

COURSE INFORMATION Location: MTH 215
 Class Times: MWF 9:00-9:50
 Instructor: Dr. Karl Frinkle
 Office: MTH 112
 Office Hours: MWF 11:00-11:50, MW 13:00-13:50, TR 14:00-15:15, or by appt.
 E-mail: kfrinkle@se.edu
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TEXT *Introduction to Logic and to the Methodology of Deductive Sciences*,
(new revised edition, see *pdf* link on website)

COURSE OVERVIEW In this course, we will cover such topics as the elements of logic, sentential calculus, theory of relations and the deductive method as well as applications of logic to constructing mathematical theories.

COURSE WORK We will cover most, if not all, of chapters 1–8. The work you will be expected to do falls into a few categories.

Homework – There will be homework problems corresponding to each chapter. Each problem will be graded in a binary fashion – either completely correct or completely wrong. You will have a chance to correct any problems not correct after the first attempt to help you improve both your understanding of the material, and your grade. You are allowed to get assistance on HW, and even work in groups, but assistance of any kind MUST be acknowledged in by explicitly writing who you worked with, or got assistance from, on each problem.

Journal – You will be expected to keep a journal of your thoughts and experiences of the course. Part of this will entail a reading summary of each reading assignment, and looking back at material you may have had problems with and seeing if they have been cleared up. For the dual course with Rhetoric, you will also be tasked with writing up your thoughts on the connections between the topics under study in logic with those of rhetoric. You may also be asked to respond to specific questions or topics brought up in class as well.

Midterm Exam – An in-class exam after the first 5 chapters have been covered.

Final Exam – A two week take home cumulative exam.

COURSE GOALS The book we will be using is a classic treatise on the field of logic by one of the founders of modern logic. As such, it may not be the easiest read. One of the major goals of this course is to have you, the student, learn to read and fully interpret this text.

Upon successful completion of this course (reading this book, digesting lectures, keeping track of your thoughts via journal, working through homework problems), it is hoped that you will have acquired the ability to form logical arguments, interpret logical arguments, and derive conclusions correctly from assumptions and statements using the deductive method. In a more listable fashion, some of the outcomes of this course are as follows:

1. Develop knowledge about propositional and first order logic
2. Develop critical thinking, reading, and composing abilities
3. Develop knowledge of logic conventions

4. Develop skills in logically valid argumentation
5. Use the components of logical arguments in the context of a theorems and proofs
6. Analyze the logical validity of arguments in their contexts
7. Apply sound logical argument principles to build arguments in a deductive theory

ROUGH OUTLINE The following gives an outline (based on outcomes given above) of each chapter and the weeks they are to be covered.

- Chapter 1 – Weeks 1 and 2 - Objective 1.
- Chapter 2 – Weeks 2 and 3 - Objectives 1 and 3.
- Chapter 3 – Weeks 4 and 5 - Objectives 1, 3, 4, and 5.
- Chapter 4 – Weeks 5 and 6 - Objectives 2, 3, 4, and 5.
- Chapter 5 – Weeks 6 and 7 - Objectives 2, 3, 4, and 5.
- Chapter 6 – Weeks 7, 8, and 9 - Objectives 1, 2, 3, 6, and 7.
- Chapter 7 – Weeks 10, 11, and 12 - Objectives 1, 3, 6, and 7.
- Chapter 8 – Weeks 13, 14, and 15 - Objectives 2, 4, 5, and 7.

GRADES Your final grade will be based upon the following items

- 20% - Reading Summaries/Journal Entries - hand-written and to be handed in on a regular basis
- 35% - Homework Assignments - taken from the problems in the text, assigned on a regular basis
- 20% - Midterm Exam - given in class
- 25% - Final Exam - cumulative take home exam covering all of the material from the semester

COURSE MODIFICATION I reserve the right to change any policies as I see fit to ensure that you are indeed receiving the best possible education that I can give you in the subject matter at hand. If I feel a certain aspect of the course does not appear to be effective in its method, I will attempt to change it (for the better I hope).

TECHNOLOGY All cell phones and other such devices must be turned off and put away before class begins. If you are caught using a cell phone during class, your final grade will be dropped by **one letter grade per incident**.

MANDATORY STATEMENTS **Counseling Center:** Any student experiencing mental or emotional issues who desires free, confidential, clinical counseling is encouraged to contact the SE Counseling Center at (580) 745-2988 to schedule an appointment during normal working hours Monday-Friday, 8:00AM to 5:00PM. For after-hours mental health emergencies, please call SE Campus Police at (580) 745-2911 or the Mental Health Crisis Hotline at 1-(800) 522-1090.

Disability Accommodations: Any student needing special accommodations due to a disability should contact the Office of Compliance and Safety, Administration Building, Suite 311 or call (580) 745-3090 (TDD# 745-2704). It is the responsibility of each student who anticipates or experiences barriers to their academic experience to make an official request for disability related accommodations in a timely manner.

Equity and Non-Discrimination Statement: Southeastern Oklahoma State University, in compliance with all applicable federal and state laws and regulations, does not discriminate on the basis of race, color, religion, national origin, sex, age, disability, sexual orientation, gender identity, or status as a veteran in any of its policies, practices, procedures, or programs. This includes, but is

not limited to: admissions, employment, financial aid, and educational services. Inquiries regarding non-discrimination and equity policies may be directed to: Michael Davis, Director of Compliance and Safety & Title IX Coordinator, (580) 745-3090, or mdavisse.edu

Academic Dishonesty: Academic dishonesty of any kind will not be tolerated. You may fail an assignment, fail the course or be expelled from the University for academic dishonesty. As a student, it is your responsibility to be familiar with and abide by The Student Code of Conduct, which may be viewed in the Student Handbook. Please note that your own original work is expected for all assignments that you submit. Ignorance is not generally accepted as an excuse.