

### Basic Course Information

Semester	<b>Fall 15</b>	Instructor Name	<b>Jose Velasquez</b>
Course Title & #	<b>BLDC 135</b>	Email	<b>Jose.velasquez@imperial.edu</b>
CRN #	<b>10820</b>	Webpage (optional)	
Room	<b>3117</b>	Office	<b>3118</b>
Class Dates	<b>8/17-12/11</b>	Office Hours	<b>M-R 1:00-4:00pm</b>
Class Days	<b>T Lecture R Laboratory</b>	Office Phone #	<b>(760) 355-5758</b>
Class Times	<b>T 6:00 -8:05 pm R 6:00-9:10pm</b>	Office contact if student will be out or emergency	<b>(760) 623-6274</b>
Units	<b>3.0</b>		

### Course Description

This course is an introductory study of the layout and fabrication of a residential plumbing system. Discussion will include water and waste water plumbing systems for residential applications. In addition there will be a component on residential plumbing design, with emphasis on repair and maintenance of fixtures faucets and drains and water leaks. Installations will be guided by the local and national plumbing codes. Learning opportunities will be enhanced through a combination of lecture and laboratory activities. (Nontransferable, AA/AS degree only)

### Student Learning Outcomes

1. Explain the importance of locating and protecting underground utilities (critical thinking skills)
2. Demonstrate positive work ethics and demonstrate ability to work well with others and perform group tasks in a timely manner. (personal Responsibility)
3. Apply information on various tables to determine adequate size of DWV piping and water supply piping. (critical thinking skills)

### Course Objectives

Upon successful completion of this course, the students will:

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1. Demonstrate safe use of tools and equipment
2. Read and understand mechanical drawings of plumbing layouts
3. Identify and explain the function of fittings in water and wastewater systems

4. Calculate proper wastewater pipe size
5. Measure, Cut and solder copper pipes
6. Understand layout and design code requirements for plumbing in residential construction

### Textbooks & Other Resources or Links

Modern Plumbing. E. Keith Blankenbaker & Charles H. Owenby

### Course Requirements and Instructional Methods

#### Required Information—discretionary language

**This section is where faculty would list detailed information related to types of class activities, assignments, tests, homework, etc.**

Field trip to actual house under construction to inspect the rough plumbing

Reading and Writing:

Write a 2000 word report that will be shared and discussed in class.

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

### Course Grading Based on Course Objectives

**A= 90%-100% Excellent**

**B= 80%-89% Good**

**C= 70%-79% Satisfactory**

**D= 60%- 69% Pass, less than satisfactory**

**F= 59%&Below Failing**

The course grade will be determined by various factors such, as class participation, classroom assignments, chapter reviews & drawing project, midterm & final exams. The grading range is as follows:

Class Participation	25%
Laboratory	25%
Midterm	25%

**Final Exam**                      **25%**

**Attendance, Late Assignments:**

**Absences and tardiness provide an opportunity to miss valuable instruction presented by the instructor, guest speakers, and site administrators. Tardiness will contribute to lower scores on assignments and subsequently a lower course grade. All assignments are due on the specified completion dates and all students have the same and equal time to complete all assignments as per the course calendar. Considerations will be given to those late assignments accompanied by a written medical statement from a physician. 25% of possible points will be penalized for late work. Any assignment can be turned in prior to the due date!**

**Attendance**

**Required language**

- 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.

**Classroom Etiquette**

**Required Information --Discretionary language**

**This is where an instructor explains his/her policy on these matters. Here is some suggested language:**

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor. **Consider:** specifics for your class/program
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, no one who is not enrolled in the class may attend, including children.

**Academic Honesty**

**Required Language**

- Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to 'cite a source' correctly, you must ask for help.
- Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General School Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

#### **Additional Help – Discretionary Section and Language**

**The instructor can add the information pertinent to his or her class here. Some suggested language:**

- Blackboard support center: <http://bbcrm.edusupportcenter.com/ics/support/default.asp?deptID=8543>
- Learning Labs: There are several 'labs' on campus to assist you through the use of computers, tutors, or a combination. Please consult your college map for the Math Lab, Reading & Writing Lab, and Study Skills Center (library). Please speak to the instructor about labs unique to your specific program.
- Library Services: There is more to our library than just books. You have access to tutors in the Study Skills Center, study rooms for small groups, and online access to a wealth of resources.

#### **Disabled Student Programs and Services (DSPS)**

**Required Language:** Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. The DSP&S office is located in Building 2100, telephone 760-355-6313, if you feel you need to be evaluated for educational accommodations.

#### **Student Counseling and Health Services**

**Required Language:** Students have counseling and health services available, provided by the pre-paid Student Health Fee. We now also have a fulltime mental health counselor. For information see <http://www.imperial.edu/students/student-health-center/>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

#### **Student Rights and Responsibilities**

**Required Language:** Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities, please refer to the IVC General Catalog available online at [http://www.imperial.edu/index.php?option=com\\_docman&task=doc\\_download&gid=4516&Itemid=762](http://www.imperial.edu/index.php?option=com_docman&task=doc_download&gid=4516&Itemid=762)

#### **Information Literacy**

**Required Language:** Imperial Valley College is dedicated to helping students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <http://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/info-lit-tutorials/>

**Anticipated Class Schedule / Calendar**

**Required Information –Discretionary Language and Formatting:** The instructor will provide a tentative, provisional overview of the readings, assignments, tests, or other activities for the duration of the course. The faculty may find a table format useful for this purpose.

<b>Date or Week</b>	<b>Activity, Assignment, and/or Topic</b>	<b>Pages/ Due Dates/Tests</b>
Week 1	Course Introduction/Basic Safety	
Week 2	Ch. 4 Mathematics & Ch. 5 Hydraulics	
Week 3	Ch. 6 Print Reading and Sketching	
Week 4	Ch. 8 Building and Plumbing Codes	
Week 5	Ch. 9 Soldering, Brazing and Welding	
Week 6	Ch. 11 Water Supply Systems	
Week 7	Ch. 13 Plumbing Fixtures	Midterm
Week 8	Ch. 14 Plumbing Materials and Fittings	
Week 9	Ch. 15 Valves and Meters	
Week 10	Ch. 16 Water Heaters	
Week 11	Ch. 17 Designing Plumbing Systems	
Week 12	Ch. 18 Preparing for System Installation	
Week 13	Ch.19 DWV Pipe and Fitting Installation	
Week 14	Ch. 20 Installing Water Supply Piping	
Week 15	Ch. 21 Installing Fixtures, Faucets, and App.	
Week 16	Tile showers	Final Exam