Philosophy Department

PHILOSOPHY OF SCIENCE

PROFESSOR: Chris Latiolais Humphrey House #202 Office Hours: 1) Tuesday, 10:00 - 12:00. 2) Wed. 10:00 - 11:00. 3) By Appointment (337-7076).

COURSE GOALS:
This course is an introduction to the classic issues in the philosophy of science: the nature of scientific explanation, the confirmation of scientific theories, theories of truth, the distinction between science and metaphysics, the structure and status observation statements, and the "unity of science" thesis. Special topics in the philosophy of biology -- evolutionary vs teleological explanations, natural selection, natural kinds, random mutation, etc. -- will also be examined.

EVALUATION:
Students will be evaluated on the basis of class participation, three midterm examinations and a final, comprehensive examination.

Class Participation, seminar presentations and discussion=15%
Midterm examinations 4 @ 15% each=60%
Final Examination 1 @ 25=25%

POLICIES:
Open, respectful and critical discussion is the life-blood of this course. The midterm examinations test comprehension of historical material, technical terminology, philosophical positions and critical arguments. The final examination is a comprehensive review of course material, with an emphasis upon the philosophy of biology. 3 unexcused absences will result in a full grade reduction.

TEXTS:
3. Xeroxed Materials:

READING SCHEDULE

1. INTRODUCTION: WHAT IS THE PHILOSOPHY OF SCIENCE?

WEEK ONE
MON, JUNE 20TH: Course Mechanics.
1. Begin reading Salmon, Chapter 1.
TUE, JUNE 21ST: Preliminary Overview of Course.

2. THE NATURE OF SCIENTIFIC EXPLANATIONS: THE CRITIQUE OF NARROW INDUCTIVISM AND POSITIVISM:

WED, JUNE 22ND:
1. Salmon, "Scientific Explanations"

FRI, JUNE 24TH:
"Scientific Explanations" continued

WEEK TWO
MON, JUNE 27TH: "Scientific Explanations" continued

TUE, JUNE 28TH:
1. Historical Background.
2. Popper's Critique of Inductivism.

WED, JUNE 29TH:
1. Duhem's Critique of Inductivism.

FRI, JULY 1ST: Examination #1.

THE CONFIRMATION OF SCIENTIFIC THEORIES:

WEEK THREE
MON, JULY 4TH: HOLIDAY

TUE, JULY 5TH:

WED, JULY 6TH:
1. Salmon, "Hume's Problem of Induction."

FRI, JULY 8TH:
1. Salmon, "Probability."

THE NATURE OF SCIENTIFIC TRUTH: REALISM, SKEPTICISM, IDEALISM AND HOLISM:

WEEK FOUR
MON, JULY 11TH:
1. Salmon, 3.1 - 3.3

TUE, JULY 12TH:
1. Salmon, 3.4 - 3.11

WED, JULY 13TH: Salmon, 3.4 - 3.11 continued

FRI, JULY 15TH: Examination #2.
CONVENTIONALISM AND THE DUHEM-QUINE THESIS:

WEEK FIVE
MON, JULY 18TH:
1. Gilles, "Poincare's Conventionalism of 1902."

TUE, JULY 19TH:

WED, JULY 20TH: Gilles, "The Duhem Thesis and the Quine Thesis." continued

FRI, JULY 22ND: Review.

OBSERVATION AND COGNITION: HOW THEORY-LADEN IS PERCEPTION?

WEEK SIX
MON, JULY 25TH:
1. Gilles, "Protocal Sentences."

TUE, JULY 26TH:
1. Gilles, "Is Observation Theory-Laden?"

WED, JULY 27TH:
1. (Xerox) Excerpts from Churchland's Scientific Realism and the Plasticity of Perception.

FRI, JULY 29TH: Examination #3.

THE DEMARCATION BETWEEN SCIENCE AND METAPHYSICS:

WEEK SEVEN
MON, AUG. 1ST:
1. Gilles, "Is Metaphysics Meaningless? Wittgenstein, the Vienna Circle, and Popper's Critique"

TUE, AUG. 2ND:
1. Gilles, "Metaphysics in Relation to Science: The Views of Popper, Duhem and Quine."

WED, AUG. 3RD: continuation of Aug. 2nd

FRI, AUG. 5TH: Review.

THE RECEIVED VIEW AND THE SOCIOLOGY OF KNOWLEDGE: KUHN'S LEGACY

MON, AUG 8TH: WEEK EIGHT

TUE, AUG 9TH: continuation of Aug. 8th.

WED, AUG 10TH: continuation of Aug. 8th.
FRI, AUG 12TH: Examination #4.

THE PHILOSOPHY OF BIOLOGY: PHYSIS AND BIOS

WEEK NINE
MON, AUG 15TH:

TUE, AUG 16TH:
1. Salmon, 7.3, "Explanation and Natural Selection."

WED, AUG 17TH:
1. Salmon, 7.4 - 7.6.

FRI, AUG 19TH: Review

THE PHILOSOPHY OF PSYCHOLOGY

WEEK TEN
MON, AUG 22ND:

TUE, AUG 23RD: continuation of Aug. 22nd

WED, AUG 24TH: continuation of Aug. 22nd

FRI, AUG. 26TH: Student Evaluations.

FINAL EXAMINATION.