Choose Your Path

4+1 Options for BSE Candidates in Duke’s Engineering Master’s Programs
4+1 Advisor

Susan Brown
Assistant Director of Admissions
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# What master’s programs are available?

<table>
<thead>
<tr>
<th>Master of…</th>
<th>Science (MS)</th>
<th>Engineering Management (MEM)</th>
<th>Engineering (MEng)</th>
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<tbody>
<tr>
<td><strong>Core Management Curriculum</strong></td>
<td>4 core courses&lt;br&gt;Marketing, Finance, Management, IP Law</td>
<td>2 core courses&lt;br&gt;Bus. Fundamentals, Management</td>
<td></td>
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<tr>
<td><strong>Technical Curriculum</strong></td>
<td>10 courses in&lt;br&gt;- Biomedical&lt;br&gt;- Civil and Environmental&lt;br&gt;- Electrical and Computer&lt;br&gt;- Mechanical and Materials Science</td>
<td>4 electives in&lt;br&gt;- Customer Experience and Product Design&lt;br&gt;- Data Analytics and Machine Learning&lt;br&gt;- Operations and Supply Chain Management&lt;br&gt;- Product Management&lt;br&gt;- Technology Development and Commercialization&lt;br&gt;- Technology Founders and Innovators</td>
<td>8 courses in&lt;br&gt;- Biomedical Engineering&lt;br&gt;- Civil Engineering&lt;br&gt;- Computational Mechanics and Scientific Computing&lt;br&gt;- Electrical and Computer Engineering&lt;br&gt;- Environmental Engineering&lt;br&gt;- Mechanical Engineering&lt;br&gt;- Materials Science and Engineering&lt;br&gt;- Photonics and Optical Sciences&lt;br&gt;- Risk Engineering&lt;br&gt;- Financial Technology</td>
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<tr>
<td><strong>Required internship or project?</strong></td>
<td>Thesis or non-thesis Project option</td>
<td>Internship</td>
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<tr>
<td><strong>Extras?</strong></td>
<td>Seminar/workshop series</td>
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Master of Science (MS)

A 1.5 – 2 year degree that creates a solid foundation of rigorous training and research experience

Technical coursework (30 credits)  Thesis or Project
Master of Engineering Management (MEM)

Career-focused degree to develop your technical and business leadership expertise

- 4 Core Management Courses
- 4 Technical Electives
- 2 MEM Seminar and Workshop Series
- Internship (Report and Presentation)
Master of Engineering (MEng)

A 1.5 year industry-focused degree to develop your technical and business leadership expertise

- Core Industry Preparation Courses (6 credits)
- Department, Disciplinary, or Cross Disciplinary Requirements (15 credits)
- Technical Electives in Concentration Area (9 credits)
- Internship or Project
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| Core Management Curriculum | 4 core courses  
Marketing, Finance, Management, IP Law | 2 core courses  
Bus. Fundamentals, Management |
| Technical Curriculum | 10 courses in  
- Biomedical  
- Civil and Environmental  
- Electrical and Computer  
- Mechanical and Materials Science | 4 electives in  
- Customer Experience and Product Design  
- Data Analytics and Machine Learning  
- Operations and Supply Chain Management  
- Product Management  
- Technology Development and Commercialization  
- Technology Founders and Innovators | 8 courses in  
- Biomedical Engineering  
- Civil Engineering  
- Computational Mechanics and Scientific Computing  
- Electrical and Computer Engineering  
- Environmental Engineering  
- Mechanical Engineering  
- Materials Science and Engineering  
- Photonics and Optical Sciences  
- Risk Engineering  
- Financial Technology |
| Required internship or project? | Thesis or non-thesis Project option | Internship | Internship |
| Extras? | Seminar/workshop series | | |
What makes a student eligible for 4+1

- Free course openings through AP Credit, Summer School, Overloading

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<tr>
<th></th>
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<tr>
<td><strong>Fall</strong></td>
<td>AP Credit AP Credit Course Course</td>
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How many open course slots are needed to make 4+1 work?

