

Instructor Information

Prof. Eric Busby
Office: Industrial Technology Building RM 101
Phone: 432-837-8137

Office Hours: By Appointment
Email: eric.busby@sulross.edu

Class Time and Location: Wednesday
1:00pm – 3:50pm
Industrial Technology Building RM 103

Required Textbook: None

Reference:

Building Construction Principles, Materials, and Systems *3rd Edition*;

Author(s): Madan Mehta, Walter Scarborough, and Diane Arm Priest

Publisher: Pearson/Prentice Hall

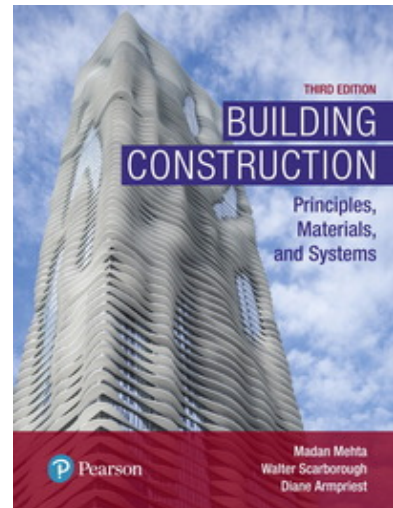
ISBN-10: 0134454170; ISBN-13 978-0134454177

Architectural Graphic Standards

Author: American Institute of Architects

Building Construction Illustrated, 5th Edition

Author: Francis D.K. Ching



There will also be additional reading material assigned in the form of handouts that contain industry related information. Students will be responsible for that information on tests and quizzes.

Course Description

This course of study is designed to provide the student with an opportunity to explore the processes, tools, and materials utilized in the construction industry. It is designed to introduce the student to the variety of techniques used in the construction of buildings and other structures. Emphasis is placed on developing an understanding of the requirements pertaining to the knowledge, equipment, materials, and special skills needed within the various processes of the construction industry.

Student Learning Outcomes (SLO)

This course is designed to meet one or more of the following Student Learning Outcomes:

1. Students will focus on the methods and techniques used in constructing buildings.
2. Students will have the opportunity to gain comparative knowledge in construction terminology, units of measure, standard designations, sizes, graduations, testing methods, reference standards, and regulatory codes.
3. Students will be able to define and understand construction terminology.

Marketable Skills

1. Students will demonstrate knowledge of project management, project planning, scheduling, and estimating.
2. Students will demonstrate knowledge of industry safety practices.
3. Students will understand and implement lean philosophies to improve efficiency and eliminate waste.
4. Students will demonstrate the ability to communicate information and ideas verbally and in writing so others will understand.

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

- Analyze construction documents for the planning and management of construction processes.
- Explain the various methods of construction.
- Demonstrate knowledge of safety rules and regulations.
- Demonstrate the proper use/selection and maintenance of hand and power tools and measuring instruments.
- Research and investigate the construction project.
- Understand and apply building material and assemblies.
- Demonstrate the ability to understand construction details.
- Describe commonly used construction materials.
- Understand the role of the construction team.
- Identify construction classifications.
- Understand the importance of specifications and material description data.
- Understand building codes and their role in protecting public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures.

Additionally, students will have the opportunity to experience material capacity and behavior as well as construction methods in demonstrations and lab experiments. This class is to be a learning experience, and one that you want to come to each week. As such the class structure, lesson topics, and overall learning environment will emphasize more than just knowledge comprehension.

SRSU Disability Services

Sul Ross State University (SRSU) is committed to equal access in compliance with Americans with Disabilities Act of 1973. It is SRSU policy to provide reasonable accommodations to students with documented disabilities. It is the student's responsibility to initiate a request each semester for each class. Students seeking accessibility/accommodations services must contact Rebecca Greathouse Wren, LPC-S, SRSU's Accessibility Services Coordinator at 432-837-8203 (please leave a message and we'll get back to you as soon as we can during working hours), or email rebecca.wren@sulross.edu. Our office is located on the first floor of Ferguson Hall (Suite 112), and our mailing address is P.O. Box C-122, Sul Ross State University, Alpine, Texas 79832.

Library Information

The Bryan Wildenthal Memorial Library in Alpine offers FREE resources and services to the entire SRSU community. Access and borrow books, articles, and more by visiting the library's website, library.sulross.edu. Off-campus access requires logging in with your LoboID and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (srsulibrary@sulross.edu), or phone (432-837-8123).

The Southwest Texas Junior College (SWTJC) