

General Education Course Information Sheet

Please submit this sheet for each proposed course

Department & Course Number Philosophy Phil 9
 Course Title Principles of Critical Reasoning
 Indicate if Seminar and/or Writing II course _____

1 Check the recommended GE foundation area(s) and subgroup(s) for this course

Foundations of the Arts and Humanities

- Literary and Cultural Analysis X
- Philosophic and Linguistic Analysis X
- Visual and Performance Arts Analysis and Practice _____

Foundations of Society and Culture

- Historical Analysis _____
- Social Analysis X

Foundations of Scientific Inquiry

- Physical Science _____
With Laboratory or Demonstration Component must be 5 units (or more) _____
- Life Science _____
With Laboratory or Demonstration Component must be 5 units (or more) _____

2. Briefly describe the rationale for assignment to foundation area(s) and subgroup(s) chosen.

The course introduces both the practice and the theory of reasoning critically. We study the structure of argument in natural language, assessment of scientific claims in popular contexts, elementary techniques of risk assessment and evaluation, and the use of visual and literary techniques of persuasion.

3. "List faculty member(s) who will serve as instructor (give academic rank):

Professor Calvin G. Normore

Do you intend to use graduate student instructors (TAs) in this course? Yes X No _____

If yes, please indicate the number of TAs 3

4. Indicate when do you anticipate teaching this course over the next three years:

2017-18	Fall	<u>X</u>	Winter	_____	Spring	_____
	Enrollment	<u>150</u>	Enrollment	_____	Enrollment	_____
2018-19	Fall	<u>X</u>	Winter	_____	Spring	_____
	Enrollment	<u>150</u>	Enrollment	_____	Enrollment	_____
2019-20	Fall	<u>X</u>	Winter	_____	Spring	_____
	Enrollment	<u>150</u>	Enrollment	_____	Enrollment	_____

5. GE Course Units

Is this an ***existing*** course that has been modified for inclusion in the new GE? Yes X No _____

If yes, provide a brief explanation of what has changed. There is new emphasis on natural language reasoning, on the nature and structure of visual arguments, and on thinking about risk.

The course has been redesigned ab novo in collaboration with the UQ Critical Reasoning Project.

Present Number of Units: 4 Proposed Number of Units: 5

6. Please present concise arguments for the GE principles applicable to this course.

- ❑ General Knowledge

The course teaches reasoning methodology that is applicable across domains of research, analyzes arguments and persuasive techniques in a variety of areas and introduces the theory of critical reasoning to facilitate students' going on to apply critical reasoning in other contexts including everyday life and as citizens.
- ❑ Integrative Learning

The course focuses on general reasoning techniques and aims in particular to show the connections among patterns of reasoning across domains. Critical Reasoning is a highly "transferable" skill and a desideratum of many areas of employment.
- ❑ Ethical Implications

Reasoning is inherently either good or not. Bad reasoning supports bad policy and bad decision-making. The course aims to instruct students in both how to distinguish good from bad reasoning and how to avoid the latter.
- ❑ Cultural Diversity

No one culture owns good reasoning, but culture can influence how well or badly we reason. There are, therefore, interesting issues about to what extent and in what ways reasoning is culturally conditioned. Although not a focus of the course, this issue will be discussed.
- ❑ Critical Thinking

This is a course devoted to the theory and practice of critical thinking and is framed around the idea that to think critically one has to first thinking about one's thinking (metacognition).
- ❑ Rhetorical Effectiveness

The study of persuasive techniques and the difference between argumentation and persuasion is a focus of the course.
- ❑ Problem-solving

The course teaches the methodology of problem-solving across disciplines and the essential connection between being an effective thinker and being able to solve problems and manage risk.
- ❑ Library & Information Literacy

The course teaches techniques of fact-checking and elementary assessment of statistical claims. It teaches students how to assess and evaluate information rather than merely consume it. It further draws connections between critical thinking and the values of inquiry, which enable students to formulate appropriate questions that drive new lines of inquiry and research.

