

Facultad de Informática

Academic year 2020–2021

- *Degree*: Grado en Ingeniería Informática
- *Course*: Discrete Mathematics and Mathematical Logic I
- *Credits*: 6
- *Year*: First
- *Group*: I (Room 3, Facultad de Informática)
- *Lecturer*.

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Textbooks

The use of textbooks, in addition to your own notes, is essential to help you grasp the meaning of the different concepts and to gain a broader understanding by providing a different point of view. The following is my recommendation for this course.

1. Miguel Palomino. Lecture notes.

Though not a textbook, I will make the lecture notes the classes will be based on available at the virtual campus.

2. H. Lewis and R. Zax. *Essential Discrete Mathematics for Computer Science*. Princeton University Press, 2019.

This is a recent addition to the bibliography on Discrete Mathematics. It is an excellent “little” book containing very clear explanations. I *highly* recommend it for you to have an additional perspective and to supplement my own lecture notes.

3. Kenneth H. Rosen. *Discrete Mathematics and its Applications* (Seventh Edition). McGraw-Hill, 2012.

This is a very comprehensive book on the subject that should be used as a reference. It contains many examples covered in great detail, as well as a large collection of exercises at the end of each lesson. It also covers some topics outside the scope of this course, that may be needed in order to solve some of the exercises mentioned before.

4. M. T. Hortalá González, J. Leach Albert, and M. Rodríguez Artalejo. *Matemática Discreta y Lógica Matemática* (Tercera Edición). Editorial Complutense, 2008.

This is the standard textbook for this course in this University, but it is in Spanish. The contents of the syllabus follow quite closely the different chapters of the book.

5. R. Caballero Roldán, T. Hortalá González, N. Martí Oliet, S. Nieva Soto, A. Pareja Lora, and M. Rodríguez Artalejo. *Matemática Discreta para Informáticos. Ejercicios Resueltos*. Pearson (Colección Prentice Practica), 2007.

This book contains a wealth of solved exercises on Discrete Mathematics, including many that were proposed as problems in past exams. It is written in Spanish.

Grading criteria

The final grade will be the sum of the grade in the final exam (either in the regular or the extra exam session), topped at 9, and the grade in other activities, topped at 1.

To determine the value of other activities, about every two weeks some exercises will be proposed to be solved at home. Around a week later they will be collected to some random students and their solutions discussed in class. The final grade will depend both on the number of exercises handed by a student as well as on the correctness of the proposed solutions.