



# COMPUTER ENGINEERING MAJOR

## MAKE A REAL WORLD IMPACT

EOSYS has supported Cooperative Education since 1995, employing dozens of top students annually between our office locations. Our program, EOSYS NEXT, prepares Computer Engineering students for a rewarding and successful career in industrial and manufacturing industries by providing an immersive, hands-on experience, and expanding their technical skills under the guidance and direction of a mentor.

**The mission of EOSYS NEXT is simple:  
turn top students into world-class engineers.**

In addition to technical skills development, you will learn professional skills crucial to a successful career.

As an EOSYS NEXT Engineer, Computer Engineering students can expect to be on the front end of developing plant information systems and plant floor control systems that assist clients with optimizing their manufacturing operations to improve overall performance.

Our Control System Integration team has the experience to help students understand the need for factory automation and industrial controls. Over the course of the co-op experience with EOSYS, students are exposed to many of the control systems fundamentals listed below:

### System Design

- Electrical & MCC Design
- Functional Descriptions
- Control System Design
- Safety Design
- Process Design (S88.01)

### Configuration & Programming

- PLC Programming
- DCS Configuration
- HMI Programming
- Historian Configuration
- MES Connectivity
- Factory Acceptance Testing (FAT)
- Simulation

### Industry Standards

- Database – MS SQL Server, Oracle
- Web Applications - ASP.NET, SPA, MVC - .NET, WPF
- Windows / Web Services
- Mobile Computer (Handheld Barcode Desktop Applications Scanner)
- SQL Reporting Services (SSRS)
- Custom Reporting (Application, Web, SharePoint, Excel)
- Custom Charting / Trending Applications

### Startup

- Coordination/Management
- I/O Check
- Loop Checking
- Commissioning
- Site Acceptance Testing (SAT)

### Support

- Training
- Production Support

We utilize many industry-leading application packages such as AutoCAD, AVEVA/Wonderware, Foxboro DCS, Ignition, Rockwell ControlLogix, and Yokogawa DCS.