(A) STUDENT CONTACT PER WEEK (if not applicable write N/A)

- | | | |
|---|----------|---------|
| 1. Lecture: | <u>4</u> | (hours) |
| 2. Discussion Section: | <u>1</u> | (hours) |
| 3. Labs: | _____ | (hours) |
| 4. Experiential (service learning, internships, other): | _____ | (hours) |
| 5. Field Trips: | _____ | (hours) |

(A) TOTAL Student Contact Per Week 5 **(HOURS)**

(B) OUT-OF-CLASS HOURS PER WEEK (if not applicable write N/A)

- | | | |
|-------------------------------------|----------|---------|
| 1. General Review & Preparation: | <u>1</u> | (hours) |
| 2. Reading | <u>3</u> | (hours) |
| 3. Group Projects: | <u>2</u> | (hours) |
| 4. Preparation for Quizzes & Exams: | <u>1</u> | (hours) |
| 5. Information Literacy Exercises: | _____ | (hours) |
| 6. Written Assignments: | <u>3</u> | (hours) |

7. Research Activity: 2 (hours)

(B) TOTAL Out-of-class time per week

12

(HOURS)

GRAND TOTAL (A) + (B) must equal at least 15 hours/week

17

(HOURS)

Philosophy 9
Principles of Critical Reasoning
 Calvin G. Normore normore@humnet.ucla.edu

Aim: The course aims to introduce both the theory and the practice of reasoning critically. Reasoning is both something we do in every area of life and something for which we think there are standards that must be met if it is to be done well. This course looks at how we do reason and how we should reason with the aims of understanding both and bringing the two closer together.

Assessment: There will be an in-class test roughly half-way through the course (worth 25%), a final exam (worth 40%), and 5 Poster Arguments (using Argument Mapping Tools) and argument critiques (500 words) — worth 7 % each. The Poster assignments will consist of preparing an argument map and uploading it to a designated website. Argument maps will be analyzed and commented upon in the argument critiques

Required Reading:

Frankfurt, Harry On Bullshit (Princeton U.P.) 2005

All other required reading will be available on the course website. The core reading for the course is a set of notes which the instructor will post. These will be supplemented as indicated below by BACKGROUND READING for those who wish to go deeper into the material. The background material will NOT be required reading. (There will be a Phil 189 attached to the course for those who want to take up the background material in more detail with the instructor.)

Course Schedule

Class 1 Introduction to the course

Logic, Reasoning, and the difference between them

Background Reading: Harman, G. "Practical Aspects of Theoretical Reasoning" In Oxford Handbook of Rationality ed. A. Mele and P. Rawling OUP 2004

Class 2 What is an Argument? What is Validity and what is Soundness?

Background Reading: Parsons, T "What is an Argument" Journal of Philosophy vol. 93 no. 4 (1996) pp. 164-185

Class 3 An Introduction to Argument Mapping and the CMAP mapping tool

Class 4 Workshop with Peter Ellerton and Deborah Brown (of "The Conversation" and the UQ Critical Thinking Project): Metacognition and the Values of Inquiry

Class 5 Brown and Ellerton Redux: Critical Thinking and Disciplinary Knowledge**Class 6 I Contradict myself, so what? Contradiction and Relevance**

The ‘Lewis argument’ (or William’s Wonderful Machine”) and a tiny taste of dialethism!

Class 7 Reasoning with ‘and’ ‘but’ ‘or’ and especially ‘not’!

We will use material from the Princeton Mental Models and Reasoning lab. Cf. <http://mentalmodels.princeton.edu/lab-news/the-interpretation-of-disjunctions-depends-on-the-contents-of-its-clauses/>

Background Reading: Johnson-Laird, P. and Tridgell, J.M. “When negation is easier than affirmation” Quarterly Journal of Experimental Psychology Volume 24, 1972 pp. 87-91.

