09-27 App-9/22/09 ING. 70/6/09

# **Undergraduate Distance Education Review Form**

(Required for all courses taught by distance education for more than one-third of teaching contact hours.)

# **Existing and Special Topics Course**

Course: PHIL 101: Critical Thinking

Instructor(s) of Record: Eric M. Rubenstein

**Phone:** <u>x3575</u>

Email: erubenst@iup.edu

### Step One: Proposer

A. Provide a brief narrative rationale for each of the items, A1- A5.

### PLEASE SEE ATTACHED FOR ANSWERS TO A1- A5.

- 1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?
- 2. How will <u>each objective</u> in the course be met using distance education technologies?
- 3. How will instructor-student and student-student, if applicable, interaction take place?
- 4. How will student achievement be evaluated?
- 5. How will academic honesty for tests and assignments be addressed?
- B. Submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.

Step Two: Departmental/Dean Approval

Recommendation: Positive (The objectives of this course can be met via distance education)

\_|Negative

Signature of Department Designee

**Date** 

Endorsed:

Signature of College Dean

D-4-

Received

Liberal Studies

Liberal Studies

Rescions

Forward form and supporting materials to Liberal Studies Office Undergraduate Curriculum Committee. Dual-level courses also Committee for graduate-level section.	
Step Three: University-wide Undergraduate Curriculum Co	mmittee Approval
Recommendation: Positive (The objectives of this cours	se can be met via distance education)
☐ Negative	
Signature of Committee Co-Chair	9-22-09 Date
Forward form and supporting materials to the Provost within 30	calendar days after received by committee.
Step Four: Provost Approval	
Approved as distance education course	Rejected as distance education course
Signature of Provost	Date
Forward form and supporting materials to Associate Provost.	

# **REVIEW FORM for Distance Education version of Course**

# Step One: Proposer: Eric M. Rubenstein (for PHIL 101 Critical Thinking (DE))

A1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?

I have been teaching Philosophy for well-over a decade, including many courses in Logic. In addition, I have now taught 5 Distant Education sections of Philosophy 222 (Ethics). I have wide ranging knowledge of many computer technologies, have used WebCT for a number of years in different courses, have done a lot of digital recording and sound processing (which will prove useful for preparing the "podcast" lectures I will use in this DE course), and also maintain a personal webpage.

What's more, in preparing this proposal I have done extensive research on web-based Philosophy courses for ideas on different ways of assessing student work, and how to present material in a digital context. I have also profited from the kindness of various IUP faculty members who have permitted me to browse their own WebCT online courses for ideas and information. (Special thanks here to Prof. Steve Jackson in particular.)

A2. How will each objective in the course be met using distance education technologies?

WebCT offers the potential for presenting difficult material in several different media, which I think will help foster learning. For instance, given material will be presented for students to listen to (audio lectures); and then will be reinforced with written outlines and study guides, and finally, reinforced again in a different way by having students discuss the issues with their classmates (and me, of course). This multi-sensory approach, for lack of a better word, should help increase comprehension. In particular:

Objective 1: Students will learn to recognize, analyze, and evaluate arguments:

- a. to distinguish arguments from unsupported opinions.
- b. to identify conclusions and premises
- c. to evaluate arguments as to validity and soundness:

Here I can provide audio and visual demonstrations of what counts as valid and invalid reasoning-demonstrating to students the principles of each, using examples, diagrams, and drawings. Having the principles of valid reasoning presented in both visual and audio form (akin to lecturing and using the blackboard, document camera, etc in a "podium class") will help students, especially as some students learn better by hearing, others by seeing.

For example, I will assign students a particular argument or passage to read and analyze. They will be asked to provide a formal analysis of the argument: to identify what type of argument it is (deductive, inductive, etc); what the premises are, what the conclusions are; which premises are explicit and which are merely implied, etc. They will be asked to issue a verdictand explain their reasoning- as to whether the argument they've analyzed is deductively valid, inductively strong, etc.

(Such assignments obviously presuppose that students have been taught the difference between deductive and inductive arguments, what the difference is between implied and explicit premises, what the difference is between deductively valid and inductively strong, etc. Subsequent discussions of the course objectives contain examples of how such teaching will be achieved in the context of an online course.)

