

**BOARD OF TRUSTEES
UNIVERSITY OF THE DISTRICT OF COLUMBIA
UDC Resolution No. 2016-29**

SUBJECT: Approval of Master of Science in Mechanical Engineering (MSME) Degree Program in the School of Engineering & Applied Sciences (SEAS)

WHEREAS, pursuant to D.C. Official Code § 38-1202.06(3), the Board of Trustees is authorized to establish or approve policies and procedures governing admissions, curricula, programs, graduation, the awarding of degrees, and general policy for the components of the University; and

WHEREAS, pursuant to DCMR § 08-B308.1, new associate, baccalaureate, and graduate degree programs may be added to the University curricula upon recommendation by the Academic Senate and the President and after approval by the Board; and

WHEREAS, SEAS has been offering an accredited bachelor's degree in Mechanical Engineering, a discipline that applies the principles of engineering, physics and materials science for analysis, design, manufacturing, and maintenance of mechanical systems and is the branch of engineering that involves the production and usage of heat and mechanical power for the design, production, and operation of machines and tools, and is a discipline in engineering that encompasses many specialties, such as renewable energy technologies, advanced manufacturing, product design, automobile engineering, robotics, aerospace engineering, and fast evolving nanotechnology, in addition to the connection mechanical engineering may have with the field of Biomedical engineering (e.g., rehabilitation engineering, biomechanics, bio-related mechatronics, bio-related nanotechnology and physiological modeling of biological systems); and

WHEREAS, the proposed graduate program, Master of Science in Mechanical Engineering (MSME), is designed to meet the needs of Mechanical Engineering undergraduate students (starting with those at UDC), working professionals in the greater Washington DC Metropolitan area, as well as international students, by providing an economical and continuous path for obtaining a master's of science (MS) degree in various sub-disciplines of Mechanical Engineering; to also prepare the Mechanical Engineering program to meet the academic requirements of a master's degree for professional licensure; and to provide opportunities for graduate students to assist faculty members in research and funded grant activities; and to increase employability and make UDC graduates better prepared for the demands of expanding and advancing fields within or related to Mechanical Engineering;

WHEREAS, the proposed curriculum presents a standard Mechanical Engineering curriculum that all MSME students will be expected to take, it also offers multiple tracks that will require MSME graduate students to choose technical electives and conduct thesis research in a focus area under the supervision of their advisors, with the objectives of: providing graduate students with up-to-date advanced training in selected, marketable specialties of Mechanical Engineering and other mechanical engineering-related/inter-disciplinary fields; preparing students to develop innovative technologies; providing students with graduate research opportunities to solve real-world problems in mechanical engineering; preparing students for entry into research-based doctoral studies in the discipline; preparing graduate students for leadership positions in their professional field in both public and private sectors; and academically preparing Mechanical Engineering students to meet the requirements of the engineering profession and their societies (American Society of Mechanical Engineers, and National Society of Professional Engineers); and

WHEREAS, the Administration proposes to establish a Master Degree in Mechanical Engineering (MSME), based in the School of Engineering and Advanced Sciences, and the proposed program has been approved by all required levels of faculty and administration;

NOW THEREFORE, BE IT RESOLVED that the University of the District of Columbia is hereby authorized to implement the MS in Mechanical Engineering (MSME) Degree Program in accordance with the attached proposal, *provided that* the funds required to implement the program shall not be obligated until they have been identified and reprogrammed within existing University resources.

Submitted by the Academic and Student Affairs Committee

July 12, 2016

Approved by the Board of Trustees

July 26, 2016



Elaine A. Crider
Chairperson of the Board