PHI169 - 3 credits   # CRITICAL REASONING

time & venue

M&W   9:30-10:45 in C-333

instructor Marcello Di Bello

e-mail   marcello.dibello@lehman.cuny.edu

office hrs   M&W 2:00-3:00 in C-365

course description[1]

we will learn the formal tools of argument analysis and probability theory, and then apply these tools to examine questions of social, political and practical interest

the course is divided in four parts, as follows:

part 1 – argument analysis and deductive arguments

part 2 – inductive arguments and probability

part 3 – case study, i.e. the chemical attacks in Syria in 2016 and 2017

part 4 – student-run research projects on a topic of choice

materials

you will read newspaper articles and excerpts from scholarly essays as well as watch video clips

slides, handouts and homework assignments will allow you to concentrate on key aspects of the course materials

website

all course materials are available on the course website

 philosophy169.wordpress.com

---

[1] from the Bulletin: "Introduction to the concepts and method of thinking, reading and writing analytically and evaluatively"

requirements & grades

✦ *three* **assignments**, each counting for **10%** of the grade

> **#1**. *due Aug 30*
>
> **#2**. *due Nov 8*
>
> **#3**. *due Nov 15*

✦ *two* **in-class exams**, each counting for **15%** of the grade

> **#1**. *Sept 27*
>
> **#2**. *Oct 18*

✦ conduct **research** on a topic of your choice, **present** your findings to the class and write a final **report** (**40%** of the grade)

> *NB*: the final report, 15-20 pages, will be written with 4-5 fellow students on a topic of choice
>
> *due Dec 11*

attendance

you are expected to attend class, do the reading and participate

assignment submission

a paper version should be handed in at the beginning of class *and also* an electronic version should be submitted through the course website

late policy

if an assignment is submitted late, you will not receive credit for it

PART1 - DEDUCTION

week 1*: Mon Aug 28 & Wed Aug 30*

as a warm-up, we will begin with a few reasoning exercises and logical puzzles

> [!note] **assignment #1 due Aug 30**

week 2*: Wed Sept 6 — No class on Mon Sept 4*

we will discuss the structure of an argument, its articulation into premises and conclusions, and the distinction between deductive and inductive arguments

reading

> Euclid, *Elements, Book I, Propositions 1–5*

week 3*: Mon Sept 11 & Wed Sept 13*

*s*ame topic as last week

week 4*: Mon Sept 18 — No class on Wed Sept 20*

*w*e will discuss what *necessary* and *sufficient* conditions are and their significance within arguments

watching

> WIFI Philosophy, *Necessary and Sufficient Conditions*
>
> *Milton Friedman on Slavery and Colonization*

week 5*: Mon Sept 25 & Wed Sept 27*

review and exam preparation

> [!note] **In-class exam #1 on Sept 27**

PART 2 - INDUCTION

week 6*: Mon Oct 2 & Wed Oct 4*

after deductive arguments, we will turn to inductive arguments and probability theory

reading

> Hacking, *Probability, Chapt 1-2*

week 7*: Wed Oct 11 — no class Mon Oct 9*

a key result in probability is Bayes' theorem whose significance

objectives

you will learn how to be critical of the claims made in newspaper articles, the TV, political speeches

you will develop intellectual honesty, i.e. the courage to admit that, sometimes, your claims aren't well supported by arguments

you will develop analytical writing skills, as well as skills for oral presentations and public debates

course etiquette

just in case you forgot

✦ do the reading and come to class ready to engage with me and your fellow students

✦ disagree with me and your fellow students, but always be gracious and polite

✦ don't be shy and don't think what's in your mind is stupid or not worth sharing

✦ when you're in class, don't get distracted by the virtual world – i.e. your phone, facebook, instagram, etc.

no plagiarism!

you may not copy the work of others without proper acknowledgement, and if you do so, *you will fail the class*

and applications we will explore

reading

> Hacking, *Probability, Chapt 3-7*

week 8: *Mon Oct 16 & Wed Oct 18*

same topic as last week

> **In-class exam #2 on Oct 18**

PART 3 - CASE STUDY

week 9: *Mon Oct 23 & Wed Oct 25*

we will apply probability theory to a case study, and s a preliminary step, we will familiarize ourselves with the www.rootclaim.com website and its method

reading

> RootClaim, *White Paper* & *Inside the Calculations*

week 10: *Mon Oct 30 & Wed Nov 1*

we will examine the Syrian chemical attacks in 2016 and 2017 and assess the conflicting hypotheses about what happened

reading

> RootClaim, *What caused the chemical calamity in Khan Sheikhoun on April 4, 2017?*

week 11: *Mon Nov 6 & Wed Nov 8*

same topic as last week

> **assignment #2 due Nov 8**

PART 4 - PROJECTS

week 12: *Mon Nov 13 & Wed Nov 15*

workshop in preparation for student presentations and final projects

> **assignment #3 due Nov 15**

week 13: *Mon Nov 20 & Wed Nov 22*

TBA

disability accommodation

....

students who have a disability which may necessitate an academic accommodation or the use of auxiliary aids and services in a class should contact the *Office of Student Disability Services* located in Shuster, room 238, phone number 718-960-8441

tutoring services

....

the *Academic Center for Excellence* (ACE) is the tutoring centers on campus

the ACE provides appointment based and drop-in tutoring in the humanities, social sciences, and writing, as well as general writing and academic skills workshops

to obtain information about the ACE, please visit their website at www.lehman.edu/issp or call the ACE at 718-960-8175

week 14: *Mon Nov 27 & Wed Nov 29*

TBA

week 15: *Mon Dec 4 & Wed Dec 6*

TBA

week 16: *Mon Dec 11*

review and concussion

final paper due Dec 11