

California State University, Chico
Department of Physics

Honors 202: NATURE, Fall 2020

Instructors:	Joseph Pechkis, Physics Tricia Sweet, Literature
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Office hours:	TBA (see Blackboard for Zoom links and most up-to-date schedule)
Lecture:	TTh 3:30-4:45pm, Zoom
Prerequisites:	N/A

Course Usage of Blackboard Learn

The course syllabus, assignments, and other course materials may be found on Blackboard Learn. You are responsible for regularly checking the online resources, which are accessed through the [Chico State Portal](#).

Course Description

This seminar is a multidisciplinary exploration of Nature. Using perspectives from cosmology, physics, chemistry, biology, geology, anthropology, philosophy, history, literature, music, and art the course will focus on basic and fundamental questions about Nature.

Course Format

All course meetings will be held through the Zoom classroom link on Blackboard. Please maintain standard classroom etiquette during all class meetings. When joining the meeting, please join with your video on but with the audio muted. On Tuesdays, meetings will include elements of lecture, interviewing an expert, discussion panels, interviews, debates and small group or independent work. On most Thursdays, students will meet in small groups through breakout rooms in Zoom. The small groups will be largely focused on student discussion of course material.

Note: This syllabus and course content are subject to change

General Education and Pathways

This course is a lower division wildcard for General Education (GE), meeting the goals for Physical Sciences (B1) and Biological Sciences (B2), Humanities (C2), and Lifelong Learning (E). You may use this course to satisfy one of those requirements. You do not need to determine which requirement it satisfies, it can be assigned to any one of the categories. The following GE Student Learning Outcomes (SLOs) will be especially promoted in this course:

Student Learning Outcomes

The Student Learning Outcomes for our General Education program flow from the recognition that certain essential intellectual and practical skills rest at the foundation of a high-quality General Education program. These include effective written and oral communication, critical thinking, and mathematical reasoning skills.

1. **Oral Communication:** Demonstrates effective listening and speaking skills necessary to organize information and deliver it effectively to the intended audience. Students will be exposed to panel discussions, interviews and debates in the large group meetings of the seminar. These methods for carrying out intellectual discourse will be modeled by the students during the small group meetings.
2. **Written Communication:** Demonstrates the ability to question, investigate and draw well-reasoned conclusions and to formulate ideas through effective written communication appropriate to the intended audience. Students will participate in a variety of different kinds of writing. Moreover, students will share some of their work with fellow students. The Honors seminars are exploring the possibility of initiating electronic portfolios for student work. These portfolios will be maintained throughout their undergraduate studies.
3. **Critical Thinking:** Identifies issues and problems raised in written texts, visual media and other forms of discourse, and assesses the relevance, adequacy and credibility of arguments and evidence used in reaching conclusions. Students will be exposed to a variety of epistemological and analytical approaches to the study of Nature.
4. **Mathematical Reasoning:** Demonstrates knowledge of and applies mathematical or statistical methods to describe, analyze and solve problems in context. In particular, the role of mathematics will be explored as a language for both modeling and understanding Nature and the Laws that govern the natural world.
5. **Creativity:** Takes intellectual risks and applies novel approaches to varied domains. This seminar on Nature will highlight the power of consilience when considering complex subjects. Analyses of historical

cases of revolutions in science and ways of thinking about Nature should encourage students to be open to skeptical, critical, and creative ways of thinking.

Pathways

This course is associated with the following Pathways: Food Studies, Great Books and Ideas, Science Technology and Values, and Sustainability. You must complete 3 upper division courses in the same Pathway. To earn a GE Minor in a Pathway you must also complete 3 lower division courses associated with that Pathway. The lower division courses do not all have to be Honors courses.

NATURE fulfills any one of the following GE Areas: B1, B2, C2, and E.

Course Topics

- The 'method' or what counts as a valid (good) story in science
- Measurements of space, time, mass
- Relativity and Light
- The Very Large: Gravity and Cosmology
- The Very Many: Particles, Complexity, and Life
- Origins of the Universe, of Life
- Evolution
- Human Origins and Evolution
- Human Nature
- Transhumanism
- Nature Through the Lens of Literature and Art

Required Course Materials

Readings

Readings will include several books and excerpts from a wide range of sources. These readings will be available on the Bb Learn site for NATURE in the Readings and Videos folder. Videos will also be assigned during the semester.

The **texts** for the course are *Reality is Not What It Seems*, Carlo Rovelli, *Arcadia*, Tom Stoppard, *The Handmaid's Tale*, Margaret Atwood, and *A Primate's Memoir*, Robert Sapolsky. These texts are available in the University bookstore or online.

Grades

Grades be based on quizzes, participation in discussions, in class and take home assignments, 2 short papers, and a mid-semester and final exam.

In class quizzes and class participation 50%, There will be in class quizzes and directed writings on most days. Regular attendance and active participation in class discussions is required to earn a top grade in the course.

Homework Assignments 10%

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Papers, there will be 2 two-page papers 15% more details regarding the short papers will be forthcoming.

