

# HIST 120B: THE HISTORY OF DARWINISM

## In Workflow

1. HIST Committee Chair (schneider@csus.edu)
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## Approval Path

1. Fri, 28 Jul 2023 21:26:57 GMT  
Khal Schneider (schneider): Approved for HIST Committee Chair
2. Fri, 28 Jul 2023 21:27:59 GMT  
Jeffrey Wilson (jkwilson): Approved for HIST Chair
3. Thu, 07 Sep 2023 23:33:27 GMT  
Jacqueline Irwin (irwin): Rollback to Initiator
4. Wed, 04 Oct 2023 18:47:26 GMT  
Khal Schneider (schneider): Approved for HIST Committee Chair
5. Wed, 04 Oct 2023 22:13:49 GMT  
Jeffrey Wilson (jkwilson): Approved for HIST Chair
6. Thu, 05 Oct 2023 04:03:57 GMT  
Jacqueline Irwin (irwin): Approved for ALS College Committee Chair
7. Thu, 05 Oct 2023 16:25:12 GMT  
Melinda Wilson Ramey (mwilson): Approved for ALS Dean
8. Mon, 30 Oct 2023 20:21:47 GMT  
Katie Hawke (katedickson): Approved for Academic Services

## New Course Proposal

Date Submitted: Tue, 03 Oct 2023 21:02:23 GMT

**Viewing: HIST 120B : The History of Darwinism**

**Last edit: Tue, 03 Oct 2023 21:02:21 GMT**

Changes proposed by: Jeffrey Wilson (212375398)

**Contact(s):**

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**Catalog Title:**

The History of Darwinism

**Class Schedule Title:**

The History of Darwinism

**Academic Group: (College)**

ALS - Arts & Letters

**Academic Organization: (Department)**

History

**Will this course be offered through the College of Continuing Education (CCE)?**

No

**Catalog Year Effective:**

Spring 2024 (2023/2024 Catalog)

**Subject Area: (prefix)**

HIST - History

**Catalog Number: (course number)**

120B

**Course ID: (For administrative use only.)**

TBD

**Units:**

3

**Is the only purpose of this change to update the term typically offered or the enforcement of existing prerequisites at registration?**

No

**In what term(s) will this course typically be offered?**

Fall, Spring

**Does this course require a room for its final exam?**

Yes, final exam requires a room

**Does this course replace an existing experimental course?**

No

**This course complies with the credit hour policy:**

Yes

**Justification for course proposal:**

The history of science is a substantial discipline at many universities that is underserved at CSUS. We do cover the history of medicine and of the physical sciences, but not the history of biological sciences. Expanding into all of biology is a large project, but the history of Darwin's Theory of Evolution by Natural Selection and its various derivatives allows us to narrow the topic, yet still include the discovery and development of the foundational paradigm of modern biology. It also satisfies the historical discipline's need for the social context and impact of related pseudo-sciences such as Social Darwinism, phrenology, and eugenics.

**Course Description: (Not to exceed 80 words and language should conform to catalog copy.)**

The work of Charles Darwin and its effects. Study of the development of Darwinism from its original form through Neo-Darwinism, Mendelian and population genetics, the modern synthesis, and molecular genetics to current technologies like CRISPR. Covers social applications and pseudoscience such as Social Darwinism, craniometry, eugenics, as well as present-day debates over the uses of molecular genetics.

**Are one or more field trips required with this course?**

No

**Fee Course?**

No

**Is this course designated as Service Learning?**

No

**Is this course designated as Curricular Community Engaged Learning?**

No

**Does this course require safety training?**

No

**Does this course require personal protective equipment (PPE)?**

No

**Does this course have prerequisites?**

No

**Does this course have corequisites?**

No

**Graded:**

Credit / No Credit

**Approval required for enrollment?**

No Approval Required

**Course Component(s) and Classification(s):**

Lecture

**Lecture Classification**

CS#02 - Lecture/Discussion (K-factor=1WTU per unit)

**Lecture Units**

3

**Is this a paired course?**

No

**Is this course crosslisted?**

No

**Can this course be repeated for credit?**

No

**Can the course be taken for credit more than once during the same term?**

No

**Description of the Expected Learning Outcomes and Assessment Strategies:**

List the Expected Learning Outcomes and their accompanying Assessment Strategies (e.g., portfolios, examinations, performances, pre-and post-tests, conferences with students, student papers). Click the plus sign to add a new row.

