THE UNIVERSITY OF THE BIG BEND

IT 3303
ARCHITECHTURAL DRAFTING AND HOME PLANNING
Spring 2017

Instructor
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Office Hours: MW 8-10
W 1-5
TR 8-9
Or by appointment

Time and Location

Class: TR 9:30 am – 12:15 pm
Industrial Technology Bldg. rm 111
-and-
http://sulross.blackboard.com

Course Description

This course of study was designed to provide the student with an opportunity to develop an understanding of, and acquire knowledge and skill in the area of general residential home design. Emphasis is placed on understanding the principles of good design. Time will be spent discussing information requirements, drafting tools, drawing requirements, and some of the drawing and construction details required in architectural designing and drafting. Students will also study Architectural drafting, with emphasis placed on the principles of good design and planning of the small home. Students will learn to draw architectural details, understand materials and methods of construction, energy conservation practices, the use of symbols, lettering, and building standards of the American Institute of architects.

Student Learning Outcomes

Upon completion of this course, the student will be able to:

- Identify, select, and use drawing instruments correctly and safely for completing necessary architectural drawings.
- Select acceptable paper and layout for each particular object being drawn.
- Identify, describe, and use the different drawing formats and styles necessary to describe a residence: orthographic, isometric, oblique, one and two-point perspective.
- Use sketching as a tool to work out design ideas and problems.
- Select the best drawing format and type of representation for details in a residence design.
- Demonstrate an understanding of how a building will look from sketches and detail drawings by answering various types of questions on tests.
- Sketch a design so it is understandable by others.
- Use an appropriate procedure to design a residential structure accounting for the primary considerations in design such as location, room location and position, traffic flow, and basic construction procedures.
- Complete the necessary drawings required for a residential house plan so the structure can be clearly understood.
- Recognize and describe standardized residential home styles such as colonial, ranch, and saltbox.
- Demonstrate an understanding of residential construction and building techniques through class discussion, sketches and by answering various types of questions on tests.
- Evaluate a residential structure on environmental factors.
- Demonstrate an understanding of standard residential construction practices by completing several construction detail drawings.

Accessibility

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make necessary arrangements. Students must present appropriate verification from Accessibility Services during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodation to a student until appropriate verification from Accessibility Services has been provided. For additional information, please contact Mary Schwartze with Accessibility Services in Ferguson Hall 112, or call 432 837-8203

Attendance

Attendance will be taken each scheduled class period in accordance with University and Departmental Policy and will count as part of the daily work grade. After 9 hours of absences the instructor may drop a student from the course with a grade of 'F', in accordance with the Student Handbook. Attendance will be taken at the beginning of each class period. **If you are tardy and miss the roll call you will be charged with one absence.**

Class Structure

This course is designed to be a guided study and not just dissemination of information. Class will be run in a lecture/discussion format with demonstrations and laboratory experiences included. Lectures will be minimal and will utilize overhead slides, power point projections, demonstrations, slides, and videos. The lectures will be given primarily to enhance and answer questions about the **material that should have been studied prior to the class period**, and in preparation for the activities that will be completed in the labs. There may be some step-by-step guided practice and individual assistance during the scheduled class time. Students are expected to study, read, practice, and use problem solving skills to discern and apply the information assigned. It is essential that everyone be in attendance for the scheduled meetings so questions are answered and the shared information and demonstrations are not missed. Several of the scheduled class times may be scheduled as research time and/or lab time. It is important that plans are made to work in the lab outside scheduled class time.

Assignments

Daily work will consist of reading, written workbook pages, drawing workbook pages, design drawings, practice detail drawings, project detail drawings, and some model building. Daily work lab activities must be completed in preparation for classroom discussions and tests. Everyone will be required to make a model of the house they have designed.

Due dates All assignments and projects will be given due dates which must be met. All assignments will be due by 5:00 pm on the assigned day unless otherwise noted. **Assignments and projects will be docked one letter grade for each calendar day they are late**. Work will be accepted after the fourth late day so the records show it was completed, but no grade will be given. You will be responsible for meeting the deadlines whether you miss class or not.

