Department of Mechanical Engineering

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Location: Scaife Hall 336
www.cmu.edu/me (http://www.cmu.edu/me/)

General Overview

Mechanical engineers use their knowledge of mechanical systems to describe phenomena, propose solutions to problems, and build those solutions. Concerned with the principles of force, energy and motion, they use their knowledge of physical systems, design, manufacture, and operational processes to advance the world around us. Mechanical engineers work in a variety of sectors: small start-up companies, multi-national corporations, government agencies, national laboratories, consulting firms, and universities.

The Carnegie Mellon Mechanical Engineering curriculum emphasizes engineering theory, hands-on experience, and technical skills. Our students learn how to solve practical problems and analyze situations by converting ideas into reliable and cost-effective devices and processes.

A strong foundation in mechanical engineering fundamentals culminates in a design capstone class where student teams develop prototypes for new products. These projects expose students to the design process, from concept to product, and emphasize effective communication and presentations skills.

Our curriculum is intended to allow ample opportunity for students to pursue areas of personal interest. A student may choose to pursue a minor offered by departments in other colleges, or one of the designated minor programs offered in the College of Engineering, or to pursue an additional major. Students are encouraged to participate in research with department faculty members, explore their chosen field through internships, and take advantage of opportunities to study abroad and be exposed to other cultures. Students may also choose to pursue the Integrated Master's/Bachelor's Program (IMB) which allows students to earn both a bachelor's and a master's degree with an additional semester or year of study.

Mechanical Engineering students access TechSpark (https://engineering.cmu.edu/techspark/) for hands-on projects in multiple core courses and technical electives. TechSpark (https://engineering.cmu.edu/techspark/) is the cornerstone of the College of Engineering's maker ecosystem, where students are advised by faculty and staff to create, develop, and test new ideas for technology innovation. The space houses a computer simulation cluster, 3D printers, laser machines, electronics stations, manual lathes & CNC mills, metal welding, wood working & CNC Router, polymer composite fabrication, paint booth, and more. This integrated set of resources allows students, faculty, and staff to design and prototype in a multi-disciplinary environment.

Accreditation

The Mechanical Engineering program is accredited by the Engineering Accreditation Commission of ABET, https://www.abet.org, under the General Criteria and the Program Criteria for Mechanical and Similarly Named Engineering Programs.

Program Educational Objectives

According to ABET (http://www.abet.org/), which evaluates applied science, computing, engineering and technology programs for accreditation, "program educational objectives are broad statements that describe what graduates are expected to attain within a few years of graduation."

The core objective of our undergraduate program is to provide our students an education that enables them to be productive, impactful, and fulfilled professionals throughout their careers. In light of this vision, the program educational objectives of the Bachelor of Science in Mechanical Engineering at Carnegie Mellon are to produce graduates who:

- Distinguish themselves as effective problem solvers by applying fundamentals of mechanical engineering alongside modern experimental and computational methods
- Are innovative and resourceful in their professional activities.
- Excel in team settings, incorporating diverse viewpoints and ideas and implementing strategies for equitable participation
- Become effective communicators who are prepared to take on leadership roles in their organizations, their profession, and in society
- Conduct themselves in a professional and ethical manner in the workplace.
- Excel in diverse career paths within and beyond engineering profession, including in industry and academia.

student Outcomes

The undergraduate curriculum in the Department of Mechanical Engineering offers students significant opportunities to pursue directions of personal interest, including minors, double majors, participation in research projects, and study abroad. Design and teamwork experiences occur at regular intervals in the curriculum, and graduates have significant hands-on experience through laboratories and projects.