	Expected Learning Outcome	Assessment Strategies
1	Cite critical observations, underlying assumptions and limitations to explain and apply important ideas and models in one or more of the following: physical science, life science, mathematics or computer science.	Midterm, final, first paper, second paper
2	Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.	Midterm, final, first paper, second paper
3	Discuss historical or philosophical perspectives pertaining to the practice of science or mathematics.	Midterm, final, first paper, second paper
4	Summarize a basic understanding of the development of fundamental ideas in evolutionary biology from 1859 until today.	Midterm, final, first paper, second paper
5	Practice reading a historical monograph.	First paper
6	Evaluate a biologist's arguments evaluating various racial theories in science and pseudoscience.	Second paper

**Attach a list of the required/recommended course readings and activities:**

HIST120B-MARTINEZ-FA2024 History of Darwinism.docx

**For whom is this course being developed?**Majors of other Depts  
General Education**Is this course required in a degree program (major, minor, graduate degree, certificate?)**

No

**Does the proposed change or addition cause a significant increase in the use of College or University resources (lab room, computer)?**

No

**Will there be any departments affected by this proposed course?**

No

**I/we as the author(s) of this course proposal agree to provide a new or updated accessibility checklist to the Dean's office prior to the semester when this course is taught utilizing the changes proposed here.**

I/we agree

## **University Learning Goals**

### **Undergraduate Learning Goals:**

Competence in the disciplines  
Knowledge of human cultures and the physical and natural world  
Intellectual and practical skills  
Integrative learning

**Is this course required as part of a teaching credential program, a single subject, or multiple subject waiver program (e.g., Liberal Studies, Biology) or other school personnel preparation program (e.g., School of Nursing)?**

No

## **GE Course and GE Goal(s)**

**Is this a General Education (GE) course or is it being considered for GE?**

Yes

**In which GE area(s) does this apply?**

B5. Further Studies in Physical Science, Life Forms and Quantitative Reasoning (Upper Division Only)

**Which GE objective(s) does this course satisfy?**

Read, write, and understand relatively complex and sophisticated English prose.  
Construct a non-fallacious verbal argument, recognize fallacious arguments, and follow the verbal arguments of others.  
Find and use common information resources, engage in specialized library research, use computers and seek out appropriate expert opinion and advice.  
Gain a general understanding of current theory, concepts, knowledge, and scientific methods pertaining to the nature of the physical universe, ecosystems, and life on this planet.  
Possess a significant and useful understanding of peoples from a diversity of cultures and backgrounds, including women and ethnic and other minority groups who have been the objects of prejudice and adverse discrimination within our society.

**Attach Course Syllabus with Detailed Outline of Weekly Topics:**

HIST120B-MARTINEZ-FA2024 History of Darwinism.pdf

Syllabi must include: GE area outcomes listed verbatim; catalog description of the course; prerequisites, if any; student learning objectives; assignments; texts; reading lists; materials; grading system; exams and other methods of evaluation.

**Will more than one section of this course be offered?**

No

## **General Education Details - Area B5: Further Studies in Physical Science, Life Forms and Quantitative Reasoning**

Section 1.

**Indicate in written statements how the course meets the following criteria for Category B5. Relate the statements to the course syllabus and outline. Be as succinct as possible.**

**Course type:**

Physical Science or Life Forms

## **For courses in physical science or life forms:**

**Develops an understanding of the principles underlying and interrelating natural phenomena including the foundations of our knowledge of living systems.**

Since Evolution by Natural Selection is such a central concept in biology, this class will cover much of modern life sciences from 1859 to the present. We will read Darwin's Origin of Species and cover the many subsequent discoveries that form our modern evolutionary biology. They include such developments as Mendelian genetics, population genetics, experimental genetics of the 1920s, Soviet field biologists, the discovery of radiation and eventually carbon dating, the structure of DNA, modern molecular genetics, and even CRISPR.

**Introduces students to one or more of the disciplines whose purpose is to acquire knowledge of the physical universe and/or living systems and life forms.**

Although this is a history class that will not require a deep understanding of the more difficult concepts in modern genetics, students will come away from the class with a basic understanding of modern life sciences. While students will not be prepared to do fundamental work in biology, they will understand it enough to appreciate the social impact and ethics.

**Develops an appreciation of the methodologies of science and the limitations of scientific inquiry.**

Treating science as a historical process is an excellent opportunity for students to see for themselves how science works in practice. That is, science includes discovery, communication, and debate. The misapplication of Darwinism to society shows students the limitations of science.

**Please Note: Courses listed in this category:**

**1) Need not be introductory courses and need not be as broad in scope as courses included in B1, B2, B3 or B4 i.e.; they may deal with a specialized topic.**

**2) These courses may have prerequisites or build on or apply concepts and knowledge covered in Areas B1, B2 and B4. For math courses, there must be an intermediate algebra prerequisite.**

**Addresses the specific GE student learning outcomes for area B5. A student should be able to do one or more of the following:**

**Cite critical observations, underlying assumptions and limitations to explain and apply important ideas and models in one or more of the following: physical science, life science, mathematics, or computer science.**

Starting with Darwin's voyage on the Beagle, the class will spend much of the semester on the accumulating evidence for Evolution by Natural Selection. Further, Darwin brought many 19th century assumptions to his work that had to be corrected by the later development of modern genetics. Taking students through this historical process makes the work of doing science a concrete set of examples.

