

## LOGIC AND CRITICAL THINKING

PHIL 2020

Maymester Term, 2010

Daily, 9:30-12:15

Peabody Hall, room 105

Text: LOGIC AND RATIONAL THOUGHT

by Frank R. Harrison, III

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Office hours: Thursday 2:00-3:00, but let me know if you want

to see me at some other time. I am available other than

Fridays.

*Read this syllabus very carefully. If there are any reasons why you cannot comply with what I am requiring, then talk with me about this at once.*

## OBJECTIVES OF THE COURSE

The primary goals of this class are to help you reason more clearly and be able to catch mistakes in reasoning, both yours as well as others. To do this, the following areas are emphasized in this class:

- 1) Aiding you to express yourself more clearly through English;

- 2) Helping you to distinguish between various uses of language such as arguments, explanations, descriptions, rhetoric, etc.;
- 3) Assisting you to grasp and use English more correctly when evaluating and presenting arguments presented in support of various claims;
- 4) Helping you to recognize fallacious arguments in specific writings and discussions;
- 5) Providing you with methods for critically analyzing arguments; and
- 6) Helping you to construct cogent arguments.....

.....all of which has the cumulative effect of helping you be better able to defend yourself against being persuaded by fallacious arguments to act in ways detrimental to your own well-being and to that of others.

### GENERAL COMMENTS

PHIL 1500 is a class designed to assist you to reason more clearly and to catch mistakes which you and others make in reasoning. This requires practice! And this practice requires time. Remember, this is the Maymester and this means you are in a “pressure cooker.” What is required for success, then, is

- 1) a willingness to devote to this course, on average, at least two to three hours a day, outside of class, seven days a week of solid work time;
- 2) regular attendance to, and participation in, classes and study groups;

- 3) willingness to interact with the professor;
- 4) working with your classmates outside of the class; and
- 5) a good command of English -- the tool of our rational thinking.

The two greatest outside class tools for this class are a good dictionary and a good book of English grammar.

**NEVER** get behind in your work!! The material builds on itself, making it extremely difficult to catch up!! Indeed, you would be wise *to keep ahead* of the assignments.

### GRADING

Your course grade will be an averaging of your grades on three tests. In averaging, each of the tests will count 33.33% of your grade.

*Each test is cumulative.* That is to say, each test will cover everything assigned and/or discussed from the first day of this class up to the particular test given.

Final grades are NOT posted nor given out except through the Registrar's Office.

Each test must be taken at the announced time and date. If you do not, and you do not have a written and acceptable excuse, then you are given a zero for that test. If you have an excuse from a physician, the office of the Vice President for Student Affairs, me, *etc.*, then you must take a make-up within three days of the original test date unless there is an outstanding reason not to do this couple with another written excuse. No matter what your average, if you do not take the last test, you will receive a "WF" in the course.

Make-up tests are given only under the most pressing reasons such as serious illness or death in your immediate family. First cousins are not considered "immediate family." Field trips in other classes, weddings, sport events, over sleeping, *etc.* do not count as reasonable excuses for missing a test. If you are salaried to support yourself and your education, then job related absences *may* be considered legitimate reasons.

An "I" ("Incomplete") is seldom given in this class, and only under the following university established guide lines. An "I" must be requested in a formal letter to the professor, usually during the last week or so of the class. In the letter the student requesting an "I" must establish that (s)he has a passing grade at the time of the request and that the reasons for requesting an "I" are completely nonacademic. Written evidence supporting this claim must accompany the request letter. The final decision to give an "I", and the conditions under which the class work must be completed, are left to the professor. If granted, this "I" must be completed in nine months. Otherwise it will automatically turn into an "F".

#### HELPFUL SUGGESTIONS

Assignments should *always* be read through *before* the class in which the assigned readings are discussed. After class discussion you should carefully re-read the assignment. Next, do whatever practice assignments have been made -- working exercises, *etc.* Ask questions in class when you are not clear about some point. However, you will remember whatever it is if YOU first try to answer your own questions.

#### CLASS EVALUATION

At the end of this course there will be a class evaluation. If, while the class progresses, you find something that is not up to what you perceive as an "A" standard, *please* talk with me about it! Further, this class contains difficult material to teach, and you might have some excellent suggestions on how to go about doing this -- suggestions which I might not have

considered. Further, some of my teaching techniques may be counter-productive for you. We can also talk about these. Perhaps I can change, or perhaps you can come to see why I do what I do -- or a little of both. In any event, if you are dissatisfied with the way something in the class might be moving, then, as a student, you have both the right and the responsibility to see me about it as soon as possible. In particular, do not wait to the end of the class. Then it is too late!

