A general survey of present knowledge of the planets, satellites, interplanetary medium, comets, asteroids, and outer regions of the sun. Begins with a historical introduction and discussion of the methods of science. Emphasizes current NASA deep-space exploration missions and other modern astronomical methods. Not for major credit. Not for credit in addition to AST 205 or GEO 106. DEC: E, SBC: SNW *Prerequisite:* None. 3 credits.

Instructor: Prof. Alan Calder T.A.: TBA

alan.calder@stonybrook.edu TBA ESS 438 TBA

Meeting: Tuesday and Thursday 09:45 – 11:05 AM, Light Engineering 102.

Office Hours: Calder: Mon. 10:30 AM -12:00 PM, Thurs. 2:00-3:30 PM, and by appointment.

TA: TBA and questions by email.

Text: Cosmic Perspective (The Solar System) (9th edition) by Bennett et al.

Evaluation: 40% Hour exams, 30% Homework, and 30% Final exam. Grades will be posted on

Blackboard. The instructor will discuss grades during office hours but for privacy

reasons will not report or discuss grades via email.

Homework: Homework will be assigned most weeks and will be due the following week. Late

homework will not be accepted without prior permission.

Exams: Two hour exams and one final exam. The final exam will be held as scheduled by

the Registrar. 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.

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. Any suspected instance of academic dishonesty will be reported to the Academic Judiciary. For more comprehensive information on academic integrity, including categories of academic dishonesty, please refer to the academic judiciary website at http://www.stonybrook.edu/uaa/academicjudiciary/

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 University Police and the Office of University Community Standards any serious disruptive behavior that interrupts teaching, compromises the safety of the learning environment, and/or inhibits students' ability to learn. See more here: http://www.stonybrook.edu/sb/behavior.shtml

Electronic Communication: Email to University email accounts is an important way of communicat-

ing for this course. For most students the email address is 'firstname.lastname@stonybrook.edu', and the account can be accessed here: http://www.stonybrook.edu/mycloud. *It is your responsibility to read your email received at this account.* For instructions about how to verify a University email address see this: http://it.stonybrook.edu/help/kb/setting-up-mail-forwarding-in-google-mail. If you choose to forward your University email to another account, the University is not responsible for any undeliverable messages.

Religious Observances: See the policy statement regarding religious holidays at http://www.stonybrook.edu/registrar/forms/RelHolPol%20081612%20cr.pdf. Students are expected to notify the course professors by email of their intention to take time out for religious observance. This should be done as soon as possible but definitely before the end of the 'add/drop' period. At that time they can discuss with the instructor(s) how they will be able to make up the work covered.

Disabilities: If you have a physical, psychiatric/emotional, medical or learning disability that may impact on your ability to carry out assigned course work, you should contact the staff in the Disability Support Services office [DSS], 632-6748/9. DSS will review your concerns and determine, with you, what accommodations are necessary and appropriate. All information and documentation of disability is confidential.

Students who require assistance during emergency evacuation are encouraged to discuss their needs with their professors and Disability Support Services. For procedures and information go to the website http://www.sunysb.edu/ehs/fire/disabilities.shtml.

Technical requirements: This course will use Blackboard for communication between faculty and students, submission of assignments, and posting of grades and feedback. The Blackboard course site can be accessed at https://blackboard.stonybrook.edu If you are unsure of your NetID, visit https://it.stonybrook.edu/help/kb/finding-your-netid-and-password for more information.

Outline of Lectures Fall 2022

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

class #	month	day	chapter	topic
1	Aug.	23	1	Course Introduction, Scale of the Universe
2	Aug.	25	2	Observations: Sky, Seasons, Moon, Planets
3	Aug.	30	3	Ancients
4	Sept.	1	3	Greats of Astronomy
5	Sept.	6	4	Motion, Energy, and Gravity I
6	Sept.	8	4	Motion, Energy, and Gravity II
7	Sept.	13	5	Light and Matter I
8	Sept.	15	5	Light and Matter II
9	Sept.	20	6	Telescopes
10	Sept.	22	1-6	Exam # 1
11	Sept.	27	7	Tour of the Solar System
12	Sept.	29	14	The Sun I
13	Oct.	4	14	The Sun II
14	Oct.	6	8	Formation of the Solar System
_	Oct.	11	_	Fall Break
15	Oct.	13	9	Terrestrial Worlds I
16	Oct.	18	9	Terrestrial Worlds II
17	Oct.	20	9	Terrestrial Worlds III
18	Oct.	25	10	Terrestrial Atmospheres I
19	Oct.	27	10	Terrestrial Atmospheres II
20	Nov.	1	7–10, 14	Exam # 2
21	Nov.	3	11	Jovian Planets
22	Nov.	8	11	Jovian Moons and Rings I
23	Nov.	10	11	Jovian Moons and Rings II
24	Nov.	15	12	Asteroids and Comets
25	Nov.	17	12	Pluto, et al.
26	Nov.	22	13	Extrasolar Planets
	Nov.	24	_	Thanksgiving
27	Nov.	29	24	Life in the Universe
28	Dec.	1	24	Interstellar Travel, Fermi's Paradox
Final	Dec.	13^{b}	1-14, 24	Final exam 8:45 – 10:45 AM

 $^{{}^}a\mathrm{Be}$ sure to read the assigned reading before each class!

Version: 1.00 (2022-08-08)

^bNota Bene: The ultimate authority on the date and time of the final is the Registrar. Students should monitor the exam schedule on the Registrar's web page (http://www.stonybrook.edu/registrar/finals.shtml) during the semester as changes have happened in past semesters. Please also note the student responsibility statement on the Registrar's exam schedule page.