

Nov. 18: Please modify your syllabus to reflect this slight revision of the material that will be covered on the last exam.

V. Modes of contact

Tuesday, Nov. 18: Main question—is it likely that our type of intelligence has developed in organisms on other planets?

From Chapter 6:

6.5 Human evolution—In addition to the skimpy discussion of human evolution in the textbook, we will discuss the of problematic status of human uniqueness; there will be some additional material presented in lecture notes.

Now on to Ch. 12 The search for extraterrestrial intelligence (SETI).

12.2 Intelligence—Read pages 405-409 in the textbook, which takes up the question of intelligence as a convergent trait. This is crucially important in designing strategies for signal detection (see below).

We will discuss more fully in class. Arguments range from universality (e.g. we are all exposed to the same physical environment, same regularities in nature, so intelligence reflects those features of the world), to complete relativism (e.g. intelligence is any kind of cognitive habit that a group of organisms finds useful). Evidence from other cultures, other animals, infant learning, ... First topic is a list of events in hominid evolution that might have been crucial in the development of intelligence (e.g. use of fire, compound tools, hemispheric lateralization, ... there are a lot of suggestions here). Will have to cut this off in order to fit into one lecture.

Thursday, Nov. 20: Main topic is SETI, the search for extraterrestrial intelligence, either in the form of intentional signals, or as signs of technological use. **This is the most difficult and technical part of the material for the last exam.**

12.3 Searching for intelligence. pp. 410-425. SETI experiments (proposed encoding and signaling techniques, “magic frequencies,” ongoing SETI programs). Textbook is detailed here (one of authors works at SETI Institute). Do not worry about memorizing any of the many SETI programs either past or present.

Read as much of 12.3 before class as you can.

Skip 12.4 for now.

Tuesday, Nov. 26

Finish material on SETI.

Before class, read most of Ch. 13 Interstellar Travel and the Fermi Paradox-- limiting factors, proposed designs. Possibility of exotic physics; Galactic colonization and the "Where are they?" conundrum.

Thursday, Nov. 28: no class, Thanksgiving break.

Tuesday, Dec. 2. *Last class before exam.*

Finish up interstellar travel material from Ch. 13.

Have we been contacted? If time permits, most of lecture will cover: UFOs, artifacts, abduction phenomena,...

(Read ch.12.4 for traditional scientist perspective).

..... **Fifth (last) exam here, on last class day (Thurs. Dec. 4).....**

There is no comprehensive final. You should be able to compute your final average score (we will give you a formula to help) and so you will know your letter grade in the course after receiving the results of the 5th exam. The only exceptions would be extreme borderline cases (e.g. a final average of 77.96).