

Syllabus for EVO 301 (Spring 2020)

Evolutionary Studies Seminar
SUNY New Paltz
Professor: Glenn Geher

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Course Assistant:

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Required Reading Materials (Note that the order of reading is demarcated in calendar section):

[Wilson, D. S., Geher, G., Mativetsky, H., & Gallup, A. \(2019\). *Darwin's Roadmap to the Curriculum: Evolutionary Studies in Higher Education*. New York: Oxford University Press.](#)

[Geher, G. \(2014\). *Evolutionary Psychology 101* \(CHAPTER 1, provided free\). New York: Springer.](#)

[Glass, D. J., Wilson, D.S., & Geher, G. \(2012\). Evolutionary training in relation to human affairs is sorely lacking in higher education. *EvoS Journal: The Journal of the Evolutionary Studies Consortium*, 4\(2\), 16-22.](#)

[Geher, G., Rhodes, T., Di Santo, J. M., Goldstein, A. R., & Newhook, K. \(in press\). *Crayons, Darwin, and the Evolution of Life: A Drawing-Based*](#)

[Activity to Demonstrate Natural Selection. *EvoS Journal: The Journal of the Evolutionary Studies Consortium*.](#)

OPTIONAL Readings to Help Student Writing and Development

[Geher, G. \(2015\). *How to not plagiarize*. *Psychology Today*.](#)

[Geher, G. \(2017\). *How to really write a psychology paper*. *Psychology Today*.](#)

[Geher, G. \(2018\). *Writing tips*. *Psychology Today*.](#)

[Geher, G. \(2018\). You cheater! Psychology Today.](#)

[Geher, G. \(2018\). How to write a research proposal. Psychology Today.](#)

2. Readings provided by our invited speakers ([found here](#)).

3. Readings for your paper.

Course Background and Objectives:

Without question, this is the most intellectually exciting, intense, and educational course that I've ever been part of. This semester will be no exception. This course will be intense and will, without question, force you to challenge long-standing beliefs about life and the world – and will get you to, for the rest of your life, develop a powerful way to understand connections among phenomena near and far. Evolutionary theory is perhaps the most integrative set of ideas in all of academia – and understanding it well, along with understanding applications of evolution to disparate phenomena (from the nature of human warfare to the reproductive strategies of wild garlic) will, without question, make you a more informed person.

This course is the cornerstone of the New Paltz EvoS Program – a program that has been the recipient of a \$500,000 grant from the National Science Foundation. Make no mistake about it – this is not an ordinary course and this is not an ordinary program. And I'm not just saying that. In this course, you will be exposed to basic ideas of evolution with many primary readings. You will also be exposed to examples of evolutionary reasoning applied across several different areas – including guest visits from some of the top evolutionary scholars alive on this planet. (again, this is not an ordinary course). You will meet with these scholars in small settings and will have multiple opportunities for interaction.

Throughout the course, you will also work on an original paper – related to an area of interest to you – that connects to evolution in some important way. These papers have tended to be extraordinary in past incarnations of this course – and several have been published in the peer-reviewed journal: *EvoS Journal: The Journal of the Evolutionary Studies Consortium*. And one, a paper on evolution and education by Katie Gruskin, led to a publication in the APA journal *Evolutionary Behavioral Sciences*.

Work hard, take advantage of what all is offered by this course and the EvoS program that surrounds it, and your understanding of the world will be enhanced qualitatively. Simply: work hard, you'll learn a lot!

Each and every class you take should change your worldview – if even slightly – in some way. This class should be no exception. The journey will not be easy – the readings will be dense – the writing assignments will be graded with a critical eye – and the exam will be designed at a high level. If all goes right, the successful student in this class will be rewarded intellectually for his or her hard work. I want that to be you. Welcome.