Carnegie Mellon's Mechanical Engineering faculty members are in support of the following set of skills and outcomes put forth by ABET:

- an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics
- an ability to apply engineering design to produce solutions that meet specified needs with consideration of public health, safety, and welfare, as well as global, cultural, social, environmental, and economic factors
- an ability to communicate effectively with a range of audiences
- an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts
- an ability to function effectively on a team whose members together provide leadership, create a collaborative and inclusive environment, establish goals, plan tasks, and meet objectives
- an ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions
- an ability to acquire and apply new knowledge as needed, using appropriate learning strategies

Curriculum

Minimum units required for B.S. in Mechanical Engineering: 382

The following template outlines the four-year B.S. program through the standard and recommended course sequence. To ensure that prerequisites are completed and to prevent scheduling conflicts, students should discuss any changes to this sequence with their department academic advisor. Students need a minimum of 382 units to complete the B.S. degree. Since there are variable units for some core requirements, additional units can be made up with free electives.

First Year

Fall		Units
21-120	Differential and Integral Calculus	10
24-101	Fundamentals of Mechanical Engineering	12
33-141	Physics I for Engineering Students	12
99-101	Core@CMU	3
76-101	Interpretation and Argument	9
		46

Spring		Units
21-122	Integration and Approximation	10
xx-xxx	Second Introductory Engineering Course	12
xx-xxx	Physics II/Computer Science/Chemistry*	10-12
xx-xxx	General Education Course	9
		41-43

First Year Curriculum Notes:

1. During the first year, students complete 24-101 Fundamentals of Mechanical Engineering and one other introductory engineering course. 24-101 Fundamentals of Mechanical Engineering is a prerequisite for sophomore courses 24-261 Mechanics I: 2D Design and 24-251 Electronics for Sensing and Actuation, as well as junior course 24-351 Dynamics. Students who are not able to take 24-101 in their first year will push the 24-261 Mechanics I and

24-262 Mechanics II sequence into their junior year. If 24-101 is taken in fall of sophomore year, students can take 24-251 Electronics for Sensing and Actuation and 24-351 Dynamics in sophomore spring to continue progress towards the Mechanical Engineering degree.

2. All Mathematics courses (21-xxx) required for the engineering degree must have a minimum grade of C in order to fulfill the graduation requirement for the BS engineering degree and to count as a prerequisite for engineering core classes.
3. Students must pass the following three courses before they begin the core Mechanical Engineering courses in the fall of their sophomore year:
    - 21-120 Differential and Integral Calculus
    - 21-122 Integration and Approximation
    - 33-141 Physics I for Engineering Students

Sophomore Year

Fall		Units
24-221	Thermodynamics	10
24-261	Mechanics I: 2D Design	10
21-254	Linear Algebra and Vector Calculus for Engineers	11
xx-xxx	Physics II/Computer Science/Chemistry*	10-12
24-xxx	24-200 Machine Shop OR 24-251 Electronics for Sensing and Actuation ** and ***	1-3
xx-xxx	General Education Course	9
39-210	Experiential Learning I	0
		51-55

Spring		Units
24-231	Fluid Mechanics	10
24-262	Mechanics II: 3D Design	10
21-260	Differential Equations	9
xx-xxx	Physics II/Computer Science/Chemistry*	10-12
24-xxx	24-200 Machine Shop OR 24-251 Electronics for Sensing and Actuation **and***	1-3
xx-xxx	Lab requirement ****	
xx-xxx	General Education Course	9
39-220	Experiential Learning II	0
		49-53

* **Physics II/Chemistry/Computer Science:**
First year students are encouraged to prioritize completing Physics II and Programming requirement over Chemistry in the first year.

- The recommended Physics sequence is 33-141 (http://coursecatalog.web.cmu.edu/search/?P=33-141) / 33-142 (http://coursecatalog.web.cmu.edu/search/?P=33-142) for engineering students, however, 33-151 (http://coursecatalog.web.cmu.edu/search/?P=33-151) / 33-152 (http://coursecatalog.web.cmu.edu/search/?P=33-152) will also meet the CIT Physics requirement.
- The programming requirement can be filled with 15-110 Principles of Computing or 15-112 Fundamentals of Programming and Computer Science.
- The Chemistry requirement can be filled with 09-105 Introduction to Modern Chemistry I or 09-111 Nanolegos: Chemical Building Blocks.

