



## **ETCM 3372 -1 Construction Drafting**

**Fall, 2017**

Department	Engineering Technology
Course Number & Title	ETCM 3372-1 Construction Drafting
Credit	3 Hours
Class Meeting Location	Pirkle 240
Time	Monday & Wednesday, 3pm-4:50pm
Instructor	Dr. Min Jae Suh
Office	Pirkle 420 C
Phone	936-294-1228
Email	mjs068@shsu.edu
Office hours	Mon & Wed, 10am-3pm or by appointments via email

*It is my intention to provide a pleasant learning environment for this course. I firmly believe that students and instructors should enjoy both learning and teaching.*

### **COURSE DESCRIPTION**

This course is an introduction to commercial construction and design vocabulary and elements of visual organization and the fundamentals and systems of graphic expression. Exercises in lettering, orthographic projection, descriptive geometry, and construction document preparation will be given. Students will be introduced to the operational procedure and usage of Revit that exist in construction and architecture.

### **PRE-REQUISITE**

ETEC 2363 Architectural Design

### **COURSE GOALS**

On successful completion of ETCM 3372, the students will be able to:

- Describe a variety of building components and building systems
- Demonstrate a working knowledge of construction drawings
- Show the beginning level of competence in computer aided drafting
- Analyze buildings and their systems in both 2D and 3D representations

### **SUGGESTED TEXT AND MATERIALS**

- Stine, Daniel John, Commercial Design Using Revit Architecture 2018, SDC Publications
- Jefferies, Alan and Smith, Kenneth, Commercial Drafting and Detailing, Delmar Cengage Learning, 3rd Ed., 2010. ISBN: 978-1-4354-2597-2

### **COURSE MATERIALS**

This course will cover the theory, applications, techniques and requirements for commercial building drafting which will add to the skill sets of construction management.

The topics of the course will include:

- The Use of the latest Revit
- Implementing Appropriate Codes in Construction Drafting

- Passive Construction
- Building Methods and Materials of Commercial Construction
- Multidisciplinary Collaboration

## **CLASS FORMAT**

Lectures, Demonstration, and lab sessions

## **COURSE GRADING**

Score	
<b>90 and up: A</b>	<b>Excellent, keep up the good work!</b>
80-89: B	You're doing well.
70-79: C	Average work.
60-69: D	You need to improve.
<b>Below 60</b>	<b>You are failing!</b>

  

Contents	Scores	
Participation = P	5	
In-class exercises = IE	30	
Individual Assignment = IA	5	
Team Project 1 (Kick-off presentation) = TP1	10	$5(P) + 30(IE) + 5(IA) + 10(TP1) + 10(TP2) + 20(TP2-FP) + 20(TP2-FR) = 100(TS)$
Team Project 2 (Interim presentation) = TP 2	10	
Team Project 3 (Final presentation) = TP3-FP	20	
Team Project 3 (Final report) = TP3-FR	20	
<b>Total Score = TS</b>	<b>100</b>	

### **Note:**

- Please see the provided course schedule for important submission dates.
- Class exercises, Assignment, and Final report are due at the beginning of the class period on the due date.
- Attendance is part of your grade. **(1 point will be deducted from your attendance score due to an unacceptable absence.)**
- Without an approved excuse or prior arrangements, late submissions are not accepted and makeup opportunities are not given.
- Professionalism and **4 point rule:** When you lose 4 points of your participation points, you will fail this course.
- Extensions are generally not granted except very special cases.
- Your work is your responsibility. **ALWAYS BACK UP ALL YOUR WORKS!** Technical issues are not an acceptable excuse.
- **Students are required to do original work on all graded work** and to exhibit high ethical standards. They are expected to obtain all necessary equipment, texts, etc. for classes and labs. Work or other conflicts that affect the student's progress must be approved by the instructor in advance of the scheduled conflict.

The instructor reserves the right, acting within the policies and procedures of Sam Houston State University, to make changes in the course content or instructional techniques without notice or obligation.

## **ASSIGNMENTS**

One individual assignment will be distributed in the beginning of this course. The due date will be identified. Students are expected to submit all assignments on time. To be fair to all students in class, late submission is not accepted.

### **IN-CLASS EXERCISES**

There will be a few exercises in this course. Details about the exercises will be given as we proceed in this class. The in-class exercises will be helpful to complete your team projects.

### **TEAM PROJECT**

There will be 3 team projects in this course. The team will be assigned by the instructor.

### **FINAL PRESENTATION**

You are expected to communicate with others in the workplace. One way of communications is by presenting your works. To prepare you for this, this course requires a presentation from each student to the class. Details will be provided in class about this presentation.

### **FINAL REPORT**

You are also expected to communicate in writing with others in the workplace. One way of communications is by reporting your work. To prepare you for this, this course requires a report from each student. Details will be provided in class about this report. This component of the course is expected to be prepared professionally using appropriate computer applications like MS WORD.

### **PARTICIPATION**

You are expected to actively participate in class. 5% of your grade will be assigned to this component of the course. Those who participate fully in class get 5 points and those who do not participate lose these points (1 absence without a reasonable excuse = -1 points).

### **ACADEMIC HONESTY**

The University expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action. The University and its official representatives may initiate disciplinary proceedings against a student accused of any form of academic dishonesty including, but not limited to, cheating on an examination or other academic work which is to be submitted, plagiarism, collusion and the abuse of resource materials.

