

An introduction to the solar system for the student with background in mathematics or physical sciences. A survey of the planets, comets, asteroids, and interplanetary medium, based on the latest Scientific discoveries. Not for credit in addition to AST 105. *Prerequisite:* PHY 125 or 131/133 or 141. *3 credits.*

Instructor: Prof. Alan Calder
alan.calder@stonybrook.edu
ESS 438
(63)2-1176

Grader: Ms. Vidushi Sharma
vidushi.sharma@stonybrook.edu
ESS 440

2nd TA : Mr. Drew Ciampa (undergraduate TA), drew.ciampa@stonybrook.edu, ESS 440

Class Meeting: Tuesdays and Thursdays 11:30 AM – 12:50 PM, P113.

Office Hours:

Calder	M 10:00–11:30 AM, Th 2:00–3:30 PM ESS 438. Other times by appointment.
Scharma	TBD ESS 440. Other times possible by appointment.
Ciampa	Tu,Th, 2:30–3:30 ESS 440. Other times possible by appointment.

Text: *Planets and Planetary Systems* by Stephen Eales. Also recommended is *Cosmic Perspective* by Bennet et al.

Evaluation: 40% Hour exams, 30% Homework, and 30% Final exam.

Homework: Homework will be assigned periodically and will be due the following week. Late homework will not be accepted without prior permission.

Exams: Two hour exams and one comprehensive final exam. The final will be held December 9 from 5:30 – 8:00 PM as scheduled by the Registrar (see <http://www.stonybrook.edu/registrar/finals.shtml>). In the event of a discrepancy between what is listed here and what is on the Registrars site, the date/time given by the Registrar will be used. Missed exams may not be made up! With advance notice and/or careful documentation of extenuating circumstances, an exam may be excused or accommodations made. Students arriving late to an exam may be denied the opportunity to take the exam.

Americans with Disabilities Act: If you have a physical, psychological, medical or learning disability that may impact your course work, please contact Disability Support Services, ECC (Educational Communications Center) Building, room 128, (63)2-6748. They will determine with you what accommodations, if any, are necessary and appropriate. All information and documentation is confidential.

Academic Integrity: Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty are required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/commcms/academic_integrity/index.html

Critical Incident Management: Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of Judicial Affairs any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures.

Note that the lecture topics and dates are subject to change depending on progress of the class. Exam dates will not change.

class #	month	day	chapter ^a	topic
1	Aug.	25	1	Organization/Tour of Solar System
2	Aug.	27		Basic Observations (seasons, lunar phases, eclipses)
3	Sept.	1	6	History of Astronomy/Greats
4	Sept.	3	6	Kepler's and Newton's Laws
-	Sept.	8		Holiday, no class.
5	Sept.	10		Light and Spectra
6	Sept.	15	1.2	Luminosity, Planetary Temperatures
7	Sept.	17	1.3 8.1 8.2	ISM and Star Formation
8	Sept.	22		Sun and Stars
9	Sept.	24		Sun and Stars
10	Sept.	29	4	Planetary Structure and Magnetism
11	Oct.	1		Midterm #1
12	Oct.	6	3	Terrestrial Planets
13	Oct.	8	3	Terrestrial Planets
14	Oct.	13	5	Terrestrial Atmospheres
15	Oct.	15	6	Moon and Tides
16	Oct.	20	4,5	Jovian Planets
17	Oct.	22	4,5	Jovian Planets
18	Oct.	27	6	Satellites
19	Oct.	29	6	Satellites/Rings
20	Nov.	3		Midterm #2
21	Nov.	5	7	Asteroids
22	Nov.	10	7	Comets
23	Nov.	12	7	Meteorites
24	Nov.	17	7	Dust
25	Nov.	19	2	Exoplanets
26	Nov.	24	2	Exoplanets
-	Nov.	26		<i>holiday: no class</i>
27	Dec.	1	8	Origin and Evolution
28	Dec.	3	9	Life in the Universe
Final	Dec.	9 5:30-8:00 PM	1-9	Final exam (Comprehensive)

^aBe sure to read the assigned reading before each class!

Religious Holidays: If the schedule of exams is in conflict with your religion's holidays, please let me know in an email by the end of the first week of instructions and I will do my best to accommodate your needs. Please note that I cannot make changes in the course schedule after the first week of classes. No consideration will be made if someone approaches me in this matter at a time close to the exam date.

Homework sets will be assigned during the semester with a due date given at the time of the assignment and accommodations will be made for religious holidays. In the event that a homework due date falls on a religious holiday, you must notify me within 24 hours of the assignment for an adjustment of the due date. Homework assignment may always be turned in early to avoid a conflict with a religious holiday.