Student Learning Objectives / Outcomes

- describe basic processes of evolution (e.g., natural and sexual selection)
 - describe differences between different evolutionary forces
 - apply evolutionary principles to organismic evolution
 - apply evolutionary principles to understanding issues of behavior
 - apply evolutionary principles to understanding issues of the arts and humanities
 - build connections and articulate connections between different areas of scholarship that all employ evolutionary approaches
 - describe major criticisms of evolutionary approaches as applied to issues of humanity
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ASSIGNMENTS:

1. Posting of Content-Oriented BlackBoard Comments Regarding Each Guest Speaker (UNGRADED – **16% of final grade**; each of the 8 weeks counts for 2%. 0 for zero postings, 50 for one posting; 100 for two or more postings*). Note that the FIRST POSTING MUST be made within three days BEFORE the guest's visit (or on the date of the guest's visit – before 5:00pm) and the SECOND POSTING MUST be made within the three days AFTER the guest's visit (prior to midnight of the third day after the talk - e.g. for a talk on 2/10, the second post would be due before midnight of 2/10.)

A core element of this class will include visits by guest speakers on evolutionary topics. In addition to the discussion that we'll have during class, we'll have online discussions (facilitated by our course assistant) via BlackBoard. For each speaker, to receive full credit, you need to post at least TWO content-oriented comments as new discussion threads OR as a reply to a peer's post/thread. Your comments need to be content-oriented (e.g., *I'm curious about the physiological mechanisms that underlie the polygynous behaviors in non-human primates that Natalia Reagan discussed ...*). If your comments are deemed as non-content-oriented by the course assistant or myself, you will not receive credit.

NOTE: One possibility for a posting, especially for a pre posting, would be to formulate a content-oriented question for the speaker. This posting could serve as double-duty in that you could ask this question of the speaker during the "pre talk." ALSO, note that a great idea for a post-talk comment would be to post a proposed research question based on the speaker's talk. Of course, other possibilities exist. Just keep it content-oriented and thoughtful!

NOTE ALSO that the BlackBoard posting for 4/14 was added AFTER THE FACT in response to the corona situation; effectively posting in that forum on time (once or more) will count for two points. Note that these are, essentially, bonus points. 0% for not posting therein; 100% for posting effectively therein before midnight of the due date (demarcated in the calendar). Effective posts simply include content-oriented posts that bear on the relevant readings.

2. Oral Presentation. (UNGRADED – **5% of final grade.** 100 for doing it; 0 for failing to do it). CHANGED DUE TO CORONA: You are to upload into the Google Folder (linked in Calendar section of this syllabus) a PowerPoint and/or a video (~10-15 minutes) of you presenting content related to your paper.

3. Final Exam (GRADED – **45% of final grade**).

During the semester, I will work with the course assistants to create essay questions based on the readings. During the timeslot of the final exam (found in the calendar section of this syllabus), we will book 10-minute timeslots for each student. Remotely, via ZOOM, we will meet in that timeslot. I will, by a random process, pick a THREE ESSAYS from the list (link below) of a priori essays and ask you to answer it. You are to choose ONE of these three to respond to during your final exam. I will record the session just to have a record of your answer. I will grade

you on a 0-100 scale and this will be your final-exam grade. [HERE is a list of the potential essays.](#)

PAPER ASSIGNMENT (Please read CAREFULLY)

Your paper will be a brief research proposal (approximately 600-1,000 words of text, excluding the title and reference pages). See a model of a research proposal, along with steps to create such a paper, [here](#). Basically, you should introduce a topic that relates to evolution in some way. And you also should come up with some research question that you would like to answer via research/data collection. (NOTE that this assignment is a proposal and you will not actually collect data). You should frame your research question in terms of evolutionary concepts. The you should describe why the question makes sense as well as how you would (hypothetically) test the question. You should also discuss the possible implications that the findings might have.

It will be broken into the following sub-sections:

4. Topic for Paper (UNGRADED – 4% of final grade. 100 for submitting at start of class period. 0 for failing to submit at start of class period).

As this course is writing-intensive, it is designed so that you can obtain feedback on different elements of a term paper on a topic of your choosing. Such feedback at multiple stages is critical for honing writing skills.

