Eastern Kentucky University

Department of Mathematics and Statistic MAT 301-001, Logic and Set Theory, CRN XXXX 3 credit hours Fall XXXX

Professor:

Office:

Office Hours:

Email:

Course Description:

Prerequisites: Minimum grades of "C" and a grade point average of at least 2.50 in MAT 239, 244 or 244H, or departmental approval. Logic, proof techniques, set theory, relations, functions, cardinality, introduction to advanced mathematics.

Course Materials:

Textbook: <u>A Transition to Advanced Mathematics</u> by D. Smith, M. Eggen, and R. St. Andre, 8th edition, Brooks/Cole Publishing Co., 2015 (ISBN: 9781285463261)

Student Learning Objectives:

Students in MAT 301 will demonstrate the ability to: A) use proper mathematical notation and terminology (demonstrated through exams), B) prove basic mathematical theorems (demonstrated through homework exercises), C) communicate mathematical ideas clearly, correctly and efficiently (demonstrated through class presentations), D) demonstrate basic knowledge of set theory and related concepts (demonstrated through exams).

Evaluation Methods:

Make up policy: Make up assignments will be accepted for officially excused absences ONLY. You must be in class the day a quiz, exam, or project is assigned, even if the work is to be done outside of class.

If you miss an assignment day, you MUST provide a WRITTEN excuse to me within TWO class periods that includes the reason you were absent and a phone number of the person or organization excusing the absence.

Grading: YOUR FINAL EXAM IS is the last day to drop this class with no tuition charge and no record of the course on the transcript. The last day to withdraw from this course with "W" on the transcript and no withdrawal fee is. After that, withdrawing will carry a \$150 fee with "W" on the transcript. The last day to withdraw from this class is For additional information, consult: http://colonelscompass.eku.edu/

Your grade in this course will be determined by the following:

- 45% Midterm Exams (3 exams at 15% each)
- 20% Comprehensive Final Exam
- 15% Homework
- 12% Quizzes, Group Work, and Video Assignments
- 5% In-class presentation
- 3% Mandatory office hour visit

We will use the following grade scale: 100 - 90% A, 89 - 80% B, 79 - 70% C, 69 - 60% D, below 60% F or FN (depending on attendance/participation). All percentages will be rounded to the nearest whole number.

Your midterm grade will be the average of your Exam 1 score, homework total, and quiz total (and presentation if all presentations are completed) as of Oct. 7, 2016.

Homework: Regular homework assignments will given. Only a few of these problems will be collected. You should complete the entire assignment. There will be a substantial penalty for late homework assignments. View the daily homework like athletic training. If you do not practice (do the daily homework), you will not perform as well as you should at the next event (the exam). While working together is not discouraged, you should make sure all assignments you turn in are your own work. Homework assignments will be written on the board in class and posted on Blackboard under "Course Documents".

Presentation: Each student is required to give at least one presentation in class, most likely over material from Chapter 2.

Mandatory Office Hour Visits: Beginning in September, once a month students must come to office hours (or some other arranged time) to meet with the instructor and ask at least one question relevant to the material of the class.

Quizzes, Group Work, And Video Assignments: We will have several quizzes, usually at least one per week. Quizzes will mostly be 1-3 questions given in the last 10-15 minutes of class. Occasionally, quizzes will be replaced by group work. Additionally, we may use video case studies to help us throughout the course. You may be asked to watch and comment on some of these videos outside of class.

Attendance:

Attendance will be taken each day as requested by the university. I will not use attendance as part of your grade. You are responsible for all materials and assignments for any day you miss.

Suggestions For Success In This Class:

- 1. Attend class and <u>take notes</u> each day.
- 2. Do the current homework assignment before the next class.
- 3. Read the book.

- 4. Get help <u>as soon as you start having difficulties</u> with the material. Please stop by for office hours or set up an appointment whenever you need assistance. Questions submitted by e-mail are welcome.
- 5. Study the review problems, your class notes, and your homework problems before each test.
- 6. As a general rule, expect to spend at least two hours on homework for each hour of lecture.

Inclement Weather Policy: On inclement weather days, this class will meet 12:30-1:10pm. This class will be cancelled or delayed by inclement weather if and only if the university has declared an inclement weather situation on www.eku.edu or (859) 622-BADW.

