

Term Information

Effective Term Spring 2021
Previous Value Summer 2017

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

To change the distance education portion by adding the option of 100% at a distance.

What is the rationale for the proposed change(s)?

To be able to offer a philosophy course to our students that is entirely online.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

We anticipate no programmatic implications as a result of this change.

Is approval of the request contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Philosophy
Fiscal Unit/Academic Org	Philosophy - D0575
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	1500.02
Course Title	Introduction to Logic
Transcript Abbreviation	Intro to Logic
Course Description	Online version of Philosophy 1500.01, Introduction to Logic. Teaches students the construction and evaluation of deductive and inductive arguments; principles of clear statement and valid reasoning; fallacies; and the methods by which theories and laws are established.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week, 4 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	100% at a distance Greater or equal to 50% at a distance
<i>Previous Value</i>	<i>Yes, Greater or equal to 50% at a distance</i>
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	Prereq: Math 1060 or 1075 or equiv; or an ACT Math subscore of 22 or higher; or Math Placement Level R or better.
Exclusions	Not open to students with credit for 1500, 1500.01, or 1501.
Previous Value	Not open to students with credit for 1500 (150), 1500.01, or 1501 (151).
Electronically Enforced	No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	38.0101
Subsidy Level	General Studies Course
Intended Rank	Freshman, Sophomore

Requirement/Elective Designation

General Education course:
Mathematical or Logical Analysis

Course Details

Course goals or learning objectives/outcomes	<ul style="list-style-type: none">• Learning outcomes: evaluate strength of inductive and deductive arguments, solve logical reasoning puzzles, construct sound arguments.• GE goals: Math and Logical Analysis/Quantitative Reasoning: quantitative literacy and logical reasoning.
Content Topic List	<ul style="list-style-type: none">• Nature of arguments• Deduction• Induction and probabilistic reasoning• Fallacies
Sought Concurrence	No

Attachments

- PHIL 1500.02 GE Assessment Plan-1.docx
(GEC Course Assessment Plan. Owner: Brown,Michelle E.)
- Philosophy 1500.02 check list online.docx: ASC checklist
(Other Supporting Documentation. Owner: Brown,Michelle E.)
- Revised hybrid PHIL 1500.02 Syllabus-1 (002).docx
(Syllabus. Owner: Brown,Michelle E.)
- Revised Online PHIL 1500.02 Syllabus-1.docx
(Syllabus. Owner: Brown,Michelle E.)

Comments

- The previous hybrid syllabus, ASC checklist, and the assessment plan have now been added. *(by Brown,Michelle E. on 09/16/2020 04:52 PM)*
- This course, previously approved for hybrid/distance enhanced delivery, now wants 100% distance learning. Please follow directions for submission <https://ascas.osu.edu/curriculum/distance-learning-courses>
Add:
 - Completed Distance Learning Course Component Technical Review Checklist filled out by Ian Anderson
 - GE assessment plan that can be implemented in online environment
 - In the case of this particular course, also provide the previously approved syllabus for hybrid delivery. *(by Vankeerbergen,Bernadette Chantal on 09/01/2020 02:32 PM)*

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Brown,Michelle E.	06/09/2020 01:15 PM	Submitted for Approval
Revision Requested	Lin,Eden	06/09/2020 03:43 PM	Unit Approval
Submitted	Brown,Michelle E.	06/10/2020 11:00 AM	Submitted for Approval
Approved	Lin,Eden	06/10/2020 12:00 PM	Unit Approval
Approved	Heysel,Garett Robert	06/15/2020 02:51 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	09/01/2020 02:36 PM	ASCCAO Approval
Submitted	Brown,Michelle E.	10/06/2020 02:56 PM	Submitted for Approval
Approved	Lin,Eden	10/06/2020 03:02 PM	Unit Approval
Approved	Haddad,Deborah Moore	10/06/2020 05:55 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	10/06/2020 05:55 PM	ASCCAO Approval



THE OHIO STATE UNIVERSITY

SYLLABUS: PHIL 1500.02 INTRODUCTION TO LOGIC TERM 8-WK SUMMER

Course overview

Instructor

Instructor: Hope Sample

Email address: sample.33@osu.edu

Phone number: 614-292-3663

Office hours: TBD

Course description

In this course, students will examine inductive and deductive arguments in natural language and develop skills in logical argumentation. They will learn to recognize inductive and deductive logical arguments, reconstruct them, and evaluate them. They will be able to recognize these argument forms from a variety of sources such as news, politics, advertisements, and literature. They will be able to provide reconstructions of these arguments in their own words. They will have the tools to evaluate the respective arguments as valid relative to whether they are inductive or deductive. Aside from assessing the logical validity of arguments, they will hone their skills at constructing valid arguments through various homework assignments and the completion of a final project focused on developing and sharpening their reasoning and argumentative skills.

General Education Goals and Learning Outcomes:

Phil 1500 satisfies the *Math and Logical Analysis* element of the *GE Quantitative Reasoning* requirement.

Quantitative Reasoning Goals:

Students develop skills in quantitative literacy and logical reasoning, including the ability to identify valid arguments, and use mathematical models.

Expected Learning Outcomes

- BASIC COMPUTATION
 1. Students demonstrate computational skills and familiarity with algebra and geometry.
 2. Students apply these skills to practical problems.
- MATHEMATICAL OR LOGICAL ANALYSIS
 1. Students comprehend mathematical concepts and methods adequate to construct valid arguments.
 2. Students comprehend mathematical concepts and methods adequate to understand inductive and deductive reasoning
 3. Students comprehend mathematical concepts and methods adequate to increase their general problem solving skills.

Course materials

Required

Critical Thinking: An Introduction to Analytical Reading and Reasoning 2e by Larry Wright (print)

You can buy the textbook at the campus Barnes & Noble, which is located at 1598 N High St, Columbus, OH 43201. Alternatively, you can buy the textbook on Amazon.