For this assignment, you simply need to provide a thesis topic for your term paper. It can be on any topic that you can directly relate to evolution (as long as it can be conceptualized in terms of some research question). Here is a brief sample of topics:

- Evidence for animal evolution in the geological record
- Evidence for plant evolution in the geological record
- Evidence for human evolution in the geological record
- Some specific physiological evolutionary adaptation (e.g., neurons in squids that allow for rapid propulsion)
- Some specific behavioral evolutionary adaptation (e.g., the nests of bowerbirds created by males during courtship).
- Some feature of human evolution (e.g., such as a paper on the hobbit-like creatures called "*Homo floresiensis*," recently discovered to have lived in Australia)
- Mating behaviors in some animal species
- Human mating behaviors
- DNA as a tool for understanding shared ancestry across species
- The evolution of emotional expressions
- The evolution of human social systems
- The evolution of social systems of other primates (e.g., olive baboons)
- The evolution of the social insects (e.g., honey bees)

- The evolution of art
- The evolution of humor
- The evolution of human intelligence
- The evolution of religion
- The evolution of sexual dimorphism in sexually reproducing species

This list is, in fact, remarkably incomplete. Talk to me and the course assistants about topics – and let the readings for the course help guide you toward a topic that fascinates you.

What to hand in: A brief (one-paragraph, or so) statement of the topic you'd like to study for your term paper. The more specific and focused you are at this point (all things equal), the better.

You are to hand this assignment in via actual paper/hard copy.

5. Preliminary Draft of Paper (UNGRADED – **5% of final grade**. 100 for submitting at start of class period. 0 for failing to submit at start of class period).

This draft should be as complete as you can make it to allow me to optimally comment on your work. While you get full credit for submitting something when this is due (see calendar), I urge you to shoot high and put a lot into this draft. Further, feel free to bring to my office hours (or the course assistant's office hours) for feedback at any point in the process.

This paper should have approximately 5-10 academic references and be in [APA format](#).

You are to hand this assignment in via email - just simply as text within the email (no attachments, please). Email at geherg@newpaltz.edu

6. Final Draft of Paper (GRADED – **25% of final grade**.)

This paper should be a well-honed research proposal that you might be able to follow up on at a future point. This could be, for instance, the basis of an honor's thesis or even a master's thesis. Many New Paltz students have taken work from this class and have gone on to publish in the academic literature. Make this assignment count!

You are to hand this assignment in via email - just simply as text within the email (no attachments, please). Email at geherg@newpaltz.edu

And it needs to be in [APA \(American Psychological Association\) format](#) and include a separate title page and a separate references page.

Grading: Grades for all assignments will be converted to percentages. The following equation will be used to determine your final grade:

- Final grade
(BlackBoard Comments for Presenter #1 * .02) +
(BlackBoard Comments for Presenter #2 * .02) +

(BlackBoard Comments for Presenter #3 * .02) +
(BlackBoard Comments for Presenter #4 * .02) +
(BlackBoard Comments for Presenter #5 * .02) +
(BlackBoard Comments for Presenter #6 * .02) +
(BlackBoard Comments for Presenter #7 * .02) +
(BlackBoard Comments for Presenter #8 * .02) +
(BlackBoard Comments for discussion of applications of evolution on 4/13 * .02) +
(Oral Presentation * .05) +
(Final Exam * .45)+
(Topic * .04)+
(Draft * .05)+
(paper* .25)

Your final grade will be on a scale from 0 to 100. Final grades will be converted to letter grades using the following criteria:

94 – 100 = A
90 – 93 = A-
87 – 89 = B+
84 – 86 = B
80 – 83 = B-
77 – 79 = C+
74 – 76 = C
70 – 73 = C-
67 – 69 = D+
64 – 66 = D
60 – 63 = D-
Below 60 = F

Calendar (NOTE: All HIGHLIGHTED sections will likely be, in some way, modified due to the current coronavirus situation)

