

An aerial photograph of the North Carolina State University campus. In the foreground, the iconic white stone Bell Tower stands prominently. To its right is a large, multi-story brick building with a grey roof and several chimneys. The campus is surrounded by lush green trees and well-maintained lawns. A road with a yellow pedestrian crossing sign is visible on the left. The overall scene is bright and sunny, suggesting a clear day.

**Job Prospectus for the  
Department Head,  
Mechanical and Aerospace  
Engineering**

**NC STATE UNIVERSITY**

## ***THE OPPORTUNITY***

North Carolina State University (NC State) invites applications and nominations for the position of Department Head of Mechanical and Aerospace Engineering. The Department Head will hold the rank of Professor with tenure and provide energetic and visionary leadership to a department with very high expectations and goals in the areas of teaching, research, and service. He/she will report to the Dean and oversee all academic, administrative, and budgetary matters for the Department and will represent the Department to the College, University Administration, and external groups and stakeholders.

The Department Head will also be expected to:

- Lead departmental academic, research and outreach activities in the context of a broad vision of mechanical and aerospace engineering;
  - Promote an inclusive and welcoming environment with a strong commitment to recruiting and retaining diverse students, faculty, and staff;
  - Support faculty development; promote, recognize, and reward faculty research, excellence in teaching and mentoring, and excellence in outreach;
  - Create high expectations among faculty regarding student success; provide programs and opportunities for students to develop research and leadership skills;
  - Connect programs within the department to the broader college and university mission; foster a culture of interdisciplinary collaboration in research, teaching and service within the College and across the University;
  - Provide leadership in advancing departmental and College academic excellence within the university as well as relative to peer institutions;
  - Engage alumni, industry, and other potential supporters, increasing their understanding and support for the College; and
  - Respect and adhere to university policies and the principles of fiduciary responsibility and stewardship of resources.
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## ***ABOUT THE DEPARTMENT***

The Department of Mechanical and Aerospace Engineering (MAE) at NC State is among the largest and most prominent in the nation. The department offers the Bachelor of Science (BS), Master of Science (MS) and Doctor of Philosophy (PhD) degrees in both Mechanical Engineering (ME) and Aerospace Engineering (AE) programs. The department also offers accelerated BS/MS degrees in both mechanical engineering and aerospace engineering.

The department specializes in thermal, mechanical, and aerospace sciences. Research areas include thermal fluids, fluid mechanics, renewable energy, combustion, structural mechanics, dynamics, materials, biomechanics, vibrations, controls, aerodynamics, aircraft design, hypersonics, propulsion, space exploration systems, UAV flight research, and computational fluid dynamics.

The MAE department currently boasts 44 tenure-track faculty, 6 non-tenure track faculty, and 15 staff. The faculty is highly recognized with seven (7) National Science Foundation CAREER Award recipients, four (4) NSF RIA recipients, one (1) NASA Early Career Faculty Award recipient, four (4) ASME Fellows, seven (7) AIAA Fellows, 20 members in the NC State Academy of Outstanding Teachers, and five (5) named professors.

The MAE Department has an enrollment of over 1000 undergraduates and nearly 400 graduate students, and has conferred 3,747 degrees since 2000. In 2015-2016, MAE set a new record with 35 PhD degrees awarded. The department is housed in Engineering Building III, a four-story, 250,000-square foot facility. An annex houses wind tunnels, an anechoic chamber, IC engine dynos, and additional research labs.

The mission of the MAE department is to be a flagship engineering department that benefits all people of North Carolina and the global society by making a profound impact on current and emerging science and technologies; fostering exemplary, synergistic multidisciplinary research and education programs in close partnership with industry and government; providing the environment for innovative professional and scholarly development; and graduating highly skilled, ethical engineers who will thrive in a rapidly changing world and be future leaders in technology and society.

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## ***ABOUT THE COLLEGE OF ENGINEERING***

The College of Engineering at NC State is one of the world's finest engineering and computer science schools dedicated to creating an environment in which both faculty and students can excel. Our highly-ranked College educates more than 10,000 undergraduate and graduate students and is one of the largest colleges in the UNC system, supporting 18 bachelors, 21 masters, and 13 doctoral degree programs.

In academic departments, state-of-the-art laboratories, and research centers, faculty and students engage in vital areas of research and technology transfer pursuing some of the most important educational initiatives and engineering research of our time in energy, health care, computer systems, nanotechnology and other important and emerging fields. Our extension and outreach programs share the fruits of many of those initiatives and research with the community.

The College's commitment to excellence is evidenced by the success of our faculty and students. Each year, both faculty and students receive numerous scholarly and professional awards for their teaching and technological achievements, and our graduates find top-notch careers in research and development, design, production and management. Many of our 57,700 alumni hold leadership positions in government and both private- and public-sector institutions around the world.