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

The following is a link to a list of Digital Union (DU) locations on campus for students to use as a resource to both support and provide access to the necessary hardware/software for the course: <https://odee.osu.edu/digital-union>

In addition, a list of OSU student academic services that can help students to succeed in the course can be found at: <https://osas.osu.edu/>

Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Carmen Canvas, especially the following features: conference, announcements, quizzes, and modules

Technology skills necessary for this specific course

- CarmenZoom text, audio, and video chat
- Recording and uploading video

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed
- Microphone: built-in laptop or tablet mic or external microphone

Necessary software

- [Microsoft Office 365 ProPlus](#) All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Each student can install Office on five PCs or Macs, five tablets (Windows, iPad® and Android™) and five phones.
 - Students are able to access Word, Excel, PowerPoint, Outlook and other programs, depending on platform. Users will also receive 1 TB of OneDrive for Business storage.
 - Office 365 is installed within your BuckeyeMail account. Full instructions for downloading and installation can be found <https://ocio.osu.edu/kb04733>.

Grading and faculty response

Grades

Assignment or category	Percentage of Total Grade
Participation	20%
Weekly Homework	10%
Midterm Exam	25%
Final Exam	30%

Project: Construct a Valid Argument	15%
Total	100

Participation will include the following items:

- Participation in discussion forum
- Answering any assigned writing prompts
- Completing weekly quizzes that test the student's understanding of the chapter
- Providing feedback on how well the course activities and materials enhance learning

This last point is part of building a collaborative learning community. See the student participation requirements below for more information about requirements for logging in, number of posts, etc.

There will be weekly assigned homework. Students will have the option to complete these assignments using a number of different mediums. For example, they may type their answers, make a video response, or upload an audio file. Creativity is encouraged!

The midterm and final exams will be administered online, using Carmen.

There will be a final project where students construct their own multi-step valid argument. This will require the student to evaluate and respond to possible objections to their argument. This project will have a number of sequenced due dates for developing the final draft of the project. See the tentative course schedule at the end of this document for more information about those due dates. Among the sequenced due dates, I require that students turn in a written rough draft of their project. For the final version of the project, students are welcome to find creative ways to present their project if they are so inclined.

Late assignments

General Make Up and Late work Policy:

You may turn in late work or retake an exam or a quiz if you have written (and approved) notice of your inability to take the exam or quiz at the scheduled time beforehand, or a note from a relevant source that documents an emergency.

Important Note:

I reserve the right to make changes to the syllabus that include adding short written assignments, changing readings, and changing dates of exams.

Grading scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

Grading and feedback

For weekly homework, you can generally expect feedback within **2-3 days from the due date**.

E-mail

I will reply to e-mails **within the following day on school days**.

Discussion board

I will check and reply to messages in the discussion boards **within the following day on school days**.

Attendance, participation, and discussions

Student participation requirements

Because this is a distance-education course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: AT LEAST TWICE PER WEEK**
Be sure that you are logging in to the course in Carmen each week, including weeks with holidays, or weeks with minimal online course activity. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.
- **Communication:**
You will be responsible for keeping up with updates on course content, scheduling, and possible assignment adjustment. These updates will be made through the announcements feature on Carmen canvas.
- **Office hours and live sessions: OPTIONAL OR FLEXIBLE**
All live, scheduled events for the course, including my office hours, are optional. For live presentations, I will provide a recording that you can watch later. The live lectures and office hours will occur through the Carmen canvas conference feature. Additionally, I will provide a transcript of these lectures. However, it is important to note that the recorded live lecture videos cannot be downloaded, and they will no longer be available after 14 days. If you are required to discuss an assignment with me, please contact me at the beginning of the week if you need a time outside my scheduled office hours.
- **Participating in discussion forums: 4+ TIMES PER WEEK**
As participation, each week you can expect to post at least four times as part of our substantive class discussion on the week's topics. You may choose to post them all in one day. However, these four forum posts must be completed by **midnight on Sunday of each week of the course**.
- **Weekly Homework:** Homework is graded on the basis of whether it is turned in on time and complete.
- **Weekly Reading Quiz:** Weekly reading quizzes are included as self-checks. They are part of the participation grade and they are *pre-requisites* for turning in your weekly homework online,

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful. Failure to follow these guidelines will affect your grade.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.

- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

With today's social media, a lot of argument reconstruction and evaluation occurs online. These conversations do not always meet the high standards laid out in the previously listed requirements. This course will be an opportunity to develop habits that improve online interaction. Online class participation forums present an opportunity to practice interpreting our interlocutors charitably. In addition, this is not only an opportunity to subject others' opinions to critical and respectful scrutiny, but also a platform to analyze potential problems in one's own positions. As such, this course will emphasize the value of intellectual integrity. Intellectual integrity requires deploying the tools for evaluating the strength and weaknesses of arguments regardless of whether they are one's own.

Other course policies

Academic integrity policy

Policies for this online course

- **Midterm and final exams:** You must complete the midterm and final exams yourself, without any external help or communication. Both the midterm and the final will be administered online, using Carmen.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow MLA or APA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or

assignment is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

Student Services

If you have any issues with financial aid, registering for classes, or managing your student center, then the following link provides contact information for OSU's student service center: <http://ssc.osu.edu>

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Disability Services

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability certified by the Office of Student Life Disability Services, please contact your instructor *privately* to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Student Life Disability Services at [614-292-3307](tel:614-292-3307) or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [Carmen \(Canvas\) accessibility](#)
- Streaming audio and video (close captioning or transcripts will also be provided for these materials)
- Synchronous course tools

Your mental health!

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1-800-273-TALK or at suicidepreventionlifeline.org.

