

# DEPARTMENT OF AEROSPACE ENGINEERING

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**Head:** Ivett Leyva

**Director, Graduate Studies Program:** Raktim Bhattacharya

The Department of Aerospace Engineering offers graduate work and research programs in aeronautical/aerospace engineering, leading to the degrees of MEng, MS, and PhD. The department also offers courses and faculty supervision for students pursuing the Master of Science and Doctor of Engineering degrees. The department provides educational and research opportunities in four core discipline areas associated with aerospace engineering. These are (1) aerodynamics and propulsion, (2) dynamics and control, (3) materials and structures, and (4) Systems, Design, and Human Integration. Areas of interest include aerodynamics, fluid dynamics, hypersonics, autonomous air/ground/space systems, machine learning and artificial intelligence, lasers, optics, plasma, electromagnetics, robotics, computational fluid dynamics, fluid-structure interaction (aeroelasticity), flight mechanics, astrodynamics, aircraft/spacecraft dynamics and control, rotorcraft, computational mechanics, solid mechanics, micromechanics, multifunctional materials, high temperature materials, nanomechanics, composite materials, bio-nano materials, aging aircraft and structures, and bioastronautics. A foreign language is not required for any of the aerospace degree programs.

The 28 well equipped laboratories in the department include the Advanced Vertical Flight Laboratory, Aero and Fluid Dynamics Laboratory, Aerospace Laboratory for Lasers, Electromagnetics, and Optics (ALLEMO), Aerospace Systems, Technology Research & Operations (ASTRO) Laboratory, Aerospace Vehicle Systems Institute (AVSI), AggieSat Small Satellite Program Laboratory, Center for Intelligent Multifunctional Materials and Structures, Computational Stability and Transition Laboratory, Estimation, Decision and Planning Laboratory, High Temperature Gasdynamics Laboratory, Immersive Mechanics Visualization Laboratory, Klebanoff–Saric Low-Speed Low Disturbance Wind Tunnel (KSWT), Laboratory for Uncertainty Quantification, Land, Air and Space Robotics (LASR) Laboratory, Laser Diagnostics and High-Speed Combustion Laboratory, Materials and Testing Laboratory, Multifunctional Materials and Aerospace Structures Optimization (M2AESTRO) Laboratory, Nanostructured Materials Laboratory, National Aerothermochemistry and Hypersonics Laboratory (NAL), Oran W. Nicks Low-Speed Wind Tunnel (LSWT), Plasma Dynamics Modeling Laboratory, Plasma Simulation Laboratory, Propulsion Laboratory, Systems Engineering, Architecture and Knowledge (SEAK), Tensegrity & Morphing Structures Laboratory, Turbulence and Advanced Computations Laboratory (TACL), Vehicle Systems & Control Laboratory (VSCL), and ZLab, as well as modern High Performance Computing Facilities.

## Faculty

Alfriend III, Kyle T, University Distinguished Professor  
Aerospace Engineering  
PHD, Virginia Polytechnic Institute and State University, 1967

Andrienko, Daniil Aleksandrovich, Assistant Professor  
Aerospace Engineering  
PHD, Wright State University, 2014  
PHD, Moscow Institute of Physics and Technology, 2013

Benzerga, Amine A, Professor  
Aerospace Engineering  
PHD, Ecole Nationale Supérieure Des Mines De Paris, 2000

Bhattacharya, Raktim, Professor  
Aerospace Engineering  
PHD, University of Minnesota, 2003

Bowersox, Rodney D, Professor  
Aerospace Engineering  
PHD, Virginia Tech, 1992

Boyd, James G, Associate Professor  
Aerospace Engineering  
PHD, Texas A&M University, 1994

Chakravorty, Suman, Professor  
Aerospace Engineering  
PHD, University of Michigan, 2004

Chamitoff, Gregory E, Professor of the Practice  
Aerospace Engineering  
PHD, Massachusetts Institute of Technology, 1992

Cizmas, Paul G, Professor  
Aerospace Engineering  
PHD, Duke University, 1995

Cruzado Garcia, Aitor, Lecturer  
Aerospace Engineering  
PHD, Mondragon University, 2013

Currie-Gregg, Nancy, Professor of the Practice  
Aerospace Engineering  
PHD, University of Houston, 1997

DeMars, Kyle, Associate Professor  
Aerospace Engineering  
PHD, University of Texas, 2010

Diaz Artilles, Ana, Assistant Professor  
Aerospace Engineering  
PHD, Massachusetts Institute of Technology, 2015

Donzis, Diego A, Associate Professor  
Aerospace Engineering  
PHD, Georgia Institute of Technology, 2007

Dunbar, Bonnie Jeanne, Professor  
Aerospace Engineering  
PHD, University of Houston, 1983

