Introduction to Liberal Arts & Sciences: Evolution Across the Disciplines

Dr. Everett Hamner
Western Illinois University, Fall 2013
A&S 195, Wednesdays 9-11:30, QC Riverfront 224, westernonline.wiu.edu
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General Catalog Description & Prerequisites

A comparative introduction to the major areas of the liberal arts and sciences. Students will learn how each area evolved and how each approaches problems and controversies. The course may take its particular focus each year from the university theme.

Specific Description & Goals

Charles Darwin’s theory of evolution is one of the most significant ideas in human history. Building on decades of earlier biology, he helped define evolution as descent with modification from common ancestry. His key insight into the process of natural selection was elegantly simple: organisms produce more offspring than their environments can sustain, so individuals whose traits best match a given ecosystem will be more likely to survive and reproduce. This causes their particular variations to become more common, so much so that over time, whole new species emerge.

According to polls taken over the last quarter century, however, 40-50% of Americans—far more than in any other developed nation—reject this scientific paradigm. In many cases their concerns stem from misunderstandings of the scientific term “theory” and insufficient exposure to the evidence. Other influences have been evolution’s confusion with “social Darwinism” or eugenics and its equation with atheism. Although mistaken, such assumptions have been very pervasive across the 150-year-plus history of Darwin’s idea, with major repercussions for science’s public influence more broadly (e.g. in the cases of climate change denial and resistance to efforts toward environmental sustainability).

Through examining evolution and its cultural reception, this course offers students a stronger grasp of the unique capacities of the sciences, social sciences, and humanities. Studying biological, sociological, historical, literary, and filmic texts, and engaging a wide range of guest lecturers and unique materials, we will explore the many opportunities of the liberal arts and sciences. Featuring a moderate reading load, a handful of comprehension quizzes, regular written reflections, and the chance to dialogue extensively with fellow students, the course culminates with an argumentative essay tied to an area of personal interest. Key questions throughout will include:

- Where do terms like “evolution,” “natural selection,” “survival of the fittest,” “Social Darwinism,” “creationism,” “intelligent design,” “theory,” “knowledge,” and “faith” overlap and diverge?

- How have debates about evolution uniquely impacted the last century of American culture—on such issues as civil rights, feminism, abortion, homosexuality, genetic research, and climate change?

- How might we better integrate an understanding of evolutionary theory with approaches to literature, film, history, philosophy, religious studies, sociology, anthropology, and other fields?
### Meeting, Reading, & Assignment Schedule

#### 1<sup>st</sup> WEEK, AUG 21<sup>st</sup>: DEFINING EVOLUTION, DEFINING THE LIBERAL ARTS & SCIENCES

**IN CLASS:**
- "Tree of Life" short video
- A working vocabulary for this semester’s discussions
- Chart from Jerome Kagan’s *The Three Cultures*
- Self-introductions (using introductory survey handout)
- Syllabus review and discussion of goals and assignments

#### PART ONE: THE SCIENCE OF EVOLUTION

#### 2<sup>nd</sup> WEEK, AUG 28<sup>th</sup>: THE BASICS OF EVOLUTION & NATURAL SELECTION, PART 1

**VIEWING:**
- Film: *Evolution: Darwin’s Dangerous Idea* (part 1) ([https://www.youtube.com/watch?v=iA-c23O64UE](https://www.youtube.com/watch?v=iA-c23O64UE))

**READING:**
- Scott Freeman & Jon C. Herron, “The Pattern of Evolution” (ch 2, *Evolutionary Analysis*)

**IN CLASS:**
- Guest: Dr. Amy Patrick Mossman (Interim Director, LAS Program)
- Guests: Liberal Arts & Sciences Student Organization (LASSO) officers
- “Evolution 101” sections 1-3, “Introduction,” “The History of Life,” & “Mechanisms” ([http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_toc_01](http://evolution.berkeley.edu/evolibrary/article/0_0_0/evo_toc_01))

#### 3<sup>rd</sup> WEEK, SEPT 4<sup>th</sup>: THE BASICS OF EVOLUTION & NATURAL SELECTION, PART 2

**VIEWING:**
- Film: *Evolution: Darwin’s Dangerous Idea* (part 2) ([https://www.youtube.com/watch?v=vbjRAvKiU4M](https://www.youtube.com/watch?v=vbjRAvKiU4M))

**READING:**
- Freeman & Herron, “Darwinian Natural Selection” (ch 3, *Evolutionary Analysis*)

**WRITING:**
- Reflection #1: What did you find most surprising or intriguing about the portrayal of Charles Darwin and his thinking in *Evolution: Darwin’s Dangerous Idea*?