[See Tentative Course Schedule on the Next Page](#)

Course schedule (tentative)

Week	Dates	Topics, Readings, Assignments, Deadlines
1	6/6 - 6/9	Chapter 1, Read pgs. 3-30, Week 1 HW Due 6/11
2	6/12 - 6/16	Chapter 2, Read pgs. 35-86, Week 2 HW Due 6/18
3	6/19 - 6/23	Chapter 3, Read pgs. 97-131, Week 3 HW Due 6/25

4	6/26 - 6/30	Chapter 4, Read pgs. 143-196, Project Proposal Due 7/1, Week 4 HW Due 7/2,
5	7/3 - 7/7	Review, Chapter 5, Read pgs. 206-247, Midterm Exam to be scheduled within the following dates 7/3 - 7/7, Week 5 HW Due 7/9
6	7/10 - 7/14	Chapter 6, Read pgs. 259-284 and pgs. 302-318, Written Draft of Project Due 7/15, Week 6 HW Due 7/16
7	7/17 - 7/21	Appendix, Read pgs. 392-404, Week 7 HW Due 7/23
8	7/24 - 7/28	Chapter 8, Read pgs. 376-390, Catch up, Final Project Due 7/30, Final Exam to be scheduled within the following dates: 7/31 - 8/2

SUMMARY OF COURSEWORK

For each week, there will be an online quiz that tests the student's understanding of the chapter. Further, students will be required to post in discussion forums at least 4 times per week in response to prompts that are related to that week's material. Depending on the subject matter of the week, the topic of these prompts includes, but is not limited to, diagramming arguments, assessing inductive and deductive validity, and identifying fallacious reasoning.

Week one focuses on analytic reading skills, i.e. discerning how the various parts of a text function to illustrate a central point. For example, students will be able to distinguish between a concrete illustration that clarifies a point and substantive background that deepens one's understanding of a point. Practicing directed reading and identifying the function of various parts of the text prepares students to read closely and carefully in the way that is required to identify and reconstruct the logical structure of arguments. For homework, they will be assigned passages from the textbook in which they will analyze the functions of the component parts of a given text.

Week two further develops the analytic reading skills introduced in week one by providing tools for distinguishing parts of a text that indicate reasoning from mere causal claims. For example, it provides tips for how to recognize when "so" indicates an inferential result or a causal result. Further, it provides tips for recognizing when reasoning and causal claims come together. Causal reasoning is the focus of chapters 5 and 6. For homework, they will be assigned passages from the textbook in which they will analyze the component points in text according to the relations of causal result, inferential result, support, explanatory cause, and qualification.

Week three focuses on the reconstruction of arguments, which relies on the analytic reading skills developed in the earlier chapters. Students will learn to diagram arguments. The diagram displays the relation between the reasons and the suggested conclusion in its structure. Further, students will learn to distinguish between an argument for the main conclusion and an argument for a premise in a main argument. The subsidiary arguments for the premises are also displayed in the structure of the diagram. For homework, they will be assigned passages from the textbook in which are asked to diagram arguments.

Week four focuses on the evaluation of arguments in general, which is a transition from the skill of recognizing argument structure from week one through three. Students will utilize a basic framework for assessing the validity of arguments that applies equally to inductive and deductive arguments. More specific standards for evaluating each type of argument are developed in the later chapters. This chapter introduces the notion that arguments are raised in order to answer investigative questions. Accordingly, the supports of the argument are the reasons offered for answering the question in the way that the author suggests. The validity of an argument is defined in terms of whether the conclusion of the argument is the best answer to the argument's implicit question, given the supports. The issue of whether the conclusion is the best answer is an issue of whether the conclusion is better than rival conclusions, given the evidence offered in the supports. Since logic is about the relation between the supports and the conclusion rather than whether the supports are true, this definition of validity allows students to focus on the issue of whether the conclusion is the result that is most reasonable to believe based on what is assumed in the supports. For the homework, students will be assigned passages from the textbook in which they are asked to evaluate the validity of arguments, and they will be asked to propose ways to make the argument valid if it is invalid.

Week five introduces the evaluation of the validity of inductive arguments. Inductive arguments are defined as arguments in which one infers to a cause from some data that requires explanation. As a result, the evaluation of inductive arguments concerns whether its conclusion is the best explanation of the data in comparison with a short list of serious rival explanations. The textbook emphasizes the provisional nature of causal reasoning in the sense that such arguments admit of revision in light of new evidence and, thereby, the current best explanation can be unseated by a rival explanation by later discoveries. Further, the students will distinguish between observational data to be explained and the background causal claims or specifications of causal mechanism that aid the conclusion or the rivals in explaining the observations. Background causal claims and specifications of causal mechanisms are crucial to valid inductive arguments because they allow one to connect the concrete observable details of the case into a resultant causal explanation of the whole case. For the homework, students will be assigned passages from the textbook in which they are asked to distinguish between the supports that describe observations and the supports that describe general causal connections or mechanisms. In addition, they will be asked to evaluate the validity of inductive arguments, and they will be asked to propose ways to make the argument valid if it is invalid.

Week six further develops the material from the previous week by introducing more specific types of inductive arguments. In particular, it examines arguments from observed correlations and arguments from observed sample properties. In regard to arguments from correlations, students will distinguish between correlations and causal connections. Further, they will evaluate the argument relative to standard possibilities for an explanation of an A/B correlation. These logical types of explanation are as follows: A causes B, B causes A, X is a common cause of A and B, and chance. In regard to arguments from observed sample properties, students will distinguish between the sample and the population. Additionally, they will evaluate the argument relative to standard possibilities for an explanation of an observed sample property p. These logical types of explanation are as follows: the sample has property p because the population has property p, the sample has property p because of a distortion in the sampling procedure, and the sample has property p because of bad luck. For the homework, students will be assigned passages from the textbook in which they evaluate the validity of correlation and sampling arguments. They will be asked to explain how the evidence from the supports tells against certain standard rival conclusions. For example, if A temporally precedes B, then the B causes A rival is not a very plausible rival explanation of an A/B correlation because events in the future do not explain events in the past. Further, they will be asked to propose ways to make the argument valid if it is invalid.

