

Course Syllabus

Antelope Valley College

PHIL 201 Critical Thinking

Asynchronous Online

Instructor: Nate Greely

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Office Hours: W 12-1pm Zoom

<https://us05web.zoom.us/j/83673642224?pwd=t2mf1ssp1CHRM0fS1izNawcDFJNyGA.1>

Lecture:

All of the course content, including lectures, will be available asynchronously.

Course Description:

This course is an introduction to critical thinking. I understand critical thinking rather broadly as any truth-preserving form of reasoning. That is, we want to know what is true and to use that knowledge to make decisions that improve our lives and the lives of those we care about. However, our brains often use shortcuts that create blind spots in our reasoning. In this course we will learn to identify these shortcuts, understand why they can hinder our ability to make good decisions, and practice more rigorous strategies for decision-making. These strategies will include deductive, inductive, statistical, and causal reasoning. We will then learn how to apply the knowledge produced by these more rigorous forms of reasoning to our own lives using decision theory.

Learning Outcomes:

Students will learn to identify fallacious reasoning caused by cognitive biases and heuristics. They will then learn to use deductive, inductive, statistical, and causal reasoning in decision-making. These skills can be applied in many areas, including casual conversation, political debate, understanding and assessing scientific information, and making informed economic decisions.

Assessments:

Evidence shows that active learning is essential to understanding. This is particularly important for a course like this in which we are learning a skill, much like a learning sport or a musical instrument. You must *practice*. To that end a large percentage of class time will consist of group activities and there will be regular homework assignments. Regular

practice is essential. The course will be broken into six units, each of which will be punctuated by an active review and exam. These short exams are designed to be quite easy if you attend regularly and participate in learning activities. There will also be a midterm exam and final exam.

The breakdown of your final grade is as follows:

Attendance and Participation – 15%

Logic is a skill, and so it requires practice. As this is an online course, participation will take the form on an online discussion board where you can collaborate on the homework problems. Homework is only graded on completion, so feel free to ask questions in the discussion about problems you are having trouble with, and help others when you are able. Each student must post at least once to each week's discussion board.

Homework Completion – 25%

In addition to in-class activities, we will also develop our rational abilities by practicing at home. This will take the form of short homework assignments. The assignments will be graded on completion rather than accuracy and answers will be posted after the due date. Homework constitutes 25% of your final grade.

Unit Quizzes – 3.33% each (total 20%)

The course is broken into six units. Each unit is punctuated by a short online quiz. Quizzes are each 3.33% of your final grade, totaling 20%.

Midterm Exam – 20%

The midterm exam will cover all the material from the first half of the course. The questions on the exam will be similar in format to the homework and quizzes. The midterm constitutes 20% of your final grade.

Final Exam – 20%

The final exam will be cumulative for the entire course. The final will be similar in format to the midterm and constitutes 20% of your final grade.

Textbooks:

Basic Sentential Logic, Informal Fallacies, and Cognitive Biases by Rick Grush (provided on Canvas)

Understanding Scientific Reasoning by Ronald Giere (provided on Canvas)

Course Schedule:

8/18 – Course Introduction

8/20 - Truth and Inference

8/25 - Informal Fallacies; Reading: Grush, Ch. 5, pp. 98-106

8/27 – Cognitive Biases and Heuristics - Reading: Grush, Ch. 6, pp. 113-121

9/1 – Labor Day, No Class

9/3 – Quiz 1

9/8 – Types of Arguments – Reading: Grush, Ch. 1, pp. 1-22

9/10 - Validity and Invalidity

9/15 – Quiz 2

9/17 – Statement Operators

9/22 – Statement Operators Cont.

9/24 – Logical Translation – Reading: Grush, Ch. 1, pp. 23-28

9/29 – Logical Translation Cont.

10/1 – Quiz 3

10/6 - Rules of Inference – Reading: Grush Ch. 3 pp. 65-71

10/8 – Rules of Inference Cont.

10/13 – Indigenous People’s Day – No Class

10/15 – Deductive Proofs – Reading: Grush, Ch. 3, pp. 75-77

10/20 – Deductive Proofs Cont.

