

LOGIC MINOR

Contact

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Faculty

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Student Learning Outcomes

1. Explain core concepts and results in logic
2. Produce proofs in a formal proof system
3. Produce clearly written “informal” proofs, including proofs by induction
4. Explain how logic relates to topics studied in philosophy, linguistics, computer science, and mathematics

Requirements

The Logic Minor requires 18 credits, selected in consultation with the program advisor. At least 15 credits must be in courses numbered above 299. Students can select from among the following courses (though other suitable courses may be substituted, subject to the program advisor’s approval).

Code	Title	Credits
Introduction to Logic		
The following course is required:		
PHI 251	Logic	3
Techniques of Logical Investigation		
At least one of the following courses is required (note that credit cannot be given for both MAT 375 and CIS 375):		3
CIS 473	Automata and Computability	
CIS 375	Introduction to Discrete Mathematics	
PHI 451	Logic and Language	
MAT 375	Introduction to Abstract Mathematics	
PHI 551	Mathematical Logic	
PHI 552	Modal Logic	
Other Courses		
Up to four of the following courses may be taken.		3-12
CIS 352	Programming Language: Theory & Practice	
CIS 468	Natural Language Processing	
CIS 487	Access Control, Security and Trust	
LIN 411	Semantics of Human Languages	
LIN 312	Meaning and Communication	
MAT 593	History of Mathematics	
LIN 441	Syntactic Analysis	
MAT 541	Introduction to Number Theory	
MAT 593	History of Mathematics	
PHI 321	Twentieth Century Theories of Knowledge, Reality, and Meaning	
PHI 373	Introduction to the Philosophy of Science	
PHI 378	Minds and Machines	

PHI 387	Epistemology
PHI 555	Philosophy of Mathematics
PHI 565	Philosophy of Language
Total Credits	9-18