Week seven introduces the evaluation of deductive arguments. Deductive arguments are defined as arguments in which the supports are intended to semantically exclude all the rivals. As a result, a successful deductive argument is one in which there is only one possible conclusion, given the supports. The textbook emphasizes that the evaluation of successful deductive arguments is not provisional like that of the evaluation of inductive arguments. Successful deductive arguments are such that the meaning of the supports determines that the conclusion is the only possible answer, so its status as valid does not depend on future empirical information. Students will then appreciate the difference between the standards for evaluating pure mathematical reasoning and applying that reasoning to discern facts about the physical world, which will require empirical investigation and often will require inductive arguments. Students will be shown how to verify the success of deductive arguments using Venn diagrams. For the homework, students will be asked to assess whether a set of arguments are successful deductive arguments, and they will be asked to prove their answers using Venn diagrams.

Week eight will provide some review of the prior material on assessing the validity of deductive arguments, and it will introduce fallacies. Fallacies are problematic forms of reasoning. For example, an appeal to a lack of evidence for a claim to show that the claim is true is a problematic inference pattern. Students will be shown how to identify whether an argument has a fallacious structure. For the homework, students will be assigned problems in which they are asked to identify fallacies in given passages.

The midterm and the final exam will contain questions that test the following skills.

- Recognizing the difference between argumentative texts and non-argumentative texts
- Paraphrasing arguments from a given text
- Evaluating the strength of inductive and deductive arguments

I will test their ability to identify the difference between argumentative and non-argumentative texts by providing them a variety of passages and asking them to label them according to whether they express arguments or not. I will test their ability to reconstruct arguments by providing them passages and asking them to paraphrase and diagram the arguments. I will test their ability to evaluate the strength of inductive and deductive arguments by asking them reconstruct arguments and assess them according to inductive and deductive standards. In the case of inductive arguments, they will assess whether the conclusions are the best explanations of the data, given the supports. Here they will look for standard kinds of information that are relevant to assessing arguments from correlations and sampling arguments, e.g. frequency of the correlation, a possible causal mechanism that might relate the correlates, sample size, random selection, and so on. In the case of deductive arguments, they will assess whether the premises of the argument exclude all possible rival conclusions merely by virtue of meaning. Here they will especially rely on the meanings of various logical terms such as “and”, “or”, “not”, “if..., then...”, “all”, “some”, and “none”. These terms will be defined using Venn diagrams, so students can verify whether or not the argument is a successful deductive argument, as well as proving the validity of various inference rules. For example, they will use Venn diagrams to prove the validity of modus ponens, i.e. if P, then Q. P. Therefore, Q.

The final project will involve constructing a valid argument. In particular, students will select an argument on a topic that interests them, and construct a valid inductive argument for a particular conclusion about that topic. This argument will appeal to different pieces of evidence, making it a matter of diagnosing a complicated array of data through a series of steps. Part of the project grade will also include providing helpful comments on another student’s argument reconstruction. I will monitor and moderate the commentators.



THE OHIO STATE UNIVERSITY

SYLLABUS: PHIL 1500.02 INTRODUCTION TO LOGIC TERM 8-WK SUMMER 2017

Course overview

Instructor

Instructor: Hope Sample

Email address: sample.33@osu.edu

Phone number: 614-292-3663

Office hours: TBD

Course description

In this course, students will examine inductive and deductive arguments in natural language and develop skills in logical argumentation. They will learn to recognize inductive and deductive logical arguments, reconstruct them, and evaluate them. They will be able to recognize these argument forms from a variety of sources such as news, politics, advertisements, and literature. They will be able to provide reconstructions of these arguments in their own words. They will have the tools to evaluate the respective arguments as valid relative to whether they are inductive or deductive. Aside from assessing the logical validity of arguments, they will hone their skills at constructing valid arguments through various homework assignments and the completion of a final project focused on developing and sharpening their reasoning and argumentative skills.

General Education Goals and Learning Outcomes:

Phil 1500 satisfies the *Math and Logical Analysis* element of the *GE Quantitative Reasoning* requirement.

Quantitative Reasoning Goals:

Students develop skills in quantitative literacy and logical reasoning, including the ability to identify valid arguments, and use mathematical models.

Mathematical or Logical Analysis Expected Learning Outcomes:

1. Students comprehend mathematical concepts and methods adequate to construct valid arguments.
2. Students comprehend mathematical concepts and methods adequate to understand inductive and deductive reasoning
3. Students comprehend mathematical concepts and methods adequate to increase their general problem solving skills.

Course materials

Required

Critical Thinking: An Introduction to Analytical Reading and Reasoning 2e by Larry Wright (print)

You can buy the textbook at the campus Barnes & Noble, which is located at 1598 N High St, Columbus, OH 43201. Alternatively, you can buy the textbook on Amazon.

Course technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at <https://ocio.osu.edu/help/hours>, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** <http://ocio.osu.edu/selfservice>
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

The following is a link to a list of Digital Union (DU) locations on campus for students to use as a resource to both support and provide access to the necessary hardware/software for the course: <https://odee.osu.edu/digital-union/locations>.

In addition, a list of OSU student academic services that can help students to succeed in the course can be found at: <http://artsandsciences.osu.edu/academics/current-students>.

Baseline technical skills necessary for online courses

- Basic computer and web-browsing skills
- Navigating Carmen Canvas, especially the following features: conference, announcements, quizzes, and modules

Technology skills necessary for this specific course

- CarmenConnect text, audio, and video chat

- Recording and uploading video

Necessary equipment

- Computer: current Mac (OS X) or PC (Windows 7+) with high-speed internet connection
- Webcam: built-in or external webcam, fully installed
- Microphone: built-in laptop or tablet mic or external microphone

Necessary software

- [Microsoft Office 365 ProPlus](#) All Ohio State students are now eligible for free Microsoft Office 365 ProPlus through Microsoft's Student Advantage program. Each student can install Office on five PCs or Macs, five tablets (Windows, iPad® and Android™) and five phones.
 - Students are able to access Word, Excel, PowerPoint, Outlook and other programs, depending on platform. Users will also receive 1 TB of OneDrive for Business storage.
 - Office 365 is installed within your BuckeyeMail account. Full instructions for downloading and installation can be found <https://ocio.osu.edu/kb04733>.