Objective 2: Students will develop the skills of abstract logical thinking, critical analysis, decision making, and other aspects of the critical process of by studying and applying fundamental principles of critical reasoning.

Here is a good place to make use of discussion boards, email threads, and in general, interaction among the students. Being asked to think through examples and to assess other's reasoning, is a way of getting students to be active participants, instead of just passive receivers of information. Critical thinking is a skill, and like all skills, requires practice. Being asked to engage in critical reasoning about examples, and to assess their own and others arguments is the best type of practice, and as such will help students develop their critical thinking skills.

For example, I will ask students to pick a topic that we have discussed and which they find interesting. They will be asked to write an explicit argument that supports their view or beliefs on that topic. They will, in other words, be asked to identify the premises and conclusions of their respective arguments. I will then sort through the submitted ones, finding ones I think particularly good. These in turn will be posted on the Discussion Boards for others students to discuss and critically analyze.

Objective 3: Students will apply the techniques of critical reasoning to actual arguments from philosophy and elswhere and to current issues, ideas, institutions, and events.

WebCT provides the perfect avenue by which to provide students with examples of reasoning to scrutinize. For example, "clippings" from newspaper articles and editorials can easily be uploaded for students, as can clips from television and radio advertisments. Such 'real world' examples are the perfect way for students to practice and develop critical thinking skills

For example, this would be a good opportunity for teaching students some of the so-called 'informal fallacies'. I can both provide particular (video, audio, written) examples of various fallacies- "false dilemma", "hasty generalization", "ad hominem", etc, and also ask students to find and report examples they have found of what they take to be instances of such fallacies. They can then write (and discuss) why they think their discovered examples are instances of such fallacies, and why.

(As a philosophical aside, I say "so-called 'informal fallacies', for Logic itself is typically thought of as involving a study of logical forms. Good reasoning requires adhering to the formal principles, and bad reasoning involves a violation of such forms. With that in mind, the very notion of an 'informal fallacy' seems like a misnomer or category mistake. But, as with many things, that itself can provide an example of a philosophical argument for students to contemplate, analyze, and discuss, though obviously this is one for later in the course!)

Objective 4. Students will become acquainted with some of the major areas of philosophy through the analysis of arguments from those areas.

Here, again, WebCT provides a nice way to present students with a range of materials-from excerpts of famous philosophical writings, to video lectures from great philosophers that are available (and which I can convert to digital form if needed), to audio lectures from me and others. As I've used in my other DE courses, short videos can offer a substitute for what I would write on the blackboard in a regular, 'podium' class. Each of these provides the 'raw material' that students can analyze, helping to develop their critical thinking skills in the process.

For example, I will offer video analysis of famous philosophical arguments, showing students what the explicit premises are, helping them search for hidden assumptions,

Final Exam	20% of grade
Discussion Participation	15% of grade
Short Writing Exercises	10% of grade

#### **DISCUSSION PARTICIPATION:**

As indicated on the syllabus, there will be a portion of the grade assigned on the basis of participation in online discussion. This is facilitated using the Discussion tools of WebCT (and the correlate in Moodle, of course, of which I am presently learning). I have included the following text in recent syllabi for my DE courses:

"Class discussions will take place online, in the "Discussion" area (found in "Communication Tools" folder). Note that a portion of your grade is based on your participation in such discussions. Importantly, though, it will be based on both the quality and quantity of your contributions to these discussions. A "quality message" is one that asks a good question, makes a good response to another student, and in general continues the discussion.

Unlike some online courses, however, I am not going to require a certain number of contributions, nor that you contribute to every discussion. I believe that those requirements often lead students to "participate" just for the sake of doing it, even if they have nothing to offer or ask. I'm guessing you know what I mean if you've had that requirement before. Instead, I will expect you to read all the discussions, and to participate in a healthy percentage of them, thus giving you a chance to wait to participate until you feel you have something to ask or say. Aim to make somewhere around 2 good messages per week. You can participate on-line by leaving messages at any time; there won't be a scheduled time or deadline on any of the discussions.