** **24-200 or 24-203 <u>and</u> 24-251 Completed Sophomore Year:**
Machine shop 24-200 Maker Series: Intro to Manual Machining **or** 24-203 Special Topics: TechSpark: Manual Machining **and** 24-251 Electronics for Sensing and Actuation should be completed in sophomore year. Both are required courses.

*** **Waiving Electronics for Sensing and Actuation:**
Mechanical Engineering (MechE) students who took the 18-100 Introduction to Electrical and Computer Engineering in their first year, have the option of waiving 24-251 Electronics for Sensing and Actuation. These units must be replaced with 3 units of graded Mechanical Engineering credit which could be done by taking a 12 unit MechE Technical Elective instead of a 9 unit course. Eligible students will be invited to complete a form to confirm their intention to waive 24-251.

**** **Lab Requirement:**
Mechanical engineering undergraduates must satisfy one science laboratory requirement to graduate. The lab requirement may be fulfilled with one of the following courses in any semester:

03-124	Modern Biology Laboratory	9
09-101	Introduction to Experimental Chemistry	3
33-100	Basic Experimental Physics	6
33-104	Experimental Physics	9
42-203	Biomedical Engineering Laboratory	9

Junior Year

Fall		Units
24-302	Professional Development for Mechanical Engineers Taken either Fall or Spring.	2
24-322	Heat Transfer	10
24-351	Dynamics (Offered Fall and Spring)	10
24-370	Mechanical Design: Methods and Applications	12
36-220	Engineering Statistics and Quality Control	9
xx-xxx	General Education Course	9
39-310	Experiential Learning III	0
		52

Spring		Units
24-302	Professional Development for Mechanical Engineers Taken either Fall or Spring.	2
24-311	Numerical Methods	10
24-321	Thermal-Fluids Experimentation	12
24-352	Dynamic Systems and Controls (Offered Fall and Spring)	12
xx-xxx	General Education Course	9
		45

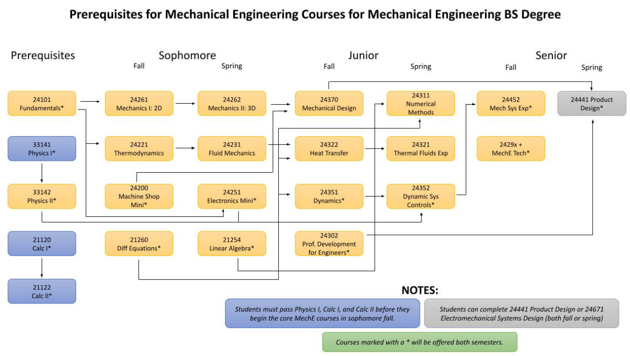
Senior Year

Fall		Units
24-441	Engineering Design II: Conceptualization and Realization ****	12
or 24-671	Electromechanical Systems Design	
24-452	Mechanical Systems Experimentation (Offered Fall and Spring)	9
xx-xxx	Elective	9
xx-xxx	Elective	9
xx-xxx	General Education Course	9
		48

Spring		Units
24-441	Engineering Design II: Conceptualization and Realization ****	12
or 24-671	Electromechanical Systems Design	
24-xxx	Mechanical Engineering Technical Elective	9-12
xx-xxx	General Education Course	9
xx-xxx	Elective	9
xx-xxx	Elective	9
		48-51

**** **Capstone Courses:**

- Mechanical Engineering students complete **one** capstone class either fall or spring of senior year. This course is the culmination of the knowledge gained over the previous years in mechanical engineering core classes. To fulfill the capstone course requirement, students can complete one of the following 24-441 Engineering Design II: Conceptualization and Realization (FALL OR SPRING), 24-671 Electromechanical Systems Design (FALL OR SPRING).
- Capstone course can be taken either Fall or Spring of senior year.
- Biomedical Engineering Double Majors **may** use the capstone for their double major **instead of** the above listed MechE capstone classes.



