

ET-360
Electronic Control Fall

Text Book: Industrial Automated Systems
Terry Bartelt
ISBN: 13: 978-1-4354-8888-1
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Software: Lab View 8.2

Grades are based on tests, homework and attendance as follows:

(2) Tests	33%
Homework	33%
Attendance	33%

Letter grades are as follows:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
00-59%	F

Homework Assignments

Ch. 1 Introduction to Industrial and Process Control Systems
pg. 15 prob 1-24 even

Ch. 2 Interfacing Devices
pg. 44 prob 1,2,3,8,10,11

Ch. 4 The Controller Operation
pg. 90 prob 1-32 even

Ch. 10 Pressures Systems
pg. 228 prob 2-30 even

Ch. 11 Temperature Controls
pg. 254 prob 2-30 even

Ch. 12 Flow Control
pg. 274 prob 2-24 even

Ch. 13 Level Control Systems
pg. 290 prob 2-20 even

Ch. 14 Analytical Instrumentation
pg. 313 prob 2-20 even

Ch. 15 Industrial Process Techniques
pg. 348 prob 2-26 even

Ch. 16 Instrumentation Symbolology
pg. 360 prob 2-24 even

Ch. 17 Process Control Methods

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Grades are based on Lab View exercises, completed labs and attendance as follows:

Lab View Activities	33%
Lab View Project	33%
Attendance	33%

Lab View Exercises

Activity 1 Getting Started with Lab View
Activity 2 Customizing a V I
Activity 3 Analyzing and Saving a Signal
Activity 4 Creating a Signal Analogy
Activity 5 Connecting and Testing USB-6008 DAQ
Activity 6 Creating DAQ Task
Activity 7 Lab View DAQ Assistant and LM 34

Lab 10 Motor Speed Monitor (Input)
Lab W Motor Speed Monitor (Output)

Lab 11 Part 1 Photo Resistor Input
Part 2 Photo Resistor with Output

Lab X Thermistor, Wheatstone Bridge, Differential Amp.

Lab 12 Lab View Microphone Lab
Lab 13 Lab View Hall Effect Sensor

Lab 15 Lab View Distance Sensor
Lab 14 Lab View Float Sensor

Hardware Lab 1 Op-Amp Current Boosters
Hardware Lab 2 PID Op-Amp Waveforms

Hardware Lab 4 Photoresistors
Hardware Lab 5 Optocoupler
Hardware Lab 6 Proximity Sensors