Aerospace Engineering

Graduate students in the Aerospace Engineering program focus on aircraft and space systems design, analysis, and manufacturing. Students can select course offerings and research programs in aerodynamics and applied aerodynamics; aerospace propulsion; computational fluid dynamics; dynamics and design of spacecraft and space systems; flight dynamics and control; and multifunctional materials and smart structures. Sub-areas include acoustics, sprays, composite materials, reactive and multiphase flows, stability, and transition to turbulence.

Admission Requirements

An applicant to the master's program must be a graduate of an accredited undergraduate program with a B.S. degree in either mechanical or aerospace engineering. Graduates of other accredited programs in engineering, physical sciences and mathematics may be considered but may be required to make up undergraduate deficiencies without graduate credit. Provisional admissions, as well as exceptions, are sometimes granted under special circumstances. The most qualified applicants are accepted first. Applicants to the Ph.D. program must have met the M.S. admission requirements and additionally must satisfy the Ph.D. admissions requirements. Applicants to the online, distance education M.S. program in mechanical or aerospace engineering are not required to take the GRE exam.

Master's Degree Requirements

The thesis-option M.S. degree program in aerospace engineering requires 21 hours of course credit and nine hours of thesis research. The non-thesis M.S. degree requires 27 hours of course credit and a three credit-hour project and is offered on campus as well as off campus, through distance education.

Ph.D. Degree Requirements

A minimum of 72 hours of credit are required to obtain the Ph.D. degree. A direct path to the Ph.D. from the B.S. is also available with which the student is granted the M.S. degree "enroute" to the Ph.D. The enroute Ph.D. (direct to Ph.D. path) requires a minimum of 3.5 undergraduate GPA.

Student Financial Support

Financial aid is offered to all admitted Ph.D. students.

Degrees

- Aerospace Engineering (MS) (http://catalog.ncsu.edu/graduate/engineering/aerospace-engineering/aerospace-engineering-ms/)
- Aerospace Engineering (PhD) (http://catalog.ncsu.edu/graduate/engineering/aerospace-engineering/aerospace-engineering-phd/)
- Aerospace Engineering (Minor) (http://catalog.ncsu.edu/graduate/engineering/aerospace-engineering/aerospace-engineering-minor/)

Faculty

Full Professors

- Gregory D. Buckner
- Tarek Echekki
- Tasnim Hassan
- He Huang
- Srinath Varadarajan Ekkad
- Tiegang Fang
- Ashok Gopalarathnam
- Richard David Gould
- Xiaoning Jiang
- Richard F. Kellie
- Clement Kleinstreuer
- Andrey Valerevich Kuznetsov
- James Woodrow Leach
- Hong Luo
- Kevin M. Lyons
- Gracious Ngaile
- Kara Jo Peters
- Afsaneh Rabiei
- Lawrence M. Silverberg
- Juei Feng Tu
- Fen Wu
- Fuh-Gwo Yuan
- Yong Zhu
- Mohammed A. Zikry

Associate Professors

- Michael A. Boles
- Matthew Bryant
- Jeffrey W. Eischen
- Scott M. Ferguson
- Su Hao
- Charles Edward Hall Jr.
- Hsiao-Ying Shadow Huang
- Andre P. Mazzoleni
- Marie Muller
Venkateswaran Narayanaswamy
Brendan Timothy O'Connor
Mark R. Pankow
Katherine Saul
Alexei V. Saveliev
Rohan A. Shirwalker
Hooman Vahedi Tafreshi
Christopher Raymond Vermillion
Chengying Xu

Assistant Professors
Landon Grace
Kenneth Granlund
Timothy Joseph Horn
Jingjie Hu
Arun Kumar Kota
Andrew Jeungahn Lee
Jun Liu
Jason F. Patrick
Pramod Kumar Veera Subbareddy
Henry Oliver Tenadoovah Ware
Chi-An Yi
Jie Yin

Emeritus Faculty
Thomas A. Dow
Herbert Martin Eckerlin
Hassan A. Hassan
David S. McRae
Robert T. Nagel
John S. Strenkowski