

## Entomology 1350: THE BIOLOGY OF HOPE AND BELIEF

### SPRING 2022 COURSE SYLLABUS

**Course time and location:** Asynchronous and online

**Credit hours:** 3 hours

**Mode of delivery:** Distance learning via Carmen course website

**Instructor:** Dr. Megan Meuti

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**Office:** 232C Howlett Hall

**Office phone:** 614-688-2829

**Zoom Group Study Sessions:** T 1:00-3:00, W 3:00-5:00 & by appt

**COURSE DESCRIPTION:** *Welcome to this fully online, asynchronous course!* The underlying premise of this course is that the human mind and human behaviors have been shaped throughout our evolutionary history by the force of natural selection. This course critically evaluates evidence that the human *capacity for hope* and the human *desire to believe in a supernatural deity* evolved because they helped our ancestors survive.

In our first Unit we will discuss how we know what we know through different epistemological frameworks. Specifically, we will determine how scientific beliefs are similar to and different from other beliefs/ways of knowing and understanding our world. We will examine how causality is learned in young children and from that how beliefs are formed neurologically. In our second Unit we will explore common misconceptions associated with evolution by means of natural selection, learn how brains and neurons work, and evaluate evidence that animals, like humans, are intelligent and have the capacity to respond to music and live for hope. In the third Unit we will seek to understand how the force of natural selection might have led to both hope and religious faith in our early human ancestors and how hope and belief might have facilitated group cohesion and promoted survival. In our fourth and final Unit, we will explore the neurobiology that underscores religious states such as reverie, mysticism and hallucination. We will learn how brain activity is studied using various types of brain scans and data from brain-injured subjects. We will evaluate data used to support different points of view about the reality of religious states, and how hope and belief are beneficial to modern humans and society.

The course, in short, explores the biological bases for qualities thought to be uniquely human: our capacity for hope and our relationship to a supernatural deity. Note that we will NOT debate or undermine the validity of any religious beliefs, but rather will critically evaluate the evidence supporting the biological basis for hope and faith.

**Please Note: I will communicate with you via email and Course Announcements on Canvas. Please check these sites often as you are responsible for all this information. If you have questions email me, Dr. Meuti at “meuti.1@osu.edu” email addresses; NOT Canvas. ☺**

**COURSE PRE-REQUISITES/CO-REQUISITES AND EXCLUSIONS:** None; counts as natural sciences GE

**COURSE GOALS (OSU GOALS FOR GE NATURAL/BIOLOGICAL SCIENCE COURSE):**

- To understand the biological basis of hope and belief among humans and other animals.
  - Understand the principles, theories and methods of modern science
- To instill an abiding appreciation for the importance of hope and belief to humans and our societies.
  - Understand the potential of science and technology to address problems of the contemporary world
- To improve students' scientific literacy including their understanding of how science is done and how to interpret and analyze scientific results
  - Understand the relationship between science and technology and the implications of scientific discoveries

**LEARNING OBJECTIVES (OSU LEARNING OBJECTIVES FOR GE NATURAL/BIOLOGICAL SCIENCE COURSE):**

Successful students will be able to:

- Understand the basic facts, principles, theories and methods of modern science.
  - Articulate how the process of evolution by the means of natural selection could have contributed to the human capacity for hope and belief.
  - Compare and contrast human neurobiology and behavior with those of other animals.
- Recognize the social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems in the contemporary world
  - Distinguish between scientific and religious epistemologies, identify when each are useful and how they can coexist.
  - Integrate biological information and other forms of data to evaluate the impact of hope and belief on human well-being.
- Describe the interdependence of science and technological developments
  - Articulate how new scientific ideas and technological advancements have contributed to our understanding of hope and belief.
- Understand key events in the development of science and recognize that science is an evolving body of knowledge
  - Examine neurobiological, behavioral, genetic and social evidence supporting the biological basis for hope and belief.

