Doctor of Philosophy in Aerospace Sciences

Admission Requirements

The applicant must meet The School of Graduate Studies' current minimum general admission requirements as published in the graduate catalog. All elements must be complete by the published application date. The additional requirements for admission to the Aerospace Sciences Ph.D. program are as follows:

1. A Master's or graduate degree from an accredited institution with a GPA of at least 3.25/4.0
2. Submission of a statement of personal goals
3. Professional resume
4. Satisfy the School of Graduate Studies English Language Proficiency requirements as published in the graduate catalog.
5. The Graduate Record Examination (GRE) General Exam (Due to COVID-19 the GRE requirement is waived for all 2020-2021 Ph.D applicants)
6. Industry experience preferred

Financial Assistance

Financial aid in the form of teaching, research or service assistantships and tuition waivers are available from a variety of internal and external sources and are awarded on a competitive basis. These appointments are renewable if students are making satisfactory progress toward the degree and their work is satisfactory. Applications for funding opportunities should coincide with the program application date.

Degree Requirements

- Ninety credits beyond a baccalaureate degree. With approval of the Aerospace Sciences Ph.D. Program and the UND School of Graduate Studies, up to thirty credits from a master's degree from an accredited institution can be applied toward the requirements of the doctoral degree.
- Successful completion of sixty semester credits beyond the master's degree
- Successful completion of qualifying exam prior to advancement to candidacy
- Twelve to eighteen semester credits of dissertation (AVIT 999 Dissertation or SPST 999 Dissertation) and successful defense of the dissertation
- Required core courses

Code	Title	Credits
AVIT 501	General Issues in Aviation/Aerospace	3
SPST 501	Survey of Space Studies I	3
AVIT 521	Ethics in Aerospace	3
AVIT 590 & SPST 590	Aviation Seminar and Space Studies Colloquium	4

- Six to twelve semester credits of Scholarly Tools beyond the Master's degree requirements
- Remaining coursework from Aviation/Space Studies or other UND approved Graduate Courses
- Residency requirement: as determined by student's advisor and/or committee, at a minimum the student will be required to be on campus for one week per year.

There are four required core courses, in addition to the Scholarly Tools component. These courses may have been part of the student's MS program and cannot be counted twice.

Code	Title	Credits
AVIT 501	General Issues in Aviation/Aerospace	3
SPST 501	Survey of Space Studies I	3
AVIT 521	Ethics in Aerospace	3
AVIT 590 & SPST 590	Aviation Seminar and Space Studies Colloquium (2 semesters, 2-4 credits total)	2-4

The Scholarly Tools requirement is 6 to 12 semester credits, to be determined by the student's advisor and/or committee, from the courses listed below. These courses are in addition to what may transfer as part of the student's Master's degree program. Therefore, a minimum of six credits will be required as part of the PhD program.

Code	Title	Credits
AVIT 503	Statistics (or equivalent)	3
AVIT 504	Research Methods	3
SPST 504	Research Methods in Space Studies	3
AVIT 505	Qualitative and Mixed Methods Research Design	3
AVIT 506	Quantitative Research Methods	3
AVIT 507	Advanced Research Methods	3

Course Designations (SPST)

Code	Title	Credits
Social area courses		
SPST 450	International Space Programs	3
SPST 540	Space Economics and Commerce	3
SPST 541	Management of Space Enterprises	3
SPST 545	Space and the Environment	3
SPST 551	History of the Space Age	3
SPST 552	History of Astronomy and Cosmology	3
SPST 555	Military Space Programs	3
SPST 560	Space Politics and Policy	3
SPST 561	Public Administration of Space Technology	3
SPST 565	Space Law	3
SPST 574	Remote Sensing in Developing Countries	3
SPST 575	Remote Sensing Law and Policy	3
SPST 581	Field Visit to Space Centers	1-3
Technical area courses		
SPST 405	Space Mission Design	3
SPST 410	Life Support Systems	3
SPST 425	Observational Astronomy	3
SPST 430		3
SPST 435		3
SPST 460	Life in the Universe	3
SPST 500	Introduction to Orbital Mechanics	3
SPST 505	Spacecraft Systems Engineering	3
SPST 506	Advanced Orbital Mechanics	3
SPST 512	Human Performance in Extreme Environments	3
SPST 515	Human Factors in Space	3
SPST 519	Closed Ecological Systems for Life Support	3
SPST 520	Asteroids, Meteorites and Comets	3
SPST 521	The Planet Mars	3
SPST 522		3
SPST 523		3
SPST 524	Current Topics in Astrobiology	3
SPST 525	Technical Issues in Space	1-3
SPST 526	Advanced Observational Astronomy	3
SPST 527	Extraterrestrial Resources	3
SPST 528	Space Environment and the Sun	3
SPST 570	Advanced Topics in Space Studies (may count towards either social or technical area depending on the contents.)	1-3