University Honors Program: HON
Dinosaurs: In Science and Media
Syllabus - Spring 2021

When & Where

Monday and Wednesday 2:30 – 3:45 On Line or in Argyros Seminar Room 205 or both in Hybrid.

Instructor: Jack Horner, Professor, MacArthur Fellow, Presidential Fellow, Honors Program
jhorner@chapman.edu
Office Hours: By appointment.

Honors Program Coordinator, Ashley Cosgrove (714) 744-7646 cosgrove@chapman.edu

GE Natural Science Inquiry Learning Outcome:
Students engage in scientific investigation to explore the knowledge produced by scientific processes.

Course Learning Objectives:
* Apply the scientific method to analyze dinosaur discoveries as presented in scientific and popular media.
* Learn the difference between scientific theory and popular opinion.
* Evaluate the science interpreted by various scientific arguments based on physical evidence.
* Learn how to write a popular article

Honors Program Learning Outcomes:
Upon completing a course in the University Honors Program students will have:
1. Obtained a starting point for integrative exploration of the development of cultures and intellectual achievements through a variety of disciplinary and interdisciplinary perspectives;
2. Sharpened their ability to critically analyze and synthesize a broad range of knowledge through the study of primary texts and through engagement in active learning with fellow students, faculty, and texts (broadly understood);
3. Understood how to apply more integrative and interdisciplinary forms of understanding in the advancement of knowledge and in addressing complex challenges shaping the world; Developed effective communication skills, specifically in the areas of written and oral exposition and analysis.

Textbooks:
Required:

Recommended:

Grading:

<table>
<thead>
<tr>
<th>Points</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>Midterm Exam – Article or script</td>
</tr>
<tr>
<td>200</td>
<td>Final Exam – Script</td>
</tr>
<tr>
<td>200</td>
<td>Active and appropriate participation (class attendance; focused and meaningful involvement in class activities)</td>
</tr>
</tbody>
</table>

TOTAL POINTS 500

400+ points = Pass
Less than 400 points = Not Pass

• All students are encouraged to attend every class meeting. Poor attendance will affect your grade. Absences exceeding 20% normally result in the student receiving a grade of “NP” unless he/she withdraws officially (2 “tardies” constitute an absence). Active and appropriate participation (class attendance; focused and meaningful involvement in class activities. Each student is required to take an active part in class discussions.

• Assignments must be submitted in on time through Canvas (click on “Assignments” and follow the instructions, make sure you click on “submit” as your last step). Students will be penalized 20% for handing an assignment in late on the day it is due and another 40% for each day the assignment is late thereafter.

Before handing in assignments make sure they are proofed, edited, and typed neatly (double spaced in font 12)!

• In addition to the readings and lectures listed in the course outline, students may be responsible for other assignments given in class. Also, some assignments, such as attending a film or guest speaker, may require a time commitment other than the scheduled class period.

Please be aware that the course outline is just a guide. We may vary the contents and the time projections, depending on unexpected events, speakers, etc. and the needs of the class.
Chapman University’s Academic Integrity Policy:
Chapman University is a community of scholars that emphasizes the mutual responsibility of all members to seek knowledge honestly and in good faith. Students are responsible for doing their own work and academic dishonesty of any kind will be subject to sanction by the instructor/administrator and referral to the university Academic Integrity Committee, which may impose additional sanctions including expulsion. Please see the full description of Chapman University's policy on Academic Integrity at https://www.chapman.edu/academics/academic-integrity/_files/academic-integrity-policy.pdf

Chapman University’s Students with Disabilities Policy
“In compliance with ADA guidelines, students who have any condition, either permanent or temporary, that might affect their ability to perform in this class are encouraged to contact the Disability Services Office. If you will need to utilize your approved accommodations in this class, please follow the proper notification procedure for informing your professor(s). This notification process must occur more than a week before any accommodation can be utilized. Please contact Disability Services at (714) 516-4520 or visit www.chapman.edu/students/student-health-services/disability-services if you have questions regarding this procedure or for information or to make an appointment to discuss and/or request potential accommodations based on documentation of your disability. Once formal approval of your need for an accommodation has been granted, you are encouraged to talk with your professor(s) about your accommodation options. The granting of any accommodation will not be retroactive and cannot jeopardize the academic standards or integrity of the course.”

Chapman University’s Equity and Diversity Policy
Chapman University is committed to ensuring equality and valuing diversity. Students and professors are reminded to show respect at all times as outlined in Chapman’s Harassment and Discrimination Policy. Any violations of this policy should be discussed with the professor, the Dean of Students and/or otherwise reported in accordance with this policy.