## READING MATERIALS AND RESOURCES:

- **STRONGLY RECOMMENDED:** Fisher, S.W. and M.L. Fisher (2015). *The Biology of Hope and Belief*. ISBN: 978-0-9961672-6-0  
eBook - <http://www.sentiapublishing.com/health-sciences/the-biology-of-hope-and-belief-susan-fisher-ebook/>  
hard copy - <http://www.sentiapublishing.com/health-sciences/the-biology-of-hope-and-belief-susan-fisher-paperback/>
  - The majority of the assigned reading will come from the textbook written for this course by a former instructor, Dr. Susan Fisher.
  - Please note: if you order the E-book version, you will need to use the password that the publisher provides on the completed order screen to download the book. **Please read each screen in its entirety.** If you do not see the password, use the publisher's "Search" field and type in "password."
- All other reading assignments will be posted to the Carmen course website.

*Please complete all reading assignments before watching the recorded lectures. Quiz questions will be created using information presented in the readings **and** videos, so to earn the highest grade possible, you should ensure that you understand all the material in the readings and recorded lectures. 😊*

## COURSE FORMAT:

Because I want you all to do well in this course and understand how and what you need to do each week, I am requiring you to first read the syllabus and complete the "Syllabus Assessment" on Carmen. After you do so and earn >9/10 points, the other course material will be unlocked. 😊 To access material and ensure that you are able to complete the remaining assignments on time, **you should complete the Syllabus Assessment before 11:59 pm on Friday January 14<sup>th</sup>**. If you complete the syllabus assessment after that time, you will be able to access course material, but will miss other important assignment deadlines.

The course will primarily consist of recorded lectures that have been divided into 10-25 minute "chunks." I expect you to **COMPLETE THE READING ASSIGNMENTS BEFORE** you watch the recorded lectures so you that you understand the concepts that will be more thoroughly discussed in the recorded lectures. I also strongly encourage you to take notes on the assigned readings. I will post PowerPoint slides of the lecture to the Carmen site. However, as it would be silly and boring for you if I just read of the slides, I will share additional information during the lectures will be presented that is not on the PowerPoint slides and that will show up on the quizzes. Therefore, I recommend that you take notes as you listen to the recorded lectures. Terms that are important and that I will expect you to know will be written in **blue font** on the PowerPoint slides. Note that you will have to define some of these terms on weekly quizzes. 😊

## COURSE FORMAT (CONTINUED):

To ensure that you are understanding course material, each week you'll also take a quiz over the **reading material, lectures, videos and course announcements**. These quizzes will consist of multiple choice, matching and true/false questions. Each quiz is worth 10 points and you will have 15 minutes to complete it (unless you have an accommodation for extended time). To assess how well you have internalized/remember the material, the **quizzes are closed book and closed notes**. These quizzes are proctored/administered on Carmen, and because of the way the technology is set up, once you open the quiz you must complete it. It will only open once; therefore, if it closes before you finish, it will be graded as is and will NOT open again. Please do ensure that you have a good stable internet connection before starting the quiz! 😊 Answers will not be released to the quizzes until after the deadline has passed. Make-up quizzes/extensions will be given only under extreme circumstances and with the proper documentation (see "Scheduling and Deadlines" in below).

You will also have the opportunity to further engage with and explore course material by completing assignments which will allow you to exercise higher-level cognitive skills. You should **complete these assignments individually**, but please do feel free to email me/attend office hours for help. The assignments vary throughout the semester but generally you will watch a video online or read articles and then answer questions and/or design an original experiment using the information that you have learned. After each of the four units in the course you will also complete a Unit Assessment (worth 50 points). Rather than traditional quizzes/exams (where students often struggle to recall all of the material), these are open book/note/internet and will allow you to do useful things like creating infographics and newsletters, teach someone outside of the course about material, and craft an essay that synthesize course material. ***I know that you are all bright, intelligent and capable students who will pay close attention to the description guidelines and rubrics earn the highest grade possible!*** 😊

Thus, the basic workload for the course consists of:

- **Completing the syllabus assessment to unlock all other course material**
- **Reading ~2-3 chapters of the textbook or other provided readings *each week***
- **Watching two-three recorded lectures *each week***
- **Taking a quiz to assess understanding of course material **and course announcements each week****
- **Completing an assignment each week**
- **Completing 4 course unit assessments**

## TECHNOLOGY REQUIREMENTS:

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection
- **Webcam:** built-in or external webcam, fully installed and tested for meeting with peers and me
- **Microphone:** built-in laptop or tablet mic or external microphone

If you do not have access to the technology you need to succeed in this class, review options for [technology and internet access](https://go.osu.edu/student-tech-access) (go.osu.edu/student-tech-access)

