Mission/Vision Statement

The Engineering Department’s mission is to enable the professional development of students’ abilities for analysis and design within the context of environment. The Wilkes view emphasizes engineering as a creative, hands-on profession with leadership responsibilities. Teamwork, ethics, and professional communication permeate the educational experience to enhance the graduate's technical problem-solving ability. Wilkes Engineering graduates will possess the vision, confidence and will to pursue and assume increasing responsibilities in engineering and leadership throughout their careers. Our vision is to be recognized as the finest small engineering program in Pennsylvania.

Students/Customers

The Department serves undergraduate students pursuing a BS in Electrical Engineering, Mechanical Engineering, Engineering Management or Applied & Engineering Sciences. The Department also serves graduate students seeking an MS in Electrical Engineering or Engineering Operations Strategy.

Program Objectives (PO)

Graduates of the Engineering Programs will have the ability to:

- Apply core science and mathematics principles to solve engineering problems
- Design and conduct experiments to provide meaningful answers and collect and interpret experimental data
- Apply knowledge of core engineering and computers to integrated process of design and analysis of engineering systems, including the contemporary engineering applications of technology.
- Work individually and in teams to identify and solve complex engineering problems that cut across disciplines
- Use information resources efficiently and communicate effectively
- Apply analytical skills and creativity to investigate the adequacy of a mechanical design and make design improvements consistent with socio-economic, environmental, safe and other contemporary engineering practices.
- Integrate humanities and social sciences as part of a well-rounded education to adapt to sociological and technological changes
- Develop a sense of economic, social, ethical and professional issues in the practice of engineering
- Embrace lifelong learning
- Develop professional skills through participation in the activities of senior projects, industry interaction, research, career and co-op programs, professional organizations and other social and cultural opportunities of the University.

Student Learning Objectives (SLO)
Key Assessment Activities

- Homework, quizzes, exams
- Design Projects
- Written reports
- Oral presentations
- Lab Reports
- Peer Evaluations
- Senior Design Project
- Senior Exit Survey
- Alumni Survey
- Co-op Survey
- Participation in Professional Society
- Student Skills Survey
- Industrial Advisory Board Survey
- Employer Survey

University Strategic Plan Goals (SPG)

1. Achieving excellence & growth in academic programs.
2. Developing a world-class support environment.
3. Valuing our people.

Institutional Student Learning Outcomes (ISLO)

Through coursework, learning experiences, co-curricular and extracurricular activities, students will develop and demonstrate:

1. Knowledge, skills, and scholarship appropriate to general and major field areas of study.
2. Effective written and oral communication skills and information literacy using an array of media and modalities.
3. Practical, critical, analytical, and quantitative reasoning skills.
4. Actions reflecting ethical reasoning, civic responsibility, environmental stewardship, and respect for diversity.
5. Interpersonal skills and knowledge of self as a learner that contribute to effective team work, mentoring, and life-long learning.

Strategic Alignment

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Classification of Instructional Program (CIP) Code:

- 14.1001 (Electrical Engineering)
- 14.1901 (Mechanical Engineering)
- 15.1501 (Engineering Management)
- 14.1301 (Applied & Engineering Sciences)