

PHIL 2303-08 (21132): CRITICAL THINKING
Sam Houston State University, Spring 2019
M/W/F 2-2:50 PM, CHSS 140

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Course Description: Designed to improve students' ability to think critically. The course covers the fundamentals of deductive reasoning, the identification of common fallacies, and an introduction to inductive reasoning, as well as sensitizing the students to some of the ways information is distorted, e.g., by advertising and news management. No prerequisites.

Required Text: Balin and Battersby, *Reason in the Balance: An Inquiry Approach to Critical Thinking*, 2nd ed. (Hackett, 2016). ISBN: 978-1-62466-477-9, \$49.

Class Description: The overarching goal of a Critical Thinking course is to teach students methods that are used generally across cultures to differentiate between strong or valid inferences and those inferences that are weak or invalid. To this end topics covered include the deductive and inductive reasoning involved in testing hypotheses, generalizing on the basis of samples, the basics of comparative experimental design, and an emphasis on recognizing and explaining various fallacious inferences such as jumping too quickly from a correlation to a cause and effect conclusion, and classics like Straw Man, Ad Hominem, Begging the Question, and False Dilemma. One of the central goals of the course is to better equip students, to recognize and assume their responsibilities as citizens in a democratic society by learning to think for themselves, by engaging in public discourse about issues in a way that strives to present fairly the various sides of an issue (avoiding the Straw Man), that does not prematurely close off discussion (avoiding Begging the Question), that focuses on relevant considerations (avoiding Ad Hominem), that considers a full range of options (avoiding a False Dilemma), and that seeks and uses the best evidence available. This course will be primarily taught in a lecture format. Students are encouraged to ask questions during the lecture.

Student Learning Outcomes:

A. Students who complete the course should recognize and apply reasonable criteria for the acceptability of social research. Thus, the student will become aware of the need to think in terms of testable hypotheses, hypotheses that generate predictions that can be compared with data. Furthermore, if we say that the data support a particular hypothesis because its predictions came true, the student will recognize that we must first conceive of and rule out alternative possible explanations before we simply accept that the hypothesis has been confirmed. To that end students will note that if the occurrence of A is correlated with the occurrence of B, this may be because (a) A causes B, (b) B causes A, (c) C causes both A and B, or (d) chance. Homework exercises discussed in class will deal with a number of specific illustrations of this principle. In addition, student will become aware of the fact that generalizations need to be supported by samples that are large enough and relatively unbiased--not simply by a vivid anecdotes that typically provide biased samples of size one. Again, homework examples will present a variety of cases for analysis. Finally, student will be able to design an experiment whose results avoid (at least obvious) confounding.

B. The student will be able to differentiate and analyze differing points of view by dealing with homework problems that can involve controversial conclusions and by working through these problems in class.

Skill Objectives:

A. Critical Thinking: The usual introduction to the course is to present concepts such as premise, conclusion, inference indicator words like "since" and "hence," and then the homework is to look at specific bits of prose to be able to successfully identify those that contain arguments--reasoning for conclusions--versus other forms of prose such a narratives. What follows the introduction will involve practice in distinguishing deductive reasoning--reasoning where the truth of the premises would absolutely guarantee the truth of the conclusion--from inductive reasoning wherein if the premises (the evidence, data, etc.) are true they render the conclusion to some degree more likely to be true than false. This matter of degree then will be explored with specific homework examples. Finally, there is a set of mistakes in reasoning that are wide-spread such as False Dilemma, Begging the Question, Straw Man,

Ad Hominem, etc. After becoming familiar with the terminology, the students are asked to apply the fallacy labels to specific examples of reasoning and to give an explanation of why a label fits as a way of expressing the particular mistake.

B. Communication Skills: There will be regular homework assignments, usually problems from the textbook, which require students (a) to prepare analyses of the problems assigned and then (b) review these analyses in class as we discuss the homework problems. These exercises will emphasize the importance of precise expressions and relevant evidence to effective communication.

