

- structures and dynamics in the solar system.
- Conduct a thorough literature search and a systematic review on an instrument in space physics and highlight some of the most significant scientific discoveries using measurements from the instrument.

45% of the grade will be based on problem sets (expect one every week), 15% on the mid-term exam, 20% on the final exam, and 20% on the project.

The course will be graded approximately on the following scale:

> 85 %	A
80 % -- 85 %	A-
75 % -- 80 %	B+
70 % -- 75 %	B
65 % -- 70 %	B-
60 % -- 65 %	C+
55 % -- 60 %	C
50 % -- 55 %	C-
45 % -- 50 %	D+
40 % -- 45 %	D
35 % -- 40 %	D-
< 35 %	F

The project will be defined as “Instrumentation in space physics”. The students will research an instrument of choice (e.g. particle detectors, magnetometers, electric field instruments, aurora imagers, energetic neutral atom imager, soft X-ray imager

www.camscanner.com). You are expected to show not only your answer but also steps leading to that answer. Your work should be clean and clear enough for me to understand. Assignments turned in up to 1 day late will earn a 10% deduction; 2 days late, 20% deduction; 3 days late, 30% deduction; 4 days late, 50% deduction. Assignments submitted on or after the 5th day will not be graded and will earn zero.

High ethical standards are essential for maintaining credibility. Plagiarism is defined as appropriating passages or ideas from another person's work and using them as one's own. You may work with your classmates on problem sets, however, you should submit your own work, not a copy from another source. Plagiarism on homework or on a project will result in a failing grade.

The University of Alaska Fairbanks is committed to equal opportunity for students with disabilities. Students with disabilities are encouraged to contact the coordinator of Disability Services (Mary Matthews) at the Center for health & Counseling (x7043). See section on "Disability Services" of the UAF Class Schedule (<http://www.uaf.edu/schedule/>).

Every qualified student is welcome in my classroom. As needed, I am happy to work with you, disability services, veterans' services, rural student services, etc. to find reasonable accommodations. Students at this university are protected against sexual harassment and discrimination (Title IX), and minors have additional protections. For more information on your rights as a student and the resources available to you to resolve problems, please go the following site: www.uaf.edu/handbook/.

8	T Oct 13	Chapman Layer Theory and Ionospheric Structure	Problem Set 6 is Due
	R Oct 15		
9	T Oct 20	Diffusion and Transport Ionospheric Conductivity and Currents	Project progress report
	R Oct 22		
10	T Oct 27	Radio Wave Propagation and Ionospheric Sounding	Problem Set 7 is Due
	R Oct 29		
11	T Nov 3	Solar Wind Interaction with Planets and Other Solar System Bodies	Project progress report
	R Nov 5		
12	T Nov 10	Planetary Magnetospheres	Problem Set 8 is Due
	R Nov 12	The Morphology of the Magnetosphere	Project progress report
13	T Nov 17	Solar Wind-Magnetosphere Coupling	
	R Nov 19	Magnetosphere-Ionosphere Coupling	Project due
14	T Nov 24	Magnetospheric Dynamics	
	R Nov 26		
15	T Dec 1		