In-class quizzes and class participation 50%

Homework assignments 10%

Midsemester exam 10%

Final Exam 15%, in class during the scheduled final exam time, short answer and essay format

Grading

The final grade will be assigned based on a standard scale:

93-100 = A

90-92 = A-

87-89 = B+

83-86 = B

80-82 = B-

77-79 = C+

73-76 = C

70-72 = C-

67-69 = D

60-66 = D

< 60 = F

Plagiarism will not be tolerated: students who submit essays that include plagiarized material will be assigned an F in the course and reported to Student Judicial Affairs. Note that this policy is not subject to alteration or negotiation. See the document, "What is Plagiarism and Why Is It Important?" in Blackboard Learn, for more information on the definition and nature of plagiarism.

There are no extra credit assignments in this course.

Only in extreme circumstances and with prior notification and permission, and documentation will examinations be rescheduled, extensions on essay assignments be granted, or class participation requirements be modified.

Classroom Expectations

Students are expected to attend every class. Please maintain standard classroom etiquette during all class meetings. When joining the meeting, please join with your video on but with the audio muted. Students should study the material for that day *before* coming to class. Please check Blackboard often for assignments, as well as for other study materials.

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All other electronic devices not used for the Zoom lectures should be silenced and put away *before* class.

Dropping and Adding

You are responsible for understanding the policies and procedures about add/drops, academic renewal, etc., found in the [CSU Chico University Catalog](#). You should be aware of the new deadlines and penalties for adding and dropping classes.

University Policies and Campus Resources

Academic Integrity

Students are expected to be familiar with the University's Academic Integrity Policy. Your own commitment to learning, as evidenced by your enrollment at California State University, Chico, and the University's Academic Integrity Policy requires you to be honest in all your academic course work. Faculty members are required to report all infractions to the Office of Student Judicial Affairs. The policy on academic integrity and other resources related to student conduct can be found on the Student Judicial Affairs web site <http://www.csuchico.edu/sjd/integrity.shtml>.

IT Support Services

Computer labs for student use are located on the first and fourth floor of the Meriam Library, Room 116 and 450, Tehama Hall Room 131, and the Bell Memorial Union (BMU) basement. You can get help using your computer from IT Support Services; contact them through the [ITSS web site](#). Additional labs may be available to students in your department or college.

Student Services

Student services are designed to assist students in the development of their full academic potential and to motivate them to become self-directed learners. Students can find support for services such as skills assessment, individual or group tutorials, subject advising, learning assistance, summer academic preparation and basic skills development. Student services information can be found on the [current students page of the CSU Chico web site](#).

Americans with Disabilities Act

If you need course adaptations or accommodations because of a disability or chronic illness, or if you need to make special arrangements in case the building must be evacuated, please make an appointment with me as soon as possible, or see me during office hours. Please also contact Accessibility Resource Center (ARC) as they are the designated department responsible for approving and coordinating reasonable accommodations and services for students with disabilities. ARC will help you understand your rights and responsibilities under the Americans with Disabilities Act and provide you further assistance with requesting and arranging accommodations.

[Accessibility Resource Center](#)

530-898-5959

Student Services Center 170
arcdept@csuchico.edu

Student Learning Center

The mission of the Student Learning Center (SLC) is to provide services that will assist CSU, Chico students to become independent learners. The SLC prepares and supports students in their college course work by offering a variety of programs and resources to meet student needs. The SLC facilitates the academic transition and retention of students from high schools and community colleges by providing study strategy information, content subject tutoring, and supplemental instruction. The University Writing Center has been combined with the Student Learning Center. You can also visit the [Student Learning Center web site](#).

Blackboard ALLY

Chico State is committed to providing you the best learning experience possible. With this goal we have activated Blackboard ALLY in your courses. ALLY is a revolutionary product that focuses on making digital course content more accessible to all students. You will now be able to download any content in this course in the format that fits best with your learning style. PDF, HTML, .EPUB and Audio files are now available for most content items. Here is a link to more [information on formats available](#) as well as what each format offers. Should you have any questions or experience issues while using ALLY please contact the Office of Accessible Technology and Services at oats@csuchico.edu or 530-898-6532.

Confidentiality and Mandatory Reporting

As a Professor, I also have a mandatory reporting responsibility. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. I will seek to keep information you share private to the greatest extent possible. However, please be aware that **I am required to share information regarding sexual misconduct with the University**. Students may speak to someone confidentially by contacting the Counseling and Wellness Center (898-6345) or Safe Place (898-3030). Information on campus reporting obligations and other Title IX related resources are available here: www.csuchico.edu/title-ix

Chico State Basic Needs Project

The Hungry Wildcat Food Pantry provides supplemental food, fresh produce, CalFresh application assistance and basic needs referral services for students experiencing food and housing insecurity.

All students are welcomed to visit the Pantry located in the Student Service Center 196, open Monday-Friday, 11am-4pm or call 530-898-4098.

Please visit the Chico State Basic Needs website <http://www.csuchico.edu/basic-needs> for more information.

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