C. Empirical and Quantitative Skills: This objective involves the manipulation and analysis of numerical data or observable facts resulting in informed conclusions. To this end the basics of the logic of hypothesis testing, using both inductive and deductive reasoning, are presented in a step-by-step fashion. This includes familiarizing students with concepts such as a random sampling error and biased sampling, the use of control groups in experimentation in order to rule out confounding variables, and probabilistic reasoning.

D. Social Responsibility: Fundamental to the concept of responsibility is the ability to give reasoned explanations for specific courses of action. Often the examples in the homework relate to giving reasons in response to issues that have presented or may present themselves to people in the course of their lives as citizens. The point of the process in the classroom is to stress careful analysis of the reasoning and to offer a diagnosis of its strength or weakness based on consideration of the evidence, how it was procured, whether there is importantly relevant information that has been neglected, etc. This will strengthen students' ability to engage effectively as a participant in regional, national, and global communities.

Writing Enhanced: This course satisfies for being listed as “writing enhanced” by providing you the opportunity to write as a means of demonstrating competency evaluating argument types and evidence. Feedback will be given on your written exam answers applying the material toward not only understanding what (for example) a given informal fallacy is, but expressing why it is a problem in the argument. Written work will account for 60% of the course grade—as the exams will be a mix of objective and short-answer and short-essay format.

Schedule: The dates and content listed are tentative and subject to change by the whim of the instructor!!

Date	Assignment	Topic
January 16th	Introduction to Course	What is Critical Thinking?
January 18th	Read Chapter 1 (pp. 3-20)	Nature of Inquiry
January 21st	<i>MLK Day: No Class</i>	
January 23rd	Ch. 1: Ex. #1, 2, 7, 10 (pp. 21-4)	Nature of Inquiry
January 25th	Read Chapter 2 (pp. 25-47)	Guidelines of Inquiry
January 28th	Ch. 2: Ex. #3 (pp. 49-50)	Guidelines of Inquiry
January 30th	Exam #1: Inquiry	--
February 1st	TBA	--
February 4th	Read Chapter 3 (pp. 55-70)	Types of Arguments
February 6th	Ch. 3: Ex. #1, 3, 5 (pp. 71-3)	Types of Arguments
February 8th	Read Chapter 4 (pp. 75-86)	Informal Fallacies: Justification
February 11th	Read Chapter 4 (pp. 86-95)	Informal Fallacies: Justification
February 13th	Read Chapter 4 (pp. 96-100)	Informal Fallacies: Inference
February 15th	Ch. 4: Ex. #1 (p. 101)	Informal Fallacies
February 18th	Ch. 4: Ex. # 4 (pp. 102-3)	Informal Fallacies
February 20th	TBA	--

February 22nd	Exam #2: Arguments and Fallacies I	--
February 25th	Read Chapter 5 (pp. 105-126)	Types of Inductive Arguments
February 27th	Ch. 5: Ex. #1-2 (pp. 127-9)	Fallacies: Argument Types
March 1st	Ch. 5: Ex. #3 (p. 130)	Fallacies: Argument Types
March 4th	Read Chapter 6 (pp. 133-154)	Expertise and Authority
March 6th	Ch. 6: Ex. #1, 2 (pp. 155-6)	Expertise and Authority
March 8th	Exam #3: Arguments and Fallacies, Part 2	--
March 11-15	<i>Spring Break: No Class</i>	--
March 18th	Read Chapter 7 (167-179)	Types of Judgments (redux)
March 20th	Ch. 7: Ex. #3, 7 (pp. 182)	Language Games
March 22nd	Analyzing Rhetoric	Language Games
March 25th	Joint and Conditional Probabilities lecture	Probability
March 27th	Joint and Conditional Probabilities exercise (handout)	Probability
March 29th	Read Chapter 12 (pp. 293-327)	Inquiry into Natural Science
April 1st	Ch. 12: Ex #2, 4 (pp. 328-330)	Inquiry into Natural Science
April 3rd	TBA	
April 5th	Read Chapter 13 (pp. 335-366)	Inquiry into Social Science
April 8th	Ch. 13: Ex. #1, 2 (p. 367)	Inquiry into Social Science
April 10th	TBA	
April 12th	Exam #4: Inquiry in Science	--
April 15th	Read Chapter 14 (pp. 371-403)	Inquiry into Art
April 17th	Read Chapter 15 (p. 409-427)	Inquiry into Ethics
April 19th	<i>Good Friday: No Class</i>	
April 22nd	Ch. 15: Ex. #1, 2, 4 (pp. 428-9)	--
April 24th	Read Chapter 16 (pp. 431-463)	Conspiracy Theories/Paranormal
April 26th	Ch. 16: Ex #1, 6 (pp. 464-466)	Conspiracy Theories/Paranormal
April 29th	Exam #5: Inquiry into Weird Stuff	--
May 1st	TBA	--
May 3rd	Review for Final	--
May 6th	Exam #6: Final Exam (3:30-5:30 PM)	--

