



Basic Course Information

Semester:	SPRING 26	Instructor Name:	Matt Turner
Course Title & #:	PLNT 200	Email:	Matthew.turner@imperial.edu
CRN #:	21341	Webpage (optional):	
Classroom:	3119	Office #:	3118
Class Dates:	2/18/26 – 6/10/26	Office Hours:	m-th 7:00 8:00am
Class Days:	M/W	Office Phone #:	760-355-6372
Class Times:	6:00pm – 8:35pm	Emergency Contact:	
Units:	3	Class Format/Modality:	Face to Face

Course Description

This course provides advanced concepts and theories in industrial plant operations, including electronic process control systems, supervised control and data acquisition (SCADA), programmable logic controls (PLCs) for hydraulic and pneumatic processes, and distributed control systems (DCS). (Formerly PLNT 090)

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

PLNT 150

Student Learning Outcomes

Operate the required process systems in an industrial plant facility.

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Course Objectives

Understand advanced electronic process control systems

Understand Supervised Control and Data Acquisition (SCADA) and subsystems.

Understand and define Distributed Control System (DCS) and Programmable Logic Controllers (PLCs)

Define advanced control loops (ie: PID Loops) and concepts

Understand control valves i.e. hydraulic, pneumatic

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Textbooks & Other Resources or Links

OER, AMATRAL LMS, SACA

Course Requirements and Instructional Methods

Computer, LAB, Video, Lecture

Course Grading Based on Course Objectives

Letter Grade

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

Updated 11/2024

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important 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	Syllabus review , Safety, Amatrol Codes SACA testing	
Week 2	Pneumatic Power Systems Pneumatic Power Systems skills lab	
Week 3	Basic Pneumatic Circuits Basic Pneumatic Circuits Skills lab	

Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 4	Principles of Pneumatic Pressure and Flow Principles of Pneumatic Pressure and Flow skills lab	
Week 5	Pneumatic Speed Control circuits Pneumatic Speed Control circuits skills lab	
Week 6	Pneumatic DCV Applications Pneumatic DCV Applications Skills lab	
Week 7	Air Logic Air Logic skills lab	
Week 8	Pneumatic Maintenance Pneumatic Maintenance skills lab	
Week 9	Hydraulic Power Systems Hydraulic Power Systems skills lab	
Week 10	Basic Hydraulic Circuits Basic Hydraulic Circuits skills lab	
Week 11	Principles of hydraulics Pressure and Flow Principles of hydraulics Pressure and Flow Skills lab	
Week 12	Hydraulic Speed controls Hydraulic Speed controls skills lab	
Week 13	Pressure Control circuits Pressure Control circuits skills lab	



Date or Week	Activity, Assignment, and/or Topic	Pages/ Due Dates/Tests
Week 14	Hydraulic DCV applications Hydraulic DCV applications skills lab	
Week 15	Hydraulic cylinder Applications Hydraulic cylinder Applications skills lab	
Week 16	Hydraulic relief Valve operations Hydraulic relief Valve operations skills lab	
Week 17	SACA testing optional	

Subject to change without prior notice