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## LOS ANGELES TRADE TECH COMMUNITY COLLEGE

Section 8000\_ARC 173 - Architectural Drawing II, (3units) – (CSU) - Spring 2016 Syllabus  
Construction, Maintenance and Utilities Department Architecture and Environmental Design  
Pre-requisites & Co-requisites - None - This is a FULL SEMESTER CLASS

Instructor: Patricio J. Gallegos e - m a i l : gallegpj@faculty.laccd.edu,  
(preferred contact method is through CANVAS) Meeting Times: Mon & Wed 9:45 to 12:20 am-pm  
Lecture – 1 hour and Lab 4 hours is Included in the above time frame  
Redwood Hall – Room C109 Phone (213) 763-3673 Office Hours: Fridays 8-11 am

### Course Description

This is an architecture drawing class that will focus on construction documents for concrete and masonry construction. The course will cover how these architectural drawings are documents that instruct all the stake holders how to use, build and maintain a high performance building. The course will explain how construction documents made out of concrete and masonry are connected to the life cycle of a building. It covers an integrated building approach as it identifies the deliverables for: programming, (identify the need), design drawings, (identify the solutions), construction documents, (drawings used to build the building), operation / maintain, (as built drawings), and assessment, (analysis for upgrade and improvement). In addition this course will cover CAD, BIM, and GIS tools, LEED Credits, Sustainable Standards and their relationship to a set of construction documents for concrete and masonry construction. The student will develop a simple set of construction documents for concrete and masonry Building.

### Learning Outcome

1. Students learn about construction documents by completing a set of construction documents for masonry and concrete.
2. Students learn about building codes and space requirements by putting together a set of construction documents and the process to do future projects.
3. Students learn the use of BIM - Building Information Model to analyze a case study.
4. Students learn Document smart manufacture techniques for building for a green environment development.
5. Students learn about developing an electronic portfolio by working on one, and develop a process for updating and improving that portfolio.
6. Students learn about sustainability in the built environment through the introduction of LEED Standards.
7. Students learn about architectural standards through the use of American Institute of Architects, (AIA), Standards, processes and procedures.

## More on Learning Outcome

Los Angeles and the surrounding area are in the cutting edge of modern architecture and construction. Architectural knowledge based individuals assist the architectural and other professions in defining, creating, and organizing buildings, urban spaces and cyberspace maintained in parallel with the real building, and are used for design. Three-dimensional models are studies, maintenance forecasting, materials testing, facility management, sales and marketing. Architectural knowledge based individuals are problem solvers who understand the design process. Many exciting careers are open in the field including project management, planning, construction, drafting, estimating, building inspection, civil, electrical, mechanical, and structural engineering, construction computer rendering, and computer aided drafting, film industry model makers,....

This Semester's project will further advance the knowledge and application of sustainability in the execution of a building built of concrete / masonry materials. You will research and apply concepts of sustainability to develop Construction Documents for a 3 Story Concrete Office Building using the directions on a Revit book / tutorial. Also, you will develop a simple CMU Gymnasium Building Information Model – (BIM). Please remember that your BIM - Building Information Model - electronic model - will be the basis of all of your construction documents.

## Student Work / Deliverables

1. One set of BIM / Revit Construction Drawings of a Gym Building. This work is graded for a maximum of 12.5 points possible for a total 12.5% of Grade, two submittals required at Mid and at End of the semester each for a maximum of 2.5 and 10 points respectively).
2. Electronic Portfolio using - 15 points possible - 10% of Grade. Two submittals are required at Mid & End of semester for a maximum of 5 points each).
3. Text Chapter Reading & Quizzes - 15 points possible - 15% of Grade. There are 15 quizzes - (one quiz per chapter covered - 5 questions per quiz).
4. Lab Workbook Exercises & Revit Office Building creation - 20 points possible -- 20% of Grade. There are 14 Lessons plus the submittal of the file created by doing all these lessons is - each worth 10 points possible. You will submit a Revit file two times one at Mid Semester and the second at End of semester.
5. Midterm - 100 questions - 10% of Grade.
6. Final Exam - 100 questions -10% of Grade.
7. Final Presentation – Power Point File & Presentation - 5 point possible - 5% of Grade.
8. Participation & Class & Online Discussions - 5 point possible – 12.5% of Grade.
9. Special Project Assignment – Specifications - 5 point possible - 5% of Grade.