## REQUIRED SOFTWARE:

- Zoom (to connect with peers and me)
- Microsoft Office suite (e.g., Word, PowerPoint, Illustrator) or equivalent programs to create assignments and unit assessments
  - Note that we do NOT expect you to purchase any expensive software for this course and are happy to work with you to find free programs/templates/software 😊
- Adobe Acrobat or equivalent programs to open and save assignments as PDFs

## TECHNOLOGY SUPPORT:

For help with your password, university email, Carmen/Canvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- **Self Service and Chat:** [go.osu.edu/it](http://go.osu.edu/it)
- **Phone:** [614-688-4357 \(HELP\)](tel:614-688-4357)
- **Email:** [servicedesk@osu.edu](mailto:servicedesk@osu.edu)

## POLICIES AND EXPECTATIONS:

- **Class participation:** I expect you to complete the assigned readings and watch the lectures each week so that you can thoughtfully complete course assignments, do well on quizzes and contribute to group assignments/discussions. I expect you to be respectful of your peers, graders and me.
- **Grading philosophy:** Your weekly homework assignments will be graded by a team of students who previously took the course. Your unit assessments and extra credit work (see below!) will be graded by me (Dr. Meuti). Please note that the graders and I do NOT give you points, nor do we take away points away from you. ***You either earn or do not earn points on assignments.*** The graders and I want you to earn the highest grade possible on every assignment and assessment! I am here to help you by clarifying any instructions and answering questions that you have. 😊 However, ultimately your grade is up to you.
- **Scientific rigor:** I understand that most of you are NOT scientists and are likely intimidated by a science GE course. However, while this course is a biology class and will require you to learn important scientific concepts, ***this course is not designed to be difficult or onerous.*** You will have to think critically and connect course concepts. You are all bright, capable and enthusiastic Buckeyes who belong to be here! ***I have every confidence that you will succeed in this course and earn the grade that you want.*** 😊
- **Time commitment:** This course will require approximately the same amount of time as a 3-credit hour, in-person classes. According to the State of Ohio Board of Education accreditation standards, every one credit hour of class credit will require three total hours of time. Specifically, this 3-credit hour course will require ~3 hours of watching lectures, and 6 hours reading, studying, and completing assignments/quizzes. Therefore, you should plan to spend approximately ***6-9 hours/week on this course.*** Most students who spend 6-8 hours/week in this course earn A's and B's. 😊

## POLICIES AND EXPECTATIONS (CONTINUED):

- **Academic Integrity:** I expect you to be honest and ethical students and Buckeyes. All quizzes and assessments must be completed *individually and be your own work*. You must properly cite your sources of information, and acknowledge the help you receive from others. Many of your assignments will be assessed with a plagiarism checking software (TurnItIn and/or iThenticate).

**Unacceptable** behaviors include:

- Copying quiz questions and sharing them, **in any form**, with current or future students (**do NOT post them to public Quizlets**)
- Using notes or the internet during quizzes/exams
- Asking or discussing quizzes and individual assignments with others
- Copying assignments from other students
- Sharing your work with other students
- Appropriating someone else's ideas as your own (also known as plagiarism), which can include but is not limited to failing to cite sources, and not writing the work in your own words.

I will strictly adhere to Ohio State's policy on academic misconduct; *if I suspect you of any form of academic misconduct, I am required to report you to the Committee of Academic Misconduct (COAM)*. Below is their statement:

"It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the [Code of Student Conduct](http://studentconduct.osu.edu) at <http://studentconduct.osu.edu>."

- **Scheduling:** I will post the module for each week on Sundays at 12:00 am EST. The module page will contain the overview describing the week's tasks, recorded lectures and PowerPoint slides. The weekly quiz and assignment will be released with the module. Quizzes are due on Fridays at 11:59 pm EST, giving you 6 days to complete the readings, watch the lectures, and study before taking the quiz. Assignments and Unit Assessments will be due the following Monday by 11:59 PM EST, giving you 9 days to complete the assignment.