Here's a final, important point to remember: Good questions can be just as important, if not more so, than good "answers". "

Based on the thinking behind this message, I approach the assigning of grades for participation in the following manner. During the semester I will often post questions for students to discuss, and will encourage them to start their own discussion threads. Through the semester I follow the discussions and threads, keeping notes on who is making good contributions. WebCT provides helpful tools to help monitor how many posts each student makes, how often they are viewing the online materials, etc. At the end of the semester, I typically break students down into three categories: Excellent Contributions; Adequate Contributions; Poor Contributions and assign grades based on a combination of how often they've posted, and my notes on the quality and seriousness of their posts throughout the semester.

Excellent Contributors typically receive the full 15% of the participation grade. Adequate Contributors typically receive 12% of the participation grade. Poor Contributors typically receive 8% of the participation grade.

# A5. How will academic honesty for tests and assignments be addressed?

I will take a multi-pronged approach to issues of academic honesty and plagiarism. There will be an educational component, where students will learn what academic integrity requires, what constitutes plagiarism and academic dishonesty, why academic integrity matters, etc. There will also be a "screening" element, which will involve the processing of writing assignments (long or short) through TurnItIn.com, which I have used in the past with great success. This will be aided by use of timed exams which will reduce the ease and opportunity for dishonesty. Finally, there will be a "deterrent" component. By this I mean that all exam questions, writing assignments, and the like, will be written

with an eye to making academic dishonesty simply less easy to accomplish. To put it in a perhaps overly philosophical manner, one might think of concepts as abilities and so to have the concept of x is to have the ability to think about x. In an exam or essay context, this means that a student who has learned a given concept will be able to think about how that concept applies to familiar examples, but also to new ones, and will be able to show their command of a given concept by showing how to apply that concept in a variety of contexts. In short, one may write exam questions with an eye to getting students to show how to think in new, creative ways about a given matter, and by refraining from asking too many encyclopedia-type questions I think one can also reduce opportunities for dishonesty. To put it slightly differently, I think that one might reduce opportunities for plagiarism and dishonesty by imagining students to be writing "open-book exams"- where one imagines them able to access all of the notes they would like but where that doesn't suffice to give them the answer to a given question unless they truly understand the material.

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categorical logic, some basic mistakes we make in reasoning, the nature of scientific reasoning, the difference between science and pseudo-science, and more.

Critical thinking is not something that you can merely absorb by having someone lecture to you in class. You must engage with the material. It's thus very important that you both do the readings and the exercises. You will need to go through the assigned material slowly (and be willing to re-read it) in order to understand it and apply it in the exercises assigned for that day. You should also come with a willingness to ask questions and participate in class discussion. You're partly responsible for how much you get out of the course, and how interesting it is. Although class participation is not a requirement, borderline grades will be bumped upwards for those who have been active participants during class sessions.

A word about participation in online discussions: Your contributions to these discussions will count towards your final grade. I will circulate a handout which describes in more detail what I'm looking for, but for now let me say this. Unlike some online courses, I am not going to require a certain number of contributions, nor that you contribute to every discussion. That leads students to do it for the sake of doing it, even if they have nothing to offer or ask. Instead, I will be looking for the quality of your contributions, and what they add to the discussion. Good questions can be just as important, if not more so, than good "answers". More to follow on this issue.

# Important Information about the Course, Part II:

#### A. The Online Method

This is an online (distance education) course. It will be found in its entirety at WebCT, which itself can be found at: http://webct.iup.edu/webct/public/home.pl

As is often noted, the convenience and flexibility of distance education carries with it the hazards of technological failure. The following is a plan for dealing with such failures as they occur. NOTE: Indiana University of Pennsylvania does not provide computers for this course or house call assistance. It is each student's obligation to have access to the minimum computer configuration in order to take this course. That minimal configuration is a computer capable of running either Netscape 4.0 or Internet Explorer 4.0 (preferred) browsers or higher, a 28.8 bps or higher modem, and enough available hard disk space to download necessary plug-in software such as Adobe Acrobat Reader, RealPlayer, Shockwave or Flash. Students should familiarize themselves both with WebCT and with IUP's Distance Education resources, which can be found at:

http://www.iup.edu/distance/. A list of student responsibilities can be found at http://www.iup.edu/distance/admin/responsibilities.shtm and should be reviewed carefully.

