King Saud University
College of Science
Mathematics Department

Form (H)
Short course description

Course title: Mathematical logic	Course number and code: MATH436
Previous course requirement: MATH131	Language of the course: English
Course level: 6th	Effective hours: 4(3+2+0)

Course description

Propositional calculus. The deduction theorem for propositional calculus. Completeness and consistency of propositional calculus. Predicate calculus. First-order theorems. Consistency of first-order predicate calculus. Completeness theorem for predicate logic.

Course objectives

1- To introduce students to Propositional calculus.	
2- To introduce students to first-order logic.	

Learning outcomes (understanding, knowledge, and intellectual and scientific skills)
After studying this course, the student is expected to be able to:

1- To find the truth values of propositions.	
2- To apply the completeness theorem of first order logic.	
3- to differentiate between sentential propositions and first order propositions.	

Textbook adopted and supporting references

Title of the book	Author's name	Publisher's name	Date of publication
Mathematical Logic: Theory and Application	Jean Rubin	Saunders College	1990