

**Philosophy 123**  
**Philosophy of Logic**  
**Winter 16**  
**Prof. G. Sher**

Office Hours: T 3:30-4:30 ( HSS 8042) and by appointment  
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**Topic: Foundations of Modern Logic - Historical & Contemporary Perspectives**

Prerequisite: Phil 120 or the instructor's permission

Course Requirements: Midterm (30%), Paper (30%), Final (40%)

Syllabus

T 1/5 Introduction to Course

I. Foundations of Logic: History & Meta-Logic

TH 1/7 Gottlob Frege & The Birth of Modern Logic  
T 1/12 Cont.  
TH 1/14 Bertrand Russell: A Paradox in Frege's Logic & A Solution  
T 1/18 Cont.  
TH 1/21 Another Solution: Mathematical Logic & Axiomatic Set Theory  
T 1/26 Cont.  
TH 1/28 Alfred Tarski & The Establishment of Logical Semantics  
T 2/2 Meta Logic & Model Theory:  
TH 2/4 MIDTERM

II. Is a Philosophical Foundation for Logic Possible? – A Contemporary Debate

T 2/9 Etchemendy's Attack on Tarski & Modern Logic  
TH 2/11 Cont.  
T 2/16 "Did Tarski Commit 'Tarski's Fallacy'?" - Response to Etchemendy  
TH 2/18 The Foundational Problem of Logic as a Methodological Problem  
T 2/23 An Outline of a Foundation for Logic I: Is Logic Grounded in the Mind or in the World?  
TH 2/25 An Outline of a Foundation for Logic II: the Veridicality, Normativity & the Modal Force of Logic; Error & Revision in Logic; The Scope of Logic  
T 3/1 The Relation between Logic & Mathematics  
TH 3/3 The Scope of Logic & Logical Pluralism  
T 3/8 Cont.  
TH 3/10 Conclusion to Course.

Required Readings. (Most items are available on Electronic Reserves or at the UCSD Library Reserves.)

*Frege*

1. *Begriffsschrift: a Formula Language, Modeled upon that of Arithmetic, for Pure Thought*
2. “Function & Concept”.
3. “Introduction”, *The Basic Laws of Arithmetic*.
4. Selection from *Posthumous Writings*.

*Russell*

1. “Introduction to the Second Edition”, *Principles of Mathematics*.
2. “Introduction to the Second Edition”, *Principia Mathematica* (Whitehead & Russell)
3. *Introduction to Mathematical Philosophy (Excerpts)*.

*Tarski*

1. “The Concept of Truth in Formalized Languages”, §1-3 (Excerpts from *Logic, Semantics, Metamathematics*).
2. “The Establishment of Scientific Semantics”.
3. “On the Concept of Logical Consequence”.
4. “What Are Logical Notions?”.

*Mathematical Logic, Axiomatic Set Theory, Meta-Logic & Model Theory*

Handouts.

*Etchemendy*

1. *The Concept of Logical Consequence* (Excerpts / Book)
2. “The Doctrine of Logic as Form”.

*Sher*

1. *The Bounds of Logic* (Excerpts).
2. “Did Tarski Commit ‘Tarski’s Fallacy’?” (Journal of Symbolic Logic 1996)
3. “Is Logic in the Mind or in the World?” (Synthese 2011)
4. “The Foundational Problem of Logic” (Bulletin of Symbolic Logic 2013)

*Beall & Restall*

*Logical Pluralism*