

**University of Colorado, Colorado Springs
Center for Cognitive Archaeology**

ANTH 4310/5310: COGNITIVE EVOLUTION

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Karenleigh A. Overmann directs the Center for Cognitive Archaeology at the University of Colorado, Colorado Springs. She earned her doctorate in archaeology in 2016 at the University of Oxford as a Clarendon scholar. She completed two years of postdoctoral research at the University of Bergen from 2018 to 2020 (MSCA individual fellowship, EU project 785793). Her research focuses on how societies become numerate and literate by using and modifying material forms over generations of collaborative effort, the effect this elaborational mechanism has on conceptual content, how material forms become increasingly refined to elicit specific behavioral and psychological responses, and what this might augur about the future of human cognition. She has also published on the cognitive significance of stone tools, Neandertal cognition, timekeeping, and the literary works of Jane Austen. To date, she has published 43 journal articles, 17 book chapters, and two special journal issues, with a third special journal issue in progress. She has also published five books, including *The Materiality of Numbers* (2023) and *The Oxford Handbook of Cognitive Archaeology* (2023).

Course Objective

This course examines the evolution of human cognition using evidence from cognitive science and archaeology. Traditionally, these two fields of study have shared little in the way of theory or methods, yet both provide crucial pieces to the puzzle of human cognitive evolution. We (you and I) will attempt some coordination. To do this, you must be willing to acquire some unfamiliar facts, jargon, and perspectives fairly rapidly and with an open mind.

Books

All students are required to read one book over the course of the semester; it is entirely available through Canvas:

[Coolidge, F. L., & Wynn, T. \(2017\). *The rise of Homo sapiens: The evolution of modern thinking*, 2nd edition. Oxford: Oxford University Press. Links to an external site.](#)

This course includes significant additional readings throughout the semester. Each of the chapters of the text will be assigned for a particular lesson, but it would be a good idea to get started on reading the book well before the chapters are actually assigned.

Reading Material

The other readings have been chosen from journal articles and book chapters, and they will be made available on Canvas.

Week Reading

- 1 *The Rise of Homo sapiens*, Chapter 1
Coolidge and Wynn, 2001-Executive functions of the frontal lobes
- 2 Kalat, Ch. 5, pp. 122–140
- 3 *The Rise of Homo sapiens*, Chapter 2 (part 1)
- 4 *The Rise of Homo sapiens*, Chapter 2 (part 2)
- 5 *The Rise of Homo sapiens*, Chapter 3
- 6 Tulving, 2002-Episodic memory
Schacter & Addis, 2007-Cog NS of constructive memory
Buckner and Carroll, 2007-Self-projection and the brain
- 7 *The Rise of Homo sapiens*, Chapter 4
Wynn, 2009- Hafted spears and the archaeology of mind
- 8 *The Rise of Homo sapiens*, Chapter 5
- 9 *The Rise of Homo sapiens*, Chapter 6
- 10 Wynn et al., 2011-“An Ape’s View of the Oldowan” Revisited
- 11 *The Rise of Homo sapiens*, Chapter 7
- 12 *The Rise of Homo sapiens*, Chapter 8
Revonsuo, 2000-The reinterpretation of dreams
Franklin and Zyphur, 2005-The role of dreams in the evolution of the human mind
- 13 *The Rise of Homo sapiens*, Chapter 9
Wilkins, 2012-Evidence for early hafted hunting technology
- 14 *The Rise of Homo sapiens*, Chapter 10
Hayden, 2012-Neandertal social structure
- 15 *The Rise of Homo sapiens*, Chapter 11
Wadley et al, 2009-Implications for complex cognition from the hafting of tools

Assignments

There are 15 quizzes, generally one quiz per week, one for each module, comprised of multiple-choice and some essay-response questions. Each multiple-choice question counts equally (1 or 2 points each); the essay-response questions are worth more (15 points). The exams comprise all (100%) of the undergraduate grade in the course. For graduate credit, the exams count 80% and a 10–15 page (APA format) term paper, on a pre-approved topic, counts 20%.

Grading Policy, Criteria, and Scale

Your grade will be determined by weekly quizzes, each of which will cover chapters from the textbook and selected readings. Your final grade will be determined by the number of points that you receive out of the total possible points, noting that the bottom 10% in each category may be awarded a minus, and the top 10% in each category may be awarded a plus.

Student Academic Ethics Code

UCCS has a Student Academic Ethics Code. As noted in the code, students "shall observe complete honesty in all academic matters to include course requirements, classroom activities, research, and scholarship." The Student Academic Ethics Code is posted

here: https://vcaf.uccs.edu/sites/g/files/kjihxj1631/files/inline-files/2017-JUN-27_200-019%20Academic%20Ethics%20Code-APPROVED.docx.pdf

Use of AI Tools

The use of AI tools, including ChatGPT, is permitted in this course for specific assignments only, and these will be graded as assisted rather than original work. When the use of the tool is allowed, it will be explicitly noted in the assignment directions. Students are responsible for the information they submit based on an AI query (for instance, that it does not violate intellectual property laws, or contain misinformation or unethical content). The use of AI tools must be properly documented and cited, using quotation marks or other appropriate indicators of quoted material when appropriate, in order to stay within university policies on academic honesty.