Grading All work will be graded on specific criteria using the following guidelines. Worksheets will be graded on a points-per-answer basis. Sketches and drawings will be graded on a 100 point (percentage) scale. Criteria for grading will include: accuracy of content, content appropriate for assignment, presentation, clarity. Drawing Project will be graded on accuracy, neatness, content, adherence to standards, adherence to assignment, and workmanship. Graded drawings will be broken into specific categories presented on grade sheets given at the time of the assignments.

GRADES

Final grades will be determined by totals in these areas:

10% quizzes and unit tests
5% final exam (comprehensive)
65% daily work
- 10% attendance
- 10% written workbook activities
- 35% drawing activities (Student Project and drawing activities from workbook)
- 45% design activities (Project design activities, Project design 'in progress' drawings, Project journaling, other design work, and workbook design activities)

20% final set of plans (cohesive plan, correct references, complete plan, drawing itself)

In the event one of the above categories is not completed during the course, that percentage will automatically be divided between the other categories at the same level.

All assignment points will be converted to percentages for individual assignment letter grades.

A=100-90; B=89-80; C=79-70; D=69-60; F= 59-0

Final grades will include the following criteria:

A) **All assignments** must be completed with an average of 90% or better to receive a grade of 'A' in this course.

B) **All assignments** must be completed with an average of 80% to 89% to receive a grade of 'B' in this course.

C) **If any work is left undone** a grade of 'C' will be the highest possible grade awarded regardless of grades received on individual work assignments turned in.

D) **Regardless of amount of work submitted**, a grade of 'C' will be given with a final percentage of 70% - 79%

E) **Regardless of amount of work submitted**, a grade of 'D' will be given with a final percentage of 60% - 69%

F) **Regardless of amount of work submitted**, a grade of 'F' will be given with a final percentage below 60%

Barring unusual circumstances, there will be no incompletes given at the end of this semester.

Academic Honesty

All students are expected to do their own work at all times. Any dishonest conduct will be promptly rewarded with an immediate "F".

READING

The text is required for this course:

Architecture Residential Drafting and Design by Clois Kicklighter. Published by Goodheart-Willcox company, Inc.: Tinley Park, Illinois (2008).

There may also be reading material in the form of handouts that contain additional information. Students will be responsible for that information at test and quiz time. There are also other books available in the IT office for reference if other sources are needed.

LAB TIME

There will be a substantial amount of required lab work in this course. Normally 6 hours outside of scheduled class time each week for researching, reading, and general homework is expected for college level work. All of the required research, lab work, and practice will not be able to be completed within the scheduled class time. There may be some release time from class to complete some of the work. For any extra time needed, the lab will be scheduled to fit students' needs as much as possible. The lab will be open for use during open building hours (usually 8 - 5 daily). Be advised that there may not be a knowledgeable lab assistant available at all times. No regular weekend hours are planned at this time.

NOTE: This is a labor intensive class. You should make use of the lab time and any other additional class time allowed to complete assignments. **Avoid falling behind at all costs**!

EQUIPMENT and SUPPLIES

Desks and drafting machines will be supplied by the school and are to remain in the lab. Remember there will be students using these machines after you in other courses so please take good care of them. It may be possible to check out a set of drafting tools from the department for completing your work if necessary.

You will be required to supply your own pencils, leads, and erasers. Pencils should have leads ranging from about 4H to B.

Materials Fee - A material fee of $20.00 has been set for the course. This fee will cover up to 15 sheets of vellum, 15 sheets of blue-line paper, and pencil leads for drafting lead holders and compasses. If you need more than 15 sheets of paper additional paper can be purchases from the department. The material fee may be paid in the departmental office if paid by cash or check. You must pay at the Cashier's office if paying with credit, or debit, card. (You will be required to obtain the account number before you pay your fee at the cashier's office. If you pay at the cashier's office you will be required to show the receipt to the instructor prior to beginning any lab work.)