• MS
  • 4+1 works *only* if you have 2 open course slots in spring semester senior year.

• MEM
  • 4+1 works best if you have between 1 and 4 open course slots in your senior year.

• MEng
  • 4+1 works best if you have between 2 and 4 open course slots in junior or senior year.
## When should I apply?

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<td>Apply</td>
<td>Fall of Senior Year for provisional admission in Spring of Senior Year</td>
<td>Spring of Junior Year for admission in Fall of Senior year</td>
<td>Spring of Junior Year for admission in Fall of Senior year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fall of Senior Year for admission in Spring of Senior year</td>
<td>Fall of Senior Year for admission in Spring of Senior year</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring of Senior Year for admission in Fall of 5th year</td>
<td>Spring of Senior Year for admission in Fall of 5th year</td>
</tr>
</tbody>
</table>
| Matriculate | • Spring of Senior year  
• Dual enrolled as undergraduate/graduate | • Summer of 5th year  
• Remain undergrad for 4 years | • Summer of 5th year  
• Remain undergrad for 4 years |
| Pay tuition | Undergrad 4 years MS 5th year | Undergrad 4 years MEM 5th year | Undergrad 4 years MEng 5th year |
How are grad courses taken as an undergrad used for a master’s program?

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<td>You may take EGRMGMT/MENG courses…</td>
<td>N/A</td>
<td>After admission to MEM/MEng program with a permission number*.</td>
<td></td>
</tr>
<tr>
<td>You may take departmental courses…</td>
<td>Only courses taken Spring of Senior year and as part of Grad Transcript are counted toward MS degree.</td>
<td>Anytime during your undergraduate program*.</td>
<td></td>
</tr>
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<td>*You may transfer applicable courses to MEM/MEng once BSE is completed.</td>
<td>N/A</td>
<td>• GPA for these courses are on undergraduate record&lt;br&gt;• Typically 2 courses with 4 course maximum</td>
<td></td>
</tr>
<tr>
<td>But note that…</td>
<td></td>
<td></td>
<td>*Grad courses can’t be used for undergrad record if you want to transfer them to your MEM/MENG record. Courses may only count towards one degree.</td>
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What was the fine print for MEM and MEng?

*Grad courses can’t be used for undergrad record if you want to transfer them to your MEM/MENG record. Courses may only count towards one degree.

In order to successfully transfer grad classes taken as an undergrad, the grad classes can NOT count for
- Your major
- Your 2nd major
- Your minor
- Any certificate
- 34 credits required to complete the undergrad degree

The courses you plan to transfer must be used ONLY for transfer to the grad program.
Career Preparation for Master’s Students

Helping you achieve your career goals

- Faculty mentoring and advising
- 1:1 Career coaching to support growth and development plan
- On-campus recruitment events
- Assessment tools
- CareerConnections system
  → One stop shop for the Duke community to access job & internship postings, sign up for interviews, and register for events
- Networking opportunities with alumni
- Post-graduation career support
Master’s Career Outcomes

Companies
Position Titles
Locations
Areas of Study
5 years of data

https://tinyurl.com/DukeDataViz2019
4+1 Employment

4+1s have joined top companies in a wide range of industries.

- Accenture
- Facebook
- Toll Brothers
- US Government
- GSK
- Capital One
- Boston Scientific
- Venture for America
- General Motors
- Medtronic

![Pie chart showing employment distribution.]

- Engineering/Technical: 48%
- Analytics: 24%
- Consulting: 10%
- Leadership Development Program: 10%
- Finance: 4%
- PhD in Engineering: 4%
Comprehensive Student Support

Our outstanding team helps you thrive in a welcoming, close knit community

- Departmental Master’s Coordinator
- Career Services and Professional Development Team
- Graduate Communications and Intercultural Programs
- Language Services
- Comprehensive Orientation
- International Student Welcome Week
- Student activities and social events
- Academic resources
Expanding Lifetime Networks