## Assessment and Grading Criteria

**A = 90-100%**      **B = 80 - 89%**      **C = 70 - 79%**      **D = 59 - 69%**      **F = Below 59%**

All deliverables add up to a maximum of 100 points equal to 100% which earns each student a grade using the above grading curve. Grading will be based on your performance relative to the

above list of items and percentages obtained. There is a mixture instructor graded material such as the portfolio, construction document set, final presentation and automated computer graded material such as Final Exam, Midterm Exam and Quizzes. Together computer automated graded material and instructor graded material will ultimately result in determination of Final Grade earned by each student. Everyone is encouraged to be in class every time class as this contributes to participation grade with on time students earning points, late students earning less points and absent students earning no points. A lot of the information to complete the work that is required for this class is given in class so attendance is key to completing all tasks for this class. There is one presentations which will be a requirement for each student to make and this will be at the end of the semester. Presentation is to be done in Power Point and it is to be an all-encompassing presentation that should include analysis of the class. Midterm Examinations will take place incorporating material presented in the class and chapters / workbook exercises from the text Architectural Drafting and Design by Alan Jeffries and David A. Madsen. Everyone is required to maintain a sketch book. This sketchbook is not to test artistic abilities but rather it is to develop a skill highly important in any of the fields where architectural drawing is employed, or simply where ideas need to be conveyed visually.

**Each assessment will be scored based on the provided rubric.**

## **Discussions & Collaborations and Announcements**

This class is meant to be a class where collaboration happens in the Lab, but there are two opportunities to develop online collaboration skills at the mid and end of the semester. Each of the units will provide you with opportunities to interact with your peers, in addition to create content for your own ePortfolio. Each discussion includes clear criteria for your required post and replies, including due dates and a grading rubric. I will post a text announcement once in a while. I recommend including Announcements in your notifications preferences to ensure you receive all of the important course information.

## **Instructor Communication Policy**

I will respond to your inquiries within two business day.

### **Q&A Forum**

Please post general questions in the Q&A forum that can be accessed from the link at the top of our course homepage, or from the discussions page. Please keep in mind that posts & replies in this forum are visible to the entire class.

### **Conversations (Inbox)**

If you have a personal question, please contact me using the Conversations tool within Canvas. You can access conversations via the Inbox link.

### **Email: [gallegpj@lattc.edu](mailto:gallegpj@lattc.edu)**

Based on my profile settings, I receive all conversation posts to my email; so you do not need to send your message to both places. I prefer that you use the Conversations tool versus email directly as sometimes student emails get filtered out as spam.

### **Phone: 213-763-3673**

You may also phone me, but my preferred method for communication, as mentioned previously, is the Conversations (Inbox) tool in Canvas.

## Required Textbooks and Other Material

Books are available at LATTC Bookstore or can be ordered online

Lecture Text: Architectural Drafting and Design - 6th Ed By Alan Jefferis and David A Madsen: at [Link](#) ISBN(s):9781435481626, 1133478077, 9781133478072, 9781111265205, 1285011856, 9781285011851

Lab Text: Architectural Commercial Design Using Autodesk Revit 2014 By Daniel John Stine [Link](#) <https://www.sdcpublications.com/Textbooks/Architectural-Commercial-Design-Using-Autodesk/ISBN/978-1-58503-969-2/>

A sketchbook, grided 8.5x11 paper, and a 2 GB minimum flash drive is required for the class

## Construction Drawing Sheet Titles and Organization

Please follow sheet conventions used by AIA - American Institute of Architects website or Construction Specification Institute, or you may also follow the sample project sheet naming and numbering conventions.

## Academic Honesty, Grade Change Policy, Electronic Device Policy

### Academic Honesty

Students are expected to be honest about their work and their education. It is unacceptable for a student to copy the work of another student and turn it in as their own. This includes drawings, answers on tests and quizzes, and other work done either inside or outside the classroom / lab. If a student is caught cheating that assignment will be given a failing grade and further disciplinary action will be taken, (for example being dropped from the class). Please refer to the LATTC Catalog for further information.