Mechanical Engineering Technical Electives

Students must take at least one approved non-core Mechanical Engineering course labeled as "Mechanical Engineering Technical Elective" in the example course sequence. The course must be an approved 24-xxx course (9-unit minimum) at the 300 level or above to fulfill the technical elective requirement. 24-292 Renewable Energy Engineering is the only 200 level courses that may be used as a Mechanical Engineering Technical Elective.

Students can also take mechanical engineering graduate courses to fulfill the technical elective requirement. However, students must have the appropriate prerequisites and the instructor must approve taking the course. Undergraduates do not have priority for graduate level courses. Students can find a list of graduate courses we offer on the Carnegie Mellon Schedule of Classes (https://enr-apps.as.cmu.edu/open/SOC/SOCServlet/).

Course offerings are variable, please check the Schedule of Classes (https://enr-apps.as.cmu.edu/open/SOC/SOCServlet/) to see the most current list of classes.

Students cannot use research or project courses to fulfill the technical elective requirement. However, these courses, with limitations, will count as free elective units. Up to 27 units of project/research may be counted in the free electives. Project/research courses that do not fulfill the technical elective requirements are:

- 24-391 / 24-392 Mechanical Engineering Project
- 24-491 / 24-492 Department Research Honors
- 39-xxx CIT series courses

Free Electives

A Free Elective is defined as any graded course offered by any academic unit of the university. Free electives offer students the opportunity to add additional majors and minors, pursue additional interests or deepen their experience in Mechanical Engineering. Typically, once the core requirements are completed, there remain about 45 units of free electives to reach the minimum of 382 to complete the degree.

Up to 9 units of Student Taught Courses (StuCO) and Physical Education courses, or other courses taken as Pass/Fail, may also be used toward Free Electives.

Guidance on Engineering Electives

The Mechanical Engineering department offers several elective courses for undergraduates seeking further knowledge and experience in specialty areas of mechanical engineering. These courses (with approval) can fulfill for your Mechanical Engineering Technical Elective, Free Electives, and/or additional major or minor requirements.

Robotics and Automation

Fundamental Courses		
24-451	Feedback Control Systems	12
24-677	Modern Control Theory	12
24-760	Robot Dynamics and Analysis	12
24-773	Multivariable Linear Control	12
24-776	Non Linear Control	12
Application Courses		
24-614	Microelectromechanical Systems	12
24-671	Electromechanical Systems Design	12
24-673	Soft Robots: Mechanics, Design and Modeling	12
24-753	Special Topics: Robotic Materials: Designs, Principles & Mechanics	12
24-774	Advanced Control Systems Integration	12
24-775	Robot Design and Experimentation	12
24-778	Mechatronic Design	12

Energy, Environment, and Thermal Fluid Systems

Fundamental Courses		
24-711	Fluid Dynamics	12
24-718	Computational Fluid Dynamics	12
24-721	Advanced Thermodynamics	12
24-722	Energy System Modeling	12
24-730	Advanced Heat Transfer	12
Application Courses		
24-292	Renewable Energy Engineering	9
24-381	Environmental Systems on a Changing Planet	12
24-421	Internal Combustion Engines	12
24-425	Combustion and Air Pollution Control	9
24-428	Computational Analysis of Transport Phenomena	9
24-623	Molecular Simulation of Materials	12
24-626	Air Quality Engineering	12
24-628	Energy Transport and Conversion at the Nanoscale	12
24-629	Direct Solar and Thermal Energy Conversion	12
24-631	Thermal Design	12
24-643	Energy Storage Materials and Systems	12