**Recognize evidence-based conclusions and form reasoned opinions about science-related matters of personal, public and ethical concern.**

The debates over the application and misapplication of Darwinism to human society have captured many of the thorniest issues in the ethics of science. Stephen Jay Gould's The Mismeasure of Man will help students understand those issues. Additionally, debates about Creationism and Intelligent Design address the importance of evidence-based conclusions and reasoned opinion.

**Discuss historical or philosophical perspectives pertaining to the practice of science or mathematics.**

This is a history class, so naturally we will focus on the historical perspectives of the practice of biology. Ideas will be presented chronologically and as a process. From Thomas Kuhn's paradigms to Karl Popper's falsifiability, Darwin's work has become a textbook example of evidence and method in science, so we will also cover the philosophy of science.

**Includes a writing component described on course syllabus**

**1) If course is lower division, formal and/or informal writing assignments encouraging students to think through course concepts using at least one of the following: periodic lab reports, exams which include essay questions, periodic formal writing assignments, periodic journals, reading logs, other. Writing in lower division courses need not be graded, but must, at a minimum, be evaluated for clarity and proper handling of terms, phrases, and concepts related to the course.**

**2) If course is upper division, a minimum of 1500 words of formal, graded writing. [Preferably there should be more than one formal writing assignment and each writing assignment (e.g. periodic lab reports, exams which include essay questions, a research/term paper etc.) should be due in stages throughout the semester to allow the writer to revise after receiving feedback from the instructor. Include an indication of how writing is to be evaluated and entered into course grade determination.]**

This class would have two 5-page graded essays as well as an in-class midterm and final, and some small assignments. I offer to students the option of submitting a draft a week before the due dates for comments and direction.

In the first essay, students will demonstrate that they understand Evolution by Natural Selection as there are a surprising number of misconceptions about it. I have them read Darwin's *The Origin of Species* as well as Peter Bowler's *Evolution: The History of an Idea*. Since this is a history class, they would put it into a historical context by explaining its development over time.

In the second essay, students would pick one related pseudoscience of their choice and discuss its history while evaluating its claims. Students would thus get to analyze the borderlands between science and pseudo-science, while also learning about the history of oppressed peoples. This will be based on Bowler and on Stephen Jay Gould's *The Mismeasure of Man*.

The first paper would be worth 20%, then the second paper and two in-class exams would all be worth 25% each. Making the first paper worth fewer points gives students a chance to accustom themselves to the expectations of an upper division history class. The remaining 5% would be small, sundry projects at the beginning of the semester to prepare them for the first paper and midterm.

Section 2.

**If you would like, you may provide further information that might help the G.E. Course Review Committee understand how this course meets these criteria and/or the G.E. Program Objectives found in the CSUS Policy Manual, General Education Program, Section I.B.**

n/a

**Please attach any additional files not requested above:**

Consultation with Biology.pdf

**Reviewer Comments:**

**Emily Potts (emily.potts) (Thu, 07 Sep 2023 22:07:01 GMT):** Dear Professor Martinez, The committee recommends the following changes to your proposal to facilitate approval: In the justification, please add a comma after "topic" and break up the run on sentence at the end. You might be more clear here that this is a "critical" look at "Darwinism". Avoid popular jargon by defining "Darwinism" more clearly and being more specific about the time periods and topics that the course examines. In the course description, consider adding "an analysis of..." at the beginning. Consider adding a glossary in the syllabus to help define terms. Reduce the # of ELO's by eliminating #7 and #8- these speak more to assessment. In ELO #4, learn is a weaker verb, select something more measurable such as demonstrate or summarize In ELO #5, Strike... "That is, a historian's book... etc." Explain this in syllabus, not in ELO's or reword. In ELO #6, Process is a weaker verb, select something more measurable such as demonstrate, summarize, evaluate or analyze Suggest including the hornet honor code and other language in the syllabus especially given the potentially controversial nature of the content. Be sure to match all changes in the Form A to your syllabus. Sincerely, Emily Potts

**Jacqueline Irwin (irwin) (Thu, 07 Sep 2023 23:33:27 GMT):** Rollback: Dear Jeff, Please see suggestions for revision from Emily. Once your proposal has been revised as per their recommendations, please resubmit and send me an email so I know that your proposal is ready to move forward. Thank you, Jacqueline, ALS Curriculum Chair

Key: 14950