Grading and faculty response

Grades

Assignment or category	Percentage of Total Grade
Participation	20%
Weekly Homework	10%
Midterm Exam	25%
Final Exam	30%
Project: Construct a Valid Argument	15%
Total	100

Participation will include the following items:

- Participation in discussion forum
- Answering any assigned writing prompts
- Completing weekly quizzes that test the student's understanding of the chapter
- Providing feedback on how well the course activities and materials enhance learning

This last point is part of building a collaborative learning community. See the student participation requirements below for more information about requirements for logging in, number of posts, etc.

There will be weekly assigned homework. Students will have the option to complete these assignments using a number of different mediums. For example, they may type their answers, make a video response, or upload an audio file. Creativity is encouraged!

The midterm and final exams will be taken on campus in order to make sure that the enrolled student takes their own exam. These are required in order to pass the class. As a result, students will be required to schedule and take the midterm and the final exams on campus through OSU's testing services. Here is a link to OSU's testing services:

<https://registrar.osu.edu/testing/>.

There will be a final project where students construct their own multi-step valid argument. This will require the student to evaluate and respond to possible objections to their argument. This project will have a number of sequenced due dates for developing the final draft of the project. See the tentative course schedule at the end of this document for more information about those due dates. Among the sequenced due dates, I require that students turn in a written rough draft of their project. For the final version of the project, students are welcome to find creative ways to present their project if they are so inclined.

Late assignments

General Make Up and Late work Policy:

You may turn in late work or retake an exam or a quiz if you have written (and approved) notice of your inability to take the exam or quiz at the scheduled time beforehand, or a note from a relevant source that documents an emergency.

Important Note:

I reserve the right to make changes to the syllabus that include adding short written assignments, changing readings, and changing dates of exams.

Grading scale

93–100: A
90–92.9: A-
87–89.9: B+
83–86.9: B
80–82.9: B-
77–79.9: C+
73–76.9: C
70–72.9: C-
67–69.9: D+
60–66.9: D
Below 60: E

Faculty feedback and response time

I am providing the following list to give you an idea of my intended availability throughout the course. (Remember that you can call **614-688-HELP** at any time if you have a technical problem.)

Grading and feedback

For weekly homework, you can generally expect feedback within **2-3 days from the due date**.

E-mail

I will reply to e-mails **within the following day on school days**.

Discussion board

I will check and reply to messages in the discussion boards **within the following day on school days**.

Attendance, participation, and discussions

Student participation requirements

Because this is a distance-education course, your attendance is based on your online activity and participation. The following is a summary of everyone's expected participation:

- **Logging in: AT LEAST TWICE PER WEEK**
Be sure that you are logging in to the course in Carmen each week, including weeks with holidays, or weeks with minimal online course activity. (During most weeks you will probably log in many times.) If you have a situation that might cause you to miss an entire week of class, discuss it with me *as soon as possible*.

- **Communication:**
You will be responsible for keeping up with updates on course content, scheduling, and possible assignment adjustment. These updates will be made through the announcements feature on Carmen canvas.
- **Office hours and live sessions: OPTIONAL OR FLEXIBLE**
All live, scheduled events for the course, including my office hours, are optional. For live presentations, I will provide a recording that you can watch later. The live lectures and office hours will occur through the Carmen canvas conference feature. Additionally, I will provide a transcript of these lectures. However, it is important to note that the recorded live lecture videos cannot be downloaded, and they will no longer be available after 14 days. If you are required to discuss an assignment with me, please contact me at the beginning of the week if you need a time outside my scheduled office hours.
- **Participating in discussion forums: 4+ TIMES PER WEEK**
As participation, each week you can expect to post at least four times as part of our substantive class discussion on the week's topics. You may choose to post them all in one day. However, these four forum posts must be completed by **midnight on Sunday of each week of the course.**
- **Weekly Homework:** Homework is graded on the basis of whether it is turned in on time and complete.
- **Weekly Reading Quiz:** Weekly reading quizzes are included as self-checks. They are part of the participation grade and they are *pre-requisites* for turning in your weekly homework online,

Discussion and communication guidelines

The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful. Failure to follow these guidelines will affect your grade.

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. Informality (including an occasional emoticon) is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. (For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.)
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.

With today's social media, a lot of argument reconstruction and evaluation occurs online. These conversations do not always meet the high standards laid out in the previously listed requirements. This course will be an opportunity to develop habits that improve online interaction. Online class participation forums present an opportunity to practice interpreting our interlocutors charitably. In addition, this is not only an opportunity to subject others' opinions to critical and respectful scrutiny, but also a platform to analyze potential problems in one's own positions. As such, this course will emphasize the value of intellectual integrity. Intellectual integrity requires deploying the tools for evaluating the strength and weaknesses of arguments regardless of whether they are one's own.

Other course policies

Academic integrity policy

Policies for this online course

- **Midterm and final exams:** You must complete the midterm and final exams yourself, without any external help or communication.
- **Written assignments:** Your written assignments, including discussion posts, should be your own original work. In formal assignments, you should follow MLA or APA style to cite the ideas and words of your research sources. You are encouraged to ask a trusted person to proofread your assignments before you turn them in--but no one else should revise or rewrite your work.
- **Reusing past work:** In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- **Falsifying research or results:** All research you will conduct in this course is intended to be a learning experience; you should never feel tempted to make your results or your library research look more successful than it was.
- **Collaboration and informal peer-review:** The course includes many opportunities for formal collaboration with your classmates. While study groups and peer-review of major written projects is encouraged, remember that comparing answers on a quiz or assignment is not permitted. If you're unsure about a particular situation, please feel free just to ask ahead of time.

Student Services

If you have any issues with financial aid, registering for classes, or managing your student center, then the following link provides contact information for OSU's student service center: <http://ssc.osu.edu>

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct <http://studentlife.osu.edu/csc/>.