## POLICIES AND EXPECTATIONS (CONTINUED):

- **Deadlines/Late work:** Meeting deadlines is an important aspect *of professionalism in ALL future careers*. Please plan carefully. Quiz schedules and deadlines for submitting assigned work are firm, and extensions will **NOT** be granted for conflicts with the work or other courses, or technological difficulties with Carmen.
  - **Accommodations due to illness or other personal situations are granted only with appropriate documentation (doctor's note, obituary, etc.).** If you need an extension for a family emergency or medical reason, please email me before 5:00 pm on the day the assignment/unit assessment is due, and wherever possible, provide the documentation.
  - **Advanced accommodations:** If you need to have an adjusted schedule (e.g., military duty prevents you from opening or submitting assignments during posted window, etc.), please email Dr. Meuti at least 2 weeks prior to requested schedule changes.
  - **Late work:** To ensure that we all stay on track and that your work does not pile up, assignments/Unit Assessments that are submitted late will receive a 10% penalty for every day they are late, up to 3 days late. After that time, your assignment will not be graded for credit.
  - **Quizzes:** Please note that once a quiz deadline has passed and the answers have been released to the class, it CANNOT be reopened.
- **Notetaking:** As I want you to earn the highest grade possible, and because full participation in class activities is crucial for success, I expect you to treat this class with the same respect, attention and planning as you treat your other, in-person classes. Therefore, you **should take notes both when reading the course textbook/articles and when watching the lectures**. You should complete your readings and watch the recorded lectures in a quiet place, free from other distractions. Research shows that students learn best and retain the most information when they take notes by hand ([Bonner and Holliday, 2006 J. Research in Science Teaching](#)). 😊
- **Staying informed:** We will closely follow the schedule on the syllabus and will provide updates and reminders to ensure that you are staying on track. If I have to make modifications or adjustments to the course, provide further details or clarification, and/or schedule review sessions, I will post **a course announcement**. Students are responsible for all information communicated via email and course announcements. Therefore, I expect you to **check the course website and your OSU email at least once every 24 hours during the work week (M-F)**. Again, note that information presented in course announcements will appear on the weekly quizzes.
- **Receiving timely feedback and grades:** The graders are responsible for grading your weekly homework assignments. For weekly assignments, you can expect to receive your grade ~1 week after you turn it in. For Unit Assessments, you can expect to receive your grade ~2 weeks after you turn it in.

## POLICIES AND EXPECTATIONS (CONTINUED):

- **Grades and Grade Disputes:** Graded material will be made available to you on Carmen. I encourage you to carefully look over the feedback on your assignments. Please be sure to see me during office hours (preferred) or email me if you do not understand why any of your answers were incorrect/did not earn full credit. If you feel that a mistake was made on an assignment/quiz, you have the right to dispute the grade. You must discuss your dispute with me no later than **two weeks after the graded assignment has been made available to you**. After that time, the grade will be final.
- **Contacting Dr. Meuti:** I am here to help you succeed in this course. If you have questions, comments or concerns, please email me (Dr. Meuti; [meuti.1@osu.edu](mailto:meuti.1@osu.edu)) and I will do my best to respond within 24 hours during the week or 36 hours on the weekend. ***If you have not heard back within this timeframe, you can and should send an additional email.*** Please do NOT send multiple emails within a 24 hr period or use Canvas to contact me.
- **Intellectual property:** All PowerPoints and other instructional materials in this course are the intellectual property of the presenter and/or instructor. They are not to be shared beyond the course without the expressed written consent of the instructor(s). Recognizing that your work is also your intellectual property, we will not share or distribute your work without your permission. 😊
- **Statement of Intent:** By remaining in this course, you are agreeing to abide by the guidelines outlined in this syllabus. As instructors, we reserve the right to update and/or correct this syllabus. We will notify you should there be a necessary change to the syllabus.

## YOUR MENTAL HEALTH:

As a student you may experience a range of issues that can cause barriers to learning such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University's Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, [on-demand mental health resources](#) ([go.osu.edu/ccsondemand](http://go.osu.edu/ccsondemand)) are available. You can reach an on-call counselor when CCS is closed at [614-292-5766](tel:614-292-5766). **24-hour emergency help** is available through the [National Suicide Prevention Lifeline website](http://www.nationalsuicideline.org) ([suicidepreventionlifeline.org](http://suicidepreventionlifeline.org)) or by calling [1-800-273-8255\(TALK\)](tel:1-800-273-8255). [The Ohio State Wellness app](#) ([go.osu.edu/wellnessapp](http://go.osu.edu/wellnessapp)) is also a great resource.