### **ATTENDANCE**

The Department of Agricultural and Industrial Sciences at Sam Houston State University has an attendance policy which I will follow. The policy is reproduced here for your convenience.

### **DEPARTMENT OF AGRICULTURAL SCIENCES AND ENGINEERING TECHNOLOGY ATTENDANCE POLICYS**

1. Regular and punctual attendance is expected of each student in the Department of Agricultural Sciences at Sam Houston State University.
2. Each faculty member will keep a written record of student attendance.
3. If a student misses four or more classes (**2 or more classes in our specific course because our classes are 2 hour classes**), the student's grade will be reduced by one letter grade. Additional penalties may be assessed at the discretion of the instructor.
4. Three unexcused or unjustified tardiness or early departures are considered as one absence.

5. Excused absences must be documented by the student with a letter of confirmation from the sponsoring student organization, professor or doctor. Exemptions will include participation in departmental activities when prior approval is attained from the Department Chair.
6. No exams or assignments will be given at alternative times unless arrangements are made with the professor/instructor before the scheduled activity occurs.

### **MISSED WORK DUE TO EXCUSED OR UNEXCUSED ABENCES**

If you miss a class (excused or without an excuse), it is your full responsibility to find out what was assigned in the class and perform it. The work has to be submitted on time.

### **STUDENTS WITH DISABILITIES POLICY**

It is the policy of Sam Houston State University that individuals otherwise qualified shall not be excluded, solely by reason of their disability, from participation in any academic program of the university. Further, they shall not be denied the benefits of these programs nor shall they be subjected to discrimination. Students with disabilities that might affect their academic performance should register with the Office of Services for Students with Disabilities located in the Lee Drain Annex (telephone 936-294-3512, TDD 936-294-3786, and e-mail [disability@shsu.edu](mailto:disability@shsu.edu)). They should then make arrangements with their individual instructors so that appropriate strategies can be considered and helpful procedures can be developed to ensure that participation and achievement opportunities are not impaired.

SHSU adheres to all applicable federal, state, and local laws, regulations, and guidelines with respect to providing reasonable accommodations for students with disabilities. If you have a disability that may affect adversely your work in this class, then I encourage you to register with the SHSU Services for Students with Disabilities and to talk with me about how I can best help you. All disclosures of disabilities will be kept strictly confidential. NOTE: No accommodation can be made until you register with the Services for Students with Disabilities. For a complete listing of the university policy, see:

<http://www.shsu.edu/dept/academic-affairs/documents/aps/students/811006.pdf>

### **RELIGIOUS DAYS POLICY**

Section 51.911(b) of the Texas Education Code requires that an institution of higher education excuse a student from attending classes or other required activities, including examinations, for the observance of a religious holy day, including travel for that purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence.

University policy 861001 provides the procedures to be followed by the student and instructor. A student desiring to absent himself/herself from a scheduled class in order to observe (a) religious holy day(s) shall present to each instructor involved a written statement concerning the religious holy day(s). This request must be made in the first fifteen days of the semester or the first seven days of a summer session in which the absence(s) will occur. The instructor will complete a form notifying the student of a reasonable timeframe in which the missed assignments and/or examinations are to be completed.

### **CELLULAR PHONE AND OTHER ELECTRONIC DEVICES POLICY**

SHSU's Academic Policy Statement 100728 will be strictly followed in this course. The policy is available on Blackboard for your review. We will go over the policy in class.

### **USE OF TOBACCO AND TOBACCO PRODUCTS**

Sam Houston State University is a tobacco free campus and all tobacco products are prohibited in all buildings and outdoor public areas on campus. This policy will be strictly followed in this course.

## **TENTATIVE COURSE CALENDAR**

WK	DATE	TOPIC	SUBMISSION
1	8/23	Course Introduction	
2	8/28	VDI & Evolution of Design Communications	Individual assignment
2	8/30	BIM Basics - Modeling Building Elements	
3	9/4	Labor day – No Class	
3	9/6	<b>Student presentation – Individual assignment</b>	
4	9/11	BIM Basics - Building Envelope	
4	9/13	Lab session	In-class exercise 1
5	9/18	BIM Basics - Curtain Systems	
5	9/20	Lab session	In-class exercise 2
6	9/25	<b>Student presentation – Team project 1</b>	Team project 1
6	9/27	BIM Basics - Interiors and Circulation	
7	10/2	Lab session	In-class exercise 3
7	10/4	BIM Basics - Fixture, Fitting, and Furniture-1	
8	10/9	Lab session	In-class exercise 4
8	10/11	BIM Basics - Fixture, Fitting, and Furniture-2	
9	10/16	Lab session	In-class exercise 5
9	10/18	BIM Basics - Views and Visualization	
10	10/23	Lab session	In-class exercise 6
10	10/25	<b>Student presentation – Team project 2</b>	Team project 2
11	10/30	BIM Basics - Material, Lighting, and Rendering	
11	11/1	Lab session	In-class exercise 7
12	11/6	BIM Design Process - Area and Space Planning	
12	11/8	Lab session	In-class exercise 8
13	11/13	BIM Design Process - Project Phases and Phased Design	
13	11/15	Lab session	In-class exercise 9
14	11/20	Work on final team project with teammates	
14	11/22	Thanksgiving Holidays – No Class	
15	11/27	<b>Final Presentation - 1</b>	Final presentation/ Final report
15	11/29	<b>Final Presentation - 2</b>	

Note:

The above schedule, policies, and assignments in this course are subject to change by the instructor or by mutual agreement between the instructor and the students.