Degree Programs in Engineering Science
Executive Summary

The School of Engineering & Applied Science is committed to providing rigorous, authentic experiences for students interested in engineering. We offer professional degree programs that provide disciplinary depth and applied science degree programs with discipline-specific areas of concentration but more flexibility. These programs collectively meet the interests and needs of most engineering students but we propose an alternative pathway that may attract a cohort of students both inside and outside of engineering. A bachelor’s degree or second major in Engineering Science would combine a broad, multidisciplinary background in the engineering sciences with the pursuit of interests inside and outside of engineering that are not tethered to a single department or discipline. Focused courses of study would be offered in areas such as operations research and per-medicine. Engineering students could pursue joint programs (e.g. business, public health) or earn a second degree or second major outside of engineering. Students outside of engineering could earn a Second Major in Engineering Science.

Students graduating with an Engineering Science degree would typically use their technical knowledge in another field. Career options are numerous, including technical sales and marketing, business consulting, medicine public service and patent law. They would have a broad engineering foundation and authentic experiences in designing, coding, making and measuring. Problem- and project-based experiences will be central to their studies through opportunities such as the NAE Grand Challenges Scholars program. Students could also earn a Master of Engineering degree — a one-year program providing additional technical coursework.

We will launch the Division of General Engineering to provide a home for Engineering Science students. This Division would also house the Engineering first-year program which will coordinate, and to some extent harmonize, the first-year experience across departments within Engineering; and academic programs that serve the entire school such as the Technical Communications Center. It will be a test bed to develop and pilot innovative approaches to Engineering education, which in turn can be disseminated across the school.