class in general</td>
<td>Discussion and response posts are somewhat thought provoking and engaging</td>
<td>With one exception, followed all directions for post</td>
<td>High degree of preparation, editing, and development of ideas and thoughts</td>
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<td>5 - 6</td>
<td>Some difficulty for instructor or peers to understand</td>
<td>Consistent errors and poor word choices</td>
<td>Moderate repetition of posts and ideas; Moderate evidence of the use of materials or ideas outside of class; Mostly good advice offered to peers</td>
<td>Moderate relevance and creativity of posted content to weekly readings and to the class in general</td>
<td>Discussion and response posts are moderately thought provoking and engaging</td>
<td>Followed most directions for a post</td>
<td>Moderate degree of preparation, editing, and development of ideas and thoughts</td>
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<td>3 - 4</td>
<td>Significant parts are incomprehensible</td>
<td>Frequent errors, poor word choices, and minor cultural awareness and sensitivity</td>
<td>Mostly repetition of posts and ideas; Minimal use of materials or ideas outside of class; Poor advice offered to peers</td>
<td>Minimal relevance and creativity of posted content to weekly readings and to the class in general</td>
<td>Discussion and response posts are minimally thought provoking and engaging</td>
<td>With few exceptions, did not follow directions for post</td>
<td>Minimal degree of preparation, editing, and development of ideas and thoughts</td>
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<td>0 - 2</td>
<td>Completely incomprehensible</td>
<td>Consistent and frequent errors; No evidence of cultural awareness and sensitivity</td>
<td>Only recitation of reading material; No use of any materials or ideas outside of class; Consistently poor advice offered to peers</td>
<td>No relevance and creativity of posted content to weekly readings and to the class in general</td>
<td>Discussion and response posts are not thought provoking, engaging, and interactive</td>
<td>Did not follow directions for post</td>
<td>No evidence of preparation, editing, and development of ideas and thoughts</td>
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