**IN CLASS:**
- Guest: Dr. Jeanette Thomas (Biology)
- Introduction to the Persuasive Correspondence assignment & meet partners

#### 4<sup>th</sup> WEEK, SEPT 11<sup>th</sup>: THE GOALS & LIMITS OF SCIENCE

**READING:**
- Ian Barbour, “The Structures of Science and Religion”
- Chris Mooney, “The Science of Why We Don’t Believe Science”

**IN CLASS:**
- Quiz #1 (*Darwin’s Dangerous Idea*, Freeman/Heron, Thomas, Barbour, Mooney)
- Guest: Dr. Charles Lydeard (Biology)
- Charles Darwin, *The Origin of Species*, key passages
- Darwin’s remembrance of Annie and a letter from Emma
- Meet with partners for Persuasive Correspondence assignment
### PART TWO: EVOLUTION VIA THE SOCIAL SCIENCES & HUMANITIES

#### 5th WEEK, SEPT 18th: SOCIOLOGY, SOCIAL DARWINISM, & THE PERSISTENCE OF SEX

**VIEWING:** ~Film: *Evolution: Why Sex?* ([https://www.youtube.com/watch?v=Wns5OQR74OQ](https://www.youtube.com/watch?v=Wns5OQR74OQ))

**READING:** ~Stephanie A. Shields and Sunil Bhatia: “Darwin on Race, Gender, and Culture”

**WRITING:** ~Reflection #2: How do you understand genetic and environmental factors to impact sexual/gender identity? Do you think one has greater influence than the other?

**IN CLASS:** ~Guest: Dr. Tammy Werner (Sociology): Gender, race, and misapplications of Darwin ~Meet with partners for Persuasive Correspondence assignment

#### 6th WEEK, SEPT 25th: A HISTORY & POLITICS OF U.S. OPPOSITION TO EVOLUTION, PART ONE

**READING:** ~Excerpts from *The World’s Most Famous Court Trial* (key moments for Bryan & Darrow)

**WRITING:** ~Persuasive Correspondence assignment due online Sun 9/29

**IN CLASS:** ~Genesis 1-2 as an ancient near eastern text ~The 1925 Scopes Trial and its filmic mutations (*Inherit the Wind*, 1960)

#### 7th WEEK, OCT 2nd: A HISTORY & POLITICS OF U.S. OPPOSITION TO EVOLUTION, PART TWO

**READING:** ~Amy Harmon, “A Teacher on the Front Line as Faith and Science Clash”

**VIEWING:** ~Film: *Evolution: What about God?* ([https://www.youtube.com/watch?v=cFlmNaCfu3E](https://www.youtube.com/watch?v=cFlmNaCfu3E))

**WRITING:** ~Reflection #3: In what two moments in week 6-7 reading/viewing were you especially (1) able and (2) unable to empathize with particular persons or characters? Why?

**IN CLASS:** ~Quiz #2 (Why Sex?, Shields/Bhatia, Werner, Trial excerpts, Harmon, What about God?) ~Slide show tour of The Creation Museum; Islamic creationism; high school biology

#### 8th WEEK, OCT 9th: THE STORIES WE TELL, PART ONE

**READING:** ~A. S. Byatt: “Morpho Eugenia” (in *Angels and Insects*), 1st half (read up to “And once or twice more he found her diligently at work,” right after a * * * section break, near p. 95)

**IN CLASS:** ~Background info and guiding questions for interpreting Byatt

#### 9th WEEK, OCT 16th: THE STORIES WE TELL, PART TWO

**READING:** ~A. S. Byatt: “Morpho Eugenia” (in *Angels and Insects*), 2nd half

**WRITING:** ~Reflection #4: If Byatt’s novella were boiled down to a single argumentative claim, what would it be, and what evidence from the text most suggests this to you?

