SYLLABUS

COURSE: Introduction to Neurophilosophy IV
CODICRED: 61601-03

INSTRUCTORS: Professors Nythamar de Oliveira and John Bolender

Wittgenstein on logic and mathematics
CREDITS: 3.0  45 h  YEAR/SEMESTER: 2017/2

Tuesdays at 9 a.m. Room 309 Building 40 (Science Museum PUCRS)

COURSE DESCRIPTION:
This course will begin with a brief introduction to the philosophy of mind and language, before proceeding to explore Wittgenstein’s philosophy of logic and mathematics. No previous knowledge of philosophy of mind or philosophy of logic and mathematics is required. All classes, readings and discussions will be conducted in English.

OBJECTIVES:
An introduction to Wittgenstein’s philosophy of logic and mathematics. The aim is to show not only how Wittgenstein meant to refute older metaphysical approaches to these subjects, but also to show how his work has the potential to interface with contemporary natural logic and generative linguistics. The course may also serve as an advanced introduction to, and overview of, Wittgenstein’s thought.

PROGRAMMATIC CONTENTS:
Introduction to Wittgenstein’s philosophy of logic and mathematics.

METHODOLOGY:
This class will be run seminar-style. Students will be encouraged to take part in discussions and present papers or serve as commentators. Student presentations will be similar to our workshop and class presentations, in which a mini-paper about the reading may be presented or an original contributing paper. Afterwards, fellow students will comment on the presentation.

GRADING POLICY:
Grades are based on point accumulation throughout the fifteen weeks, comprising class participation (by attending classes, raising questions, sharing students’ views, insights,
comments, and criticisms with classmates), quizzes (multiple-choice or truth/false), short essays and/or a research paper.

**BASIC BIBLIOGRAPHY:**


Secondary Bibliography (Neurophilosophy):
Nadelhoffer, Thomas and Walter Sinnott-Armstrong. 2012. Neurolaw and Neuroprediction:

**Neurophilosophy Seminar**
2017/2 : Wittgenstein on logic and mathematics
Tues 9 am - 11:30 am

**Tentative Schedule / Reading Assignments**

**WITTGENSTEIN ON LOGIC AND MATHEMATICS**

0 Introduction to Wittgenstein, Logic, and Mathematics

1 Logic: Factual or empty?
Ludwig Wittgenstein, *Tractatus Logico-Philosophicus* (TLP), §§4.0312 -- 5.135

2 Recursion in logic and mathematics
TLP, §§5.5 -- 5.511;
TLP, §§6 -- 6.031

3 Comparison of logic and mathematics
TLP, §§6.1 -- 6.241

4 Logical form and measurement scales
“Some Remarks on Logical Form”;
*Philosophical Remarks* (PR), Chapter VIII
5 Logical analysis
PR, Chapter XXI;
*Philosophical Grammar* (PG), pp. 210-14

6 Logical spaces (plural)
PR, Chapter IV;
PG, pp. 202-07;
*Lectures, Cambridge 1930-1933* (WLC), Lent term 1930 III & V

7 Defining number
Russell, *Introduction to Mathematical Philosophy*, Chapter II, Definition of Number;
*Ludwig Wittgenstein and the Vienna Circle*, pp. 164-65, 221-26;
*Philosophical Investigations*, §§65 -- 71

8 Infinity
PG, pp. 451-86

9 Grammar
(WLC), May term 1933

10 Continuing a series
*Remarks on the Foundations of Mathematics* (RFM), §§I-1 -- I-23;
*Lectures on the Foundations of Mathematics* (LFM), Lectures I, II, & III

11 Proof
RFM, §§I-24 -- I-112

12 Machine-symbols
RFM, §§I-113 -- I-133;
LFM, Lecture XX

13 Contradiction
LFM, Lectures XXI through XXIV

14 Logic and experience
*Remarks on Colour*, pp. 17 -- 53