

HOUSTON COMMUNITY COLLEGE – Southeast College

Syllabus

Special Topics in Architectural Drafting and CAD

DFTG 1392

Drafting & Design Technology

Phone:

Course Reference Number:

 Instructor: **Iwao Takahashi**

Phone:

Office Hours: 8:00 a.m. to 2:15 p.m. Room: SE- Learning Hub Rm 201 Day(s): Sa

Semester Credit Hours: (SCH) 3 Format: Lecture: 2 hrs. Lab: 4 hrs.

Continuing Education Units: (CEU) 9.6

PREREQUISITE: N/A (DFTG 1309 or equivalent skills are desired)

COURSE DESCRIPTION: Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. This course was designed to be repeated multiple times to improve student proficiency.

TEXTBOOK: Autodesk Revit Architecture 2012 for Architects & Designers, **Author: Sham Tickoo, Publisher: CAD-CIM, ISBN: 978-1936646036**, or later edition.

MATERIALS: Drafting tools, writing materials

COURSE OBJECTIVES: Architectural drafting procedures, practices, and symbols, including preparation of 3D modeling, spatial layout, and the presentation for residential and commercial structure with emphasis on light frame construction methods. Green Building concepts and basic knowledge

KNOWLEDGE:

- wood and brick veneer construction, and light gauge steel framing construction
- construction of wood and concrete foundations.
- construction of roof types.
- selecting materials used in construction.
- organizing and maintaining appropriate documentation and details.

2. SKILLS:

- develop a spatial layout of building, 3D modeling, and complete set of preliminary drawings.
- utilize the Graphic Standards.

3. ATTITUDE/BEHAVIORS:

- Must be able to work as a team.
- Show respect for others.

SCANS SKILLS: The Department of Labor has identified skill sets that U.S. employers want most in entry level employees. It is our commitment to prepare every student with the knowledge and skills needed to succeed in today's dynamic environment. Toward this end the following skills will be included in this course:

- Decision making: specifies goals and constraints, generates alternatives, considers risks and chooses best alternative.
- Organize/maintain information: Organizes, processes, and maintains written or computerized records and other forms of information in a systematic fashion.
- Arithmetic: performs basic computations; uses basic numerical concepts such as whole numbers and percentages in practical solutions, makes reasonable estimates of arithmetic results without a calculator and uses tables, graphs, diagrams, and charts to obtain and convey quantitative information.

The student will be presented problems in which they must establish their objective and organize and maintain appropriate documentation and dimensioned drawing details in achieving that objective.

COURSE EVALUATION PROCEDURE: The student will be evaluated and receive a final grade based upon the following criteria:

- Laboratory work consisting of assigned technical drawing problems, assignments. **(70%)**
- A minimum of (2) tests: (a mid-term, and a final examination **(20%)**:
NOTE: - Individual instructors may schedule more tests
- Class and laboratory attendance, active participation in class, professional attitude and growth in terms of technical skill development and teamwork within the laboratory environment shall be taken into consideration. **(10%)**

GRADING PROCEDURE:
A = 90 – 100
B = 80 – 89
C = 70 – 79
D = 60 – 69
F = below 59

The drawing portion of the above evaluation criteria shall be based to the following portions of the drawing development.

 Layout 25 %; Accuracy 25 %; Neatness 25 %; Timely completion 25 %

LATE ASSIGNMENT POLICY: Students are encouraged to turn assignments in on time if at all possible. This allows the instructor to grade the work, return it to the student and the student use the feedback as a learning tool.

MAKE-UP TEST/PROJECT POLICY: The student must request a make-up test and it should be scheduled at the earliest possible date following the quiz (or mid-term) missed. NO make-up test are given for the final examination.