### **SAFE AND HEALTHY BUCKEYES:**

All students, faculty and staff are required to comply with and stay up to date on all university safety and health guidance (<https://safeandhealthy.osu.edu>). If you have NOT been vaccinated this includes wearing a face mask in any indoor space and maintaining a safe physical distance at all times. Non-compliance will result in a warning first, and disciplinary actions will be taken for repeated offenses.

### **ACCESSING THE WRITING CENTER:**

Many students struggle to clearly express their ideas in writing. Fortunately, the **Writing Center** offers free help with writing at any stage of the writing process for all students. During their sessions, consultants can work with you on anything from research papers to lab reports, from dissertations to résumés. Appointments are available in-person at 4120 Smith Lab, as well as for online. You may schedule an in-person or online appointment by visiting WC Online or by calling 614-688-4291. Please note that the Writing Center also offers daily walk-in hours—no appointment necessary—in Thompson Library. You do not have to bring in a piece of writing in order to schedule a writing center appointment. Many students report that some of their most productive sessions entail simply talking through ideas.

### **DIVERSITY STATEMENT:**

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment.

To learn more about diversity, equity, and inclusion and/or to get involved, please visit:

- <https://odi.osu.edu/>
- <https://odi.osu.edu/racial-justice-resources>
- <https://odi.osu.edu/focus-on-racial-justice>
- <http://mcc.osu.edu/>

## **CREATING AN ENVIRONMENT FREE FROM HARASSMENT, DISCRIMINATION, AND SEXUAL MISCONDUCT:**

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

To report harassment, discrimination, sexual misconduct, or retaliation and/or seek confidential and non-confidential resources and supportive measures, contact the Office of Institutional Equity:

1. Online reporting form at [equity.osu.edu](https://equity.osu.edu),
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email [equity@osu.edu](mailto:equity@osu.edu)

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

This course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles can be found at <https://go.osu.edu/principlesofcommunity>. For additional information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (<https://equityandinclusion.cfaes.ohio-state.edu/>). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at <https://studentlife.osu.edu/bias/report-a-bias-incident>.

## REQUESTING DISABILITY ACCOMMODATIONS:

The university strives to make all learning experiences as accessible as possible. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, we will request that you register with Student Life Disability Services. After registration, make arrangements with us as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion, **ideally by Monday January 17th**. SLDS contact information: [slds@osu.edu](mailto:slds@osu.edu); 614-292-3307; [slds.osu.edu](http://slds.osu.edu); 098 Baker Hall, 113 W. 12th Avenue.

## IMPORTANT DATES (\*Note: these are subject to change. [Please see registrar linked here](#)):

- Last date to drop without receiving a “W” on your record: **Friday February 4, 2022**
- Last date to drop with a “W”: **Friday March 25, 2021**

## SYLLABUS ASSESSMENT:

All course materials are provided on Carmen. Content is organized by weeks, or modules. In order to access the course content, you must complete a syllabus assessment to ensure that you have carefully **READ** and **UNDERSTAND** the format of the course and expectations. You must **complete the syllabus assessment by Friday January 14<sup>th</sup> at 11:59 pm EST**. If you complete the assessment after this time, you will be able to access course material, but you will NOT be able to complete other course assignments on time and will therefore be unable to earn those points.

## ASSIGNMENTS AND GRADES:

Your grade is based on performance in the following areas:

- **Syllabus Assessment (10 points; 2% of your final grade):** This assessment is used to ensure that you have read and understand the policies, expectations and course format described in the syllabus. You must complete this by Friday January 14<sup>th</sup> at 11:59 pm EST so that you can unlock and access other course content.