Product Design and Development

Fundamental Courses		
24-651	Material Selection for Mechanical Engineers	12
24-681	Computer-Aided Design	12
24-683	Design for Manufacture and the Environment	12
24-688	Introduction to CAD and CAE Tools	12
Application Courses		
24-632	Special Topics: Additive Manufacturing Processing and Product Development	12
24-633	Additive Manufacturing Laboratory	12
24-672	Special Topics in DIY Design and Fabrication	12
24-680	Quantitative Entrepreneurship: Analysis for New Technology Commercialization	12
24-691	Mechanical Engineering Project Management	12
24-692	Special Topics: Engineering a Startup: How to Start and Grow a Hardware Company	12

Autonomous Systems and Machine Learning

Fundamental Courses		
24-451	Feedback Control Systems	12
24-480	Special Topics: Artificial Intelligence and Machine Learning for Engineering	9
24-677	Modern Control Theory	12
24-704	Probability and Estimation Methods for Engineering Systems	12
24-789	Special Topics: Deep Learning for Engineers	12
Application Courses		
24-774	Advanced Control Systems Integration	12
24-775	Special Topics: Robot Design and Experimentation	12
24-784	Special Topics: Trustworthy AI	12

Computational Engineering

Fundamental Courses		
24-703	Numerical Methods in Engineering	12
24-780	Engineering Computation	12
24-783	Advanced Engineering Computation	12
24-785	Engineering Optimization	12
Application Courses		
24-658	Image-Based Computational Modeling and Analysis	12
24-681	Computer-Aided Design	12

24-718	Computational Fluid Dynamics	12
24-755	Finite Elements in Mechanics I	12
24-781	Engineering Computation Project	12

Engineering Mechanisms and Materials

Fundamental Courses		
24-634	Structural Design	12
24-635	Structural Analysis	9
24-652	Mechanical Behavior of Engineering Materials	12
24-653	Special Topics: Materials and Their Processing for Mechanical Engineers	12
24-751	Solid Mechanics and Elasticity	12
Application Courses		
24-643	Energy Storage Materials and Systems	12
24-650	Applied Finite Element Analysis	12
24-684	Special Topics: Nanoscale Manufacturing Using Structural DNA Nanotechnology	12
24-755	Finite Elements in Mechanics I	12
24-753	Special Topics: Robotic Materials: Designs, Principles & Mechanics	12

Quality Point Average Requirements

To be eligible to graduate, undergraduate students must complete all course requirements for their program with a cumulative Quality Point Average of at least 2.00 for all courses taken. For undergraduate students who enrolled at Carnegie Mellon as freshmen and whose freshman grades cause the cumulative QPA to fall below 2.0, this requirement is modified to be a cumulative QPA of at least 2.0 for all courses taken after the freshman year. Note, however, the cumulative QPA that appears on the student's final transcript will be calculated based on all grades in all courses taken, including freshman year. The Mechanical Engineering Department requires that students attain a quality point average of 2.00 or higher for all required Mechanical Engineering core courses.

Pursuant to university rules, students can repeat a course in which a grade below C was attained in order to achieve the QPA requirement. When a course is repeated, all grades will be recorded on the official academic transcript and will be calculated in the student's QPA. For all required Mechanical Engineering core courses, the highest grade obtained between the original and the repeated class will be used to calculate the Mechanical Engineering QPA.

Credit Overload Policy

Mechanical Engineering students can register for a maximum of 54 units per semester. A student can request additional units from the Undergraduate Education Committee based on their QPA. The policy is outlined in the Mechanical Engineering Undergraduate Handbook (https://www.meche.engineering.cmu.edu/education/undergraduate-education/undergraduate-handbooks.html).

Additional Majors and Minors

Mechanical Engineering students may pursue additional majors and minors in a variety of subjects, taking advantage of the free elective courses to satisfy the requirements for the major or minor. The College of Engineering has added designated minors to promote flexibility and diversity among engineering students. Common double majors for Mechanical Engineering students include Engineering and Public Policy, Biomedical Engineering, Engineering Design, and Innovation & Entrepreneurship and Robotics.

