The Master of Science in engineering allows flexibility for general or specialized program construction according to the needs of the individual student in conformance with the requirements of the School of Engineering and the University of Dayton.

**Master of Science in Engineering (EGR)**

The program of study leading to the Master of Science in engineering must include a minimum of 33 semester hours of the following:

- **EGR 500. Academic Integrity and Responsible Conduct of Research for Engineers.** 0 Hours
  
  The importance of practicing academic and research integrity in engineering is examined. The university's honor code and expectations for academic integrity within the context of ethical engineering practice are discussed. The principles of engineering research ethics and integrity are studied in-depth using the Responsible Conduct of Research (RCR) training program as a framework. The RCR Training topics include: research misconduct; conflicts of interest; data sharing, management and ownership; collaborative research; mentor/trainee relationships; responsible authorship and publication practices; peer review; human subjects protection; animal welfare; and, university policies affecting researchers at all levels. Course topics are examined via online coursework, video examples, live training workshops and interactive case studies.

- **EGR 501. ETHOS Center Internship.** 6 Hours
  
  Full time domestic or international internship with a non-profit or international non-governmental agency. Permission only.

- **EGR 530. Appropriate Technology and Design II.** 0-3 Hours
  
  An experiential, case-based course in appropriate technology and engineering design. Case studies focus on international standards and specifications for appropriate technologies; global protocols for needs assessment and engineering impact evaluation; and social science research methods for well being assessment. The course also includes an intensive ETHOS service-learning immersion experience focused on technical or engineering design work in a developing country. Senior or graduate status; permission by instructor.

- **EGR 590. Selected Readings.** 1-6 Hours
  
  Directed readings on an interdisciplinary engineering topic approved by the student's academic advisor and the department chair. May be repeated. Possible topics include: (a) Research Ethics, (b) Engineering Innovation, (c) Entrepreneurship, or (d) Multidisciplinary Design. Prerequisite(s): Variable.

See also Master's Degree Requirements in School of Engineering section in the bulletin and consult with the director of the Master of Science in engineering program.