CASPER COLLEGE COURSE SYLLABUS
ROBO 2580, LabView

Semester/Year: Fall 2015

Lecture Hours: 2   **Lab Hours**: 0   **Credit Hours**: 2

Class Time: 1:00-2:50 p. m.   **Days:** Wednesday   **Room:** GW 103

Instructor's Name: Megan Graham

Instructor's Contact Information:
Office Phone: 268-2539   **Office:** GW 116D

Email: mgraham@caspercollege.edu   **Office Hours:** M,T,W,Th: 12:00 -1:00 p. m
                                         T, W: 5:00-6:00 p. m.

Course Description:
Students will learn how to use the LabView environment to simulate and control an automated process or motion control system.

Statement of Prerequisites:
None

Institutional Outcomes:
☐   Demonstrate effective oral and written communication
☐   Use the scientific method
☐   Solve problems using critical thinking and creativity
☐   Demonstrate knowledge of diverse cultures and historical perspectives
☐   Appreciate aesthetic and creative activities
☐   Use appropriate technology and information to conduct research
☐   Describe the value of personal, civic, and social responsibilities
☐   Use quantitative analytical skills to evaluate and process numerical data

Program Goals:
1. To provide comprehensive training in the fields of electronics technology, so that the associate degree graduate is technically qualified to obtain employment in the electronics industries or an allied field.
2. To provide the necessary training for graduates to continue on to advanced training in an electronics program or a related four-year program.

Course Goal:
To learn how to use LabView programming to program and/or simulate a process or motion control system.

Program Objectives:
Students will be able to write and test programs that include structures, subroutines, and I/O devices.

Methodology:
During the 2 lectures per week students will be introduced to programming feature of LabView. Students will be required to write programs in and out of class.

Evaluation Criteria:

Programs	40%
Tests	60%
	100%

Casper College may collect samples of student work demonstrating achievement of the above outcomes. Any personally identifying information will be removed from student work.

Required Text, Readings, and Materials:
No required text

Class Policies: Last Date to Change to Audit Status or to Withdraw with a W Grade: Thursday November 12, 2015

Student Rights and Responsibilities: Please refer to the Casper College Student Conduct and Judicial Code for information concerning your rights and responsibilities as a Casper College Student.

Chain of Command: If you have any problems with this class, you should first contact the instructor to attempt to solve the problem. If you are not satisfied with the solution offered by the instructor, you should then take the matter through the appropriate chain of command starting with the Department Head/Program Director, the Dean, and lastly the Vice President for Academic Affairs.

Academic Dishonesty: (Cheating & Plagiarism) Casper College demands intellectual honesty. Proven plagiarism or any form of dishonesty associated with the academic process can result in the offender failing the course in which the offense was committed or expulsion from school. See the Casper College Student Code of Conduct for more information on this topic.

Official Means of Communication: Casper College faculty and staff will employ the student's assigned Casper College email account as a primary method of communication. Students are responsible to check their account regularly. This is also, where you will find course evaluation links during course evaluation periods.

ADA Accommodations Policy: If you need academic accommodations because of a disability, please inform me as soon as possible. See me privately after class, or during my office hours. To request academic accommodations, students must first consult with the college's Disability Services Counselor located in the Gateway Building, Room 344, (307) 268-2557, bheuer@caspercollege.edu . The Disability Services Counselor is responsible for reviewing documentation provided by students requesting

accommodations, determining eligibility for accommodations, and helping students request and use appropriate accommodations.

Safety: Personal and equipment safety standards will be strictly enforced. It is the individual's responsibility to develop a safe work attitude.

Calendar or schedule indicating course content:

Week	Topic
1	Introduction to LabView EX 1
2	SubVI's EX 2
3	For Loop – While Loop EX 3
4	Shift Register - Case Structure- State Machine EX 4
5	**Review and Test 1**
6	Arrays EX 5
7	Clusters EX 6
8	Variables EX 7 **Review and Test 2**
9	*Fall Break*
10	FRC Project: TeleOp EX 8
11	FRC Project: Pneumatics EX 9
12	FRC Project: Sensors EX 10
13	**FRC Project: TeleOp**
14	FRC Project Autonomous EX 11
15	FRC Project Autonomous EX 11
16	**FRC Project: Autonomous**
Final	**FRC Project: Autonomous**