- 1. Should the WebCT software or server be unavailable for more than 12 hours, I will e-mail all students with a notification and readings.
- 2. Although students should use the dedicated e-mail of WebCT in normal circumstances, each student should also have a backup e-mail address that is available from their location (i.e., Hotmail, Gmail, etc.) to send and receive assignments. Students can use their university e-mail

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accounts through http://webmail.iup.edu, a web-based interface for the university e-mail system. Remember, my non-WebCT email address is erubenst@iup.edu and should be used if there is a problem with WebCT.

- 3. All students should have a backup plan for a computer failure, such as computers available in local libraries, other SSHE universities, at local copy shops or other locations as a temporary measure.
- 4. All students MUST test their computer as soon as possible to verify that it is capable of interacting with WebCT, sending and receiving e-mail, reading PDF documents, downloading and listening to mp3 files.

### B. Plagiarism

Plagiarism is the representation of another person's words and ideas as one's own. A student who plagiarizes all or part of an assignment can expect strong penalties, ranging from failure in that assignment to being recommended for a hearing before a judiciary body of the University. I recommend that you review the *IUP Academic Policy and Procedures* in the University Catalogue, found at <a href="http://www.iup.edu/registrar/catalog/acapolicy/index.shtm">http://www.iup.edu/registrar/catalog/acapolicy/index.shtm</a>

Academic honesty is an essential component of intellectual development. And it is a vital element in the mission of this University. I will not tolerate any violations of this policy, and all violations will be prosecuted. If you have any questions about the policy or more generally about what counts as plagiarism, please do not hesitate to contact me.

#### C. Disabilities

If you have any disability, obvious or not, that might affect your performance in this course, I want to help you and make any necessary arrangements. Students at IUP are encouraged to voluntarily contact Disability Support Services in the Advising and Testing Center. With student consent, DSS informs professors of student disabilities. You may prefer to contact me directly. Confidentiality is assured.

#### D. Additional Web Resources

- 1) WebCT: All materials for this course are available here. I highly recommend that you check here regularly. You will need to use your IUP email account to access WebCT. IUP considers email an official form of correspondence, and thus you are responsible for regularly checking your IUP email account and the email account run through WebCT. The WebCT email account will be the primary email account I will use, except in event of server problems.
- 2) JSTOR: A link to this can be found through the Library's list of online resources. It provides searchable and downloadable articles from top journals in Philosophy.
- 3) The Philosophers Index: Available through WebSpirs, also through a link at the Library's page. It contains abstracts and bibliographies for every article and book published in Philosophy.
- 4) Encyclopedia's and Online References in General: As you are no doubt aware, there is much on the web that is of little value; this includes stuff posing as Philosophy. There are two

Philosophy Encyclopedia's that are reliable, though: "Stanford Encyclopedia of Philosophy"; "The Internet Encyclopedia of Philosophy". Beyond that you are on your own. In particular, I urge you to avoid Wikipedia.

# Schedule and Reading Assignments (Fogelin and Sinnott-Armstrong)

# Week One: Introduction, Arguments (Ch. 3)

Introduction

Basic Structure of Arguments, pp. 45-49; Exercise I.

### Week Two: Validity, etc. (Ch. 3)

Validity, Truth, and Soundness, pp. 50-53; Exs. II, III, IV.

Validity, Truth, and Soundness, pp. 50-53; Exs. II, III, IV.

A Problem and Some Solutions, pp. 53-60. Ex. V.

## Week Three: Propositional Logic (Ch. 6)

Conjunction, pp. 131-138; Exs. I-VI.

Disjunction and Negation, pp. 139-144; Exs. VII-X.

Testing for Validity and Further Connectives, pp. 144-151; Ex. XII.

## Week Four: Conditionals, Necessary and Sufficient Conditions (Ch. 6)

Conditionals, pp. 151-158; Exs. XVII-XX.

Other Conditionals, Necessary and Sufficient Conds., pp.161-171; Exs. XXII, XXIV.

Necessary and Sufficient Conditions cont'd; Review for Exam.

