

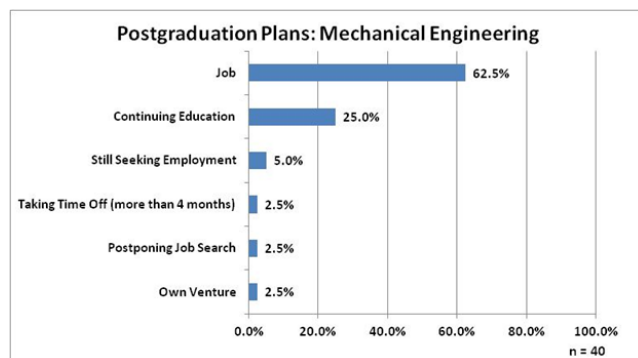
COLUMBIA UNIVERSITY CENTER FOR  
**Career Education**

WHAT CAN YOU DO WITH A DEGREE IN **MECHANICAL ENGINEERING?**

**Where do Mechanical Engineering majors go?**

According to the 2015 Graduating Student Survey (with a 69.0% response rate for undergraduates in the department):

- 87.5% of graduates were employed or going to graduate school.
  - 62.5% were employed.
  - 25.0% had secure plans to attend grad school.



Examples of organizations that have hired Mechanical Engineering majors in recent years:



Graduate schools that Mechanical Engineering majors have attended in recent years:

- Columbia University
- Cornell University
- George Washington University
- Imperial College London (United Kingdom)

**What can you do with a degree in Mechanical Engineering?**

Mechanical engineers play a major role in society by designing and manufacturing products and systems in various fields. A mechanical engineer is responsible for taking an idea and creating a product, design, or a system. Major areas where mechanical engineers work include automotive, aerospace, manufacturing, and biomedical. Organizations that recruit at Columbia include Boeing, General Motors, IBM, The Metropolitan Transportation Authority, Con Edison, and AT&T.

- **Transportation:** Helping people travel from one place to another via aircraft, automotive or even space vehicles by designing engines, life support systems and other vital components.
- **Manufacturing:** Primarily designing and building products in the consumer market or industrial equipment.
- **Academia:** Teaching in colleges and universities or conducting research.
- **Research Firms or Laboratories:** Primarily conducting field research and data collection as a function of consultation, laboratory services, and field technician services.
- Use CCE's [Engineering Industry](#) pages to learn about these, and other options.

## What do employers want?

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In addition to technical skills, which might include Matlab, AutoCAD, C++, ISSE image processing, ANSYS, CREO, and Solid Modeling (Solid Edge), qualities sought by employers include:

1. *Ability to work in a team structure*
2. *Ability to make decisions and solve problems*
3. *Ability to verbally communicate with persons inside and outside the organization*
4. *Ability to plan, organize, and prioritize work*
5. *Ability to obtain and process information*
6. *Ability to analyze quantitative data*
7. *Technical knowledge related to the job*
8. *Proficiency with computer software programs*
9. *Ability to create and/or edit written reports*
10. *Ability to sell or influence others*

*Source: National Association of Colleges and Employers, 2015 Job Outlook*

Your major can demonstrate relevant coursework and knowledge to a prospective employer, but your studies aren't the only aspect of your experience that employers are evaluating. They select people who they believe can do the job (have the right skills), want the job (have demonstrated an interest in the field) and are a personality fit for the team and organization.

## What value do Mechanical Engineering majors bring?

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According to the Mechanical Engineering Department at Columbia, the curriculum helps you to develop the ability to:

- Apply knowledge of mathematics, science and engineering.
- Design/conduct experiments, as well as analyze and interpret data.
- Design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health, and safety, manufacturability, and sustainability.
- Function on multidisciplinary teams and communicate effectively.
- Identify, formulate, and solve engineering problems.
- Understand the impact of engineering solutions in a global, economic, environmental, and societal context.
- Use the techniques, skills, and modern engineering tools necessary for engineering practice.

## What if I'm an International Student?

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For international students at Columbia under student visas, selecting your major can play a significant role if you plan to work in the US after completion of your degree. STEM (Science, Technology, Engineering, Mathematics) students can receive a 24-month extension of optional practical training after the initial period of authorized post-completion OPT. Students with questions about this should visit the International Student & Scholars Office (ISSO), view ISSO's Work Opportunities for Students in F-1 Status site ([columbia.edu/cu/isso/visa/F-1/index.html](https://columbia.edu/cu/isso/visa/F-1/index.html)) and view CCE's International Students webpage at [careereducation.columbia.edu/students/International-Students](https://careereducation.columbia.edu/students/International-Students).