If I suspect that a student has committed academic misconduct in this course, I am obligated by University Rules to report my suspicions to the Committee on Academic Misconduct. If COAM determines that you have violated the University's Code of Student Conduct (i.e., committed academic misconduct), the sanctions for the misconduct could include a failing grade in this course and suspension or dismissal from the University.

The Ohio State University's *Code of Student Conduct* (Section 3335-23-04) defines academic misconduct as: "Any activity that tends to compromise the academic integrity of the University, or subvert the educational process." Examples of academic misconduct include (but are not limited to) plagiarism, collusion (unauthorized collaboration), copying the work of another student, and possession of unauthorized materials during an examination. The Ohio State University and the Committee on Academic Misconduct (COAM) expect that all students have read and understand the University's *Code of Student Conduct*, and that all students will complete all academic and scholarly assignments with fairness and honesty. Students must recognize that failure to follow the rules and guidelines established in the University's *Code of Student Conduct* and this syllabus may constitute "Academic Misconduct." Ignorance of the University's *Code of Student Conduct* is never considered an "excuse" for academic misconduct, so I recommend that you examine the *Code of Student Conduct* for which a link is provided above and, specifically, the sections dealing with academic misconduct.

If you have any questions about the above policy or what constitutes academic misconduct in this course, please contact me.

Other sources of information on academic misconduct (integrity) to which you can refer include:

- The Committee on Academic Misconduct web pages ([COAM Home](#))
- *Ten Suggestions for Preserving Academic Integrity* ([Ten Suggestions](#))
- *Eight Cardinal Rules of Academic Integrity* (www.northwestern.edu/uacc/8cards.htm)

Copyright disclaimer

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes

associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.

Statement on title IX

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at <http://titleix.osu.edu> or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

Disability Services

Students with disabilities (including mental health, chronic or temporary medical conditions) that have been certified by the Office of Student Life Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office of Student Life Disability Services is located in 098 Baker Hall, 113 W. 12th Avenue; telephone 614- 292-3307, slds@osu.edu; slds.osu.edu.

Requesting accommodations

If you would like to request academic accommodations based on the impact of a disability certified by the Office of Student Life Disability Services, please contact your instructor *privately* to discuss your specific needs. Discussions are confidential.

In addition to contacting the instructor, please contact the Student Life Disability Services at [614-292-3307](tel:614-292-3307) or ods@osu.edu to register for services and/or to coordinate any accommodations you might need in your courses at The Ohio State University.

Go to <http://ods.osu.edu> for more information.

Accessibility of course technology

This online course requires use of Carmen (Ohio State's learning management system) and other online communication and

multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.

- [Carmen \(Canvas\) accessibility](#)
- Streaming audio and video (close captioning or transcripts will also be provided for these materials)
- Synchronous course tools

Your mental health!

A recent American College Health Survey found stress, sleep problems, anxiety, depression, interpersonal concerns, death of a significant other and alcohol use among the top ten health impediments to academic performance. Students experiencing personal problems or situational crises during the semester are encouraged to contact OSU Counseling and Consultation Services (614-292-5766) for assistance, support and advocacy. This service is free and confidential.

[See Tentative Course Schedule on the Next Page](#)

Course schedule (tentative)

Week	Dates	Topics, Readings, Assignments, Deadlines
1	6/6 - 6/9	Chapter 1, Read pgs. 3-30, Week 1 HW Due 6/11
2	6/12 - 6/16	Chapter 2, Read pgs. 35-86, Week 2 HW Due 6/18
3	6/19 - 6/23	Chapter 3, Read pgs. 97-131, Week 3 HW Due 6/25
4	6/26 - 6/30	Chapter 4, Read pgs. 143-196, Project Proposal Due 7/1, Week 4 HW Due 7/2,
5	7/3 - 7/7	Review, Chapter 5, Read pgs. 206-247, Midterm Exam to be scheduled within the following dates 7/3 - 7/7, Week 5 HW Due 7/9
6	7/10 - 7/14	Chapter 6, Read pgs. 259-284 and pgs. 302-318, Written Draft of Project Due 7/15, Week 6 HW Due 7/16
7	7/17 - 7/21	Appendix, Read pgs. 392-404, Week 7 HW Due 7/23
8	7/24 - 7/28	Chapter 8, Read pgs. 376-390, Catch up, Final Project Due 7/30, Final Exam to be scheduled within the following dates: 7/31 - 8/2

SUMMARY OF COURSEWORK

For each week, there will be an online quiz that tests the student's understanding of the chapter. Further, students will be required to post in discussion forums at least 4 times per week in response to prompts that are related to that week's material. Depending on the subject matter of the week, the topic of these prompts includes, but is not limited to, diagramming arguments, assessing inductive and deductive validity, and identifying fallacious reasoning.

Week one focuses on analytic reading skills, i.e. discerning how the various parts of a text function to illustrate a central point. For example, students will be able to distinguish between a concrete illustration that clarifies a point and substantive background that deepens one's understanding of a point. Practicing directed reading and identifying the function of various parts of the text prepares students to read closely and carefully in the way that is required to identify and reconstruct the logical structure of arguments. For homework, they will be assigned passages from the textbook in which they will analyze the functions of the component parts of a given text.

Week two further develops the analytic reading skills introduced in week one by providing tools for distinguishing parts of a text that indicate reasoning from mere causal claims. For example, it provides tips for how to recognize when "so" indicates an inferential result or a causal result. Further, it provides tips for recognizing when reasoning and causal claims come together. Causal reasoning is the focus of chapters 5 and 6. For homework, they will be assigned passages from the textbook in which they will analyze the component points in text according to the relations of causal result, inferential result, support, explanatory cause, and qualification.

Week three focuses on the reconstruction of arguments, which relies on the analytic reading skills developed in the earlier chapters. Students will learn to diagram arguments. The diagram displays the relation between the reasons and the suggested conclusion in its structure. Further, students will learn to distinguish between an argument for the main conclusion and an argument for a premise in a main argument. The subsidiary arguments for the premises are also displayed in the structure of the diagram. For homework, they will be assigned passages from the textbook in which are asked to diagram arguments.