Class 8 What if? Truth trees and the like

Reading: Hintikka J, & Bachman J, What If- Towards Excellence in Reasoning, Mayfield Publishing, 1991 (selections from chs.1 and 2)

Class 9 What people used to call ‘Dialectic’**Class 10 Fallacies, Ancient and Modern**

Reading: Peter of Spain Summaries of Logic (OUP 2014) ch.7 selections
Practice with the medieval Ars Obligatoria

Background Reading: Hamblin C.L Fallacies (Methuen 1970) ch. 8

Class 11 Lies and Bullshit

Reading: Frankfurt, H.G. On Bullshit (P.U.P. 2005)

Class 12 Class Test**Class 13 What the Reverend Bayes Taught Us: Bayes theorem**

Reading: Rosenthal, J. Struck by Lightning ch. 15

Class 14 The Base Rate Fallacy and Simpson’s Paradox**Class 15 Reasoning by Analogy — and the Law**

Reading: Levi, E.H. “An Introduction to Legal Reasoning” at http://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=5687&context=journal_articles Section 1

Class 16 Visual Reasoning and the Mind's Eye

Background Reading: E.S. Ferguson "the Mind's Eye: Non-Verbal Thought in Technology. Science 197 (4306):827-836.

Class 17 What we learn from stories

Reading: Brunner, John "All the Myriad Ways"

Background Reading: Carol Rose, "Game Stories" 22 Yale J.L. & Human. 369,378 (2010)

Class 18 Induction and Its ilk.

Reading: Salmon W. "The Problem of Induction"

Class 19 Testing Hypotheses

Reading: Robert Hamburger "The Argument from Design"

Class 20 Catching Up and Summing Up!



Course Revision Proposal

Philosophy 9 Principles of Critical Reasoning

Requested revisions that apply:

Renumbering
 Title
 Format
 Requisites
 Units
 Grading
 Description

Multiple Listing: Add New Change Number Delete

Concurrent Listing: Add New Change Number Delete

CURRENT

Course Number **Philosophy 9**

Title **Principles of Critical Reasoning**

Short Title **PRNCPL-CRTCL REASNG**

Units **Fixed: 4**

Grading Basis **Letter grade or Passed/Not Passed**

Instructional Format **Primary Format
Lecture**

Secondary Format
Discussion

TIE Code **LECS - Lecture (Plus Supplementary Activity) [T]**

GE **No**

Requisites **None**

Description Nature of arguments: how to analyze them and assess soundness of the reasoning they represent. Common fallacies that often occur in arguments discussed in light of what counts as a good deductive or inductive inference. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and hypothesis-testing in general, and some general ideas about probability and its

PROPOSED

Philosophy 9

Principles of Critical Reasoning

PRNCPL-CRTCL REASNG

Fixed: 5

Letter grade or Passed/Not Passed

Primary Format
Lecture - 4 hours per week

Secondary Format
Discussion - 1 hours per week

LECS - Lecture (Plus Supplementary Activity) [T]

Yes

None

Nature of arguments: how to analyze them and assess soundness of the reasoning they represent. Common fallacies that often occur in arguments discussed in light of what counts as a good deductive or inductive inference. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and

application in making normative decisions
(e.g., betting).

hypothesis-testing in general, and some general ideas about probability and its application in making normative decisions (e.g., betting).

Redesign of course, after having not been offered for several years, in preparation for submission of GE proposal. Weekly student workload now totals at least 15 hours.

File [Phil 9 Principles of Critical Reasoning.docx](#) was previously uploaded.

You may view the file by clicking on the file name.

Attached syllabus still in early draft stage

[Justification](#)

[Syllabus](#)

[Supplemental Information](#)

[Effective Date](#) **Spring 1978**

[Department](#) **Philosophy**

[Contact](#)

Fall 2017

Philosophy

Name

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[Routing Help](#)

ROUTING STATUS

Role: L&S FEC Coordinator - Castillo, Myrna Dee Figuracion (MKIKUCHI@COLLEGE.UCLA.EDU) - 45040

Status: Pending Action

Role: Department Chair or Designee - Kim, Tanya Michelle (TKIM@HUMNET.UCLA.EDU) - 54171

Status: Approved on 4/20/2017 9:47:54 AM

Changes: TIE Code

Comments: Designee for Philosophy Chair Seana Shiffrin

Role: Initiator/Submitter - Kim, Tanya Michelle (TKIM@HUMNET.UCLA.EDU) - 54171

Status: Submitted on 4/20/2017 9:46:46 AM

Comments: Initiated a Course Revision Proposal

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Comments or questions? Contact the Registrar's Office at
cims@registrar.ucla.edu or (310) 825-6704