Connecting you throughout the world

180,000+ active alumni
Global networks of regional alumni chapters
Career networking opportunities
Pratt School of Engineering alumni group
Affinity groups
Lifetime educational & travel opportunities
Building Lifetime Friendships
Durham, North Carolina – The Bull City

Top 10 Places to Live
- U.S. News & World Report

#1 Best Mid-Sized Cities for Jobs
- Forbes

#1 Most Tolerant City
- The Daily Beast

100 Best Communities for Young People
- America's Promise, The Alliance for Youth

AMERICAN TOBACCO

Southern Living
THE SOUTH'S TASTIEST TOWNS
WINNER: DURHAM, NC

Durham, NC

THE RESEARCH TRIANGLE PARK
Top 10 Tech Towns
- Wired
4+1 Admission Statistics

- Applied/Admitted/Enrolled – 2018-2019
  - MEM: 6/6/6
  - MEng: 19/18/11
  - MS: 2/2/2

- Admitted GRE Scores (mid-50%)
  - MEM: 163-166 Quant, 158-163 Verbal
  - MEng: 164-166 Quant, 160-164 Verbal

- Admitted GPA (range)
  - 3.0-4.0
Application Requirements

MEMP+MEng

- Statement of purpose
- Resume
- 3 letters of recommendation
- Unofficial transcripts + grade scale
- Official GRE scores (Duke’s code is 5156)
- Application Fee
  - $75 application fee for MEM and MEng (waived!)
  - $90 application fee for MS and PhD

MS & PhD

- Work experience is not required.
- Official transcript required to enroll
- At least one Recommendation should be academic
Application Systems

MEMP+MEng

• All applications through Duke’s Graduate and Professional School Application
  • Master of Science: https://gradschool.duke.edu/admissions
  • Master of Engineering: https://meng.pratt.duke.edu/apply
  • Master of Engineering Management: https://memp.pratt.duke.edu/apply

• Application Deadlines:
  • Master of Science
    • October 1 of your senior year for provisional admission in the spring
  • Master of Engineering + Master of Engineering Management
    • Spring: Two rounds with dates generally around these dates
      • First round deadline: September 1
      • Second round deadline: November 1
    • Fall: Three rounds
      • First round deadline: January 15
      • Second round deadline: March 15
      • Third round deadline (domestic students only): June 1

MS & PhD
Duke’s Graduate and Professional School Application
Choose the correct application

MEng and MEM

MS
**Indicate 4+1**

**MEng and MEMP – Summer entry only**

<table>
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<tr>
<th>Program Information</th>
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<tbody>
<tr>
<td><strong>4 + 1</strong></td>
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<tr>
<td>Are you a current undergraduate student at Duke University?*</td>
</tr>
<tr>
<td>☑ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>Are you seeking to enroll in the 4 + 1 program?*</td>
</tr>
<tr>
<td>☑ Yes</td>
</tr>
<tr>
<td>☐ No</td>
</tr>
<tr>
<td>If you have not already had an advising meeting for the 4 + 1 program, please send an email to <a href="mailto:pratt_masters@duke.edu">pratt_masters@duke.edu</a> to schedule one.</td>
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**Program, Degree, and Term Selection**

<table>
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<tr>
<th>Academic Degree of Interest*</th>
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<tbody>
<tr>
<td>Materials Science and Engineering (MEng)</td>
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<table>
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<tr>
<th>Anticipated Admit Term*</th>
</tr>
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<tbody>
<tr>
<td>☑ 2020 Summer Term 1</td>
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<tr>
<td>☑ 2021 Summer Term 1</td>
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**MS – Spring entry only**

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<td>You may apply to more than one degree/department in any given year. Please note that you must submit a separate application for each degree/program combination that is of interest to you.</td>
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<th>Degree and Program Selection</th>
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<tr>
<td>Intended Degree: Masters</td>
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| Department/Degree: Mechanical Engineering and Materials Science - M.S. |

* Asterisk (*) require responses.
Questions?

• Susan Brown
• 211 Teer Building, The Vesic Student Learning Center
• Susan.Brown@duke.edu
Thank you!

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