

**** SEMINAR REPORTS ****

The following topics correspond mainly to articles contained in Duncan and Weston-Smith's *Encyclopedia of Ignorance* (Pergamon, 1977); each topic coded to an EOI article is supported by a brief, report-ready reference. You may confine your report to the associated article, or you may use the *Encyclopedia* article as a springboard for further research; in either case, however, you should conduct enough ancillary research (a brief tour through the indices to journals such as *Scientific American*, *American Scientist*, *Science*, *Nature*, etc. will suffice) to determine whether scientific understanding in your topic-area has significantly improved since 1977. You may, alternatively, substitute approved topics for those listed here should your own interests so dictate.

We will have time for a maximum of eighteen (18) in-class discussions, so Topics 1-18 will involve an oral/written option (oral presentation: not to exceed eighteen minutes; written report: not to exceed eight double-spaced typed pages). Written reports selected from Topics 1-18 will be read to the class either by yourselves or by your instructor. Should class size exceed eighteen students, some seminar reports will be assigned to teams of paired students, rather than to individuals.

Additional topics (items 19-30) are included should class size exceed thirty-six persons; these topics are coded to texts on reserve in the Walker Library (see below).

Topics are available on a first-come/first-serve basis (early selections have survival value).

All reports must be presented/submitted on the assigned due dates.

TOPIC	SOURCE	DUE DATE
*****	*****	*****
1. The Nature of Knowledge	EOI	09/27
2. Curved Space	EOI	09/27
3. The Riddles of Gravitation	EOI	09/27
4. A Clash of Paradigms in Physics	EOI	10/13
5. The Hinterland Between Large and Small	EOI	10/13
6. The "Arrow of Time" and Quantum Mechanics	EOI	10/13
7. The Sources of Variation in Evolution	EOI	11/03
8. The Limitations of Evolutionary Theory	EOI	11/03
9. Fallacies of Evolutionary Theory	EOI	11/03
10. Rethinking the Origins of the Genus <i>Homo</i>	EOI	11/03
11. Developmental Biology	EOI	11/03
12. Synthetic Life for Industry	EOI	11/03
13. Problems Outstanding in the Evolution of Brain Function	EOI	11/22
14. The Languages of the Brain	EOI	11/22
15. Consciousness	EOI	11/22
16. Why Do We Not Understand Pain?	EOI	11/29
17. Complexity and Transcomputability	EOI	11/29
18. Human Thought and Action in System Behavior	EOI	11/29
19. Ontological Relativity	Reserve	11/22
20. The Way the World Is	Reserve	11/22
21. The Role of Value Judgments in Science	Reserve	11/22
22. Why Astrology is a Pseudo-Science	Reserve	11/22
23. Defending Society Against Science	Reserve	11/22
24. What is an Explanation?	Reserve	11/22
25. Simplicity	Reserve	11/22

TOPIC	SOURCE	DUE DATE
*****	*****	*****
26. What is Science?	Reserve	11/22
27. Historical Understanding and Science	Reserve	11/24
28. Science and the Physical World	Reserve	11/24
29. Observation	Reserve	11/24
30. Hypothesis	Reserve	11/24

**** INDEX OF ADDITIONAL TOPICS ****

Seminar Report Topics 19-30 above are coded to articles located in the following three texts, copies of which can be found in the Walker Library:

QUINE = Quine, Willard Van Orman. *Ontological Relativity and Other Essays*. New York: Columbia University Press, 1969.

GOODMAN = Goodman, Nelson. *Problems and Projects*. Indianapolis: Hackett, 1972.

KLEMKE = Klemke, E.D. et al., eds. *Introductory Readings in the Philosophy of Science*. Buffalo: Prometheus Books, 1980.

TOPIC	SOURCE	PAGES
*****	*****	*****
19. Ontological Relativity	QUINE	26-68
20. The Way the World Is	GOODMAN	24-32
21. The Role of Value Judgments in Science	KLEMKE	269-291
22. Why Astrology is a Pseudo-Science	KLEMKE	66-75
23. Defending Society Against Science	KLEMKE	55-65
24. What is an Explanation?	KLEMKE	87-103
25. Simplicity	GOODMAN	257-365
26. What is Science?	KLEMKE	35-54
27. Historical Understanding and Science	KLEMKE	124-136
28. Science and the Physical World	KLEMKE	169-174
29. Observation	KLEMKE	152-163
30. Hypothesis	KLEMKE	196-206