# Week Five: Exam 1, Categorical Logic (Ch. 7)

Categorical Logic, pp. 173-178; Ex. I.

Categorical Logic, pp. 179-183; Exs. II-IV.

# Week Six: Categorical Logic, Inductive Reasoning (Chs. 7 and 9)

Categorical Logic, pp. 184-197; Exs. V-VII.

Categorical Logic, pp. 184-197; Exs. V-VII.

Induction vs. Deduction, pp. 249-253; Ex. I.

# Week Seven: Inductive Reasoning (Ch. 9)

Inferences to the Best Explanation, pp. 254-261; Exs. II-IV.

Arguments from Analogy, pp. 263-268; Exs. V-VI.

Reasoning about Causes, pp. 271-278; Exs. VII, VIII.

# Week Eight: Inductive Reasoning (Ch. 9), Exam 2

Concomitant Variation and Statistical Generalization, pp. 291-306; Exs. XII, XIII, XVI.

Concomitant Variation and Statistical Generalization cont'd; Review for Exam

## Week Nine: Fallacies of Clarity (Ch. 11)

Vagueness and Heaps, pp. 339-346; Exs. I, II.

Slippery Slopes, pp. 246-357; Ex. IV.

Ambiguity and Equivocation, pp. 358-364; Exs. VIII, IX, XI.

## Week Ten: Fallacies of Relevance and Vacuity (Ch. 12)

Fallacies of Relevance, pp. 377-382; Exs. I

Fallacies of Relevance, pp. 385-391; Exs. III.

Fallacies of Vacuity, pp. 393-399; Ex. VI.

### Week Eleven: Moral Reasoning (Ch. 15)

Moral Disagreement and the Problem of Abortion, pp. 483-492.

Marquis, "Why Abortion is Immoral," pp. 487-506.

Thomson, "A Defense of Abortion," pp. 507-519, 492-494.

## Week Twelve: Scientific Reasoning (Ch. 16)

Galileo, "Dialogue on the Two World Systems," pp. 521-528.

Morris, "The Scientific Case Against Evolution," pp. 529-537.

## Week Thirteen: Scientific Reasoning, Religious Reasoning (Ch. 17)

Gould, "Evolution and Fact and Theory," pp. 538-546.

St. Anselm, "God Truly Exists" and Gaunilo's "Reply" pp. 547-549.

Paley, "The Watch and the Watchmaker," pp. 552-557.

# Week Fourteen: Religious Reasoning (Ch. 17)

Betty and Cordell, "The Anthropic Teleological Argument," pp. 557-559; Weinberg, "A

Designer Universe?" (handout)

Mackie, "Evil and Omnipotence," pp. 563-564.

Pike, "Divine Omniscience and Voluntary Action," pp. 572-573.

Review for Final Exam

#### SAMPLE LESSON PLAN

Eric M. Rubenstein

(Topic: Scientific Reasoning: What Makes Science Rational?)

Below you will find:

I. Instructions for this lesson

II. Lecture Notes/Outline

### I. Instructions

- A. Read the chapter on Scientific Reasoning-Chpt. 16 in the Fogelin/Sinnot-Armstrong text.
- B. Download and listen to my lecture, "Scientific Reasoning", available as an .mp3 file on WebCT in the folder entitled, "Lectures")
- C. Read the Lecture Outline either along with the lecture or afterwards.
- D. Complete the exercises at the end of Chapt. 16 in the Fogelin/Sinnot-Armstrong text.

#### II. LECTURE OUTLINE

## I. Deductive v. Inductive Arguments

Recall the difference between Deductive and Inductive Arguments. Here are some examples:

- i) The sun has risen every day for 5 billion years. Therefore, the sun will rise tomorrow.
- ii) All snakes are wicked.All wicked things are wiggly.Therefore, all snakes are wiggly.
- a. In a good deductive argument, if the premises are true then the conclusion *must* be true as well. But in a good inductive argument, the premises only make the conclusion *probable*, not certain.

(Good deductive arguments are said to be deductively valid; good inductive arguments are not spoken of as valid but simply as *strong*.)