EXTRA CREDIT: Extra credit work is offered only to assist students that that have a grade range of “D” or “F” at the mid-term break. This work cannot be substituted for regular assignments and can only raise the final grade to a maximum of a “C”

PROGRAM ACCESSIBILITY (ADA): The Houston Community College, Drafting and Design Technology Program is committed to making all aspects of the program accessible to individuals with disabilities. Students with disabilities, as defined by the American with Disabilities Act (ADA), are required to obtain certification of their impairment through the Southeast College ADA Certification Office.

CLASS ATTENDANCE: You are expected to attend all lecture classes and labs. You are also responsible for all materials covered in either lecture or lab. In the case of your absence, you must contact the instructor to obtain make-up assignments or arrange make-up testing, either of which can be distributed at the instructor’s discretion. Class attendance is checked daily.

The instructor has the authority to drop you from the class for excessive absences, that is, you may be dropped from a course after accumulating absences in excess of 12.5 percent of the total hours of instruction (lecture and lab). For example:

- A 3 credit hour lecture class meeting 3 hours per week – 2 absences (6 hrs.) is 12.5% of the class.
- A 3 credit hour lecture/lab class meeting six hours per week – 2 absences (12 hrs.) is 12.5% of the class.

Administrative drops are at the discretion of the instructor. It is your responsibility to drop a course, should you choose not to complete it. Failure to withdraw officially will result in you receiving a grade of “F” in the course.

***Note:** Although it is your responsibility to officially withdraw from a course, it is always a good idea to discuss any attendance problems with your instructor first. Class attendance is very important, but your instructor may be able to help you catch up. If you become ill or know you are going to miss class for some reason, tell your instructor as soon as possible.*

Departments and programs governed by accreditation or certification standards may have different attendance policies.

RELIGIOUS HOLIDAYS: If you observe a religious holiday and miss class, you must notify your instructor in writing two weeks in advance to arrange to take a test or make up an assignment. A religious holiday is "a holy day observed by a religion whose place of worship is exempt from property taxation under Section 11.20, Tax Code."

SCHOLASTIC DISHONESTY: Students are responsible for conducting themselves with honor and integrity in fulfilling course requirements. College System Officials may initiate penalties and/or disciplinary proceedings against a student accused of scholastic dishonesty.

"Scholastic dishonesty" includes, but is not limited to, cheating on a test, plagiarism, and collusion.

"**Cheating**" on a test includes:

- Copying from another student's test paper;
- Using materials during a test that are not authorized by the person giving the test;
- Collaborating with another student during a test without authority;
- Knowingly using, buying, selling, stealing, transporting, or soliciting in whole or part the contents of an un-administered test;
- Bribing another person to obtain a test that is to be administered.

"**Plagiarism**" means the misuse of another's work and the deliberate incorporation of that work into work you offer for credit.

"**Collusion**" means the unauthorized collaboration with another person in preparing work offered for credit.

Determination of scholastic dishonesty will be at the discretion of the instructor.

For additional information reference the HCC Web site at:

<http://www.hccs.edu>

*The Final Examination Date & Time: May 12, 2012 from 9:00 am to 11:00 am

Course Topics
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Week 1

Introduction of Revit Architecture
Building Model - 1
 Basic Elements – Wall, Door, Window

Week 10

Green Home Project

Week 2

Building Model - 2
 Basic Elements – Floor, Roof, Vertical Circulation
 Datum
 Mass Elements

Week 11

Green Home Project

Week 3

Building Model - 3
 Site Elements
 Reference Plane, Work Plane
 In Place Family

Week 12

Green Home Project

Week 4

Construction Documents
 Annotation
 Detail Drawing

Week 13

Green Home Project

Week 14

Student Presentation

Green Home Project

Week 5

Presentation - 1
 Drawing Sheet
 View Duplication
 3D Views

Week 15

Final Exam

Week 6

Presentation - 2
Rendering
 Walkthrough

Green Home Project

Week 7

Mid-Term Examination
Advanced Features
 Structural Element
 File Link (Revit, AutoCAD)
 Family Type
 Design Options

Green Home Project

Week 8

Green Home Project

Week 9

Green Home Project