10/22 – Quiz 4

10/27 – Inductive Reasoning - Reading: Greely, Notes posted online

10/29 – Midterm Exam

11/3 – Statistics and Probability part 1 – Reading: Giere Ch. 5.1 – 5.6

11/5 – Statistics and Probability part 2 – Reading: Giere Ch. 5.7 – 5.11

11/10 – Statistics and Probability part 3 – Reading: Giere Ch. 6

11/12 – Quiz 5

11/17 – Causal Reasoning part 1 - Reading: Giere Ch. 7

11/19 – Causal Reasoning part 2 & 3 – Reading: Giere Ch. 8.1 - 8.9

11/24 – Quiz 6

11/26 – Decision Theory Part 1 – Reading: Giere Ch. 9

12/1 – Decision Theory part 2 & 3 – Reading: Giere Ch. 10.1 - 10.9

12/3 - Final Exam

GRADING

Numeric	Grade
Over 90%	A
80% to 89%	B
70% to 79%	C
60% to 69%	D
0% to 59%	F

Diversity and Inclusion

Antelope Valley College is a comprehensive community college in the California Community College System dedicated to providing services to a broad range of students with a variety of educational goals. Antelope Valley College is dedicated to providing educational programs and services as expressed in the California Master Plan for Higher Education. The College is committed to equal educational opportunity and reinforces that commitment through a program of active affirmation of diversity. Antelope Valley College is dedicated to meeting the dynamic needs of a changing community. The College addresses the educational needs of a diverse and evolving population. The College recognizes that it is uniquely capable of responding to the requirements of regional business, industry, and public service, as well as the social and cultural needs of the Antelope Valley. Antelope Valley College affirms the rights of the individual and respects human dignity. The programs and activities of the College foster the individual's ability to think clearly, critically, and

independently to meet the demands of an increasingly complex society. The student is the primary concern of the College. The curriculum, activities, and services of the College help students understand their physical, cultural, ethnic, and social environment. The preservation of academic freedom provides a college environment in which students and faculty can examine ideas freely. This philosophy is reflected in the curriculum, the student-faculty relationships, the services and resources, and the policies of the College.

Academic Integrity

Violation of the Academic Honesty Policy: Dishonesty, including but not limited to, cheating, or plagiarism. Plagiarism-from the Latin word for “kidnap” ---involves using another’s work without giving proper credit, whether done accidentally or on purpose. This includes not only words and ideas, but also graphs, artwork, music, maps, statistics, diagrams, scientific data, software, films, videos and the like. Plagiarism is plagiarism whether the material is from published or unpublished sources. It does not matter whether ideas are stolen, bought, downloaded from the Internet, or written for the student by someone else-it is still plagiarism. Even if only bits and pieces of other sources are used, or outside sources reworded, they must still be cited. To avoid problems, students should cite any source(s) and check with the instructor before submitting an assignment or project. Students are always responsible for any plagiarism in their work. An instructor who determines that a student has cheated or plagiarized has the right to give an “F” grade, or the numerical equivalent, for the assignment or examination only. You cannot drop the student from class or fail them from the class for a single violation of the Academic Honesty Policy.

For detailed information on Antelope Valley College’s Academic Honesty Policy and plagiarism:

https://docs.google.com/document/d/1QneJvu80MUO2Md9oc4pLI7_PIZVIHi12vzw_p-QSXIU/edit#heading=h.tpv2ymb61nhg

Disability Statement

The OSD program provides support services, specialized instruction, and educational accommodations to students with disabilities so that they can participate as fully and benefit as equitably from the college experience as their non-disabled peers. An Academic Accommodation Plan (AAP) is developed for each student which links student’s goals, curriculum program, and academic adjustments, auxiliary aids, services and/or instruction to his/her disability related educational limitation. If you need academic accommodations please contact the OSD office at OSD@avc.edu.

Religious Accommodation:

If you require any accommodation on religious grounds, please alert me in writing as soon as possible.