

# INTRODUCTION TO LOGIC

Gregory Johnson, Ph.D.

[gregory.johnson@msstate.edu](mailto:gregory.johnson@msstate.edu)

## 1 Preliminaries

Sending me a message online (email, Canvas, or direct message on GroupMe) is the best way to reach me, and I will usually respond within 24 hours. If you would like a more immediate response, you can try calling or sending a text message to 267-416-0292. But don't leave a voicemail. I won't get it.

My available meeting times outside of class: [by appointment](#) (Webex, 1050 George Hall, or 071 College Park)

## 2 Mississippi State University Syllabus

The Mississippi State University Syllabus contains all policies and procedures that are applicable to every course on campus and online. The policies in the University Syllabus describe the official policies of the University and will take precedence over those found elsewhere. It is the student's responsibility to read and be familiar with every policy. The University Syllabus may be accessed at any time on the Provost website under Faculty and Student Resources: [provost.msstate.edu/faculty-student-resources/university-syllabus](https://provost.msstate.edu/faculty-student-resources/university-syllabus).

## 3 Textbook

Johnson (2016). *Argument & Inference: An Introduction to Inductive Logic*. ISBN: 0262035251

## 4 Course Description

This course is an introduction to inductive logic. Inductive reasoning, which is the application of inductive logic, is the type of reasoning that people generally use in their day-to-day lives. It is also used in business, finance, public policy, medicine, and the natural and social sciences. Understanding the basics of inductive logic will make you a much more capable participant in many academic areas and in whatever field you choose after graduation.

Most of this course will be spent examining several different types of inductive reasoning and arguments. Because probability is one of the central concepts in inductive logic, you will also learn the basic rules of probability.

We will try to iron out most difficulties during the class meetings, but if you feel like it would help, please make an appointment to meet with me. Most likely, everything in this course will be new to you, and it will take some work to fully grasp. The course is designed, however, to make working through the material and learning it a straightforward process. But for this to work, **you have to come to the class meetings.**

## 5 Learning Objectives

Two goals of this course are learning about the methods of inductive reasoning and becoming comfortable using them. Other, no less important, objectives are improving reading comprehension and problem-solving skills – individually and in groups.

## 6 Student Honor Code & Academic Misconduct

Mississippi State has an approved Honor Code that applies to all students. The code is as follows:

As a Mississippi State University student, I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do.

Upon accepting admission to Mississippi State University, a student immediately assumes a commitment to uphold the Honor Code, to accept responsibility for learning, and to follow the philosophy and rules of the Honor Code. Student will be required to state their commitment on examinations, research papers, and other academic work. Ignorance of the rules does not exclude any member of the MSU community from the requirements or the processes of the Honor Code. For additional information, please visit: <http://honorcode.msstate.edu/policy> and <http://students.msstate.edu/studentconduct/>.

To be clear, students who cheat in any way will be penalized. Cheating includes giving as well as receiving help when such help is not explicitly allowed.

Plagiarism is also a form of cheating, as is using AI (i.e., a generative AI tool) to complete an assignment. The best way to avoid anything that might be academic misconduct is to put yourself in a position where you don't need to cheat or plagiarize. Don't get behind, and if there are things that you don't understand, give yourself time to figure them out or schedule a meeting with me.

Please ask me if you have any further questions about what constitutes academic misconduct. I am happy to answer any questions about what is and is not allowed. But ask me before you do something questionable.

## 7 Cell phones

Cell phone use, including texting, is not allowed during the class meetings.

If there is the legitimate possibility that you might be contacted for an emergency-related reason during the class meeting, then your phone should be nearby, although not so close that it is distracting you. If you are not likely to be contacted for an emergency-related reason, then your phone should be on silent and put away. (And, yes, there is always some possibility of an emergency, but if you can turn your phone off for a couple of hours when you are at a movie or leave your phone behind when you go swimming [or be without access to your phone in a variety of other situations], then you should do the same when you are in a meeting of a college course.) There are at least three reasons for this.

One, I understand the temptation to look at your phone, but learning to manage when you look at and use your phone is an important habit to develop now. Two, when you use your phone during class (or in other kinds of meetings), you may not intend to be rude or distracting, but the person addressing you will usually interpret it negatively. This applies, not only to professors, but to the people with whom and for whom you will work once you graduate. Three, doing anything on your phone takes your attention away from the lecture or discussion, and even a short break in attention can make it difficult to re-engage with and understand what is going on in the class meeting.

## 8 Schedule

See the Google calendar in Canvas for the exact schedule. The calendar is also available [here](#).

Weeks 1 & 2	Chapter 1, An introduction to arguments
Weeks 3 - 5	Chapter 2, The induction by confirmation
	Test 1 (September 19)
Weeks 6 & 7	Chapter 3, More on the induction by confirmation
Weeks 8 & 9	Chapter 4, Mill's methods
	Test 2 (October 17)
Weeks 10 & 11	Chapter 5, Describing populations
Weeks 12 - 15	Chapter 6 & 7, The proportional syllogism & inductive generalization
Exam week	Test 3

## 9 Coursework & Grading

Letter grades will be assigned using this scale: an A is 90 – 100 percent, a B is 80 – 89 percent, a C is 70 – 79 percent, a D is 60 – 69 percent, and an F is below 60 percent. The grades will be set based on this coursework and these percentages:

attendance and participation: 10 percent

quizzes and homework assignments: 45 percent

three tests: 45 percent

There will be weekly quizzes and homework assignments. Some of the quizzes will be taken in groups during the class meetings, and some will be taken alone, outside of the class meetings. The two lowest quiz or homework grades will be dropped. Quizzes and homework cannot be made up or submitted late.

To pass this course, your average on the three tests has to be 60 percent or higher. There will not be any extra credit at the end of the course. Therefore, you should do as well as you can throughout the semester.

**Honorlock** You will use the proctoring software Honorlock for the tests. There is information about using it on Canvas, but right now, you should make sure that you have a working webcam—either the webcam built into your laptop or an external one (which doesn't have to be HD or otherwise fancy).