

Space Physics



College of Science, Engineering and Mathematics

Department of Physics

(907) 474-7339

www.uaf.edu/physics/

Degrees: M.S., Ph.D.

Minimum Requirements for Degrees: M.S.: 30-33 credits; Ph.D.: 18 thesis credits

Space physics focuses on the physics of upper atmospheres, ionospheres, magnetospheres and the interplanetary medium.

The Space Physics program is a graduate speciality area within the UAF physics department. The program includes core foundation physics courses and speciality courses in space physics, aeronomy, magnetospheric and auroral physics, and advanced plasma physics.

Speciality courses support graduate research with faculty members of the UAF Geophysical Institute. Techniques courses provide training in areas such as numerical simulations and time-series analysis. Additional courses provide breadth such as radiative transfer and physics of fluids.

Academic and research work may lead to employment opportunities with educational institutions, the aerospace industry and in government.

GRADUATE PROGRAM

Space Physics—M.S. Degree

1. Complete the general university requirements (page 43).
2. Complete the master's degree requirements (page 46).
3. Complete 4 of the following:

PHYS 626—Fundamentals of Plasma Physics	3
PHYS 627—Advanced Plasma Physics	3
PHYS 629—Methods of Numerical Simulation in Fluids and Plasma ..	3
PHYS 672—Magnetospheric Physics	3
PHYS 673—Space Physics	3
4. Complete the thesis or non-thesis requirements:

Thesis

- a. Complete the following:

PHYS 699—Thesis	6-12
Approved PHYS electives	12
- b. Minimum credits required

Non-Thesis

- a. Complete the following:

Approved PHYS electives	18
PHYS 698—Research	3-6
- b. Minimum credits required

Space Physics—Ph.D. Degree

1. Complete the general university requirements (page 43).
2. Complete the Ph.D. degree requirements (page 48).*
3. Complete and pass a written and oral comprehensive examination.
4. Demonstrate competency in a foreign language or a research tool.
5. Minimum credits required

* Complete in accordance with the physics department's policies and procedures manual for graduate students.

See Physics.



University of Alaska Fairbanks

Admissions • P.O. Box 757480 • Fairbanks, AK 99775-7480 • admissions@uaf.edu • www.uaf.edu

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