- b. Inductive arguments are *ampliative* the conclusion goes beyond what is contained in the premises.
- c. Inductive arguments are *non-monotonic* the addition of extra premises will affect the probability of the conclusion being true, unlike in a deductively valid argument.
- d. The difference does not have to do with whether the conclusion mentions universal claims or merely particular circumstances. For we have also seen deductive arguments which

## A. Hume's Problem of Induction

Let us examine closely a bit of inductive reasoning:

The sun has risen every day for 5 billion years. Therefore, it will rise tomorrow.

How much support does the premise provide for the conclusion? We might think a lot; but only if we are implicitly adding another premise, namely: The future will resemble the past. How plausible is that premise?

Our first temptation might be to appeal to cases in the past where the future has resembled the past. This won't help, though. It begs the question because it relies on an unstated premise which assumes what is to be proved- namely that the future will *continue* to resemble the past. Nor could we try to smuggle in a premise which says that nature is uniform. For again we must ask about *its* justification. All we have to go on would be *past* experience; hence we're back to our earlier proposal.

Important: The point here, and elsewhere, is not just that any evidence or confirmation falls short of ensuring certainty. Recall that inductive arguments don't presume to establish certainty; nor do we need certainty in our scientific theorizing. (Science is a fallible pursuit which should be open to revision and change, given further evidence. This final fact we've codified as the importance of non-monotonic reasoning in science.)

The problem is that evidence gathered does not even establish our hypothesis as probable. We aren't even entitled to say it is even more likely that the sun will rise than it will rise half-way, or rise and quickly reset, or any other hypothesis. To do so would require assuming that nature is uniform (more or less), and that is just what we aren't entitled to assume.

All this suggests that 1) induction is a problematic form of reasoning, and 2) that IR is false.

# B. Goodman's New Riddle of Induction

- 1) Let's introduce a new term, "grue", which means the following: Grue=df x is grue iff x is green before t and blue after t, where t= 2050 C.E.
- 2) We know from observation that all examined emeralds are green.
- 3) But all emeralds are also grue.
- 4) Therefore, we are in no position to decide what color emeralds will be after 2050.

## a. Response:

'Grue' is an unnatural predicate, relying as it does on a temporal component in its definition.

# b. Response to the Response:

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# a. Response:

'Grue' is an unnatural predicate, relying as it does on a temporal component in its definition.

# b. Response to the Response:

Let 'bleen'=df x is bleen iff x is blue before t and green after t, where t= 2050 C.E.

If we were raised using the predicates 'grue' and 'bleen', we would understand the predicate 'green' as follows:

Green =df x is green iff x is grue before t and bleen after t.

On that interpretation, 'green' is the unnatural predicate, relying as it does on a temporal element in its definition. Therefore, there is no ultimate sense to the question of which predicate is 'natural', nor are there grounds for deciding which predicate truly 'carves nature at the joint."

How does this cut against Inductivism? Because the same evidence base can be used to equally justify two incompatible hypotheses- in this case about the color of emeralds. So, accumulation of evidence doesn't make a given hypothesis more likely to be true.

## C. Hempel's Raven Paradox

Take a hypothesis we wish to confirm by accumulation of evidence. For simplicity, let us take the hypothesis:

# 1) ALL RAVENS ARE BLACK

The logical form of this statement is All F are G, where this can be understood as: For anything, x, if x is F then x is G.

2) If x is F then is G is equivalent to If x is not G then x is not F.

So, taking our raven statement we get:

3) All NON-BLACK THINGS ARE NON-RAVENS. (If x is not black then x is not a raven.)

Now let us seek to confirm (3), which is equivalent to (1). What will confirm it-make it likely to be true?

Answer: The finding of any NON BLACK, NON RAVEN will confirm it.

So, finding a red car will support it. But since that (3) is equivalent to (1), it seems that a red car counts as confirmation of our hypothesis that all ravens are black. But THAT shouldn't be. For why should that evidence count as helping show our hypothesis true? It looks completely irrelevant. Apparently, even irrelevant evidence can help confirm our hypothesis.

Reply: Sure, the red car does offer some confirmation of our hypothesis that all ravens are black, though just a little bit. For the only thing that could show our hypothesis wrong would

Let 'bleen'=df x is bleen iff x is blue before t and green after t, where t= 2050 C.E.