### PROFESSOR AVAILABILITY

If you want to see me other than at my regular office hours, let me know after a session. Or, send me an e-mail at <[harrison@uga.edu](mailto:harrison@uga.edu)>. We can then arrange some mutually suitable time.

You may go to my web page in this way:

- (1) Go to <[www.phil.uga.edu](http://www.phil.uga.edu)>;
- (2) on the left side of the screen click on <PEOPLE>;
- (3) in the middle of the screen click <FACULTY>;
- (4) scroll down to <Frank R. Harrison, III> and click on name;
- (5) click on <Dr. Harrison's Web Page>;
- (6) scroll to your appropriate class to read information and print off what you need.

### ARGUMENTS

In this class we are going to be discussing arguments. By “argument” we mean a finite series of statements (propositions) which are set forth to provide evidence for the truth of some claim. The premises of an argument are those statements (propositions) presenting

evidence in support of the conclusion. The conclusion of an argument is that claim for which the evidence is given.

A statement (proposition) is an abstract entity denoted usually, but not always, by a declarative sentence in a particular language. Statements (propositions) have two properties, or characteristics, which are important for our study. Any statement (proposition) is either true or false, but not both.

Declarative sentences occur in particular languages and are used to denote statements (propositions). Various declarative sentences can denote the same statement (proposition). For instance, in English, “Jack bounces the ball” and “The ball is bounced by Jack” denote the same statement (proposition). While statements (propositions) are either true or false, but not both, declarative sentences can be ambiguous, vague, and the like.

Give, then, this notion of “argument,” an argument can go wrong in three different ways.

*First*, the declarative sentences used in expressing an argument might be confused for any number of reasons. If this is the case, then it is difficult, perhaps impossible, to know what statements (propositions) are being denoted by those declarative sentences. What does “All of Jean’s bills are only \$100.00”? Does this mean that each of her bills is only \$100.00, or does it mean that the total of all of her bills is only \$100.00?

Clarifying what the declarative sentences in an argument actually denote is often the task of definition and grammar.

On the other hand, we may well know what a declarative sentence denotes. Consider “Thomas Jefferson was the eleventh president of the United States.” The problem here is that the statement (proposition) denoted by this declarative sentence is false. That is, *second*, an argument may be faulty because some of the premises are not true which is to say that some of the evidence presented may not be acceptable. Since arguments are all about supplying

evidence in the support of a conclusion, we would like our evidence to be acceptable and the statements (propositions) citing that evidence to be true.

It is the case that we often do not know, and are not in a position to know, whether certain evidential statements (propositions) are true or not. However, there are often cases for claiming that purported evidence is not good evidence at all. After the First World War the French built a “protective wall” between themselves and Germany. The French honestly believed that Germany would never be able again to attack. Unfortunately for the French, Hitler did not share this belief. So, when someone appeals to personal belief, or to the belief of others – even a great many others – this sort of appeal is often not evidence in support of the truth of some statement (proposition). Beliefs can be, and often are, wrong no matter how strongly that belief is held and by how many individuals.

An argument might be faulty for a *third* reason. The premises may not be related to the conclusion in such a way that they can actually support that the conclusion is true. It may be the case that even if all the premises were true, nonetheless, they still would not support the conclusion. Suppose, for instance, “If it rains, then the ground is wet” is true. Also imagine that “The ground is wet” is true. Even so, these two claims do not support the truth of “It is raining.”

When, therefore, analyzing any argument, we shall need always to concentrate on whether the declarative sentences denoting evidential statements (propositions) are sufficiently clear to understand what is being said. We shall always, also, need to raise issues about the truth or falsity of the premises. If the actual truth or falsity cannot be known, then at least we should ask whether something is assumed in the premises making their likely truth problematic. And, finally, we shall have to determine, even when the premises are all clear and true, whether they do, or do not, support the conclusion of the argument. The presentation of the content of this class is organized in relation to how arguments can go wrong.

## ASSIGNMENTS

The follow assignment (not test) dates are flexible in the sense that in some case we may be able to cover more material than indicated and in others we shall have to spread our time out more on a given topic. Any “fine tuning” will be announced during the regular class sessions.

