
DISCRETE MATHEMATICS in Fall 2020 (MA2400)

Course Code	MA2400	Professor(s)	Ruth Corran
Prerequisites	None	Office Number	PL-110
Class Schedule	F: 10:50-12:25 in PL-4 T: 16:20-17:55 in PL-4	Office Hours	By appointment: suggested times: Monday, Thursday morning, by Teams. rcorran@aup.edu
Credits	4	Email	
Semester	Fall 2020	Office Tel. Ext.	

Course Description

Discrete Mathematics is designed to deepen your mathematical reasoning skills while highlighting mathematical structures essential in building and analysing algorithms. You will learn about set theory, propositional logic, proofs and mathematical induction; combinatorial analysis and some introductory number theory; relations, their matrices and directed graphs; and some general theory of graphs, trees and networks.

Course Learning Outcomes

Know the principles of mathematical logic and be able to use logic to recognise valid reasoning and conclusions.

Be able to write and read mathematical proofs of different types.

Know how to use combinatorics in understanding discrete structures.

Be able to use directed graphs and matrices to represent relations and identify their nature, and to apply algorithms to solve graph theory problems.

General Education

Course Outline

Week	Tuesday	Class	Event	Topic	Friday	Class	Event
0					25/9/20	1	
1	29/9/20	2		More about logic	2/10/20	3	
2	6/10/20	4		More about proofs	9/10/20	5	Test
3	13/10/20	6		Functions	16/10/20	7	
4	20/10/20	8		More relations, graphs	23/10/20	9	Test
5	27/10/20	10		More numbers	30/10/20	11	
6	3/11/20	12		Counting	6/11/20	13	Test
7	10/11/20	14		Balls & Boxes, PIE	13/11/20	-	MIDS
8	17/11/20	15		Recurrences	20/11/20	16	
9	24/11/20	17	Test 4	Trees	27/11/20	18	
10	1/12/20	19		Graph traversals	4/12/20	20	
11	8/12/20	21	Test 5	Revision	11/12/20	22	Revis
	15/12/20	READING DAY			18/12/20	15h	Final

Textbooks

This course doesn't have any textbook.

Attendance Policy

Students studying at The American University of Paris are expected to attend ALL scheduled classes, and in case of absence, should contact their professors to explain the situation. It is the student's responsibility to be aware of any specific attendance policy that a faculty member might have set in the course syllabus. The French Department, for example, has its own attendance policy, and students are responsible for compliance. Academic Affairs will excuse an absence for students' participation in study trips related to their courses.

Attendance at all exams is mandatory.

IN ALL CASES OF MISSED COURSE MEETINGS, THE RESPONSIBILITY FOR COMMUNICATION WITH THE PROFESSOR, AND FOR ARRANGING TO MAKE UP MISSED WORK, RESTS SOLELY WITH THE STUDENT.

Whether an absence is excused or not is ALWAYS up to the discretion of the professor or the department. Unexcused absences can result in a low or failing participation grade. In the case of excessive absences, it is up to the professor or the department to decide if the student will receive an "F" for the course. An instructor may recommend that a student withdraw, if absences have made it impossible to continue in the course at a satisfactory level.

Students must be mindful of this policy when making their travel arrangements, and especially during the Drop/Add and Exam Periods.

Covid-19 temporary amendments:

Students studying at The American University of Paris are STILL EXPECTED TO ATTEND ALL scheduled classes. Due to the Covid-19 pandemic, students will have the option of attending classes remotely when special circumstances apply, for example when students are placed under quarantine by the French authorities or by their doctor, or when students present symptoms of Covid-19 and are directed, by their doctor or the AUP Health Office, to remain home. It is still the student's responsibility to be aware of any specific attendance policy that their professor might have set in the course syllabus. In particular, Students attending remotely from distant time zones should check with their professors about the specific attendance policy for remote learners.

Grading Policy

Class tests (5 tests, lowest dropped)	40 points
Homework	15 points
Assignments	10 points
Final examination	35 points

Other

Additional Attendance Policy information.

If you are joining the class remotely, you will need to have your camera on and to be in view of your camera in order to be considered present for the class.