A complete description of majors and minors in engineering can be found on the College of Engineering website (https://engineering.cmu.edu/education/undergraduate-studies/curriculum/).

Internships and Co-operative Education Program

The Mechanical Engineering Department considers experiential learning opportunities important educational options for its undergraduate students. Students in Mechanical Engineering are encouraged to undertake professional internships during summer breaks.

Another option is cooperative education, which provides a student with an extended period of exposure with a company. All co-ops must be at least 6 consecutive months in length, and must be a full-time, paid position with a single company.

Study Abroad

In today’s global society, a study abroad experience can be an integral part of an undergraduate engineering education. An academic experience abroad is encouraged and assistance is provided for course choices and curriculum sequencing. The Mechanical Engineering department offers scholarships for international experiences to support and encourage students to take advantage of study and work abroad experiences.

Integrated Master's/Bachelor's Program (IMB)

Interested undergraduates may plan a course of study that leads to both the Bachelor's and Master's in Mechanical Engineering. Beyond eight semesters, at least one semester of full-time graduate student status is required. Please refer to the Integrated Master’s/Bachelor’s Degree Program section in the most recent Master of Science in Mechanical Engineering Handbook (https://www.meche.engineering.cmu.edu/education/graduate-programs/handbooks.html) for additional information.

Full-Time Faculty

BURAK AKSAK, Teaching Professor – P.h.D, University of Illinois Urbana-Champaign; Carnegie Mellon, 2025–

AMIR BARATI FARIMANI, Assistant Professor of Mechanical Engineering – Ph.D., University of Illinois at Urbana-Champaign; Carnegie Mellon, 2018–

MARK BEDILLION, Teaching Professor of Mechanical Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2016–

SARAH BERGBREITER, Professor of Mechanical Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2018–

JACK LEE BEUTH, Professor of Mechanical Engineering – Ph.D., Harvard University; Carnegie Mellon, 1992–

OPHELIA BOLMIN, Assistant Professor – P.h.D., University of Illinois Urbana-Champaign; Carnegie Mellon, 2024–

JONATHAN CAGAN, Department Head and George Tallman and Florence Barrett Ladd Professor of Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 1990–

MAARTEN P. DE BOER, Professor of Mechanical Engineering – Ph.D., University of Minnesota; Carnegie Mellon, 2007–

NESTOR GOMEZ, Assistant Teaching Professor – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2018–

NOELIA GRANDE GUTIERREZ, Assistant Professor of Mechanical Engineering – Ph.D., Stanford University; Carnegie Mellon, 2021–

DIANA HAIDAR, Assistant Teaching Professor of Mechanical Engineering – Ph.D., University of Delaware; Carnegie Mellon, 2017–

ENI HALILAJ, Assistant Professor of Mechanical Engineering – Ph.D., Brown University; Carnegie Mellon, 2018–

B. REEJA JAYAN, Associate Professor of Mechanical Engineering – Ph.D., University of Texas at Austin; Carnegie Mellon, 2015–

AARON M. JOHNSON, Assistant Professor of Mechanical Engineering – Ph.D., University of Pennsylvania; Carnegie Mellon, 2016–

TREVOR J JONES, Assistant Professor – Ph.D., Princeton University; Carnegie Mellon, 2023–

INSEUNG KANG, Assistant Professor – P.h.D., Georgia Tech; Carnegie Mellon, 2024–

LEVENT BURAK KARA, Professor of Mechanical Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2007–

PHILIP R. LEDUC, William J. Brown Professor of Mechanical Engineering – Ph.D., The Johns Hopkins University; Carnegie Mellon, 2002–

SHAWN LITSTER, Professor of Mechanical Engineering – Ph.D., Stanford University; Carnegie Mellon, 2008–

CARMEL MAJIDI, Clarence H. Adamson Professor of Mechanical Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2011–