Evaluation: There will be six exams throughout the course. The exams (except for the cumulative final) will be given during the regular class period, and there will be NO “make-up” opportunities on the exams. The best five will be used to calculate your final grade. In addition to the exams, your attendance will be also included in your final grade (details on how that grade is calculated are listed below).

The following weighting will be used to calculate your grade:

Exams (best 5 out of 6)	75%
Attendance	15%
Participation	10%

Your rounded average of these assignments will determine your grade, based on the following scale: A = 100-89.5; B = 89.4-79.5; C = 79.4-69.5; D = 69.4-59.5; F = 59.4-0.

Attendance and Participation: An attendance sheet will be distributed most class days. It is your responsibility to sign-in on the official roll sheet, otherwise you will be considered absent. Your attendance will be judged as a percentage of the number of days that you attend class. Everyone will have three (3) absences that will not count against his or her grade (should you not use these two “freebies,” your grade will be adjusted up accordingly). For example, if I take attendance 22 times in the semester, and you have attended 17 of those meetings, your attendance grade would be a 91% (20/22).

Your participation grade will be a qualitative measure based on your effective in-class participation. For this measure, “effective” participation is a function of the quality—not the quantity—of your participation. In most cases, your participation grade will be no higher than your attendance grade (since, of course, if you're not there you can't participate).

Disability Policy: It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail disability@shsu.edu). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see: <http://www.shsu.edu/dotAsset/7ff819c3-39f3-491d-b688-db5a330ced92.pdf>

Academic Dishonesty: All students are expected to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials. For a complete listing of the university policy, see: <https://www.shsu.edu/dept/academic-affairs/documents/aps/students/810213%20Procedures%20in%20Cases%20of%20Academic%20Dishonesty-180504.pdf>

Classroom Conduct: Students are expected to assist in maintaining a classroom environment that is conducive to learning. Students therefore must refrain from behavior in the classroom that intentionally or unintentionally disrupts the learning process and, thus, impedes the mission of the university. Cellular phones, pagers, and music players (for example, iPod-type devices) must be turned off and earphones removed before class begins. Students are prohibited from using tobacco products, making offensive remarks, reading newspapers, talking at inappropriate times, or engaging in any other form of distraction. Inappropriate behavior in the classroom shall result in a directive to leave class. Students who are especially disruptive also may be reported to the Dean of Students for disciplinary action in accordance with university policy. The policy can be read here: <https://netreg.shsu.edu/mirror/codeofconduct.html>.

Course Evaluations: In accordance with University policy every student will have an opportunity at a specified date and time near the end of the semester to complete a course evaluation form from the IDEA course evaluation system.

Visitor Policy: Only registered students may attend class. Exceptions can be made on a case-by-case basis by the professor. In all cases, visitors must not present a disruption to the class by their attendance. Students wishing to audit a class must apply to do so through the Registrar's Office.

