

PHIL 103: Logic

Fall 2017

§1: MWF 1–1:52 PM • §2: MWF 2–2:52 PM

Coleman 150

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office hours: Mondays 10–11:30 AM & Tuesdays 1:30–3 PM (or by appointment)

Course Content Logic is the study of good reasoning as it is revealed through language. In this course, you will learn a set of conceptual tools that make plain some of the central ways in which logical reasoning works, allowing you to construct good arguments and evaluate the ones you encounter in various contexts. We will examine both formal and informal approaches to logic, examining the plusses and minuses of each. A close study of formal, symbolic logic can be continued in PHIL 201. In addition, we will consider ways in which the tools of statistics and probability theory intersect with logical reasoning.

Learning Goals In successfully completing this course, you should:

- Develop a deep understanding of key logical concepts such as validity, soundness, logical consequence, formal systems, deduction, induction, &c.
- Become alert to common fallacies and mistakes that people make in ordinary language contexts.
- Think critically about how to construct better arguments.
- Gain an understanding of formal techniques in propositional and categorical logic.
- Enhance your innate critical thinking skills.

Required Text & Online Platform Patrick J. Hurley & Lori Watson, *A Concise Introduction to Logic* (13th Edition) — ISBN-13: 978-1-305-95809-8

IMPORTANT: Some versions of this text comes packaged with an access code for the Cengage MindTap platform. **You will need this** — or you will need to purchase access to MindTap separately (**note: not Aplia**). To join the course, go here and follow the instructions:

<https://studentdashboard.cengagebrain.com/#/course-confirmation/MTPQZ5RPMKH8/initial-course-confirmation>. It is also possible to purchase access to MindTap without buying a physical copy of the text on this site. An electronic copy of the text will be integrated into our course website, but I suggest buying a physical copy of the textbook that you can bring to class with you.

There is a trial period associated with purchasing access to MindTap (through September 4th), so you may wish to register your access as a trial and make sure that you intend to stay in the course before you purchase your text (as you may not be able to return it opened). If you already registered an access code or bought MindTap online, the course key to register for this course is: **MTPQ-Z5RP-MKH8** (note: the *access code* should be something unique to you — a proof of purchase — the *course key* identifies this course). Please let me know if you have any difficulties.

Evaluation Your final grade will be based the various weighted components described below. Note what the different letter grades represent: according to the Course Catalog (<http://www.bucknell.edu/catalog.xml>), an 'A' rewards 'Superior achievement', a 'B' means 'High pass', a 'C' means 'Pass', a 'D' means 'Low pass', and an 'F' stands for 'Failing work'.

Preparation & Professionalism (10%). It is helpful to think of the standards for your engagement with the course as analogous to expectations you'd find in most professional contexts. You should show up to each class meeting on time, prepared (having carefully and critically read and annotated assigned materials), and remain present (in the expansive sense), attentive, and engaged in our discussion for the entire time. Computers, phones, tablets, and other electronic marvels should be silenced and put away unless you have prior permission from me or are instructed otherwise. I've noticed a growing trend of students wandering in and out of the room during class periods. This is not okay; practice PPP (Proactive Potty Planning). If an actual bodily emergency forces you to leave, please be quick.

Assignments (25%). Homework assignments will be completed online using the MindTap system by our

book's publisher (Cengage). The advantage of this system is that it allows for a substantial amount of practice and enables immediate feedback. Accordingly, assignments are graded on a "practice makes perfect" model: you will have three attempts at questions for a given set of topics; grades on these attempts will be averaged in a "do no harm" fashion: new attempts will only be averaged with previous attempts if they do not result in a lower score. Furthermore, I will drop your three lowest assignments over the course of the term. Late assignments may be submitted up to three days after they are due (note that the online system has a strict time cutoff) for a 10% grade penalty. Assignments submitted later than this will not be accepted unless unusual circumstances are afoot.

Quizzes (25%). There will be four substantial (30–40 minute) but non-cumulative quizzes designed to assess your mastery of each section of the course. Your worst quiz score will be dropped from this average.

Final Exam (40%). A comprehensive final exam will be scheduled by the Registrar (date/time TBA). The format will be similar to the quizzes.

Office Hours You are invited and encouraged to supplement your in-class learning by visiting me in my regular office hours (see above) or at some other time that suits us both. You don't need an appointment to come to office hours — just drop by. You may also contact me via Skype (my username can be found on our Moodle page); if you see me online, you may assume that I'm happy to chat. You may need to request that I add you as a contact (I will) — this cuts down on spam calls for me. Good work if you've read this far and this carefully. As a bonus, I'll give you one full-credit homework grade if you email me a favorite photo of Spock (or equivalent) with the subject-line 'Highly Illogical!' by noon on Wednesday 8/23. Late Spock photos will not be accepted.

Policy on Late Work I will only offer extensions/makeups on quizzes or exams in case I hear about a legitimate, documented reason for needing to miss class *before class*; do not assume that retrospective excuses will be granted (they rarely will).

Academic Honesty I expect you to abide by Bucknell's Honor Code <bucknell.edu/x1324.xml>. I will not hesitate to refer students who are suspected of academic dishonesty to the University Board of Review.

Reasonable Accommodations Any student who may need an accommodation based on the impact of a disability should contact Heather Fowler, Director of the Office of Accessibility Resources at 570-577-1188 or hf007@bucknell.edu who will help coordinate reasonable accommodations for those students with documented disabilities. See also <<http://bucknell.edu/Accessibility>>.