PHI 380-0--Symbolic Logic
2-3:15 TR, Bareis 329
Fall 2024
Dr. Close

GENERAL COURSE INFORMATION
Revised 18-Mar-2024

HOW TO USE THE COURSE SYLLABUS:

The syllabus consists of two (2) separate documents: "General Course Information" and "Assignments." The syllabus is distributed on paper on the first day of seated classes and is published on my Web site (http://bright.net/~dclose) and on the course Canvas (https://heidelberg.instructure.com/courses/15795). While relatively stable, the syllabus is subject to change during the semester. All changes are announced and discussed in lecture. You are responsible for carefully reading the most current version of the syllabus. You are responsible for obtaining all hand-outs, assignments, software instructions, and class announcements.

REQUIRED TEXT:

Hausman, Alan, Frank Boardman, and Howard Kahane. 2021. *Logic and Philosophy: A Modern Introduction*. 13th ed. Indianapolis: Hackett Publishing. ISBN 978-1-62466-935-4. Slides for the 11th edition are freely available here.

REQUIRED SUPPLIES:

The following supplies are available in the University Bookstore:

- ½-inch ring binder
- *narrow-ruled*, loose-leaf, 8½ x 11 inch paper (do not buy college-ruled paper)
- approximately ten 8½ x 11 inch tabbed ring binder dividers
- 0.5 mm mechanical pencils
- spare erasers

COURSE MECHANICS:

To succeed in logic, you **must** do the homework for each of our meetings. Logic is a skill and must be acquired like any other skill, viz., through constant practice.

Homework: Exercises will be assigned for homework for each meeting. They will not be collected. It is very important that assigned homework be done for *every* meeting, without fail. This cannot be overemphasized. I expect students to be prepared for every meeting.

Quizzes and Examinations: There are approximately seven biweekly quizzes. The quizzes are worth a total of 60%. The final examination is worth 40%. The final examination schedule is established by the University. Please consult it at https://inside.heidelberg.edu/academics/exam-schedule. I cannot change the date of your final exam.

Dead Week: I observe Dead Week in all of my undergraduate courses. This means that I do not schedule any quizzes or examinations during the last week of the semester. It is my view that the last week of classes should be devoted to preparing for one's remaining lectures and studying for the final examinations.

RECOMMENDED SOFTWARE AND TEXT:

Pole, Nelson. 2011. *LogicCoach HKT11 For Hausman/Kahane/Tidman.* Boston: Wadsworth, Cengage Learning. LogicCoach contains a proof-checker and also supports translation exercises, truth-tables, truth trees, and other logic homework. It can be downloaded for free at Cengage: LogicCoach.

Teller, Paul. 1989. *A Modern Formal Logic Primer*. Englewood Cliffs, N. J.: Prentice Hall. Out-of-print. Freely available at http://tellerprimer.ucdavis.edu/.

CATALOG DESCRIPTION:

This course in contemporary deductive logic covers the propositional and first order predicate calculus. Translation and proofs of arguments encountered in natural language are emphasized. The concepts of completeness and soundness, as well as other central theorems in metalogic, will be introduced. Familiarity with a formal notational system such as mathematics, music, or a foreign language is desirable.

COMMENTS ON COURSE CONTENT:

There are two major purposes in studying symbolic logic. First, logic is a subject of interest in itself with direct connections to set theory and the foundations of mathematics. In fact, symbolic logic sometimes goes by the name of mathematical logic. Statistics, now a subfield of mathematics, is technically a branch of logic called inductive logic. The philosophers Bertrand Russell and Alfred North Whitehead attempted to show that all mathematical truths can be derived from the axioms of logic. To learn more, you might read Russell's *Principles of Mathematics*, which is very accessible to the nonmathematical reader.

The second, and more common, reason for studying logic is not as an end in itself, but rather as a means of clarifying and examining arguments regarding *any* subject, whether it is science, art, history, ethics, economics, the law, or car repair. No trickery can escape the techniques of logic.

This course will focus primarily on the second purpose for studying logic, viz., as the ultimate tool of critical thinking. Our focus will be deductive reasoning. The American Philosophical Association recommends a logic course for all students planning to take the LSAT. Time permitting, we will examine various questions from the LSAT at the end of the semester.

CANVAS, E-MAIL ACCOUNTS, and HOMEWORK RING BINDER:

Canvas: Announcements and course materials are available at on the course Canvas. Many, but not all, of these materials are also available on my Web site. Since I will communicate with the class from time to time via Canvas, it is also a requirement of the course that you do not turn off your Canvas notification function.

Heidelberg E-mail: *It is a requirement of this course that you check your Heidelberg e-mail account at least once a day.* Please do not use a personal e-mail account (Yahoo, Gmail, Hotmail, etc.) to communicate with me.

Homework Ring Binder: The Heidelberg Bookstore has the required supplies listed above. The ring binder, and narrow-ruled paper are especially important. Tabs will help you keep your work organized.

ELECTRONIC DEVICES IN CLASS:

Mobile Telephones: You may not use a mobile phone during lecture. Put your phone in Airplane Mode and Silent Mode. Put the phone away out of sight (backpack, pocket, etc.).

Headphones, earbuds, pagers, radios, and similar devices: must be turned off and put away out of sight.

Laptop and tablet computers: Unless your machine has a graphics touch screen and digital pen, do not bring a laptop to lecture. It will not be of any use because handwritten notes will be essential. I recommend taking

notes with pencil and paper because empirical research shows better retention and better comprehension than taking notes on a computer.[1]

See me for the following exceptions to mobile phone and pager use: first responders and health care personnel on call; parents with a child in daycare or school during this class; students with an ongoing family medical emergency.