Week four focuses on the evaluation of arguments in general, which is a transition from the skill of recognizing argument structure from week one through three. Students will utilize a basic framework for assessing the validity of arguments that applies equally to inductive and deductive arguments. More specific standards for evaluating each type of argument are developed in the later chapters. This chapter introduces the notion that arguments are raised in

order to answer investigative questions. Accordingly, the supports of the argument are the reasons offered for answering the question in the way that the author suggests. The validity of an argument is defined in terms of whether the conclusion of the argument is the best answer to the argument's implicit question, given the supports. The issue of whether the conclusion is the best answer is an issue of whether the conclusion is better than rival conclusions, given the evidence offered in the supports. Since logic is about the relation between the supports and the conclusion rather than whether the supports are true, this definition of validity allows students to focus on the issue of whether the conclusion is the result that is most reasonable to believe based on what is assumed in the supports. For the homework, students will be assigned passages from the textbook in which they are asked to evaluate the validity of arguments, and they will be asked to propose ways to make the argument valid if it is invalid.

Week five introduces the evaluation of the validity of inductive arguments. Inductive arguments are defined as arguments in which one infers to a cause from some data that requires explanation. As a result, the evaluation of inductive arguments concerns whether its conclusion is the best explanation of the data in comparison with a short list of serious rival explanations. The textbook emphasizes the provisional nature of causal reasoning in the sense that such arguments admit of revision in light of new evidence and, thereby, the current best explanation can be unseated by a rival explanation by later discoveries. Further, the students will distinguish between observational data to be explained and the background causal claims or specifications of causal mechanism that aid the conclusion or the rivals in explaining the observations. Background causal claims and specifications of causal mechanisms are crucial to valid inductive arguments because they allow one to connect the concrete observable details of the case into a resultant causal explanation of the whole case. For the homework, students will be assigned passages from the textbook in which they are asked to distinguish between the supports that describe observations and the supports that describe general causal connections or mechanisms. In addition, they will be asked to evaluate the validity of inductive arguments, and they will be asked to propose ways to make the argument valid if it is invalid.

Week six further develops the material from the previous week by introducing more specific types of inductive arguments. In particular, it examines arguments from observed correlations and arguments from observed sample properties. In regard to arguments from correlations, students will distinguish between correlations and causal connections. Further, they will evaluate the argument relative to standard possibilities for an explanation of an A/B correlation. These logical types of explanation are as follows: A causes B, B causes A, X is a common cause of A and B, and chance. In regard to arguments from observed sample properties, students will distinguish between the sample and the population. Additionally, they will evaluate the argument relative to standard possibilities for an explanation of an observed sample property p. These logical types of explanation are as follows: the sample has property p because the population has property p, the sample has property p because of a distortion in the sampling procedure, and the sample has property p because of bad luck. For the homework, students will be assigned passages from the textbook in which they evaluate the validity of

correlation and sampling arguments. They will be asked to explain how the evidence from the supports tells against certain standard rival conclusions. For example, if A temporally precedes B, then the B causes A rival is not a very plausible rival explanation of an A/B correlation because events in the future do not explain events in the past. Further, they will be asked to propose ways to make the argument valid if it is invalid.

Week seven introduces the evaluation of deductive arguments. Deductive arguments are defined as arguments in which the supports are intended to semantically exclude all the rivals. As a result, a successful deductive argument is one in which there is only one possible conclusion, given the supports. The textbook emphasizes that the evaluation of successful deductive arguments is not provisional like that of the evaluation of inductive arguments. Successful deductive arguments are such that the meaning of the supports determines that the conclusion is the only possible answer, so its status as valid does not depend on future empirical information. Students will then appreciate the difference between the standards for evaluating pure mathematical reasoning and applying that reasoning to discern facts about the physical world, which will require empirical investigation and often will require inductive arguments. Students will be shown how to verify the success of deductive arguments using Venn diagrams. For the homework, students will be asked to assess whether a set of arguments are successful deductive arguments, and they will be asked to prove their answers using Venn diagrams.

Week eight will provide some review of the prior material on assessing the validity of deductive arguments, and it will introduce fallacies. Fallacies are problematic forms of reasoning. For example, an appeal to a lack of evidence for a claim to show that the claim is true is a problematic inference pattern. Students will be shown how to identify whether an argument has a fallacious structure. For the homework, students will be assigned problems in which they are asked to identify fallacies in given passages.

The midterm and the final exam will contain questions that test the following skills.

- Recognizing the difference between argumentative texts and non-argumentative texts
- Paraphrasing arguments from a given text
- Evaluating the strength of inductive and deductive arguments

I will test their ability to identify the difference between argumentative and non-argumentative texts by providing them a variety of passages and asking them to label them according to whether they express arguments or not. I will test their ability to reconstruct arguments by providing them passages and asking them to paraphrase and diagram the arguments. I will test their ability to evaluate the strength of inductive and deductive arguments by asking them reconstruct arguments and assess them according to inductive and deductive standards. In the case of inductive arguments, they will assess whether the conclusions are the best explanations

of the data, given the supports. Here they will look for standard kinds of information that are relevant to assessing arguments from correlations and sampling arguments, e.g. frequency of the correlation, a possible causal mechanism that might relate the correlates, sample size, random selection, and so on. In the case of deductive arguments, they will assess whether the premises of the argument exclude all possible rival conclusions merely by virtue of meaning. Here they will especially rely on the meanings of various logical terms such as “and”, “or”, “not”, “if..., then...”, “all”, “some”, and “none”. These terms will be defined using Venn diagrams, so students can verify whether or not the argument is a successful deductive argument, as well as proving the validity of various inference rules. For example, they will use Venn diagrams to prove the validity of modus ponens, i.e. if P, then Q. P. Therefore, Q.

