LOGIC, INFORMATION AND COMPUTATION (LGIC)

LGIC 010 Formal Logic I
This course provides an introduction to some of the fundamental ideas of logic. Topics will include truth functional logic, quantificational logic, and logical decision problems.
Taught by: Singer
One-term course offered either term
Also Offered As: PHIL 005, PHIL 505
Activity: Lecture
1.0 Course Unit
Notes: This is a Formal Reasoning course.

LGIC 210 Discrete Mathematics I
Topics will be drawn from some subjects in combinatorial analysis with applications to many other branches of math and science: graphs and networks, generating functions, permutations, posets, asymptotics.
Course not offered every year
Also Offered As: MATH 340
Prerequisite: MATH 114 OR MATH 115 OR MATH 116
Activity: Lecture
1.0 Course Unit

LGIC 220 Discrete Mathematics II
Topics will be drawn from some subjects useful in the analysis of information and computation: logic, set theory, theory of computation, number theory, probability, and basic cryptography.
Also Offered As: MATH 341
Prerequisite: MATH 340 OR LGIC 210
Activity: Lecture
1.0 Course Unit

LGIC 310 Logic I
Taught by: Scedrov, Towsner, Weinstein
Course not offered every year
Also Offered As: MATH 570, PHIL 410
Prerequisite: MATH 371 OR MATH 503
Activity: Lecture
1.0 Course Unit

LGIC 320 Logic II
The second semester of a two-semester course on the fundamental results and techniques of mathematical logic. Topics will be drawn from model theory, proof theory, recursion theory, and set theory. Connections between logic and algebra, analysis, combinatorics, computer science, and the foundations of mathematics will be emphasized.
Taught by: Scedrov, Towsner, Weinstein
Course not offered every year
Also Offered As: MATH 571, PHIL 413
Prerequisite: PHIL 410 OR MATH 570
Activity: Seminar
1.0 Course Unit

LGIC 496 Topics in Logic
The course focuses topics drawn from the central areas of mathematical logic: model theory, proof theory, set theory, and computability theory.
Taught by: Weinstein
Course not offered every year
Also Offered As: MATH 671, PHIL 412
Activity: Seminar
1.0 Course Unit

LGIC 499 Independent Study
Student arranges with a faculty member to pursue an independent research project on a suitable topic.
Activity: Independent Study
0.5 Course Units