**IN CLASS:** ~Guest: Sarah Horowitz (English MA program alumnus)
### PART THREE: SOME STILL-EVOLVING QUESTIONS OF THE ARTS & SCIENCES

**TU OCT 22**

Lecture at St. Ambrose University by Sandra Steingraber, author of *Living Downstream*, a book on ecology & public health (more details to come)

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<th><strong>10th WEEK, OCT 23</strong>: WHY STUDY THE LIBERAL ARTS &amp; SCIENCES?</th>
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| **READING:** | ~Sanford J. Ungar, “7 Major Misperceptions about the Liberal Arts”  
~Hart Research Associates, “It Takes More than a Major”  
| **IN CLASS:** | ~Quiz #3 (“Morpho Eugenia,” Ungar, “Six Students’ Views,” Hart Research)  
~Guest: Audrey Adamson (Career Services, WIU)  
~John Landy, “In Defense of Humanities” (video lecture excerpt) ([https://www.youtube.com/watch?v=L8VssKBCQ4A&](https://www.youtube.com/watch?v=L8VssKBCQ4A&))  
~Argumentative paper assignment introduction |

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<th><strong>11th WEEK, OCT 30</strong>: HOW IS EVOLUTION REPRESENTED IN POPULAR CULTURE?</th>
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<th><strong>12th WEEK, NOV 6</strong>: HOW IS HUMANITY AFFECTING EVOLUTION GLOBALLY?</th>
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| **IN CLASS:** | ~Guest: Tom Finley (Library)  
~Extended clips from *An Inconvenient Truth* (2006)  
~The Next Generation Science Standards (April 2013)  
~Strengthening argumentative paper topics and thesis statements |

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TUESDAY, NOV 5: ELECTION DAY—VOTE!

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<th><strong>13th WEEK, NOV 13</strong>: HOW ARE HOMO SAPIENS &amp; OTHER SPECIES EVOLVING LOCALLY?</th>
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| **IN CLASS:** | ~Quiz #4 (Butler, Adaptation, NCSE climate website, *An Inconvenient Truth*, Steingraber)  
~Guest: Dr. Heather McIlvaine-Newsad (Anthropology)  
~Steingraber’s film adaptation of *Living Downstream* (2010, DVD 2013) |
**PART FOUR: INDIVIDUAL PROJECTS**

14th WEEK, NOV 20TH: THESIS BRAINSTORMING & ENGAGING OTHERS’ VIEWS

**IN CLASS:** ~"The Creation," ch. 4 of Terence Malick’s film *The Tree of Life* (2011)
~Characteristics of a strong introductory paragraph: Hook, Thesis, & Map
~Quoting and citing others: Who? Why? When? How much?
~Group writing consultation (bring three copies of your paper so far)
~Course evaluations

NO CLASS NOV 27TH (THANKSGIVING BREAK)

15th WEEK, DEC 4TH: WRITING TIME & INDIVIDUAL/GROUP CONSULTATIONS

**WRITING:** ~Argumentative paper: full draft due online by Tu 12/3

**IN CLASS:** ~Individual and group writing consultations
~Reverse outlining
~Effective verbal presentations

FINALS WEEK, DEC 11TH: ONE LAST POLISH

**WRITING:** ~Argumentative paper: final versions due online before class

**IN CLASS:** ~3-minute formal presentations of argumentative papers

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Texts for Purchase

**PLEASE NOTE:**
*Prices below are rounded from recent amazon.com new prices—fyi, that site has free 2-day shipping for students. In many cases, used copies can be purchased less expensively (also try bookfinder.com). *Other materials will be posted/linked via Western Online and may be printed on campus at no cost.


Grading Criteria

~An **A** recognizes broad and deep understanding of the course material, regular and insightful discussion contributions, and very strong written work—a major impact on the course’s success.
~A **B** indicates good commitment to coursework, demonstrable contributions and achievements in both verbal and written analysis, and tangible positive impact on other students’ learning.
~A **C** reflects adequate completion of coursework, including satisfactory participation and writing.
~A **D** or **F** denotes incomplete or unsatisfactory coursework, unsatisfactory participation (missing more than 20% of class time or >3 classes), and / or detraction from course goals (via plagiarism or otherwise).
I will figure final grades using the university scale (A, B, C, D, or F, with pluses/ minuses) and the values below (with minor adjustments as needed). Please note the “My Grades” function on the course website, which lets you track assignment grades and estimate your current overall grade at any point.