STORAGE

The lockers in the hallway may be checked out and used for storing your equipment and supplies. These lockers must be signed out in the IT main office. You must supply your own lock. Do not leave projects or equipment out on the tables in the lab-you will probably lose them! There is another class using the same lab so clean up all your equipment after each session.

QUIZZES

Everything we discuss and in the assigned reading, including laboratory material is fair game for quizzes. No prior notice will be given for any quizzes. They will be primarily written in nature, but may include practical components. There will be no make-up quizzes.

TESTS

Everything discussed in class and contained in the assigned reading, including laboratory material, is fair game for tests and quizzes. I will try to announce the Unit Tests the day before they will be given. You will have a test schedule to follow so it will be your responsibility to be in attendance the day of scheduled exams. They will be primarily written in nature covering terminology and processes, but you can expect some practical exercise portions on each exam. Attendance for the tests is mandatory! **NO** makeup tests will be given

MIDTERM EXAM

There will be no midterm exam this semester.

FINAL EXAM

The final exam is scheduled for Monday May 8, 2017 at 8am. It will include written, practical, and analytical portions, and will be comprehensive of the entire semester. It will be a combination of various style questions including calculations.

FINAL PLANS

The culminating project for this class will be a finished residential design. The entire set of plans will be copied to blueprints. The final plans will be graded on the design you develop and the presentation of the plans. This final set will be graded as a whole unit and not as individual drawings. (The individual drawings will be graded as the semester progresses.)

The final set of plans will be graded on the following criteria:

Design considerations and room planning
Design quality
Support for design
Accuracy of plans
Design ideas clear and understandable
Continuity of plans
Completeness of ideas
Quality and correctness of drawings
Overall neatness

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Tentative Reading and Test Schedule

The following is a tentative test schedule for the semester. The dates provided are the dates the test will be given. The tests will not necessarily be the only scheduled events for the day – there should be some time for lab work as well.

Date	Topic/Learning Experience	Reading
Week 1 Jan 16-20	• Course Intro/Expectations • Intro to Architecture & Design	Section 1 The World of Architecture Ch. 1, 2, & 3
Week 2 Jan 23-27	• Basic House Design & Considerations • Manual Drafting	Section 2 Ch. 4 Drawing Instruments and Techniques
Week 3 Jan 30 – Feb 3	• Solar Space Heating • Nontraditional Structures	Test 1 Chapters 1-4 Section 8 Ch. 28-30 Alternative Construction
Week 4 Feb 6-10	• Room Planning-Service, Living, and Sleeping areas	Section 3 Chapters 7-9
Week 5 Feb 13-17	• Formulating a Design: Floor Plan, Roof Design, Elevations	Section 6 Chapters 18-20
Week 6 Feb 20-24	• Formulating a Design: • Floor Plan, Roof Design, Elevations	Test 2 Chapters 7-9, 18-20
Week 7 Feb 27- Mar 3	• Construction Systems • Sill & Floor Construction	Section 5 Chapters 13-17
Week 8 Mar 6-10	• Wall & Ceiling Construction • Doors & Windows	
Week 9 Mar 20-24	• Stairs, Fireplaces & Chimneys • Electrical, Plumbing & Climate Control	Test 3 Chapters 13-17 Section 7, Chapters 21-27
Week 10 Mar 27-31	• Electrical, Plumbing & Climate Control	
Week 11 Apr 3-7	• Plot plans • Foundations	Test 4 Chapters 21-27 Section 4 Chapters 10-12
Week 12 Apr 10-14	• Perspective Drawings • Presentation Drawings • Architectural Models	Section 9 Chapters 32-34
Week 13 Apr 17-21	• Perspective Drawings • Presentation Drawings • Architectural Models	Test 5 Chapters 10-12, 32-34
Week 14 Apr 24-28	• Material Specifications • Cost Estimating	Section 10 Chapters 35 & 36
Week 15 May 1-5	• Wrap up & Review	
Mon May 8, 2017 8 am	• Final Exam	Comprehensive