



Course Name: ENR-132 Introduction to Experimentation and Design

Date Updated: 2/2022

Credit Hours/week: Lec. 2 hrs., Lab 1 hr./wk. – 3 cr.

BEGINNING: SPRING 2022

Catalog Description: A required course in the Engineering Technology programs that introduces students to the field of engineering. Students will be introduced to experimental techniques, data collection and representation, as well as the proper method for documenting experimental results. The course will also cover topics that will help students succeed in their field of study and in their college experience.

Prerequisite: MAT-016 or placement into MAT 110, or beyond

Text: None

Supplementary Material: Laboratory activities will be conducted in SH-159 or SH-161

Specialized equipment, supplies, facilities, for classes limited by enrollment or restricted by accreditation and/or equipment limitations: (Information will be used to determine differential funding category.)

Syllabus:

Table with 1 column and 11 rows listing topics such as 'Introduction to Careers in technology and Engineering (CSS)', 'Introduction to the Use of Computers in the Preparation of Laboratory Reports, Data Collection, and Analysis (CSS)', etc.

Format for Offering this Course: Hybrid-Main Campus, Traditional

Students are expected to adhere to the policies of the County College of Morris. These can be accessed at: (insert link here)

## **Statement of Expected Course LEARNING OUTCOMES**

- Explain scientific notation and identify the most commonly used prefixes in the engineering profession
- Apply scientific notation in data collection, processing, and analysis
- Demonstrate the use of dimensional analysis when performing unit conversions
- Demonstrate the use of basic measuring techniques in the field of mechanical and electrical engineering
- Demonstrate how to record, document, and analyze collected data
- Recognize academic and social expectations of college students and how to successfully achieve those expectations
- Participate in and meet course expectations in the face-to-face (traditional), hybrid and online learning class environments

### **Statement of Relation to Curriculum(s):**

Required course in the Mechanical Engineering Technology, Electronics Engineering Technology, and the Biomedical Equipment option.