

CLARENDON COLLEGE

Division of Business and Technology

Course Name: *INMT 1417 Industrial Automation*

Credit Hours: 4

Semester: *Spring 2011*

Classroom Location: *Childress Center Wind Room*

Instructor: *Murdock, Corey*

Office Location: *Childress*

Phone: 806-206-4518

Email: *corey.murdock@clarendoncollege.com*

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Other: 940-937-2001

Office Hours: Mon- Thurs 2:30 to 5:30; Fri 8:00 am – 12:00 pm

I. Course Description:

A study of the applications of industrial automation systems including identification of system requirements, equipment integration, motors, controllers, and sensors. Coverage of set-up, maintenance, and testing of the automated system.

II. Program Outcomes:

- A. The Wind Energy Technology student will demonstrate competent skills needed to maintain and repair electrical systems of wind turbines.
- B. The Wind Energy Technology student will demonstrate competent skills in maintaining and repairing mechanical systems of wind turbines
- C. The Wind Energy Technology student will demonstrate competency in practicing safety skills in responding to hazards associated with wind turbines.
- D. Demonstrate the concepts of supervisory control and data acquisition (SCADA) and data communications.

III. Learning Outcomes:

The student will:

- a. Identify and operate motors and motor controls for automation

- b. Demonstrate safety procedures required for working with high voltages and mechanical devices.
- c. Disseminate information about industry's progression toward automation and demonstrate a working knowledge of controls and control methods
- d. Exhibit proper set-up, maintenance and testing for automation
- e. Understand and select appropriate sensors
- f. Solve problems and build employability skills such as listening, attitude, work ethic, and critical thinking
- g. Troubleshoot electrical/electronic systems malfunctions
- h. Assemble and maintain electronic, electrical, or electromechanical equipment
- i. Conduct electrical inspection and testing
- j. Service wiring and circuitry components

IV. Course Requirements:

Textbook Required: Electrical Motor Controls for Integrated Systems, Gary J. Rockis and Glen A. Mazur, American Technical Publishers, 2009, (ISBN 978-0-8269-1217-6) Work Book (ISBN 978-0-8269-1218-3)

Course requirements include problems and exercises, unit tests and final examinations derived from lectures. Assignments will be due one week from the day they were assigned unless special instruction is given by the instructor. Students must actively participate in class and attend class unless arrangements are made in advance for absence.

Pop Quizzes may be given.

Methods and components of evaluation and grading are listed in the following:

Problems and exercises:	20%
Quizzes:	15%
Folder:	25%
Final:	40%

Total	100%

The final semester grades will be figured as set in the current catalog:

- 90 and above = A
- 80-89 = B

70-79 = C

60-69 = D

Below 60 = F

A student's final grade will be made available through Campus Connect at Clarendon College's website.

Methods of Instruction:

Lecture, PowerPoint presentation student interaction.

Other Requirements:

- Class Attendance is Required
- **No late homework will be accepted**
- Personal Tools and Supplies include: three ring binder, scientific calculator, and pencils, note paper (recommend graphing or engineering paper), etc...

Classroom Policies:

- Food will not be permitted in the classroom.
- Tobacco products will not be permitted in the classroom.

Classroom Conduct

Failure to comply with lawful direction of a classroom instructor is a disruption for all students enrolled in the class. Cheating violations include, but are not limited to: (1) obtaining an examination, classroom activity, or laboratory exercise by stealing or collusion; (2) discovering the content of an examination, classroom activity, laboratory exercise, or homework assignment before it is given; (3) using an unauthorized source of information during an examination, classroom activity, laboratory exercise, or homework assignment; (4) entering an office or building to obtain unfair advantage; (5) taking an examination for another person; (6) completing a classroom activity, laboratory exercise, homework assignment, or research paper for another person; (7) altering grade records; (8) using any unauthorized form of electronic communication device during an examination, classroom activity, or laboratory exercise; (9) Plagiarism. Plagiarism is the using, stating, offering, or reporting as one's own, an idea, expression, or production of another person without proper credit.

Disciplinary actions for cheating in a course are at the discretion of the individual instructor. The instructor of that course will file a report with the Dean of Students when a student is caught cheating in the course, whether it be a workforce or academic course. The report shall include the course, instructor, student's name, and the type of cheating involved.

Students who are reported as cheating to the Dean of Students more than once shall be disciplined by the Dean. The Dean will notify all involved parties within fourteen days of any action taken.

American with Disabilities Act Statement:

Clarendon College provides reasonable accommodations for persons with temporary or permanent disabilities. Should you require special accommodations, notify the Office of Student Services (806-874-3571 or 800-687- 9737). We will work with you to make whatever accommodations we need to make.

Dropping a Course:

A student who is enrolled in a developmental course for TSI purposes may not drop his/her only developmental course unless the student completely withdraws from the college. A student may drop any other course with a grade of "W" any time after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar. The request for permission to drop a course is initiated by the student by procuring a drop form from the Office of Student Services. (Refer to other policies concerning this issue in the current college catalog online.)

Withdrawal from College:

When a student finds it necessary to withdraw from school before the end of the semester, he or she should obtain a withdrawal form from the Office of Student Services. Students may also withdraw from the college by sending a written request for such action to the Registrar's Office. The request must include the student's signature, the student's current address, social security number and course information details. Students who withdraw after the census date for the semester and on or before the end of the 12th week of a long semester, or on or before the last day to drop a class of a term as designated in the college calendar will be assigned a grade of "W."

Classroom requirements:

The operation of cell phones, MP3 type devices, personal computers, or any other such devices is strictly prohibited during class sessions. The result of such use will

result in a zero grade for the event (quiz/test) for that day including final exam day. Cheating, plagiarism or other dishonest acts shall be dealt with to the extent of dismissal from the class permanently on a case by case basis. Under no circumstance will an individual be exonerated after a second incidence, but will be immediately dropped.

Any missed quizzes or exams must be taken within 1 week of the date missed. It is the student's full responsibility to make arrangements to make up a quiz or exam at a time agreeable to the instructor. The Final exam will be taken on the prescribed day or arranged day prior to the final exam. No exceptions.