ACADEMIC HONESTY POLICY:

Intellectual honesty is critical to the very life of the scholarly community. "Academic dishonesty" means cheating of any kind associated with scholarship and study. It includes, but is not limited to, plagiarism and theft of intellectual property, falsification or distortion of data, submitting another person's work or work product as your own, and copying on tests.

Penalties: Evidence of academic dishonesty results in an automatic F for that grade component, and may result in an automatic F for the course or expulsion from Heidelberg University, given the severity of the offense (theft of an examination, gross plagiarism such as submitting a purchased or borrowed term paper as one's own, etc.). University policy requires that all cases of academic dishonesty be reported to Academic Affairs. The University policy is available at https://inside.heidelberg.edu/sites/default/files/documents/2023-24heidelberguniversitystudenthandbook.pdf.

USE OF CHATBOTS AND OTHER GENERATIVE AI PROGRAMS IN GRADED WRITING:

Chatbots such as Microsoft Bing Copilot, OpenAI ChatGPT, and Google Gemini can be valuable in learning various concepts in this course. You should regard a chatbot as a person with considerable knowledge about the subject matter, and having an excellent command of English. You cannot use a chatbot answer in your writing in this course without citation, just like any other source. To cite a chatbot, use the chatbot name as the author, and the exact wording of *your question* as the title, similar to citing a blog in author-date format (see *Chicago Manual of Style*, 17th ed., 15.51).

Example (Chicago/Turabian author-date style):

Microsoft Bing Copilot. 2024. "Why did the Athenians suffer from internal divisions and a lack of unity in the Peloponnesian War?" February 27, 2024. https://www.bing.com/search?q=Bing+AI&showconv=1 .

CLASS PREPARATION:

Undergraduate: The standard rule-of-thumb for undergraduate preparation is three hours outside of class for each hour of lecture. (This yields a figure of forty-five hours per week for undergraduate preparation, based on five courses.)

One's first encounter with philosophic argumentation can be somewhat of a shock. It is not like reading a history text or a piece of fiction (excluding James Joyce, perhaps) since you may have to spend several minutes on one sentence. I will give instructions in lecture regarding preparing the readings as well as analytical writing and general class preparation.

ATTENDANCE:

I assign grades strictly on academic performance. Like most things in life, attendance is your decision. Please attend. I like you to attend class! Note that since many classes will have some graded activity occurring,

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[1]Mueller, Pam A., and Oppenheimer, Daniel M. 2014. "The Pen Is Mightier Than the Keyboard: Advantages of Longhand Over Laptop Note Taking." *Psychological Science* 25, no. 6: 1159-1168. https://doi.org/10.1177/0956797614524581

attendance will be very important. No absences are excused other than those due to illness, family emergency, or those excused by University policy. Family vacation plans, social events, early rides home for the holidays, etc. are *not* excused absences!

EMERGENCIES AND OTHER REASONS FOR MISSING A DEADLINE OR EXAM:

I expect students to meet all project deadlines and to take quizzes and exams at the scheduled times. The exceptions are (1) an emergency, (2) a required event in another class such as field research or a musical performance, or (3) an official Heidelberg athletic contest (practice doesn't count).

Because the concept of a true emergency is vague, I try to be reasonable, but you have a duty to communicate with family members, physicians, etc., to avoid conflicts with your academic schedule.

Here is a partial list of events that **are** emergencies:

- you must take your child to the doctor;
- you are a commuter and your car breaks down while commuting to campus;
- there is serious family emergency that requires your absence from class;
- you are ill and advised not to attend class by your physician or Stoner Health Center;
- you have an unmovable surgery schedule or medical appointment.

Here is a partial list of events that are **not** emergencies:

- a family cruise scheduled on or before the time of your last final exam or other graded course event;
- plane tickets or rides home scheduled on or before the time of your last final exam or other graded course event;
- oversleeping a quiz or other graded course component;
- your cousin's brother-in-law's sister's wedding;
- student group events such as pledging or community service.

GRADING SCALE:

I grade on a 50-pass scale: 50, 62.5, 75, 87.5 are the lower-limit cut-offs for D, C, B, and A, respectively. **Do not mistakenly conclude that my courses are therefore "easier" than a professor who uses a 60-pass or 70-pass scale. Grading scales are all equivalent and are purely a matter of personal taste. One scale can be easily converted to another with a pencil and a calculator.** What makes a course relatively easy or difficult is determined by the actual distribution of grades by a specific instructor. A rough, but reliable indicator of grade achievement difficulty is the location of the class mean for a given grade component. For a normal distribution of grades, we should expect the class mean to fall in the very middle of the C-range **of that instructor's grading scale.**

DISABILITY POLICY:

It is the responsibility of the student with a disability to inform the University and request an accommodation. All students requesting services and/or accommodations must submit documentation of a disability to the Academic and Career Support Center (ACSC). Documentation should meet the Disability Services requirements. Guidelines for documentation are available on the ACSC website and can be picked up in hard copy from that office. Documentation must be submitted before accommodations can be provided.

ACCESS VIA OFFICE HOURS:
Office: Bareis 320

T   1:30-2
Th   1:30-2
Th   4:15-4:45 by appointment only

This schedule is subject to change. Check my Web site for the most current version at http://bright.net/~dclose.

ACCESS VIA E-MAIL: dclose@heidelberg.edu

ACCESS VIA PHONE:

Office phone: 419-448-2281, or 1-800-925-9250 ext. 2281
Home phone: 419-927-2514 (please call before 10 p.m.)

WEB PAGE:

I maintain a home page on the World Wide Web. This page contains links to the courses that I am currently teaching in a given semester, a link to the Heidelberg University Home Page, and other useful links.
http://bright.net/~dclose