Date	Topic/Activity	Readings	Due
1/27	Welcome to class	THIS SYLLABUS Activity to Demonstrate Natural	
2/3	Class orientation. And What is Evolution?	Geher, G., Rhodes, T., Di Santo, J. M., Goldstein, A. R., & Newhook, K. (in press). Crayons, Darwin, and the Evolution of Life: A Drawing-Based Selection. <i>EvoS Journal: The Journal of the Evolutionary Studies Consortium</i>. Geher, G. (2014). Evolutionary Psychology 101 (CHAPTER 1, provided free). New York: Springer. CHAPTERS 1, 4, & 15 of Wilson, D. S., Geher, G., Mativetsky, H., & Gallup, A. (2019). <i>Darwin's Roadmap to the Curriculum: Evolutionary Studies in Higher Education</i>. New York: Oxford University Press.	
2/10	GUEST SPEAKER: Kerry Carso (Art Historian)	Assigned reading from speaker.	BlackBoard Postings
2/12 (W)	Charles Darwin's 211th Birthday!!!		

2/17	Evolution and Education in the Modern World	CHAPTERS 5, 8, 16, 17, 18 of Wilson, D. S., Geher, G., Mativetsky, H., & Gallup, A. (2019). <i>Darwin's Roadmap to the Curriculum: Evolutionary Studies in Higher Education</i>. New York: Oxford University Press.	
2/24	GUEST SPEAKER: Dan Glass (Clinical Psychologist and SUNY New Paltz alum!)	Assigned reading from speaker.	BlackBoard Postings PAPER TOPIC is due
3/2	GUEST SPEAKER: Marianne Brandon (Clinical Psychologist)	Assigned reading from speaker.	BlackBoard Postings
3/9	GUEST SPEAKER: Lydia Bright (Biology)	Assigned reading from speaker.	BlackBoard Postings
3/16-3/30	Spring Break!!! Make sure to bring your textbooks to Florida!!!		
3/30	GUEST SPEAKER: JOEL WADE (via video; The Evolutionary Psychology of Breaking up and Making up Joel Wade, Ph.D.)	Assigned reading from speaker.	BlackBoard Postings

4/6	GUEST SPEAKER: <u>Animal Hypnosis: The Role of Fear and Predation**</u> Gordon Gallup, Ph.D. (via video)	<u>Assigned reading from speaker.</u>	BlackBoard Postings
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4/13	Applications of Evolution (A discussion board will be created for this; all students must submit at least one content-oriented post that is related to the readings prior to midnight of 4/6)	CHAPTERS 7, 9, 10, 12, & 13 of <u>Wilson, D. S., Geher, G., Mativetsky, H., & Gallup, A. (2019). Darwin's Roadmap to the Curriculum: Evolutionary Studies in Higher Education. New York: Oxford University Press.</u>	PAPER DRAFT is due (prior to 11:59pm of this date)
4/20	GUEST SPEAKER: <u>Sex, Hormones, and the Evolution of Human Behavior^P</u> David Puts, Ph.D. (via video)	<u>Assigned reading from speaker.</u>	BlackBoard Postings
4/27	GUEST SPEAKER: <u>Evolutionary Medicine: A not so radical (but absolutely necessary) Paradigm for Modern Health and Behavior^P</u> Mandy Guitar, M.A. (via video)	<u>Assigned reading from speaker.</u>	BlackBoard Postings; FINAL PAPER DUE (via email; prior to midnight of 4/27)

5/4	ORAL PRESENTATIONS!	(submit PowerPoint and/or video of you discussing your topic HERE (by uploading to google folder)!	Presentations are Due prior to midnight;
5/11	FINAL EXAM – 5-7pm***	This will now be an oral exam - scheduled slots and details will be provided ahead of time via an email to all students The potential essays for the exam are here.	

Course Assistant Guidelines

The course assistants for this class are included to be an important asset to the educational experience of this course. In addition to generally assisting with the delivery of this course, the course assistants will serve the specific following functions:

1. hold office hours to meet with students to go over writing assignments and help students understand content, etc.
2. attend the class and help contribute to and facilitate discussion
3. stay abreast of all assigned readings to be in a position to help students understand material
4. facilitate BlackBoard discussions regarding the readings and speakers (being responsive to student queries and helping correct information when necessary, etc.)

Course Policies

1. **Cheating**. DO NOT CHEAT. Any student caught cheating on an exam will automatically fail that exam and, perhaps, the course. In addition, his or her name will be reported to the administration. This stuff gets ugly quickly.