### Grade Change

Grade changes are allowed only for the following reasons:

- Clerical error on the part of the instructor.
- Computer problem (technical error during submission of the grade by the instructor).
- Re-evaluation of the student's work, (only at the discretion of the instructor)
- Grade change from an incomplete (I) grade.

### Electronic Device

Electronic devices are allowed in class only in silent or vibrate mode. If the student receives a call during class, the student has the option of ignoring the call or exit the room to answer. Text messaging is only allowed outside of the classroom during lecture. Students may text during open lab as long as they are not disturbing other students

### Students with Disabilities

All students with disabilities requiring accommodations are responsible for informing the instructor in a timely manner and for making arrangements through the Center for Students with Disabilities.

### Internet, Software, and Lab Access

Each of you has access to CANVAS and is part of LATTC system. Every Course has a CANVAS site with varying degrees of use by the course instructors. This class will be using CANVAS -A learning management system for, disseminating information and assignments, and for tracking assignments submittal and student progress. You can log in to CANVAS by using the link: <https://ilearn.instructure.com/login/canvas> Besides the calendar found on this Syllabus, there is a

calendar found on CANVAS which has reference materials, links, quizzes and exams, project submittal dates, and so on. I may be adding information as the semester progresses and will be web links to reference material related to topics being covered. Handouts, Syllabi, Grades and other information will be available on the CANVAS Page. Please become familiar with CANVAS using the Student Help Orientation and Tutorial Videos. We will also be introducing the CANVAS features you will need to accomplish assignments and class requirements during our first few classes and throughout the semester as needed. Students with their own lap tops will also be able to download a free copy of the Revit software required for the Class Project from Autodesk Student Community website at <http://students.autodesk.com>. Students may register for the site using a provided link or with their LATTC email address. Students without a laptop can work on projects in the class computers which have the software already installed.

### Calendar of Lectures and Labs (please use Canvas for a more complete calendar)

Mo	Wk	Mon	Wed	Lecture	Lab being Covered
<b>Feb</b>	I	8 Intro	10	Lecture: Chapter 27 & Quiz	Revit Lab: Lesson 1
	II	15 Holiday	17	Lecture: Chapter 5 & Quiz	Revit Lab: Lesson 2
	III	22	24	Lecture: Chapter 6 & Quiz	Revit Lab: Lesson 3
<b>Mar</b>	IV	29	2	Lecture: Chapter 7 & Quiz	Revit Lab: Lesson 4
	V	7	9	Lecture: Chapter 16 & Quiz	Revit Lab: Lesson 5
	VI	14	16	Lecture: Chapter 17 & Quiz	Revit Lab: Lesson 6 Discussion Topic 1
	VII	21	23	Lecture: Chapter 18 & Quiz	Revit Lab: Lesson 7
	VIII	28 Midterm	30	Lecture: Chapter 22 & Quiz	Revit Lab: Lesson 8 Mid Semester Discussion
<b>April</b>	IX	Progress Submittals: e-Portfolio, Lab File, Mixed Use Construction Document Spring Holiday Break!			
	X	4	6		
		11	13	Lecture: Chapter 23 & Quiz	Revit Lab: Lesson 9 Discussion Topic 2
	XI	18	20	Lecture: Chapter 24 & Quiz	Revit Lab: Lesson 10
	XII	25	27	Lecture: Chapter 33 & Quiz	Revit Lab: Lesson 11
<b>May</b>	XIII	2	4	Lecture: Chapter 34 & Quiz	Revit Lab: Lesson 12
	XIV	9	11	Lecture: Chapter 35 & Quiz	Revit Lab: Lesson 13 Discussion Topic 3
	XV	16	18	Lecture: Chapter 36 & Quiz	Revit Lab: Lesson 14
	XVI	23	25	Lecture: Chapter 37	Revit Lab: Review of Document Set
<b>June</b>	XVII	30	1	Final Exam / Final Presentation /e-Portfolio Submittal/ Lab File Submittal/ Mixed Use Constr Docs Submittal	
	XVIII	6	Final Day		