## ASSIGNMENTS AND GRADES (CONTINUED):

- **Quizzes (nine, 10-point quizzes = 90 points; 18% of your grade):** Ten quizzes will be offered over the semester, but only 9 will count for your grade. Quizzes will be posted to the course website and will have questions related to assigned readings, recorded lectures/videos and course announcements. **Quizzes must be completed by 11:59 pm EST on Fridays.** There will be NO make-up quizzes. Please don't ask unless you have medical documentation and provide it to Dr. Meuti prior to quiz deadline. To compensate for conflicts due to athletics, performances, illnesses, busy schedules, etc., **you may drop one quiz without penalty or prior permission.** The quiz average is determined based on the percentage of total available points. For students who take all quizzes, the lowest quiz score will be dropped. 😊
- **Assignments (ten, 20-point exercises = 200 points; 40% of your grade).** You will be asked to complete an assignment each week for 11 weeks. These will allow you to apply information learned in the lectures. They may include watching a video, reading articles, answering questions, reflecting on your own personal experiences or creating something original (Venn diagram, design an experiment, etc.). **Unless otherwise stated, all responses must be typed and submitted as a PDF file to the TurnItIn dropbox on the Carmen course website.** Each assignment is worth 20 points and will be **due by 11:59 pm EST on the Monday following the week it is posted.** You will be able to drop your lowest score OR choose one assignment that you can skip without negatively impacting your grade.
- **Course Unit Assessments (four, comprehensive unit assessments each worth 50 points = 200 points total; 40% of your grade):** After each of the 4 units in the course, there will be a comprehensive assessment that will allow you to synthesize information from that unit. Each will be worth 50 points and will be due on the Monday following the unit at 11:59 pm EST. **These are NOT optional/cannot be dropped.** Please pay attention to the assignment descriptions and rubrics as these will be the basis for your grade. Limited details on each unit assessment are below:
  - **Unit I Assessment: Infographic displaying how we know what we know.** For this assignment you will create a one page infographic (examples will be provided) comparing and contrasting different ways of knowing and describing the process by which beliefs are formed. **Due Mon. Jan. 31<sup>st</sup> 11:59 PM.**
  - **Unit II Assessment: Socratic interview to teach a peer/family member about natural selection, intelligence and hope in animals.** For this assessment you will interview/teach a peer (NOT in this class) or family member about how natural selection works and the evidence for intelligence and hope in non-human animals. This interview can be conducted via Zoom or any other platform to create an MP3 or MP4 file. **Due Monday February 28<sup>th</sup> at 11:59 PM EST.**

## ASSIGNMENTS AND GRADES; UNIT ASSESSMENT DESCRIPTIONS (CONTINUED):

- **Unit III Assessment: Newsletter describing how altruism evolved.** For this assessment you will craft a newsletter that explains how altruistic behaviors might have evolved and their benefits to social groups. **Due Monday March 28<sup>th</sup> at 11:59 PM EST.**
- **Unit IV Assessment: Essay describing how hope and belief are beneficial to modern humans and societies.** For this assessment, you will complete an individual essay where you synthesize information presented throughout the course and conduct investigative journalism to find credible sources that illustrate that hope and belief are beneficial to modern humans and our societies. As part of the essay, you will critique the validity/rigor of your sources/evidence. **Due Wednesday April 27<sup>th</sup> at 11:59 PM EST.**

### EXTRA CREDIT OPPORTUNITIES (up to 50 pts = 10% of your final grade)

- **Course pre, and post course evolution surveys:** In order to assess how this course impacts your understanding and attitudes towards evolution, you will have the opportunity to complete pre- and post-course surveys. These surveys are completely optional and are **worth 5 points each (10 points total), but you must complete BOTH the pre and post course survey to receive credit.**
  - *The pre-course survey is due Friday January 14<sup>th</sup>*
  - *The post-course survey is due Friday April 22<sup>nd</sup>*
- **Midterm feedback survey:** This anonymous survey will allow you to provide valuable feedback on what is helping or hindering your learning in this course so that I can improve it this the semester and in future offerings. This survey will be available during the 7th week of classes (**Due Friday February 25<sup>th</sup>**) and will be worth 5 points.
- **Participation in weekly discussions:** For 10 weeks with normally scheduled module, an optional extra credit discussion board will be available. You can use this space to ask a question, answer a peer's question or reflect on how the course material relates to your life. You can earn up to 1 extra credit point for each week that you participate (maximum of 10 points).
- **Participation in synchronous study sessions:** Throughout the semester I will host 3 synchronous Zoom meetings. Students who attend will have the opportunity to ask and answer questions in real-time, discuss relevant material/articles, provide feedback on the course and further engage with the material. Participation in these sessions will be worth up to 5 pts/session (maximum of 15 extra credit points).

