

Introduction to logic

1. Objectives

Familiarizing students with the basic structure of logical reasoning, formal analysis and inference

2. Contents

1. The course has 6 sessions, based on Chapters 3 to 6 of the book "Logic", by Robert Baum.

3. Methodology

Classes will consist of lectures, discussions and exercises. Students will present in every class their solutions to the exercises.

4. Grading

On the basis of class participation and the exercises solved in class.

1st Year MRM 2019

Precourses

5. Course outline

SESSION	TITLE	ACTIVITY
1	Introduction. Logical reasoning	Lecture on the bases for correct inference and the foundations of knowledge. Role of Logic and of empirical observations.
2	Introduction to classical Logic.	Chap. 3 Logic, and do Exercises 3-3
3	Representation of categorical statements.	Chap. 3 Logic, and do Exercises 3-8
4	Reasoning by syllogisms.	Chap. 4 Logic, and do Exercises 4-6
5	Propositional Logic. Truth tables.	Chap. 5 Logic, and do Exercises 5-9
6	Arguments and proofs.	Chap. 6 Logic, and do Exercises 6-23

5. Competencies

Analyzing arguments from a logical point of view, and verifying the consistency of different statements.