- 40% Quizzes (4 x 10% each)
- 10% Reflections (average of four grades)
- 10% Persuasive Correspondence assignment
- 40% Argumentative paper (30%) and final presentation (10%)

**Brief Looks at Assignments**

**Quizzes:** These will neither be picky, insignificant-detail interrogations, nor such easy affairs that one could prepare sufficiently by reading summaries. The idea is that anyone who recently read/viewed all of the assigned texts with good comprehension will average 70-80% of the points available (i.e., earn a “B” or better). Students usually grumble about the quizzes initially, but soon agree they provide valuable accountability during the course and allow for higher-quality, greater-depth discussions.

**Reflections:** These are informal writing assignments in which mechanics and organization play a minimal role in the grading (do not ignore these entirely, but don’t stress about them either). Instead, the reflection pieces are primarily about brainstorming and thinking out loud. The main grading criteria I will use, then, are the extent with which you probe a given question, the creativity and originality of your ideas, the ways you engage our various course texts and previous discussions, and the critical self-awareness that you display. In addition to broadening and deepening your personal engagement with the course’s bigger questions, the reflections also give me another tool for gauging the class’s responses to the material and for launching subsequent class discussions.

**Persuasive Correspondence assignment:** Good essay writing is closely related to other forms of interpersonal communication. Before taking on a more traditional argumentative paper, students will be placed in groups of 4-5. Ideally, each group will include fairly diverse background experiences with science and religion, so that the in-person and written conversations allow everyone to better grasp alternative viewpoints and persuasively but civilly argue for their own positions. We will use class time to share viewpoints, but the graded assignment will consist entirely of the written correspondence, which will occur on the course website under DISCUSSIONS. Final quantity will vary, but each student should personally compose at least 2000 words spread across at least five different individual postings.

Your individual grade will be based on your own writing; I will keep the conversational context in mind, but not judge anyone on the basis of others’ work. In determining grades, I will look for a healthy balance of frankness and respect; in-depth engagement with complex details about evolution and our working vocabulary; discussion of key biological evidence and its significance; and patient, persistent effort to tease out the sources of similarities and differences with other group members. In the final days of the correspondence, each student should include a concluding reflection on the experience of at least 300 words. As with the Reflections assignment, organization and mechanics will be less important than depth of thought, but should not be ignored entirely. It may help to see a prior student group’s persuasive correspondence transcripts; this is on the website under CONTENT.

**Argumentative paper:** A short but very carefully revised 2000-word (7-8 pp.) argumentative paper about the representation of evolutionary biology in a particular cultural text, whether a novel, film, or otherwise, and whether featured in the course or not. Each student should engage materials that are individually interesting, referencing at least three secondary materials from the syllabus and at least three from beyond it. Consultations about topic and thesis possibilities (whether via email or after class) may begin as soon as students are ready, but definitely by weeks 10-11. Please note that there are separate due dates for topic and thesis, pages 1-3, a full draft, and the final version; this is not a paper to dash off at the last minute! While preliminary drafts will not be graded, their timely completion and the project’s improvement across them will affect borderline final grades. As with the letter-writing assignment, more details and examples will be available as we approach the assignment.
PLEASE NOTE:
The remaining information is included on all of my syllabi. Keep in mind that its application will vary in some measure according to the students involved and the particular emphases of each course.

My Teaching Philosophy and Habits

Like every student, every teacher has unique strengths and weaknesses. Often these are closely related: the same tendency that is appreciated by some can prove problematic for others. Either way, I think the more that is transparent from the beginning, the more quickly we will develop a strong rapport, so here are a few of my expectations that may help to make explicit:

~I want students to be personally authentic. I very much hope this course will prove pleasurable and enriching, and that will be most likely insofar as you and your peers tactfully and honestly share reactions to often controversial materials and topics. I intentionally raise such issues because a public university classroom can be an ideal setting for the frank but gracious disagreements that yield genuine insights and move a culture forward. I want us to develop a community in our classroom that you look forward to participating in, one that spills into other interactions well beyond the semester’s end.

~At the same time, I want students to be professionally responsible. I encourage you to approach this course as part of your job, with tasks that are yours and yours alone. While I am very understanding that it will not be easy to balance this course and others, part-time or even full-time jobs, childrearing, and other worthwhile endeavors, I take seriously my duty to challenge you beyond your comfort zone and to honestly assess the quality of your work. Please trust that I am interested in your growth personally and professionally regardless of the grade I might assign your quiz or paper on a given day.