Central to much of the College's academic, research and entrepreneurial activities is the innovative Centennial Campus, a model for university campuses everywhere. Located on a 1,334-acre site adjacent to NC State's main campus, Centennial is home to more than 130 companies, government agencies, NC State research and academic units, and the state-of the-art James B. Hunt Jr. Library. More than 2,200 corporate and government employees work at the campus alongside more than 3,400 faculty, staff, and students. Three dedicated buildings which house six engineering departments form the heart of the Centennial campus main oval. The College's presence is also cast across the Monteith Engineering Research Center, the Golden LEAF Biomanufacturing Training and Education Center, the Constructed

Facilities Laboratory, the FREEDM System Center which is in the Keystone Science Center, and the ASSIST Center. Centennial Campus puts academic buildings in close proximity to companies such as ABB, LexisNexis, and Juniper Networks, providing an environment where students and faculty collaborate with industry and government agencies.



## ***ABOUT NC STATE***

NC State was founded with a purpose: to create economic, societal, and intellectual prosperity for the people of North Carolina and the country. We began as a [land-grant institution](#) teaching the agricultural and mechanical arts. Today NC State is a **pre-eminent research and teaching leader** that excels in science, technology, engineering, math, design, humanities and social sciences, textiles and veterinary medicine. NC State students, faculty, and staff take problems in hand and **work with industry, government, and nonprofit partners** to solve them.

Our 34,000-plus students apply what they learn in the real world by conducting research, working in internships and co-ops, and performing acts of world-changing service. That experiential education ensures they leave here ready to lead the workforce, confident in the knowledge that NC State consistently rates as **one of the best values in higher education**.

Whether it's [Princeton Review](#) ranking NC State among the nation's best values for universities or one of 81 nationwide "Colleges with a Conscience," NC State has many reasons to be proud. And Princeton Review is not alone. [Kiplinger's Personal Finance ranked NC State University 12th](#) and U.S. News & World Report ranked the university among the top 10 best values in public higher education.



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## ***ABOUT RALEIGH AND THE RESEARCH TRIANGLE***

NC State is located in one of the fastest-growing urban centers in America. A top spot for young professionals and families, Raleigh is nationally recognized as **a city on the rise**:

- No. 1 among the best places for business and careers ([Forbes, 2014](#))
- No. 1 among U.S. cities attracting the most families ([Forbes, 2014](#))
- No. 2 among America's 15 best cities for young professionals ([Forbes, 2014](#))
- No. 3 among the best midsize U.S. metro areas for college students ([American Institute for Economic Research, 2014](#))



With Durham and Chapel Hill, Raleigh anchors the Research Triangle, **a national hotspot for high-tech enterprise**. The top companies in the region — including IBM, Cisco Systems, SAS Institute, Biogen Idec and GlaxoSmithKline — are among the country's best employers. They also lead the way in hiring new NC State graduates. Celebrating its 130<sup>th</sup> year in 2017, NC State continues to make its founding purpose a reality. Every day our [career-ready graduates](#) and world-leading faculty make the fruits of learning and discovery available to people across the state, throughout the nation, and around the world.

## **SEARCH SPECIFICS**

### **Requirements and Preferences**

The Department is seeking an outstanding individual who will be expected to have a strong commitment to academic and research excellence commensurate with the expectations of a major research university. Candidates shall possess a doctoral degree in mechanical or aerospace engineering or a related field and credentials to be appointed at the rank of Professor with tenure in the department. The successful candidate will possess an outstanding record of research, teaching, and leadership accomplishments along with a strong record of commitment to diversity.

Candidates should have experience and demonstrable skills in leading and managing programs, people, and improving environments similar to those found within research extensive universities. He/she must have a track record of working effectively with faculty, students, staff, administration, industry and departmental partners, and funding agencies. Excellent communication and interpersonal skills are essential to success.

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### **How to Apply**

The Nomination Committee invites applications to be submitted online at <https://jobs.ncsu.edu/> (00000652) or to NC State Executive Search. Applications should include a cover letter, CV, contact information for at least three professional references, and a statement of vision and administrative philosophy for the department of Mechanical and Aerospace Engineering. Confidential review of materials will begin in January 2017 and will continue until the appointment is made. It is preferred that all nominations and applications be submitted prior to February 19, 2017. Further information can be found at [ess.hr.ncsu.edu/current-searches](http://ess.hr.ncsu.edu/current-searches). Please refer all inquiries to:

Justin Lang  
Director, NC State Executive Search  
(919) 513-1963  
[jdlang2@ncsu.edu](mailto:jdlang2@ncsu.edu)

### **For Further Information, Visit:**

[Department of Mechanical and Aerospace Engineering](#)

[The College of Engineering](#)

[NC State University](#)

[University Strategic Plan](#)

[Think and Do the Extraordinary](#)

[Stats and Strengths](#)



*NC State University is an equal opportunity and affirmative action employer. All qualified applicants will receive consideration for employment without regard to race, color, national origin, religion, sex, age, veteran status, or disability. In addition, NC State University welcomes all persons without regard to sexual orientation. The University welcomes the opportunity to work with candidates to identify suitable employment opportunities for spouses or partners.*

**NC STATE UNIVERSITY**

**THINK AND DO**