If we were raised using the predicates 'grue' and 'bleen', we would understand the predicate 'green' as follows:

Green =df x is green iff x is grue before t and bleen after t.

On that interpretation, 'green' is the unnatural predicate, relying as it does on a temporal element in its definition. Therefore, there is no ultimate sense to the question of which predicate is 'natural', nor are there grounds for deciding which predicate truly 'carves nature at the joint."

How does this cut against Inductivism? Because the same evidence base can be used to equally justify two incompatible hypotheses- in this case about the color of emeralds. So, accumulation of evidence doesn't make a given hypothesis more likely to be true.

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### GENERIC SYLLABUS

I. CATALOG DESCRIPTION
PHILOSOPHY 101 GENERAL LOGIC: METHODS OF CRITICAL THINKING 3 credits
Prerequisites: None

Designed to develop students' ability to critically analyze deductive and inductive argumentation, rhetoric, and persuasion by examples drawn from media, textbooks, advertising, scholarly works, personal contacts, etc.

#### II. COURSE OBJECTIVES

- 1. Students will learn to recognize, analyze, and evaluate arguments:
  - a. to distinguish arguments from unsupported opinions,
  - b. to identify conclusions and premises,
  - b. to evaluate arguments as to validity and soundness.
- 2. Students will develop the skills of abstract logical thinking, critical analysis, decision making, and other aspects of the critical process by studying and applying fundamental principles of critical reasoning.
- 3. Students will apply the techniques of critical reasoning to actual arguments from philosophy and elsewhere and to current issues, ideas, institutions, and events.
- 4. Students will become acquainted with some of the major areas of philosophy through the analysis of arguments from those areas.
- III. CCURSE OUTLINE: varies with instructor and includes at least some of the following:
  - A. Analyzing Deductive and Inductive Arguments: Premises & Conclusion,
    Charitable Interpretation / Philosophical Applications
  - B. <u>Evaluating Deductive Arguments</u>: Validity & Soundness / Philosophical Applications
  - C. Informal Fallacies / Applications: Sexual and Racial Equality
  - D. Evaluating Inductive Arguments: Generalization, Causal Arguments, Arguments from Analogy / Philosophical Applications
  - III. EVALUATION METHODS: varies with instructor and includes at least some of the following:
    - A. Examinations
    - B. Papers
    - C. Final Examination
  - IV. REOUIRED TEXTS: : varies with instructor and includes the following:
    - 1. Critical thinking text: Some possibilities are:
      - Jerry Cederblom & David W. Paulsen. Critical Reasoning, 2nd ed. Wadsworth, 1986.
      - Howard Kahane. Logic and Contemporary Rhetoric [The Use of Reason in Everyday Life], 4th ed. Wadsworth, 1984.
      - C. A. Missimer. Good Arguments [An Introduction to Critical Thinking]. Prentice-Hall, 1986.
      - Merrilee H. Salmon. Introduction to Logic and Critical Thinking. Harcourt, Brace, Jovanovich, 1984.
      - Bruce N. Waller. Critical Thinking [Consider the Verdict].
        Prentice Hall, 1988.
      - Perry Weddle. Argument [A Guide to Critical Thinking]. McGraw-Hill, 1978.

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 Arguments taken from selected readings in philosophy: Sample below.

PHILOSOPHY OF RELIGION

Proofs for God's existence

Anselm & Descartes, ontological argument

Aquinas, cosmological arguments

Paley, teleological argument

Hume, teleological argument

Problem of Evil

Hick, solution

defense of atheism (Nagel or Mackie)

Adequate Evidence: Should we believe in God without it?

Pascal, wager

James, Will to Believe

criticism of James & Pascal (Clifford or Stich)

VALUES: Sexual and Racial Equality

Richard Wasserstrom, "Racism and Sexism"

Allison Jagger, "Political Philosophies of Women's

Liberation"

EPISTEMOLOGY: Skeptical Arguments

Descartes, Meditation I

Ayer, "Argument from Illusion"

METAPHYSICS: The Mind-Body Problem and the Problem of

Personal Identity

Descartes, Meditation II

Hume, "the Self"

Perry, "Dialogue on Personal Identity & Immortality"