

ENGINEERING, B.S.E.

The Marshall University Bachelor of Science in Engineering (B.S.E.) program educational objectives are as follows:

1. B.S.E. graduates will be recognized for their success in designing engineering systems that promote the health, safety, and welfare of the public.
2. B.S.E. graduates will demonstrate their awareness of an engineer's role in contemporary society and their understanding of the societal and environmental contexts of engineering projects.
3. B.S.E. graduates will practice in specific areas of engineering that are consistent with the needs of the region served by Marshall University.

The student outcomes of the B.S.E. are:

1. An ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics.
2. 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.
3. An ability to communicate effectively with a range of audiences.
4. 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.
5. 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.
6. An ability to develop and conduct appropriate experimentation, analyze and interpret data, and use engineering judgment to draw conclusions.
7. An ability to acquire and apply new knowledge as needed, using appropriate learning strategies.

Admission Requirements

- Meet Marshall University admission requirements
- Admission to the B.S.E. Engineering program requires a minimum composite ACT score of 21 with a math score of 24, or a minimum SAT composite of 980 with a math SAT of 560.
- Transfer students must have completed MTH 127 College Algebra-Expanded/MTH 130 College Algebra and MTH 132 Precalculus with Sci Applic.

For those needing to complete some requirements first, there is Pre-Engineering. Requirements for Pre-Engineering are a minimum composite ACT score of 19 with a math score of 19-23, or a minimum SAT composite of 900 with a math SAT of 460-550. Students who are admitted to the Pre-Engineering program generally will require an additional calendar year to complete the requirements for the B.S.E. degree. Transfer students must be eligible to take MTH 127 College Algebra-Expanded/MTH 130 College Algebra and MTH 132 Precalculus with Sci Applic.

Graduation Requirements

The B.S.E. degree program requires a minimum of 124 credit hours of coursework as outlined below. In addition to fulfilling the university's requirements for graduation, B.S.E. students must maintain a minimum GPA of 2.0 in all professional courses. These professional courses include mathematics (MTH 229 Calculus/Analytic Geom I (CT) or above), required science courses, core engineering (ENGR) courses, engineering emphasis courses (CE), and courses used as technical electives. Entering students with a math ACT of 24-26 are required to take MTH 132 Precalculus with Sci Applic. Such students will likely need an extra semester or summer term to satisfy BSE requirements.

Areas Of Emphasis

- Civil Engineering, Emphasis (<http://catalog.marshall.edu/undergraduate/programs-az/engineering-computer-sciences/civil-engineering/engineering-bse/civil-engineering-emphasis/>)