Last Date to Withdraw:

See Colonel's Compass

Disabilities Statement:

The University strives to make all learning experiences as accessible as possible. If you are registered with the EKU Center for Student Accessibility (CSA), please obtain your accommodation letters from the CSA, present them to the course instructor, and discuss the accommodations needed. If you believe you need an accommodation and are not registered with the CSA, please contact the office in 361 Whitlock Building by email at disserv@eku.edu or by telephone at (859) 622-2933. Upon individual request, this syllabus can be made available in an alternative format.

A student with a "disability" may be an individual with a physical or psychological impairment that substantially limits one or more major life activities, to include, but not limited to: seeing, hearing, communicating, interacting with others, learning, thinking, concentrating, sitting, standing, lifting, performing manual tasks, working. Additionally, pregnancy accompanied by a medical condition(s), which causes a similar substantial limitation, may also be considered under the Americans with Disabilities Amendments Act (ADAAA).

Academic Integrity:

Students are advised that EKU's Academic Integrity policy will be strictly enforced in this course. The Academic Integrity policy is available at http://studentrights.eku.edu/academic-integrity-policy. Questions regarding the policy may be directed to the Office of Academic Integrity.

O-fficial Email:

An official EKU e-mail address is established for each registered student, each faculty member, and each staff member. All university communications sent via e-mail will be sent to this EKU e-mail address.

Classroom decorum: Free discussion, inquiry, and expression is encouraged in this class. Classroom behavior that interferes with either (a) the instructor's ability to conduct the class or (b) the ability of students to benefit from the instruction is not acceptable. Examples may include

routinely entering class late or departing early; use of beepers, cellular telephones, or other electronic devices; repeatedly talking in class without being recognized; talking while others are speaking; or arguing in a way that is perceived as "crossing the civility line." In the event of a situation where a student legitimately needs to carry a beeper/cellular telephone to class, prior notice and approval of the instructor is required.

Disability Statement:

- 1. Anyone violating the usual standards for academic honesty, for example, anyone attempting to obtain or exchange information regarding any quiz or test, or anyone using a fraudulent excuse to qualify for a make-up, may receive a course grade of "F". Cheating includes buying, selling, or otherwise fraudulently obtaining copies of examinations or assignments for the purpose of improving one's academic standing. During examinations it includes receiving information from other students or other students' exams and referring to unauthorized notes or other written information in any form including electronic (e.g., information stored in graphing calculators).
- 2. Copying or working together is not acceptable for computer assignments. If you are caught copying or working together, you will definitely get a zero for the assignment, and you may get an "F" for the course. This includes the person who allows another person to copy his or her assignment as well as the person who copied, or all students working together. Working together includes, but is not limited to, discussing wording of an answer, discussing any computations or numerical answers, etc. If you have any questions regarding a computer assignment, you should ask your instructor. Do not ask other students for help.
- 3. The following are **not permitted** for calculators that are to be used on quizzes or exams: enhancing the calculator's abilities beyond the factory settings, uploading documents or downloading software onto the calculator, and saving course content to the calculator.
- 4. Anyone behaving in a disruptive manner or refusing to follow the usual standards for academic behavior may be barred from attending class and may receive a course grade of "F".
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 course. The Academic Integrity policy is available at
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 may be directed to the Office of Academic Integrity.

Course Outline:

No Class: 9/5 (Labor Day), 9/30 (Assurance of Learning Day), 10/17 (Fall Break), 11/23 & 25 (Thanksgiving)

Week 1	Ch. 1	Week 7	Ch. 2	Week 13	Ch. 4
Week 2	Ch. 1	Week 8	Ch. 2	Week 14	Exam
Week 3	Ch. 1	Week 9	Review,	Week 15	Ch. 5
			Exam		

Week 4	Ch. 1, Exam	Week 10	Ch. 3	Week 16	Ch 5,
					Review
Week 5	Ch. 2	Week 11	Ch. 3	Finals Week	
Week 6	Ch. 2	Week 12	Ch. 4	Final Exam,	

Tentative Exam Dates:, Final Exam: at 10:30am

THESE DATES ARE SUBJECT TO CHANGE!