Content

Course Code	Course Name	Semester	Theory	Practice	Lab	Credit	ECTS
PH106	Logic II	2	3	0	0	3	6

Prerequisites	
Admission Requirements	

Language of Instruction	Turkish
Course Type	Compulsory
Course Level	Bachelor Degree
Objective	To provide an acquirement of the vocabulary and the concepts of the first order predicate logic
Content	Formal language PQ and formal system PFQ
References	Introduction to Logic II, Yalçın Koç ,Boğaziçi University Publications,1980. Naive Set Theory, Paul Richard Halmos, D. Van Nostrand Company, Princeton, NJ, 1960. Introduction to Mathematical Logic, Eliot Mendelson, D. Van Norstand Company, Princeton NJ, 1964 Sembolik Mantık, Tarık Necati Ilgıcıoğlu, Anadolu Üniversitesi Yayınları, Ankara 2013. Introduction to Mathematical Logic, Church, A., Princeton University Press, Princeton NJ, 1956. Introduction to Logic, Suppes, P., D. Van Norstrand Company, Princeton NJ, 1957. Logique formelle et argumentation, Laurence Bouquiaux & Bruno Leclercq, De Boeck, Brüksel, 2009.

Theory Topics

Week	Weekly Contents
1	Formal language PQ : alphabet and grammar
2	Semantics of the formal language PQ: Set theory
3	Semantics of the formal language PQ: Partition and enumeration of a set, denumerable sequences.
4	Interpretation of the formal language PQ
5	Interpretation of a formula of the formal language PQ : Domain of interpretation, n-place relations and n-place functions
6	Semantical analysis of the grammatical formulas of the formal language PQ
7	Semantical implication and deduction meta-theorem for the formal language PQ
8	Mid-term
9	Formal system PFQ
10	Deduction and proof in the formal system PFQ
11	Syntactical implication for the formal system PFQ
12	Deduction meta-theorem for the formal system PFQ
13	Consistence meta-theorem for the formal system PFQ
14	Completeness meta-theorem for the formal system PFQ