~We all have our strengths and weaknesses, and while most of our time will be spent studying fields in which I am relatively expert, I expect to learn just as much as you. Wisdom is not just knowledge, but humility, a deepening awareness of how much one does not know. I spent many years earning graduate degrees not in order to hoard power, but so I could be in a position to empower others. Thus I see you as critical contributors to what lies ahead: what you get out of this course will be directly related to what you put into it, both during and especially outside of our meeting times.

Attendance & Participation

My courses differ substantially from those requiring regurgitation of memorized information. Instead, our goals include learning new interpretive approaches, understanding diverse people and ideas, expanding critical thinking and creativity, strengthening analytical and writing skills, and benefiting from each other’s unique backgrounds of experience. As a result, preparation for each session, regular attendance, and thoughtful discussion participation are crucial commitments for all concerned. Except in life-threatening or extreme circumstances, chronic absence or lateness (missing more than 20% of class-time, or more than 3 meetings) will automatically lower final grades by one full letter. Additional non-attendance may lower grades further and result in an “F” for the course.

Classroom Courtesies

Please excuse yourself when necessary; transitions between activities are the best time. Also, please turn off or mute cell phones, mp3 players, and other potential distractions before class (you can laugh with me if I forget); obviously, laptops and other electronic devices should not be used during quizzes. Finally, please wait to put away materials until we call it a day; I will respect your schedules as well.

Making Contact

Whenever you have an idea or a question about this course that has not been addressed on the syllabus or in class discussions, please feel welcome to contact me. While I very much appreciate students turning to each other first for simpler questions about assignments and missed materials, etc., I also encourage you to email me, grab me after class, or meet with me during office hours. Email is almost
always the best means; I usually check it several times daily and respond within a day or two. However, I check voice mail only at my office and several days can pass before I receive messages. Please also note that I often use email to make class announcements, so make sure I have an address you check daily.

General Writing Assignment Guidelines

I will provide further information about goals and grading criteria for each paper, but it is worth familiarizing yourself now with a good style guide. I use MLA style most often, but other styles (Chicago, APA, or another with pre-approval) are fine as long as they are consistently applied. Also, please use this page setup on all assignments, unless specified otherwise: 1” justified margins on all sides; size 12, Times New Roman font; and double-spacing. Finally, provide a cover page including paper title, course title and my name, your name, and date, as well as a list of works cited or a bibliography (depending on the style you employ and the assignment).

The Writing Center

The Writing Center offers free individual instruction from experienced professionals. Areas of writing help may include generating ideas, suggesting organization, and working through grammatical issues. While walk-ins are welcome, appointments are recommended. See www.wiu.edu/qc/writing_center/.

Late Work

If you anticipate special difficulty in meeting a deadline, discuss this with me well in advance so that if warranted, we can consider special arrangements. Because readings and assignments are in many ways cumulative, it is important that you keep up; at the same time, we lead busy lives and things happen. Balancing those twin realities, I will not penalize work submitted within a week of the due date on the first occasion, but beyond that exception, assignments will lose one-third of a letter grade per week late.

Academic Dishonesty

Plagiarism, cheating, and other forms of academic dishonesty are among the most serious violations of a student’s integrity and of relationships with the instructor, fellow classmates, and the university. In the humanities, plagiarism most often involves presenting another person’s specific words or ideas as one’s own, whether by copying or closely paraphrasing, and without citing the source. Please be aware that such an offense may lead directly to an “F” for the course. We will briefly review proper citation in class, but if you have questions about how to credit an idea or information source, ask! If you are unsure about definitions or consequences of academic honesty, consult WIU’s Student Academic Integrity Policy at www.wiu.edu/policies/acintegrity.php.

Accommodations

“In accordance with University policy and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. For the instructor to provide the proper accommodation(s) you must obtain documentation of the need for an accommodation through Disability Support Services and provide it to the instructor. It is imperative that you take the initiative to bring such needs to the instructor’s attention, as he/she is not legally permitted to inquire about such particular needs of students. Students who may require special assistance in emergency evacuations (i.e. fire, tornado, etc.) should contact the instructor as to the most appropriate procedures to follow in such an emergency. Contact Disability Support Services at 298-2512 for additional services” (from Official University Policy Manual at www.wiu.edu/policies/syllabus.php).

Student Rights & Responsibilities

For further information on expectations for both students and university personnel, please see www.wiu.edu/provost/students/.