## Course Syllabus

**Course Title:** CCD Cameras and Security Systems  
**Course Code:** ELTR-2870, 01

### Semester/Year
- **Spring 2015**

### Lecture Hours: 1  
**Lab Hours:** 2  
**Credit Hours:** 2

### Class Time
- **Lecture:** 1-1:50 PM  
- **Lab:** 2-3:50 PM

### Days:
- **Lec:** T  
- **Lab:** T

### Room: GW 207

### Instructor’s Name:
- **David Arndt**

### Instructor's Contact Information:
- **Office:** GW 116E  
- **Office Phone:** 307-268-2521  
- **Email:** darndt@caspercollege.edu

### Office Hours:
- **Office Hours:** M, W, F  
- **M, W:** 9-9:50 AM  
- **11-11:50 PM**

### Course Description:
This course will cover the use of Charged Coupled Device (CCD) camera sensors, which are used in digital cameras, machine vision cameras, and surveillance cameras. Other areas covered will be lighting requirements, image acquisition and storage, video surveillance systems, and security systems.

### Statement of Prerequisites:
- ELTR-1570 OR PERMISSION OF INSTRUCTOR

### Goal:
Upon completion of this course, the student will:

1. Understand the use of CCD cameras and video surveillance systems.
2. Understand the difference types of lighting requirements for camera systems.

3. Understand the basic functions of security and video security systems.

**Outcomes:**

The student will:

1. Demonstrate knowledge of basic lighting requirements required for camera systems.
2. Demonstrate knowledge of the basics how CCD sensors and camera systems work.
3. Evaluate a building in order to develop a video surveillance system for the building.
4. Evaluate and design a hardwired and wireless video security system for a building.
5. Set up and monitor a hardwired video security system for a building.
6. Set up and monitor a wireless video security system for a building.
7. Set up a basic wireless security system for home use.

**Methodology:**

This course consists of one hour of lecture and a two hour lab each week for 16-weeks. The lectures will cover the basic concepts of CCD camera sensors, video surveillance cameras, and security systems. Your feedback is valuable as the instructor uses course evaluations in determining course methodology.

**Evaluation Criteria:**

The student’s grades will consist of the following:

4 Tests averages = 50% = 100 points
6 Lab reports averages = 50% = 100 points
Total = 100% = 200 points

Test and Lab Grading Scale
100-90 = A
89 - 80 = B
79 –70 = C
69 –60 = D
59 - 50 = F
### Course Grading System:

200 – 180 points = A
179 – 160 points = B
159 – 140 points = C
139 – 120 points = D
119 – 0 points = F

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:

Course handouts

### Class Policies: Last Date to Change to Audit Status or to Withdraw with a W Grade:

The Friday of the ninth week of class.

### 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.

### 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**

**Tentative Schedule:**

*This schedule is subject to change by the instructor*

<table>
<thead>
<tr>
<th>Week</th>
<th>Content</th>
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<tbody>
<tr>
<td>1</td>
<td>CCD Cameras</td>
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<td>2</td>
<td>CCD Cameras</td>
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<td>3</td>
<td>CCD Cameras</td>
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<td>4</td>
<td>Test 1</td>
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<td>5</td>
<td>Security Cameras</td>
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<td>6</td>
<td>Security Cameras</td>
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<td>7</td>
<td>Test 2</td>
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<td>Test 3</td>
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<td>Security Systems</td>
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<td>14</td>
<td>Lab</td>
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<td>15</td>
<td>Lab</td>
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FINAL TEST AS SCHEDULED