



IMPERIAL VALLEY COLLEGE

Basic Course Information

Semester:	SPRING 26	Instructor Name:	Javier Soto
Course Title & #:	INST 085	Email:	Javier.soto@imperial.edu
CRN #:	21342	Webpage (optional):	
Classroom:	3119	Office #:	3121
Class Dates:	2/17/26 – 6/10/26	Office Hours:	T/Th 2:00pm – 4:00pm
Class Days:	T/TH	Office Phone #:	
Class Times:	6:00pm – 8:40pm	Emergency Contact:	Tisha Nelson 760-355-6361
Units:	3	Class Format/Modality:	Face to Face

Course Description

This course builds on the knowledge and understanding of industrial plant instrumentation, including automatic process controls, generation automation control, and related systems. Students will gain a understanding of software and programming, computer-aided control systems, and distributed control systems.

Course Prerequisite(s) and/or Corequisite(s)

INST 080

Student Learning Outcomes

Students will be able to demonstrate proficiency in advanced processes and controls in instrumentation sensors and devices.

Course Objectives

1. *Understand and measure voltage and frequency controllers (I&E)*
Understand motor control and servo systems
Understand water treatment processes
Advanced understanding of analog circuit measurements
Understand software and programming, computer-aided control systems, and distributed control systems
Troubleshooting industrial control systems and output devices
Understand pneumatic/electric/hydraulic instrumentation

Understand automatic process control valves

Understand automatic combustion control/VCU

Interpret predictive maintenance; vibration analysis (I&E)

Perform process control systems troubleshooting

Interpret and understand generation automation control and related systems

Understand protection relays

Textbooks & Other Resources or Links

ATP Instrumentation And Process Control 7th Edition ISBN : 978-0-8269-3446-8

Course Requirements and Instructional Methods

Computer , LAB, Video, Lecture

Course Grading Based on Course Objectives

Letter Grade

The course grade is based on total points accumulated during the semester. There is a maximum of 1200 points. Very limited extra credit points may be available, either through some class participation activity, group work or perfect attendance. Failing to turn in regular assignments will stop you from being able to earn extra credit points and late assignments will have points subtracted. Final Grades are calculated as follows:

Below is the Instructional Scale:

Grade breakdown is subject to change Breakdown (1660 points)

- *Exams: 260 Pts*
- *Midterm/Final: 500 Pts*
- *Lab activities: 800 Pts.*
- *Participation: 100 Pts.*
- *Total points 1660pts.*



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Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

Course Policies

- *A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.*
- *Regular attendance in all classes is expected of all students. A student whose continuous, unexcused absences exceed the number of hours the class is scheduled to meet per week may be dropped. For online courses, students who fail to complete required activities for two consecutive weeks may be considered to have excessive absences and may be dropped.*
- *Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences. What does it mean to "attend" an online class?*

Academic Honesty

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the importance of acknowledging and safeguarding intellectual property. Imperial

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Other Course Information



• **CANVAS LMS:** Canvas is Imperial Valley College’s main Learning Management System. To log onto Canvas, use the link: Canvas Student Login. The Canvas Student Guides Site provides a variety of support available to students 24 hours per day. **Additionally, a 24/7 Canvas Support Hotline is available for students to use: (877) 893-9853.**

• You may consult your college map for the **Reading and Writing Lab, Study Skills Center and/or Library**

• **Library Services:** As you know there is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups, and online access to a wealth of resources.

Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at finaid@imperial.edu.

IVC Student Resources

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.

Anticipated Class Schedule/Calendar

[Provide a tentative overview of the readings, assignments, tests, and/or other activities for the duration of the course. A table format as in the example below may be used for this purpose.]

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 1 2/17/26	Syllabus review , Safety Video (review Chapter 15) Quiz 15 (19 Points) Lab 50 PTS	
Week 2 2/24/26	Chapter 17 (review) Quiz Chapter 17 (14 Points) Lab 50 Points	
Week 3 3/3/26	Chapter 18 (review) Quiz 18 (21 Points) Lab 50 Points	
Week 4 3/10/26	Chapter 19 (review) Quiz 19 (20 Points) Lab 50 Points	
Week 5 3/17/26	Chapter 20 (review) Quiz 20 (20 points) Lab 50 Points	



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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 6 3/24/17	Chapter 21 (review) Quiz 21 (13 Points) Lab 50 Points	
Week 7 3/31/26	Chapter 22 (review) Quiz 22 (16 Points) Lab 50 Points	
Week 8 4/7/26	NO SCHOOL SPRING BREAK Chapter 23 Quiz (20 points)	
Week 9 4/14/26	Midterm 250 pts Chapter 24 Quiz (16 Points) Lab 50 Points	
Week 10 4/21/26	Chapter 25 review Quiz 25 (22 points) Lab 50 Points	
Week 11 4/28/26	Chapter 26 Quiz 26 (20 points) Chapter 27 Quiz 27 (12 Points) Lab 50 points	
Week 12 5/5/26	Chapter 28 Quiz 28 (14 Points) Chapter 29 Quiz 29 (11 Points) Lab 50 Points	
Week 13 5/12/26	Chapter 30 Quiz 30 (20 Points) Chapter 31 Quiz 31 (14 Points) Lab 50 Points	
Week 14 5/19/26	Chapter 32 Quiz 32 (14 Points) Chapter 33 Quiz 33 (15 Points) Lab 50 Points	
Week 15 5/26/26	Chapter 34 Quiz 34 (16 Points) Chapter 35 Quiz 35 (38 Points) Lab 50 Points	



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Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 16 6/2/26	Make up Day (1 Test) Finals Review	
Week 17 6/9/26	FINALS 250 POINTS	

*****Subject to change without prior notice*****