2. **Plagiarism**. Plagiarism occurs when material is taken from a source without proper citation. If you quote something directly (i.e., if you use another author's EXACT WORDS), you **must** use quotation marks. If you borrow an idea and reword it, you **must** report your source. Any student caught plagiarizing will automatically fail the assignment and, perhaps, the course. In addition, his or her name will be reported to the administration. DO NOT PLAGIARIZE. OFFICIAL PLAGIARISM STATEMENT IS HERE:

<https://www.psychologytoday.com/blog/darwins-subterranean-world/201512/how-not-plagiarize>

3. **Missing exams**. A Make-up exam may be given **if** there are extenuating circumstances AND it (the make-up exam) is officially **scheduled before** the scheduled examination. If such circumstances are shown to exist, you may be able to take a make-up exam. Special arrangements will be made as to the time and place of any make-up exams. If a student requests a make-up exam after the scheduled examination, and especially extenuating circumstances (e.g., a serious illness) are demonstrated to exist, scheduling of a make-up exam might be considered.

4. Late Assignments.

If you can get through your college career without ever handing in a late paper, you're on the fast-track to success and I want to strongly encourage you to get there. As such, note the following:

A. the BlackBoard posts will not be accepted late (unless, perhaps, evidence of some dramatic and conspicuous extenuating circumstance are provided).

B. The paper topic, outline, and rough draft will not be accepted late either (unless, perhaps, evidence of some dramatic and conspicuous extenuating circumstance are provided). If you do not hand these assignments in on time, you should do them anyway and bring them to my office hours to get my feedback so you can better succeed on subsequent assignments.

C. ABSOLUTELY NO PAPERS WILL BE ACCEPTED AFTER the START of THE LAST DAY OF CLASS (NOT THE FINAL EXAM). Further, any such late papers must be handed in by the student him or herself **at** the meeting of the last class.

D. If you miss giving your oral presentation, you will receive a grade of 0 (unless, perhaps, evidence of some dramatic and conspicuous extenuating circumstance are provided).

E. All assignments that are not accepted will be assigned grades of 0.

5. Attendance. All students are strongly encouraged to attend all class meetings.

6. SUNY New Paltz's ADA Policy Statement:

Students with documented physical, learning, psychological and other disabilities are entitled to receive reasonable accommodations. If you need classroom or testing accommodations, please contact the Disability Resource Center (Student Union Building, Room 205, 257-3020). The DRC will provide forms verifying the need for accommodation. As soon as the instructor receives the form, you will be provided with the appropriate accommodations. Students are encouraged to request accommodations as close to the beginning of the semester as possible.

7. SUNY New Paltz's Academic Integrity Statement:

Students are expected to maintain the highest standards of honesty in their college work. Cheating, forgery, and plagiarism are serious offenses, and students found guilty of any form of academic dishonesty are subject to disciplinary action. For definitions of these offenses, as well as the process that a faculty member will follow if a student is found to be engaging in any form of academic dishonesty, see the section on Academic Integrity in the Advising Handbook, available at www.newpaltz.edu/acadadv.

8. Course conflicts. If you have a regular scheduling conflict with this course (e.g., you will have to leave every class before the end of class because of work, you have another course scheduled that overlaps with this course, or you will be going to Rome for 2 weeks during the term) you should **not** take this course.

9. Your paper for this class may NOT be based on a paper you have written for another class.

10. NO ELECTRONIC DEVICES (e.g., cellphones, Blackberries, text-messaging devices, Sony Playstations, etc.) may be turned on **during class or during an examination unless an agreement is made with the instructor ahead of time**. Possible penalties for breaching this policy during an exam include failing said examination and/or having an academic dishonesty complaint filed against the student in question. **And remember, texting is evil! ...**

As a teacher I feel that my role is to help you learn, not to grade you, so please feel free to come see me or call me throughout the term if you have any concerns or questions. I mean it. Have a great semester.

[Writing tips are linked here.](#) You are **REQUIRED** to check all of your written work against this document.