JONATHAN A. MALEN, Professor of Mechanical Engineering – Ph.D., University of California at Berkeley; Carnegie Mellon, 2009–

CHRISTOPHER MCCOMB, Associate Professor of Mechanical Engineering – Ph.D. , Carnegie Mellon University; Carnegie Mellon, 2021–

ALAN J.H. MCGAUGHEY, Trustee Professor of Mechanical Engineering – Ph.D., University of Michigan; Carnegie Mellon, 2005–

JEREMY J. MICHALEK, Professor of Mechanical Engineering – Ph.D., University of Michigan; Carnegie Mellon, 2005–

O. BURAK OZDOGANLAR, Ver Planck Professor of Mechanical Engineering – Ph.D., University of Michigan; Carnegie Mellon, 2004–

RAHUL PANAT, Russell V. Trader Career Development Associate Professor of Mechanical Engineering – Ph.D., University of Illinois at Urbana-Champaign; Carnegie Mellon, 2017–

SNEHA PRABHA NARRA, Assistant Professor of Mechanical Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2021–

ALBERT PRESTO, Research Professor of Mechanical Engineering – Ph.D., Carnegie Mellon University; Carnegie Mellon, 2012-–

YOED RABIN, Professor of Mechanical Engineering – D.Sc., Technion-Israel Institute of Technology; Carnegie Mellon, 2000–

SHENG SHEN, Professor of Mechanical Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 2011–

KENJI SHIMADA, Theodore Ahrens Professor of Engineering – Ph.D., Massachusetts Institute of Technology; Carnegie Mellon, 1996–

SATBIR SINGH, Teaching Professor of Mechanical Engineering – Ph.D., University of Wisconsin at Madison; Carnegie Mellon, 2012–

RYAN SULLIVAN, Professor of Mechanical Engineering – Ph.D., University of California at San Diego; Carnegie Mellon, 2012–

REBECCA TAYLOR, Associate Professor of Mechanical Engineering – Ph.D., Stanford University; Carnegie Mellon, 2016–

CONRAD TUCKER, Arthur Hamerschlag Career Development Professor of Mechanical Engineering – Ph.D., University of Illinois at Urbana-Champaign; Carnegie Mellon, 2019–

LIWEI WANG, Assistant Professor – P.h.D, Shanghai Jiao Tong University; Carnegie Mellon, 2024–

DOUGLAS WEBER, Akhtar and Bhutta Professor of Mechanical Engineering – Ph.D., Arizona State University; Carnegie Mellon, 2020–

VICTORIA WEBSTER-WOOD, Assistant Professor of Mechanical Engineering – Ph.D., Case Western Reserve University; Carnegie Mellon, 2018–

KATE S. WHITEFOOT, Associate Professor of Mechanical Engineering – Ph.D., University of Michigan; Carnegie Mellon, 2016–

JESSICA ZHANG, George Tallman Ladd and Florence Barrett Ladd Professor of Mechanical Engineering – Ph.D., University of Texas at Austin; Carnegie Mellon, 2007–

DING ZHAO, Assistant Professor of Mechanical Engineering – Ph.D., University of Michigan; Carnegie Mellon, 2018–

Emeriti

ADNAN AKAY, Lord Emeritus Professor of Mechanical Engineering – Ph.D., North Carolina State University; Carnegie Mellon, 1992–

JERRY HOWARD GRIFFIN, William J. Brown Emeritus Professor of Mechanical Engineering – Ph.D., California Institute of Technology; Carnegie Mellon, 1981–

EDWARD STEPHAN RUBIN, Emeritus Professor of EPP, Mechanical Engineering, and Environmental Engineering and Science – Ph.D., Stanford University; Carnegie Mellon, 1969–

PAUL STEIF, Professor Emeritus – P.h.D., Harvard University; Carnegie Mellon, 1983–

SHI-CHUNE YAO, Emeritus Professor of Mechanical Engineering – Ph.D., University of California, Berkeley; Carnegie Mellon, 1977–