

COURSE INFORMATION	Location:	MTH 115
	Class Times:	MWF 12:00-12:50
	Instructor:	Dr. Karl Frinkle
	Office:	MTH 112
	Office Hours:	MW 11:00-11:50, 13:00-13:50, TR 11:00-12:30, F 11:00-11:50, or by appt.
	Office Phone:	(580)745 – 2028
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TEXT *Introduction to Logic and to the Methodology of Deductive Sciences*, new revised edition  
(You will be provided with a physical copy, and there will be a *pdf* link on Blackboard)

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 1–9. 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.

Reading Summaries – You will be expected to summarize each reading assignment, writing the summary by hand. You may also be asked to respond to specific questions or topics brought up in class as well.

Final Exam – A two week take home cumulative exam.

COURSE GOALS The book we will be using has its origins in 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, 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 list-able 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. Note, this schedule rarely happens as we end up taking longer on a specific chapter if we run into comprehension issues.

- Chapter 1 – Week 1 - Objective 1
- Chapter 2 – Week 2 - Objectives 1 and 3
- Chapter 3 – Week 3 - Objectives 1, 3, 4, and 5
- Chapter 4 – Weeks 4 and 5 - Objectives 2, 3, 4, and 5
- Chapter 5 – Weeks 6 and 7 - Objectives 2, 3, 4, and 5
- Chapter 6 – Weeks 8 and 9 - Objectives 1, 2, 3, 6, and 7
- Chapter 7 – Weeks 10, 11, and 12 - Objectives 1, 2, 3, 4, 6, and 7
- Chapter 8 – Weeks 13 and 14 - Objectives 1, 3, 6, and 7
- Chapter 9 – Weeks 15 and 16 - Objectives 2, 4, 5, and 7

**GRADES** Your final grade will be based upon the following items

- 10% - Reading Summaries - hand-written and to be handed in on a regular basis
- 10% - Class Participation - being conversational and responsive to questions brought up in class
- 50% - Homework Assignments - taken from the problems in the text, assigned on a regular basis
- 30% - 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).

**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 Disability Services, GDJ Student Union Room 328 or call (580) 745-3036. 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. If you have questions regarding disability accommodation process or policy please contact Tiffany Tate, ttate@se.edu for more information.

**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, Title IX Coordinator, (580) 745-3090, or mdavis@se.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.

## COVID STATEMENTS

**Conversion to Online Format:** Southeastern students should be aware that in the event of a University closure due to COVID19, onsite classes will be converted to an online/remote format. Students should plan ahead to ensure they have access to the computer equipment (either PC, MAC, or tablet), webcam, and internet connectivity to continue their classes in an online/remote format. Please read all your official Southeastern student emails as the transition from onsite to online/remote might require a reorganization in your personal situation. Students will be granted a 72-hour transition and grace period. Online classes will continue as scheduled without disruption. Wear a mask, stay safe, and contact your Instructor as the situation arises. These policies and procedures were updated on July 30, 2020 and are subject to change.

**Face Coverings:** Per the Southeastern Oklahoma State University guidance on face coverings on campus, in the instructional setting, faculty and students must wear face coverings. At the discretion of the instructor, to accomplish an educational objective as long as safety protocols are met (including ample distance, shielding and other measures), faculty and students may be authorized to temporarily remove face coverings. Students without coverings, or those who do not comply with the rules relating to face coverings, will not be able to participate in on-campus classroom activities. To request an ADA exception to this requirement, students should contact the Disability Services Office. Failure to comply with the face coverings requirement may result in the Instructor directing the student to leave the classroom. Any student asked to leave the classroom may be referred to the Office of Student Conduct. These policies and procedures were updated on July 23, 2020 and are subject to change.

**Attendance Policy:** We are facing an unprecedented situation in which all of us must be flexible and make prudent decisions in the best interest of our families, our campus, and our community. In light of this, Southeastern is temporarily establishing campus-wide course attendance guidelines as follows: Students who are sick or need to quarantine should not attend classes. Students will not be required to provide formal documentation from a health care provider and will not be penalized for COVID-19 related absences when proper notification to campus health officials is made in accordance with the guidelines stated below.

Faculty will notify students about important course information and delivery changes through Blackboard and campus email.

Students will:

- Provide notification to campus officials (Illness Reporting Form) if they have tested positive for COVID-19 or have to quarantine so we can confirm reported absence with instructors, monitor, and assist the campus community.
- Notify instructors in advance of an absence.
- Connect with that class through Zoom if the class session is being transmitted in a hybrid fashion.
- Keep up with and/or make up missed classwork or assignments.
- Submit assignments digitally through Blackboard or other means as announced by your instructor.
- Work with their instructors to reschedule exams, labs, and other critical academic activities described in the course syllabus.
- Check Blackboard and campus email daily to receive important announcements pertaining to the course.

During this period, all faculty will establish assigned seating to facilitate roll-taking, and, if necessary, contact tracing. Additionally, we ask all members of the University community to be attentive to their health, and safeguard others, by following the CDC's guideline to stay home when you are sick. **You should stay home if you have symptoms.** More information on what to do if you are sick is available at the CDC's website. These policies and procedures were updated on July 24, 2020 and are subject to change.