

# THE COLLEGE OF SCIENCE, TECHNOLOGY, ENGINEERING, AND MATHEMATICS

*Wim Steelant, Ph.D, Dean*

*Moser Hall 2200*

*(330) 941-3009*

The College of Science, Technology, Engineering, and Mathematics (STEM) is the academic unit of the University comprising the following departments:

- Biological Sciences
- Chemistry
- Civil/Environmental and Chemical Engineering
- Computer Science and Information Systems
- Electrical and Computer Engineering
- Engineering Technology
- Geological and Environmental Sciences
- Mechanical and Industrial Engineering
- Mathematics and Statistics
- Physics and Astronomy

Formed in 2007 through an administrative reorganization, the STEM College is committed to strengthening core areas of its departments as well as facilitating collaborations between its faculties and students at all levels in their disciplines. Its formation is a bold initiative in coupling higher education to economic development by enhancing research activities and collaboration with industry.

## College of STEM Mission

The College of STEM is committed to furthering the mission of Youngstown State University by delivering integrated programs of excellence to an engaged learning community. The College uses state-of-the-art technology in teaching and research to meet the educational objectives of students, both undergraduate and graduate, enrolled in all its programs. The College fosters intellectual growth through integration of teaching, scholarship, and service that expands the talents of its constituencies - including students, faculty, business, industry, and government - with synergistic activities in and beyond the classroom; prepares our graduates for a multidisciplinary world through a flexible and diverse curriculum; and meets the need for a well-educated, skilled workforce for economic growth with industrial partnerships, research, and scholarship.

## Core Values

The College of STEM fully subscribes to the core values of the University: the centrality of students; excellence and innovation; integrity/human dignity; and collegiality and public engagement.

- We are a learning-centered college committed to the intellectual, ethical, and career growth of all learners, both inside and outside the classroom.
- We foster intellectual inquiry, exploration, and discovery that transcends traditional boundaries and facilitates interdisciplinary scholarship. We expand and apply knowledge and encourage creativity through research and scholarship.
- We are committed to the social development of students, by promoting ethical behavior and collegiality in all endeavors, and to enrichment of the University through diversity of the faculty and student body.
- We enhance the quality of life and economic health of the region, the state, and beyond by providing students with the knowledge and skills to meet the challenges of modern society, and by providing business, industry,

government, K-12 schools, and the public with technical expertise and leadership to support innovation and growth.

## Degrees/Programs

The College offers four bachelor's degrees:

- Bachelor of Arts (BA)
- Bachelor of Engineering (BE)
- Bachelor of Science (BS)
- Bachelor of Science in Applied Science (BSAS)

The College offers two associate degrees:

- Associate of Applied Science (AAS)
- Associate of Technical Studies (ATS)

Also, in conjunction with FirstEnergy Corporation, the power plant technology option is available. Please visit our website (<http://www.yzu.edu/powersystems>) for more information regarding the lineworker and power plant technology programs.

A certificate program is offered in construction management technology.

Students whose needs are not met by existing conventional programs may wish to investigate and apply for the Individualized Curriculum Program (see Academic Policies and Procedures).

## Admissions

Students who are calculus-ready will be directly admitted into the academic department in their major. Those who are not will remain under the guidance of the professional advising staff until they are department-ready. For more details on the preparation and criteria of the STEM standards, please check with the Advising Center in the College of STEM.

## Degree Requirements

Requirements for completion of a baccalaureate degree and an associate degree within the College of STEM include all University requirements detailed in the Academic Policies and Procedures section of the Undergraduate Catalog (i.e., graduation and general education requirements, course levels requirements including majors [and minors, where applicable], grade point average, residency, and degree applications). Specific requirements for each major in the College of STEM are listed by department or school. Consult the Rayen School of Engineering and Engineering Technology section in the Undergraduate Catalog for additional graduation requirements for the BE degree.

## Minors

Minors are not required for every program/major in the STEM College. Consult the curricula listed in the department sections of the catalog for specific requirements for each major. For programs/majors requiring minors, at least eighteen (18) semester hours are required for the minor, and one-third of the hours must be upper-division.

## Foreign Language Requirement for the Bachelor's Degree

All candidates for the BA degrees and the BS degree in math in the College are required to complete the elementary (1550: Elementary Foreign Language) and the intermediate level (2600: Intermediate Foreign Language) of the same foreign language. Students with a foreign language background may desire to take the foreign language placement test in order to place into the intermediate level (2600) or satisfy the requirement. It may be possible to satisfy the foreign language requirement through appropriate college transfer coursework and credit by exam.

Candidates for the BS entering after fall 2012 (except Math majors), candidates for the BE degree, and candidates for the BSAS degree do not have a foreign language requirement.

For more information, visit the College of Science, Technology, Engineering, and Mathematics (STEM) (<http://www.yzu.edu/academics/science-technology-engineering-mathematics>).