Student Absence on Religious Holidays: Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. Section 51.911 (a) (2) defines a religious holy day as: "a holy day observed by a religion whose places of worship are exempt from property taxation under Section 11.20...." A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed. For a complete listing of the university policy, see:<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/861001.pdf>

Q-Drops: A Q-drop is a drop made after the last date for tuition refunds (12th class day for fall/spring; 4th class day for summer) but before the date for which a drop would result in the grade of 'F' as published in the Academic Calendar. Students will be allowed no more than five Q-drops during their academic career at Sam Houston State University. Classes that are dropped prior to the Q-drop date will not count toward the limit. Students who have used their limit of five Q-drops will need to petition their respective dean to drop a class. If the dean refuses to grant permission to drop a class, a student will be required to remain in the class. This limit took effect with the start of the fall 2004 semester. Any drops accumulated prior to the fall 2004 semester will not be included in the five Q-drop limit, nor will Q-drops from other universities.

Use of Cell Phones: Telephones and pagers or similar devices have become increasingly a part of everyday life. In the academic classroom, however, during class these devices can be a serious distraction and during tests they can be a serious problem. The technology is constantly changing and evolving. So, the present policy does not specify particular devices or device types. Rather, the policy applies to any device that performs the function of a telephone or pager.

The use by students of cell phones or any device that performs these functions during class-time is prohibited unless specifically permitted by the instructor. All such devices should be turned off or put in a silent or vibrate mode and should not be visible during class. At no time should students answer a call or text during class or leave the classroom to answer a call or page. Failure to comply with this policy could result in expulsion from the classroom or with three or more offenses, failure of the course.

Any use of a cell phone or any device that performs these functions during a test period is prohibited. These devices should not be present during a test or should be stored securely in such a way that they cannot be seen or used by the student. Even the visible presence of such a device during the test period will result in a zero for that test. Use of these devices during a test is considered de facto evidence of cheating and could result in a charge of academic dishonesty (see pages 36-38 of the student code of conduct at the following link): <http://www.shsu.edu/students/guide/StudentGuidelines20132016.pdf>

If there is an emergency situation for a student, that student should inform the instructor and place himself/herself in a seat near the door where an exit for a phone call would be only minimally disruptive. Other arrangements for handling potential emergency situations may be granted at the discretion of the instructor.

Expectations, Suggestions and Mandates for an efficient class:

1. Please arrive to class on time and expect to stay the entire duration of the class. If this is an impossibility, please make every attempt to notify me in advance of tardiness or absence.
2. Especially true in philosophy more than most other subjects, diligence is important. Some of the reading will be difficult—since we are looking at excerpts from some of the most profound texts in the history of the world. The difficulty of the subject is indirectly proportional to the amount of work put into the course.
3. Expect to have up to five hours a week of reading and thinking about the material in order to get an "A" for the course. Additionally, for these reasons, attendance is of vital importance. If you do not attend class or keep up with the reading and exercises, do not expect to pass this class!
4. Please come to class prepared (i.e., any reading assigned read, any questions concerning exercises or lectures prepared, etc.)
5. Please be respectful of each other in the class. There will be times when students disagree about a topic discussed in class. This is a didactic process, not a combative one.
6. Due to the great excess of material and limited time in which we must cover ground, please do not create a disruption for those people who are attempting to learn. Disruptions include blurting out answers, name calling, chiding each other, snoring, etc. Laughing at the Instructor's jokes is obviously exempted from this policy. In addition, personal audio devices (except those in use to record lectures) and loud crunching snack foods are prohibited from the classroom.
7. Please feel free to make mistakes. We all will from time to time, even your omniscient instructor.
8. Please feel free to make an appointment to discuss the material you do not understand. Waiting until the last moment in the semester to catch up is not advisable. I am excellent at fixing small problems, but horrendous at fixing large ones. The only difference between small and large problems is time.
9. Have fun! The material is only as dry as you make it out to be. Sharpening one's mind can be an exhilarating process.