As an **undergraduate** student, your final grade will be determined by the number of points that you receive out of a possible 440 points on the quizzes:

A (90–100%)	396–440 Points
B (80–89.9%)	352–395 Points
C (70–79.9%)	330–351 Points
D (60–69.9%)	308–329 Points
F (below 59.9%)	000–307 Points

As a **graduate student**, your final grade will be determined by the number of points that you receive out of a possible 540 (440 points on the quizzes, plus 100 points awarded for the research paper):

A (90–100%)	486–540 Points
B (80–89.9%)	432–485 Points
C (70–79.9%)	405–430 Points
D (60–69.9%)	378–404 Points
F (below 59.9%)	000–377 Points

Extra Credit

Extra credit is not offered in this course.

Practice Exams

Practice exams on brain form and brain function/dysfunction are offered. These are useful in helping students master key terms, definitions, and concepts. They are located at the bottom of the Modules page.

Graduate Requirements

Graduate students will complete a 10–15 page research paper (about 4000 to 5000 words, not counting the references), due at the end of the semester. The topic selected for the paper must be approved by the professor no later than Week 6. The topic should relate to the evolutionary development of a particular cognitive ability and draw upon archaeological evidence; both

aspects of the paper can be but are not required to relate to topics discussed in the course material.

Due Dates and Deadlines

This syllabus contains the deadline for each module and specifies the dates by which the quiz must be completed. For each deadline, you have until 11:59 PM on the deadline day. Remember, these are DEADLINES. You are encouraged to stay well ahead of these deadlines. The sooner you complete the work, the sooner you'll be done with the course. You should complete each module by the specific date in the Canvas version of the syllabus. Once that date has passed, you can still access the material in the module, but you can no longer take the quiz associated with that module. For example, if Module 3 must be completed by June 23, if you don't take Quiz 3 by 11:59 PM MST on June 23, the quiz will no longer be available in Canvas. However, if you have a good reason for needing additional flexibility in the quiz schedule, please just make your professor aware of it, so the test can be reopened for you.

Academic Calendar

Please refer to the [Academic Calendar](#) for important logistical information such as the last day you may add a class during the semester, the census date, the final day you may drop a class and still receive a refund, fee deadlines, holidays, etc.

Course Evaluation

The UCCS Anthropology Department is committed to providing the best possible learning experience to every student. A key mechanism to provide ongoing excellence in teaching and learning is to gather your thoughts on each course and the effectiveness of our faculty. Students are expected to provide feedback on the quality of instruction in this course by completing an online evaluation, typically during the last two weeks of the semester. These faculty evaluations are called Faculty Course Questionnaires (FCQs). They are forwarded to the course professors after final grades are submitted and contain no identifying information in regard to individual students (i.e., they are anonymous). Additional instructions will be provided via a notification sent to student UCCS email accounts later in the semester. Please know that student feedback is extremely valuable to your professor, the Anthropology Department, and UCCS as a whole. In particular, constructive comments guide the enhancement of future versions of this course.

Excel Centers

If you feel your performance in this class would benefit from additional tutelage, UCCS offers a network of five [online and on-campus](#) centers, each offering a unique program of academic support to help all UCCS students succeed in every aspect of their academic careers.

Disability Statement

A student with a disability who will need accommodations for this course must contact and register with the Disability Services Office, and provide them with documentation of the disability, so that appropriate accommodations for the student's situation can be determined. To avoid any delay in the receipt of accommodations, the student should contact the Disability

Services Offices as soon as possible. Please note that accommodations are not retroactive and that disability accommodations cannot be provided until an accommodation letter has been given to the faculty member. The student may contact Disability Services at Main Hall, room 105, 719-255-3354 or dservice@uccs.edu for more information about receiving accommodations.

Your Professor's Expectations of You

During completion of this course, you must abide by the [UCCS Student Conduct Code](#). This code specifies what is considered proper and improper student conduct, including matters such as cheating and inappropriate behavior. Students who do not abide by the code can receive sanctions ranging up to expulsion from the course or the university.

Remember that this is a 3 credit-hour course at either the senior (4000) or graduate (5000) level. Please plan on spending a lot of time working on this class. This time will include reviewing the material and completing assignments. I suggest that you plan to spend at least 10 hours per week on average (or 20 hours per week for the accelerated summer version). Of course, the amount of time spent does not guarantee you any particular grade. Your letter grade will reflect the amount of material that you learned, as reflected in your test scores and the overall quality of your contributions to the course.

Solving Technical Difficulties

When you're having technical difficulties (pages not loading, connectivity problems, not able to view images, things not working as they should, etc.), please contact the 24/7 Canvas Telephone Support at 844.802.9230 or online at the [Canvas Support CommunityLinks to an external site.](#) page. Please note this service is separate from the [UCCS IT Helpdesk](#).

Help Understanding Course Material

When you have questions regarding course policies, grading criteria, quiz administration, etc., please post your question to the Discussion Board or ask your professor via email.