

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.

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.

More Information

Aerospace Engineering Program Website (<https://mae.ncsu.edu/mae-graduate-programs/>)

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.

Applicant Information

Aerospace Engineering (PhD)

- **Delivery Method:** On Campus
- **Entrance Exam:** None
- **Interview Required:** None

Aerospace Engineering (MS)

- **Delivery Method:** On Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

- **Fall:** December 15 (PhD), March 1 (International Masters), June 1 (US Citizen Masters), June 30 (Distance Education Masters)
- **Spring:** July 15 (International Masters), November 1 (US Citizen Masters), November 15 (Distance Education Masters)
- **Summer:** April 1 (Distance Education Masters)

More Information on Application deadlines can be found on the MAE Graduate Admissions page (<https://mae.ncsu.edu/mae-graduate-admissions/>).

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 Echehki
Farhan Saifuddin Gandhi
Tasnim Hassan
He Huang
Jack Ray Edwards Jr.
Srinath Varadarajan Ekkad
Tiegang Fang
Ashok Gopalathnam
Richard David Gould
Xiaoning Jiang
Richard F. Keltie
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

James Braun

Darius Carter

Mingtai Chen

Chuyi Chen

Curtis Congreve

Landon Grace

Kenneth Granlund

Veeraraghava Raju Hasti

Mohammad Heiranian

Timothy Joseph Horn

Jingjie Hu

Arun Kumar Kota

Andrew Jeungahn Lee

Donggun Lee

Jaemin Lee

Jun Liu

Seyed Mehran Mirramezani

Mark Moretto

Laura Paquin

Jason F. Patrick

Susmita Sarkar

Pramod Kumar Veera Subbareddy

Henry Oliver Tenadooah Ware

Chi-An Yi

Jie Yin

Teaching Associate Professor

Felix Ewere

Emeritus Faculty

Thomas A. Dow

Herbert Martin Eckerlin

Hassan A. Hassan

David S. McRae

Robert T. Nagel

John S. Strenkowski