## EXTRA CREDIT OPPORTUNITIES (CONTINUED):

- **Random Acts of Hope:** You have the option of earning up to 10 points for practicing Random Acts of Hope. These can be almost anything. For instance, you might call a friend or family member who you know is having a difficult time. You might purchase or prepare a meal for someone less fortunate, or help a stranger find her lost dog. You can report anything you do that helps some other creature that requires selfless effort on your part. ***To get credit, you need to do two things: write down what you did and explain how it made you feel.*** You must upload your Random Act of Hope as a single document on the Carmen dropbox before 11:59 pm EST on **Friday April 15th**. For each act, you will receive 1 point, up to a total of 10 points (i.e., up to 10 acts). It can make a partial grade difference in your final score, so it is worth your time and effort. 😊

## GRADING SCALE:

This course is out of 500 points and uses OSU's standard grading scale. Hence

Letter	Percentage	Points	Letter	Percentage	Points
A	93-100	>465	C	73-76	365-384
A-	90-92	450-464	C-	70-73	350-364
B+	87-89	435-449	D+	67-69	335-349
B	83-86	415-434	D	63-66	315-334
B-	80-82	400-414	D-	60-62	300-314
C+	77-79	385-399	E	0-59	0-299

## COURSE SCHEDULE:

Course Theme	Course Week	Reading	Watching	Doing (Assignments)	
How do we know what we know?	0	The Syllabus	Lecture 00: Course Orientation	Complete Syllabus Assessment <i>Due Friday January 14</i>	
				Optional Extra credit: Complete pre-course survey. <i>Due Friday January 14</i>	
		Chapter 1: The Genesis of This Book	Lecture 01: Epistemologies: Different ways of knowing	Assignment 1: Critique an article about hope for its credibility. <i>Due Monday January 17th</i>	
	1	Optional Synchronous Study Session: Read and discuss short articles on American's distrust of science. <b>Wednesday January 19th 7:15-8:00 pm.</b>			
		Chapter 20: Forming beliefs and How it is Done	Lecture 02: How beliefs are formed in childhood	Complete Quiz 1 <i>Due Friday January 21st</i>	
		Chapter 22: Don't Stop Believin' AND Chapter 23: Do You Believe in Magic?	Lecture 03: Receptivity to the Supernatural	Assignment 2: Differences between scientific and religious epistemologies <i>Due Monday January 24th</i>	
2	Previous lecture and reading notes	Optional Pre-recorded Synthesis Session: How and why can we have multiple ways of understanding our world?	Unit I Assessment: How we know what we know infographic. <i>Due Monday January 31st.</i>		
Humans and Animals: "Hopefully" we aren't so different	3	1. Kilman 2005 "What every undergrad should know about evolution & why"	Lecture 04: The Finer points of Natural Selection	Complete Quiz 2 <i>Due Friday February 4th</i>	
		2. Dobzhansky "Nothing in biology makes sense except in the light of evolution."	Lecture 05: Pre-requisites for the biological basis of hope and belief	Assignment 3: Predict how animals would respond to climate change. <i>Due Monday February 7th</i>	

## COURSE SCHEDULE (CONTINUED):

Course Theme	Course Week	Reading	Watching	Doing (Assignments)	
Humans and Animals: "Hopefully" we aren't so different	4	Chapter 5: How Neurons Work	Lecture 06: How neurons communicate	Complete Quiz 3. <i>Due Friday February 11th</i>	
		Chapter 4: Structure of the Nervous System	Lecture 07: Neurobiology basics	Assignment 4: Basic Neurobiology. <i>Due Monday February 14th</i>	
	5	Chapter 6: Neurobiology of Emotion	Lecture 08: Are emotions based in the brain?	Complete Quiz 4. <i>Due Friday February 18th</i>	
		Chapter 9: Is Music a Portal to the Devine?	Lecture 09: The strange case of music	Assignment 5: Can animals also respond to music? <i>Due Mon Feb 21</i>	
	6	Optional Synchronous Study Session: Can human emotions be boiled down to neurotransmitters? AND mid-semester Small Group Instructional Discussion (SGID) <b>Tuesday February 22nd 10:15 - 11:00 am.</b>			
		Chapter 11: Do Animals have Hope?	Lecture 10: Do animals have hope? Scientific experiments	Complete Quiz 5 <i>Due Friday February 25th</i>	
		Chapter 12: Hope in Animals	Lecture 11: Do animals have hope? Anecdotes from Dr. Barbara King TED talk and Clever Monkeys video	Optional extra credit: Provide feedback on the course in SGID and midterm survey. <i>Due Friday February 25th</i>	
				Assignment 6: Animal Intelligence <i>Due Monday March 1st</i>	
	7	Reading and lecture notes as well as relevant, credible outside sources	Previous recorded lectures and assignment instructions.	Unit II Assessment: Socratic interview to teach a peer or family about the evidence that hope has a biological basis in humans and other animals <b><i>Due Monday March 7th</i></b>	



