

*WEEK 1. Course Introduction, Carnap's Biography & Importance, Course Overview*

The aim of this session is to give students an idea of what this course is about and how it is going to proceed. We'll start with a brief biographical sketch of Carnap and give some reasons why he's worth studying. Then we'll go over the syllabus and give students a short questionnaire to learn about them and their interest in the course. In case we get more people than we can enroll, we'll have to judge by their answers in deciding who to enroll. The priority will go to philosophy students.

*WEEK 2. Review of First-Order Logic, Introduction to Theories of Relations, Sets, Descriptors, Abstractors, & Relational Semantics for First-Order and Propositional Modal Logics.*

First we review the Syntax, Semantics, and Proof theories of First-Order Logic, relying on Professor MacFarlane's handouts for Phil 142 and Barwise and Etchemendy's LPL. Then we provide a basic introduction to more or less advanced topics: theory of relations, sets, descriptions (Russell's, Frege's), lambda-abstractors, relational models for assertoric as well as for modal (propositional) logics.

*WEEK 3. Historical Context, Relevant Biography, Philosophical Influences.*

The aim of this session is to situate Carnap within the philosophical landscape of early 20th century. We follow his biographers and his own autobiography in doing this. By the end of this session students will know who Carnap was, which philosophical traditions he developed in, what major problems he dealt with throughout his academic career. His Neo-Kantian, Husserlian, Fregean, Wittgensteinian, Russellian influences are highlighted. His scientific influences are also emphasized, including Poincare and Mach.

*WEEK 4. Metaphilosophy, Methodology*

The aim of this session is to introduce students to Carnap's methodology of explication. Explication is the process of replacing a pre-theoretic explicandum (e.g. Fish), with a scientific explicatum (say *pisces*). By replacing the pre-theoretic concept with a theoretic one, we place the concept within a whole body of other concepts, which allows us to postulate logical principles that govern the interaction of these various concepts. Examples of explication abound in computability theory. The pre-theoretical concept of an effective procedure has been multiply explicated: by Turing using his Machines, by Church using lambda-expressions, by others using even simpler devices. The famous Church-Turing thesis is also about explication, in a way, for it says that all these various explicata correspond to the explicandum of what is effectively computable.

*WEEK 5. Logische Aufbau Der Welt & Pseudoproblems in Philosophy**WEEK 6. Logical Syntax of Language & Foundations of Logic and Mathematics**WEEK 7. Philosophy of Science**WEEK 8. Metametaphysics, Metaontology**WEEK 9. Philosophy of Mind**WEEK 10. Philosophy of Mathematics**WEEK 11. Logic**WEEK 12. Semantics, Truth, Analyticity**WEEK 13. Modal Logic**WEEK 14. Probability, Inductive Logic, Information*