The final project will involve constructing a valid argument. In particular, students will select an argument on a topic that interests them, and construct a valid inductive argument for a particular conclusion about that topic. This argument will appeal to different pieces of evidence, making it a matter of diagnosing a complicated array of data through a series of steps. Part of the project grade will also include providing helpful comments on another student’s argument reconstruction. I will monitor and moderate the commentators.

GE Assessment Plan for PHILOSOPHY 1500.02 (online version of Introduction to Logic)

This course, like all other GE courses in Philosophy, will be evaluated periodically for evidence that GE learning outcomes are being achieved. We will evaluate the course in the first year and then approximately every third year following or when requested by the College.

The GE learning outcomes for this course are as follows:

General Education Goals and Learning Outcomes:

Phil 1500 satisfies the *Math and Logical Analysis* element of the GE *Quantitative Reasoning* requirement.

Quantitative Reasoning Goals:

Students develop skills in quantitative literacy and logical reasoning, including the ability to identify valid arguments, and use mathematical models.

Math and Logical Analysis Expected Learning Outcomes:

Students comprehend mathematical concepts and methods adequate to construct valid arguments, understand inductive and deductive reasoning, and increase their general problem solving skills.

The GE assessment will consist of **direct** and **indirect** measures. The assessment for this course will be the same as for our non-online version of Philosophy 1500.

Direct measures:

We will employ two kinds of direct measures. First, we will give students a questionnaire at both the beginning and end of the semester with substantive questions to test their learning. Questions could include: What is it for an argument to be valid? What is it for an argument to be sound? What is the difference between inductive and deductive arguments? Answers to these questions would then be evaluated on a scale of Poor-Satisfactory-Good-Excellent. These questions are ones we expect few students to answer well at the beginning but which they would be able to answer well at the end of the semester.

Second, we will evaluate some course assignments for direct evidence of achieving GE outcomes. These assignments will also be evaluated on a scale of Poor-Satisfactory-Good-Excellent, and refer to specific course goals. For example, the current 1500.02 includes an assignment that is intended to provide direct evidence of meeting the GE expected learning outcomes of *identifying and constructing valid arguments*. Students are asked to do a project where they construct their own valid argument, after receiving guidance and instruction. Midterms and final exams will also include questions asking students to identify valid arguments and evaluate inductive and deductive arguments. Questions such as these will provide direct evidence of student learning.

Indirect measures:

Students will also be provided a questionnaire at the end of the semester in which they are asked whether they agree that this course has helped them achieve the GE outcomes listed above.

Students will be asked to answer on a scale of Strongly Disagree—Somewhat Disagree—Neutral—Somewhat Agree—Strongly Agree.

In addition, we ask our instructors to provide a narrative including any useful anecdotal evidence from their course about students' success or failure in achieving the GE outcomes.

Arts and Sciences Distance Learning Course Component Technical Review Checklist

Course: Philosophy 1500

Instructor: Hope Sample

Summary: Introduction to Logic

Standard - Course Technology	Yes	Yes with Revisions	No	Feedback/recommendations
6.1 The tools used in the course support the learning objectives and competencies.	✓			The learning objectives and competencies are supported by the course tools used in this course in the following ways. <ul style="list-style-type: none"> • Weekly homework activities • Discussion forum posts • Weekly readings • Weekly reading quizzes • Course project • Live synchronous presentations • Asynchronous presentations • Online office hours • Online Delivery of exams
6.2 Course tools promote learner engagement and active learning.	✓			Students will engage with the course materials in the following ways to promote active learning. <ul style="list-style-type: none"> • Carmen • Carmen conferencing tool
6.3 Technologies required in the course are readily obtainable.	✓			All course technology listed in the syllabus is readily obtainable. <ul style="list-style-type: none"> • Carmen LMS and the tools offered within the LMS
6.4 The course technologies are current.	✓			All course technology listed in the syllabus is current. It can easily be accessed with an internet connection and web browser. <ul style="list-style-type: none"> • Carmen

6.5 Links are provided to privacy policies for all external tools required in the course.	✓			There are no external tools being used for this course.
Standard - Learner Support				
7.1 The course instructions articulate or link to a clear description of the technical support offered and how to access it.	✓			The instructions for technical support are listed in the course technology section of the syllabus for Carmen.
7.2 Course instructions articulate or link to the institution's accessibility policies and services.	✓			The below link should be included in the syllabus. http://www.ods.ohio-state.edu Recommend that the text for the accessibility statement be in BOLD 16pt font.
7.3 Course instructions articulate or link to an explanation of how the institution's academic support services and resources can help learners succeed in the course and how learners can obtain them.	✓			The faculty member should add to the syllabus an overview and contact information for the student academic services offered on the OSU main campus. http://artsandsciences.osu.edu/academics/current-students
7.4 Course instructions articulate or link to an explanation of how the institution's student services and resources can help learners succeed and how learners can obtain them.	✓			The faculty member should add to the syllabus an overview and contact information for student services offered on the OSU main campus. http://ssc.osu.edu Recommend that this link be included in the "Other Course Policies" section of the syllabus.
Standard – Accessibility and Usability				
8.1 Course navigation facilitates ease of use.	✓			Recommend using the Carmen Distance Learning Course Shell to provide a consistent student-user experience in terms of navigation and access to content.
8.2 Information is provided about the accessibility of all technologies required in the course.	✓			Carmen and the OSU core common tool set used in this course meets the universities policies for accessibility.
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	✓			Recommend that resources be developed to address any requests for alternative means of access to course materials. These resources should be in formats that meet the needs of diverse learners.

8.4 The course design facilitates readability	✓			Recommend using the Carmen Distance Learning Course Shell to provide a consistent student-user experience in terms of navigation and access to content.
8.5 Course multimedia facilitate ease of use.	✓			All assignments and activities that use Carmen and the OSU core common tool set at Ohio State facilitate ease of use with embedded multimedia.

Notes: Change references of CarmenConnect to either Zoom or CarmenZoom.

Reviewer Information

- Date reviewed: 9/15/2020
- Reviewed by: Ian Anderson