## COURSE SCHEDULE (CONTINUED):

Course Theme	Course Week	Reading	Watching	Doing (Assignments)
Were hope and belief crucial elements during early human evolution?	8	Chapter 15: Evolution of Morality in Primates	Lecture 12: Morality in Great Apes	Complete Quiz 6 <i>Due Friday March 11th</i>
		Chapter 13: The Upright Ape: Evolution of the Brain and Bipedalism	Lecture 13: The upright ape: Evolution of the human brain and bipedalism	Assignment 7: Becoming Human <i>Due Monday March 14<sup>th</sup></i> <i>(Note this is the start of Spring Break, so turn in your assignment early! 😊)</i>
		Spring Break! March 14 – March 18		
	9	Chapter 17: The Selective Advantage of a Sacred Narrative	Lecture 14: Advantages of morality and a sacred narrative	Complete Quiz 7 <i>Due Friday March 23rd</i>
		Chapter 18: Mental Criteria for Acquiring Religion & Chapter 19: Evidence for Religious Practice among Hunter-Gatherers	Lecture 15: Evolution of religion	Assignment 8: The Evolution of Religion <i>Due Monday March 28th</i>
	10	Reading and lecture notes as well as relevant, credible outside sources	Optional Synthesis Session: Weighing the evidence for and against the importance of hope, morality and belief in hunter gatherers	Unit III Assessment: Create a newsletter describing the evolutionary basis for altruism. <i>Due Monday April 4th</i>

## COURSE SCHEDULE (CONTINUED):

Course Theme	Course Week	Reading	Watching	Doing (Assignments)	
What are the benefits of hope and belief to modern humans and our society?	11	Chapter 8: The Neurochemistry of Hope	Lecture 16: Placebos and the Benedetti Experiments	Complete Quiz 8 <i>Due Friday April 8th</i>	
		Chapter 9: Serotonin and Artificial Hope	Lecture 17: Neurobiology of hope and hopelessness	Assignment 9: Placebos and Addiction. <i>Due Monday April 11h</i>	
	12	Optional synchronous study session: How do SSRI's and illicit drugs create artificial hope? <b>Thursday April 14th 3:15- 4:00 pm</b>			Complete Quiz 9 <i>Due Friday April 15th</i>
		Chapter 10: The Yin-Yang Relationship of Hope and Despair	Lecture 18: The balance between hope and despair	Optional extra credit: Random Acts of Hope <i>Due Friday April 15</i>	
		Chapter 27: Neurotheology	Lecture 19: What is neurotheology and what evidence supports it?	Assignment 10: Experiments and reflections on hope, prayer/meditation <i>Due Monday April 18th</i>	
	13	Chapter 24: Spiritual Beliefs in the Brain	Lecture 20: Spiritual beliefs in the brain	Complete Quiz 10 <i>Due Friday April 22nd</i>	
		Chapter 25: Is there a God Gene? The Heritability of Belief	Lecture 21: The genetic basis for belief	Optional extra credit: Post-course evolution survey <i>Due Friday April 22nd</i>	
				Assignment 11: Defining hope <i>Due Monday April 25th</i>	
	Final exam	Reading and lecture notes as well as relevant, credible outside sources	Optional Pre-Recorded Synthesis Session: What are the benefits of hope and belief to modern-day humans?	Unit IV Assessment: Write an essay discussing how hope and belief are beneficial to modern humans and our society. <b>Due Wednesday April 27th</b>	

**FINAL COURSE ASSESSMENT OPENS SUNDAY, APRIL 19<sup>TH</sup> AND MUST BE COMPLETED BY 11:59 PM ON WEDNESDAY APRIL 27<sup>TH</sup>**

**NOTE: GRADUATING SENIORS MUST EMAIL DR. MEUTI AFTER SUBMITTING THEIR UNIT IV ASSESSMENT**