Girimaji, Sharath S, Professor  
Aerospace Engineering  
PHD, Cornell University, 1990

Hartl, Darren J, Associate Professor  
Aerospace Engineering  
PHD, Texas A&M University, 2009

Hurtado, John E, Professor  
Aerospace Engineering  
PHD, Texas A&M University, 1995

Jameson, Antony, Professor  
Aerospace Engineering  
PHD, University of Cambridge, 1963

Junkins, John L, Distinguished Professor and Regents Professor  
Aerospace Engineering  
PHD, University of California at Los Angeles, 1969

Karaman, Ibrahim, Professor  
Aerospace Engineering  
PHD, University of Illinois at Urbana-Champaign, 2000

Karpetis, Adonios N, Associate Professor  
Aerospace Engineering  
PHD, Yale University, 1998

Kinra, Vikram K, Professor  
Aerospace Engineering  
PHD, Brown University, 1975

Kulatilaka, Waruna D, Professor  
Aerospace Engineering  
DEN, Purdue University, 2006

Lagoudas, Dimitris C, University Distinguished Professor  
Aerospace Engineering  
PHD, Lehigh University, 1986

Langari, Gholamreza, Professor  
Aerospace Engineering  
PHD, University of California at Berkeley, 1991

Le Graverend, Jean-Briac B, Associate Professor  
Aerospace Engineering  
PHD, Ecole Nationale de Mécanique et d'Aérotechnique, France, 2013

Limbach, Christopher M, Assistant Professor  
Aerospace Engineering  
PHD, Princeton University, 2015

Majji, Manoranjan, Associate Professor  
Aerospace Engineering  
PHD, Texas A&M University, 2009

Miles, Richard B, University Distinguished Professor  
Aerospace Engineering  
PHD, Stanford University, 1972

Moble, Benedict, Associate Professor  
Aerospace Engineering  
PHD, University of Maryland, 2010

Mortari, Daniele, Professor  
Aerospace Engineering  
PHD, University La Sapienza of Rome, 1980

Naraghi, Mohammad, Associate Professor  
Aerospace Engineering  
PHD, University of Illinois at Urbana Champaign, 2009

Oran, Elaine, Professor  
Aerospace Engineering  
PHD, Yale University, 1972

Reddy, Junuthula N, Distinguished Professor and Regents Professor  
Aerospace Engineering  
PHD, University of Alabama at Huntsville, 1974

Reed, Helen L, University Distinguished Professor and Regents Professor  
Aerospace Engineering  
PHD, Virginia Polytechnic Institute & State University, 1981  
PHD, Virginia Tech, 1981

Richard, Jacques C, Senior Lecturer  
Aerospace Engineering  
PHD, Rensselaer University, 1989

Saric, William S, Distinguished Professor  
Aerospace Engineering  
PHD, Illinois Institute of Technology, 1968

Scully, Marlan O, Distinguished Professor  
Aerospace Engineering  
PHD, Yale University, 1966

Selva Valero, Daniel, Assistant Professor  
Aerospace Engineering  
PHD, Massachusetts Institute of Technology, 2012

Shryock, Kristi J, Associate Professor  
Aerospace Engineering  
PHD, Texas A&M University, 2011

Strganac, Thomas W, Professor  
Aerospace Engineering  
PHD, Virginia Polytechnic Institute & State University, 1987  
PHD, Virginia Tech, 1987

Strouboulis, Theofanis, Professor  
Aerospace Engineering  
PHD, University of Texas, 1986

Talreja, Ramesh R, Professor  
Aerospace Engineering  
PHD, The Technical University of Denmark, 1974

Tichenor, Nathan R, Research Assistant Professor  
Aerospace Engineering  
PHD, Texas A&M University, 2010

Tropina, Albina, Research Professor  
Aerospace Engineering  
PHD, Kyiv Aviation University, 2011  
PHD, V.N. Karazin Kharkiv National University, 1999

Vadali, Srinivas R, Professor  
Aerospace Engineering  
PHD, Virginia Tech, 1983

Valasek, John L, Professor  
Aerospace Engineering  
PHD, University of Kansas, 1995

Whitcomb, John D, Professor  
Aerospace Engineering  
PHD, Virginia Tech, 1988

White, Edward B, Professor  
Aerospace Engineering  
PHD, Arizona State University, 2000

## Masters

- Master of Engineering in Aerospace Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/aerospace/meng/>)
- Master of Science in Aerospace Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/aerospace/ms/>)

## Doctoral

- Doctor of Philosophy in Aerospace Engineering (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/aerospace/phd/>)

## Certificates

- Human Systems Integration-Bioastronautics Certificate (<http://catalog.tamu.edu/graduate/colleges-schools-interdisciplinary/engineering/aerospace/human-systems-integration-bioastronautics-certificate/>)