Nashville State Community College  
Business, Applied Arts & Technologies Division  
Electrical Engineering Technology

Master Course Syllabus

EETH 2380 Computer Integrated Lab

3 Credits
2 Class Hours
3 Lab Hours
This course covers the integration of multiple intelligent controllers and devices into a complete system. Topics include PLC, robots, CNC machinery, intelligent motion controllers, and troubleshooting. Prerequisites: EETH 2340, EETH 2600

Instructor Information:
Name:  
Email:  
Office Phone:  
Office Location:  
Office Hours:

Textbook and Other Materials:
Textbook: Users’ manuals from different types of equipment  
Reference Materials:  
Supplies: Scientific Calculator

Course Outcomes:  
Upon successful completion of this course, students should be able to:
- Create original and modify existing programs for PLC and other programmable control devices  
- Create functional and useable HMIs  
- Integrate various off-the-shelf automation products to produce a single complete automated manufacturing system  
- Use software application programs such as CAD/CAM, word processors, and spreadsheets to produce technical documents such as operation manuals, electrical schematics, and technical reports  
- Demonstrate ability to resolve industrial application problems with the use of programmable devices.  
- Justify rationale for the design and implementation of a project which will include the operations manual.

Course Competencies:  
The following are detailed course competencies intended to support the course outcomes:  
- Create inspection tools in the DVT vision system  
- Create scripts in the DVT vision system
• Create programs to control a single or multiple axis servo system
• Interface DVT vision system with a PLC
• Interface servo controller with a PLC using serial communications or discrete I/Os
• Provide for communication and handshaking between multiple intelligent devices in order to integrate these devices into a single control system
• Use MS Word to create technical documentation
• Use AutoCAD to create technical documentation
• Use MS Excel to create technical documentation if required
• Use MS PowerPoint to create technical presentations if required
• Utilize manufacturers’ technical documentation to learn about operating, customization, and programming of intelligent devices.

Course Assessments:
The following performance assessments will be used to demonstrate students’ understanding, knowledge and skills:
• The student will be required to demonstrate satisfactory performance on tests and class assignments.
• The student must have an adequate understanding of and capabilities to work with, program, and troubleshoot the laboratory equipment.
• The student must be able to effectively communicate his/her understanding of the course material and laboratory assignments through written and verbal communication.

Topics to Be Covered:
• DVT Vision systems
• Servo controller programming
• Various other topics depending on assigned projects

Grading Policy
Final project report 60%
Intermediate reports and quizzes 40%

Grading Scale:
A (90-100%), B (80-89%), C (70-79%), D (60-69%), F (less than 60%)

Make-up procedures for missed assignments and work.
Assignments missed due to excused absences may be made up with no penalty as long as the student makes arrangements for make-up by the next class session after the absence. It is the student’s responsibility to arrange makeup work with the instructor. Work missed due to unexcused absences will be assessed a penalty of 10% per day late (weekdays not class periods). Work missed due to unexcused absences will not be accepted after 2 weeks.

Attendance Policy
A student is expected to attend all scheduled classes and laboratories. Each instructor will formulate an attendance policy and provide it on the course syllabus. Absences are counted from the first scheduled meeting of the class, and it is the responsibility of each student to know
the attendance policy of each instructor in whose class he/she is enrolled. If a student is absent from a class, he/she should give an advanced explanation to the instructor. Absences in a course may affect a student’s final grade. The student is responsible for all assigned work in the course regardless of excused or unexcused absences. Tardiness may also affect a student’s final grade.

Failure to attend class will result in a final course grade of “FA” or “FN” (see explanation below) depending on the individual instructor’s course policy.

FA= failure, attendance-related (unofficial withdrawal) Last recorded date of attendance required.
FN= failure, never attended class (unofficial withdrawal)

**Student Communication Channels**

It is the student’s responsibility to check D2L and MyNSCC email on a regular basis. These are the official communication channels between the college and students. Students are responsible for the information communicated through those channels. D2L contains specific course information and MyNSCC contains information important for other purposes.

**ADA Compliance Statement**

Nashville State complies with the Americans with Disabilities Act. If you wish to request any special accommodations for any courses in which you are enrolled, contact the Student Disabilities Office at 615.353.3721.

**Classroom Misconduct**

Nashville State Community College has a zero tolerance policy for disruptive conduct in the classroom. Students whose behavior disrupts the classroom will be subject to disciplinary sanctions. Please consult your Student Handbook for more specific details.

The instructor has primary responsibility for control over classroom behavior and maintenance of academic integrity. He/she can order temporary removal or exclusion from the classroom of any student engaged in disruptive conduct or in conduct which violates the general rules and regulations of the College.

Disruptive behavior in the classroom may be defined as, but is not limited to, behavior that obstructs or disrupts the learning environment (e.g., offensive language, harassment of students and professors, repeated outbursts from a student which disrupt the flow of instruction or prevent concentration on the subject taught, failure to cooperate in maintaining classroom decorum, etc.), the continued use of any electronic or other noise or light emitting device which disturbs others (e.g., disturbing noises from beepers, cell phones, palm pilots, lap-top computers, games, etc.).

Please be aware that children are not allowed in class or unattended on campus.

**Academic Dishonesty (Honor Code)**

Any form of academic dishonesty, cheating, plagiarizing, or other academic misconduct is prohibited. “Plagiarism may result from: (1) failing to cite quotations and borrowed ideas, (2)
failing to enclose borrowed language in quotation marks, and (3) failing to put summaries and paraphrases in your own words (A Writer’s Reference 331). Academic dishonesty may be defined as, but is not limited to, intentionally trying to deceive by claiming credit for the work of another person, using information from a web page or source without citing the reference, fraudulently using someone else’s work on an exam, paper, or assignment, recycling your own work from another course, purchasing papers or materials from another source and presenting them as your own, attempting to obtain exams/materials/assignments in advance of the date of administration by the instructor, impersonating someone else in a testing situation, providing confidential test information to someone else, submitting the same assignment in two different classes without requesting both instructor’s permission, allowing someone else to copy or use your work, using someone else’s work to complete your own, altering documents, transcripts or grades, and forging a faculty/staff member’s signature.

In addition to other possible disciplinary sanctions that may be imposed through regular college procedures as a result of academic dishonesty the instructor has the authority to assign an “F” or a “Zero” for the exercise, paper, or examination or to assign an “F” for the course. Students may appeal through the appropriate college grade appeal procedures.

Inclement Weather Policy
In the event of an inclement weather event, check the Nashville State web site home page at www.nscc.edu for announcements on campus closures. Campus closures will also be announced on local television stations (channels 2, 4, 5, and 17).

When classes are cancelled, an online assignment will be posted in NS Online. Check your NS Online email for a message from your instructor regarding your online assignment requirements. Even though classes may be cancelled, some areas, i.e. Testing Center, may be open. However, you should check before commuting to campus.

The Vice President for Academic Affairs and the Director of Security are responsible for cancellation decisions during an inclement weather event for the Nashville State main campus and the Southeast campus. Cookeville, Waverly, and Dickson Campus Directors will make class cancellation decisions based on conditions in their respective areas. Decisions about class cancellations are based on actual conditions, not forecasts. The perspective used for making decisions is that of the college as an employer, not as a K-12 institution. Students should use their own best judgment in determining whether to report to campus during inclement weather when classes are not cancelled.