Student Support at Chapman University.
Over the course of the semester, you may experience a range of challenges that interfere with your learning, such as problems with friend, family, and or significant other relationships; substance use; concerns about personal adequacy; feeling overwhelmed; or feeling sad or anxious without knowing why. These mental health concerns or stressful events may diminish your academic performance and/or reduce your ability to participate in daily activities. You can learn more about the resources available through Chapman University’s Student Psychological Counseling Services here:
https://www.chapman.edu/students/health-and-safety/psychological-counseling/

Fostering a community of care that supports the success of students is essential to the values of Chapman University. Occasionally, you may come across a student whose personal behavior concerns or worries you, either for the student’s well-being or yours. In these instances, you are encouraged to contact the Chapman University Student Concern Intervention Team who can respond to these concerns and offer assistance:
https://www.chapman.edu/students/health-and-safety/student-concern/index.aspx. While it is preferred that you include your contact information so this team can follow up with you, you can submit a report anonymously. 24-hour emergency help is also available through Public Safety at 714-997-6763.
Topics to be covered with proposed visuals (Syllabus) based on a two 75 minute class per week schedule.

Part 1 Dinosaurs in Science

Feb. 3. Who am I & who are you? Class: What is science? What is Evolution? What are dinosaurs? Power point lecture with visuals to illustrate what a dinosaur is and what it isn’t, and how they are related to other animals. With Socratic discussion.

Feb. 8. How do we find dinosaur remains? PowerPoint lecture with visuals to illustrate how we use geology to find fossil remains, and how they are excavated. Additional data. With 15 minute Socratic discussion.

Feb. 10. Where dinosaurs lived and died. PowerPoint lecture with visuals to illustrate how dinosaurs evolved, including what differentiates them from their ancestral forms. Using the phylogenetic bracket to determine characteristics. With a 15 minute Socratic discussion.

Feb. 15. What did they eat? PowerPoint lecture with visuals to illustrate how scientists determine what dinosaur ate, and how we figure that out. With 15 minute Socratic discussion.

Feb. 17. Dinosaur behavior I PowerPoint lecture with visuals to illustrate how scientists determine dinosaur social behaviors based on geology and skeletal features. With 15 minute Socratic discussion.

Feb. 22. Dinosaur behavior II PowerPoint lecture with visuals to illustrate how paleontologists determine species and its behavior consequences. With 15 minute Socratic discussion.

Feb. 24. Dinosaur growth. PowerPoint lecture with visuals to illustrate dinosaur accoutrements and what they were for. With 15 minute Socratic discussion.

Mar. 1. Dinosaur phylogenetics. 30 minute PowerPoint lecture with visuals of specimens that students can e-examine to understand skeletal characteristics (LAB).

Mar. 3. Sauropodomorpha. PowerPoint lecture with visuals to illustrate the first dinosaurs, their characteristics, and where they are found. With a 15 minute Socratic discussion.

Mar. 8. Theropod dinosaurs I. PowerPoint lecture with visuals to illustrate the various theropod dinosaurs, and their unique characteristics. With a 15 minute Socratic discussion.

Mar. 10. Theropod dinosaurs II. PowerPoint lecture with visuals to illustrate the various carnivorous and ceratosaurian dinosaurs, and their unique characteristics. With a 15 minute Socratic discussion.

Mar. 15. Ornithischia (Thyreophora). PowerPoint lecture with visuals to illustrate the various ornithopod dinosaurs, and their unique characteristics. With a 15 minute Socratic discussion.
Mar. 17. Ornithischia (Marginocephalia). PowerPoint lecture with visuals to illustrate the various primitive kinds of avian dinosaurs and their unique characteristics. With a 15 minute Socratic discussion.

Mar. 22 – 27 Spring Break

Mar. 29. Ornithischia (Ornithopoda). PowerPoint lecture with visuals to illustrate the various primitive kinds of bipedal plant eating dinosaurs and their unique characteristics. With a 15 minute Socratic discussion.

Mar. 31. Dinosaur extinction. Video presentation: Death of the Dinosaurs: https://www.youtube.com/watch?v=u8WT5JePYso

MIDTERM EXAM - A paper written as a newspaper or magazine article for the public (due April 2 @ midnight)

Apr. 5. Can we bring back dinosaurs? A lecture on current research. With a 30 minute discussion on genetic engineering

Apr. 7. Mongolia (Lecture)

**Part II. Dinosaurs in the Media**

Apr. 12 How dinosaurs are perceived by the public, student lead discussion

Apr. 14 Jurassic Park Book & Movie critique student lead

Apr. 19 Special guest

Apr. 21 Special guest

Apr. 26 Dinosaurs in fictional books, student lead

Apr. 28 Dinosaurs in movies, student lead

May 3 Dinosaurs as a commodity, student lead

May 5 Wrap-up

May 10 Final Presentations

May 12 Final Presentations

May 17 Final Presentation