

Physics 174
Lecture Outline for Final Exam

4 May, 2007

Lectures as given

Lect.	Date	Topic	Material covered (see outline below)
38	25 Apr	IV.01	4.1. 4.2.1.
39	27 Apr	IV.02	4.2.2. 4.2.3.
40	30 Apr	IV.03	4.2.4. 4.2.5. 4.2.6.
41	2 May	IV.04	4.3.1. 4.3.2. 4.3.3.
42	4 May	IV.05	4.3.4. 4.4.
43	11 May	Final Exam	

Outline

4. Exobiology

4.1. Spectroscopy in review

1. Basic principles
2. The infrared
3. Doppler shifts
4. The discovery of Gliese 581 c

4.2. Exoplanets

1. Some definitions
2. Detection methods
3. Brown dwarfs
4. False alarms
5. Success
6. Transiting systems

4.3. Life out there

1. Stellar astronomy in a nutshell
2. The Drake Equation
3. The Fermi Paradox
4. Searching for life and civilizations

4.4. Review topics

1. How science works
2. Formation of planetary systems
3. News from Jupiter
4. Titan