

MAD 2104 – 08H – 3 credits
Honors Discrete Mathematics



Instructor: Dr. Warren McGovern
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COURSE MEETINGS: IN-PERSON (M 12:30-1:50PM) AND ONLINE

COURSE DESCRIPTION: A proof-oriented approach to and applications of propositional logic, sets, functions, relations, combinatorics, graphs and trees.

PREREQUISITES: *MAC 1105 or permission of instructor*

GOALS. Some specific goals of the course are for you to:



- think critically (always a goal in mathematics classes);
- communicate effectively, especially by writing precisely about technical things;
- improve logical thinking and problem-solving skills.

TEXT: *Language Proof and Logic*, 2nd ed. Barwise-Plummer, Barwise, Etchemendy.

The text can be found at <https://www.gradgrinder.net/>. I suggest you get a paperless copy; \$55 paperless copy is the best option. You need a unique registration ID. You do need to pay and register for a new version of software. Please let me know if you need to place an order with the bookstore. If you do, do not buy a used copy. You will need a new version that has a unique registration id.

ATTENDANCE. You are responsible for all material covered in the lectures. Given the current state of affairs, I will not take attendance but I urge you to attend as often as possible. I, more importantly, urge you to cover your faces with mask.

EVALUATION: The goal of the class is for the students to do all of the assigned problems from the LPL book and submit them to the Grade Grinder. (Don't forget to submit to instructor once you have completed and received feedback on a given assignment.) The list of HW problems can be found at <http://home.fau.edu/wmcgove1/web/Courses/MAD2104/HWMAD2104S21.html>

Please only do the HWs that are to be turned in via the grade-grinder. If the problem has only a pencil next to it, I do not expect you to submit it. However, please try these problems and make sure you understand them. Some problems have both an arrow  and a pencil . These problems are asking you to submit something while informally doing something else. I expect you to turn in the arrow part to the grade grinder.

Please be aware that there is a comment section with grade grinder. However, I do **not** look at these since there is no distinction between these and the regular emails that I receive from the grade grinder. If you have a comment on the problem please send me an email using your FAU address.

The Grade Grinder HW will be worth 65% of the final grade. There are approximately 220 gradegrinder HWs. Another 20% will be determined by Homework on graph theory and sets and functions. Problems must be completed by the deadline date. Late homework will only receive 50% credit. The remaining percentage will be by in-person exams.

Regarding the Grade Grinder, I will record the completion percentage of problems turned in on time that are correct; illustrated by a green check. Incorrect problems will not count be counted as completed, illustrated by a red x. This completion percentage will count towards 65% of your final grade. Problems turned in after the deadline will count as 50%.

	Exercise 7.8	Exercise 7.10	Exercise 7.11	Exercise 7.12	Exercise 7.14	Exercise 7.15	Exercise 7.16	Exercise 7.17	Exercise 7.25	Exercise 8.2
Name	✓	✓	✗	✗	✓	✗	✓	✓	✓	✗①

65%	Homework -- LPL
5%	Mid-term Exam
20%	Homework – Graphs, and sets and Functions
10%	Final Exam

Final Grades are based on the following scale.

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
93-100	90-92	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	0 – 59

TESTS AND MAKEUP POLICY. We will have one mid-term exam and a comprehensive final exam. If you are not able to take an exam, I and only I, will approve a makeup exam. There should be a good reason for you not taking an exam at its scheduled time. I also reserve the right to individually come up with a different plan versus providing a makeup exam.

Here is the list of deadlines for the chapters and the gradegrinder. Notice that Chapter 4 and 5 are due at the same time. Also, Chapters 6 and 7 are due at the same time, and Chapters 12 and 13 are due at the same time.

Chapter	Deadline for HW	
Chapter 1	August 27th at 11:59pm	6 days for 11 problems
Chapter 2	September 4th at 11:59pm	8 days for 20 problems
Chapter 3	September 11th at 11:59pm	7 days for 22 problems
Chapter 4	September 21st at 11:59pm	10 days for 23 problems
Chapter 5	September 21st at 11:59pm	10 days for 1 problem
Chapter 6	October 12 th at 11:59pm	21 days for 39 problems
Chapter 7	October 12 th at 11:59pm	21 days for 20 problems
Mid-Term Exam	October 18th	
Chapter 8	October 26th at 11:59pm	14 days for 33 problems
Chapter 9	November 6th at 11:59pm	7 days for 18 problems
Chapter 10	November 7th at 11:59pm	5 days for 10 problems
Chapter 12	December 4th at 11:59pm	26 days for 19 problems
Chapter 13	December 4th at 11:59pm	26 days for 46 problems
Final Exam	December 10 th 10:30-1:00pm	

POLICY ON INCOMPLETES. I am really striving towards not giving any incompletes. Incomplete grades will be assigned only in the case of a documented emergency or illness.

COLLABORATION AND THE HONOR CODE. I expect you to abide by the Honors College Academic Honor Code. It is available at <http://www.fau.edu/honors/academics/honor-code.php>. You are allowed to collaborate on all HWs. You are asked not collaborate on exams and quizzes.

Classroom Etiquette Policy

In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions.

FREE MATH TUTORING

The Jupiter campus and the Honors College sponsor in-person tutoring.

<https://www.fau.edu/honors/current-students/jupiter-campus-tutoring/>

Also, the MLC (Math Learning Center) provides the following FREE tutoring for all FAU students in their math courses:

- **ONLINE:** Please see <http://www.math.fau.edu/mlc/remoted/index.php> for available days/times and links to online tutoring. All tutoring is drop-in (no appointments are needed) and is available through Zoom.
- **IN PERSON:** In person tutoring availability <http://www.math.fau.edu/mlc/>.

Please email mlc@fau.edu should you need further information or have questions.

Policy on Accommodations

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses -- Boca Raton, SU 131 (561-297-3880); in Davie, LA 131 (954-236-1222); in Jupiter and all Northern Campuses, SR 111F (561-799-8585). Disability services are available for students on all campuses. For more information, please visit SAS website at www.fau.edu/sas/.

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well-being. For more information, go to <http://www.fau.edu/counseling/>

Academic Integrity Policy

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see [University Regulation 4.001](#).

Plagiarism

Plagiarism is the deliberate use and appropriation of another's work without identifying the source and trying to pass off such work as one's own. Any student who fails to give full credit for ideas or materials taken from another has plagiarized. This includes all discussion board posts, journal entries, wikis, and other written and oral presentation assignments. Plagiarism is unacceptable in the University community. Academic work must be an original work of your own thought, research, or self-expression. When students borrow ideas, wording, or organization from another source, they must acknowledge that fact in an appropriate manner. If in doubt, cite your source.

COVID-19 Statement

All students in face-to-face classes are recommended to wear face coverings during class and at other times while indoors. Taking these measures supports the safety and protection of the FAU community. Students experiencing flu-like symptoms (fever, cough, shortness of breath), or students who have come in contact with an infected person should immediately contact FAU Student Health Services(561)297-3512.

I am personally asking you wear a mask in class. I understand that you may choose not to. If you decide to approach me before/during/after class, do so with social distancing in mind.

Policy on the Recording of Lectures

Because of a new Florida Statute in 2021, the following model language is suggested for inclusion in course syllabi, at the discretion of individual faculty: Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity. Recorded lectures used for other purposes may allow the faculty member to seek "damages plus court costs and reasonable attorney fees, with the total recovery not to exceed \$200,000."