



Department of Engineering  
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School of Engineering & Applied Science

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# Bachelor of Science in Systems Engineering

## What is Systems Engineering?

The multidisciplinary field of systems engineering applies engineering techniques and mathematical methods to improve the planning and decision making in organizational systems composed of people, machines, materials, and procedures. By observing, understanding, modeling, and predicting the behavior of such systems, practitioners of systems engineering assist the decision-making process that seeks to design and operate the systems optimally.

The systems engineering program is designed to provide a broad and solid education in the basics of mathematical modeling, software and information systems, and the treatment of uncertainty. Analytical thinking is stressed, in order to prepare the student for graduate education or productive professional employment. Simultaneously, the program is intended to develop the student's communication skills and awareness of the current professional world. A medical preparation option in systems engineering that prepares the student for

engineering management are also available.

## Career Paths

Systems engineering finds application in many sectors, including communications, energy, environment, finance, health care, information technology, marketing, national defense, project management, software development, and transportation. Typical employment positions include government consultants, manufacturing/quality managers, information/cyber security analysts, financial portfolio managers, and requirements engineers, among others. Furthermore, some of our graduates continue their education in top graduate and doctoral programs across the country.

## Bachelor of Science Degree Program

- Prospective and first-year students: The GW Bulletin carries the definitive curriculum requirements for your degree program. Please visit the Bulletin to find the [B.S. in Systems Engineering](#) program requirements.
- All other current students: Please visit the following curriculum sheets to find the program requirements for your degree program. Each student must follow the curriculum in place during his or her year of entry.
  - [BS in Systems Engineering 2022-2023](#)
  - [BS in Systems Engineering 2021-2022](#)
  - [BS in Systems Engineering 2017-2021](#)
  - [BS in Systems Engineering 2016-2017](#)
  - [BS in Systems Engineering 2015-2016](#)



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### Department of Engineering Management & Systems Engineering

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