In any event, always *stay ahead* of the assignments in your actual readings. ***NEVER BE BEHIND!***

10 may Registration and *read over Chapter I* of your text

11-14 May Chapters 1 and 13

17 May TEST I

17-21 May Chapter 14; Sections 1-4, 5-7, 9-13

Chapter 15; Sections 1-6

24-25 May Continuing with Informal Fallacies

24 May Withdrawal Deadline

This is the last day to withdraw from this class with a W. After this date a student who withdraws, stops coming to class, and the like, will receive as WF as the final grade unless he/she has a written excuse from the Office of the Vice President for Student Affairs.

26 May TEST II



26-28 May

Chapter 2; Sections 1-6

28 May-1 June

Chapter 4; Sections 1-2

2 June

TEST III; class evaluations

### TEST DATES

The tests will be given *the first hour and fifteen minutes of the class* day indicated. You will supply your own standard size (11 x 8.5) blue books. Do not mark in these blue books before coming to class. When first arriving at the classroom, you will give me your blue books. I shall then redistribute all of the blue books for the test. There will be a fifteen minute break after the test. Then class will begin.

17 May      Test I

26 May      Test II

2 June      Test III

### SOME STEPS IN REASONING WELL

*Hopefully the suggestions in this, and the following, section will be of great help to you to think critically whether orally or in writing, and in whatever classes you may be taking or in papers you may be writing.*

1) Always state the hypothesis (or hypotheses) to be considered discussed, argued, *etc.*). Point out key terms that need defining, points to be questioned, explanations needed, arguments required, and the like.

- 2) Always define key terms before beginning debate.
- 3) Always state the methodology to be used. State how you are going to justify your hypothesis.
- 4) Always clarify the hypothesis so that both the party presenting it (i.e., you) and the party receiving it (i.e., the hearer and/or reader) will be discussing exactly the same thing.
- 5) Always defend or reject the hypothesis under consideration by presenting various arguments, explanations, factual considerations, as are appropriate to both the type of hypothesis being discussed and the specific hypothesis itself.
- 6) Always clearly draw some conclusion(s) and indicate new areas of discussion suggested by this (these) conclusion(s).
- 7) Always remember it is a hypothesis, not the presenter of the hypothesis, which is being attacked or defended. Very wonderful people can say, and believe, the most foolish things. Neither you nor I is an exception to this observation!

#### SOME FOUNDATIONAL ASSUMPTIONS OF RATIONALITY

- 1) Nothing in reality can correspond to a verbal contradiction. God cannot create a round square because there is nothing that could possibly be there to create.
- 2) Because someone (even a great number of people) BELIEVE that X exists, is true, or is morally, politically, financially, aesthetically, etc. right (or wrong), or FEELS GOOD, or is SOURCE OF PLEASURE, it does not follow that X does (or does not) exist, is (or is not)

true or morally, politically, financially, aesthetically, etc. right (or wrong). Therefore, while your beliefs and feelings might be the motivation for you to act in certain ways, they can never be justification for the correctness of your actions.

3) The state-of-being (e.g., gender, religious persuasion, sexual orientation, race, or even sanity) of someone uttering X often has little to do with whether X is rationally acceptable or not. On the other hand, whether we accept or reject X may very well be influenced by our perception of the one presenting X. We must be careful of how we are influenced. And, again, *we must not confuse motivation with justification* which is a matter of argument. Nor must we ever confuse motivation and justification with explanation.

4) No hypothesis, or claim, is to be argued, explained, or the like, without first clarifying the key terms used in stating that hypothesis.

5) Hypotheses, claims, or opinions (beliefs) are not to be accepted without evidence, argument, explanation and/or the like.

6) If something holds to be the case in one situation, then it must also hold to be the case in any situations (similar to) like the first unless there are strong over-riding arguments for accepting some differences between the two otherwise similar cases. This is the rule of consistency.

*I sincerely hope that you profit from this course in that it sharpens, for the rest of your life, your abilities to reason well in what you think, say, write, hear, and read. I also hope that you come to enjoy the class and studying the material. But, remember that often we do not enjoy, in the short term, coming to attain that which is good for us over the long run. It is only after*

*the attainment that the enjoyment and profit truly begin. Once more, if I can be of any outside class help to you while this course is in process, let me know.*

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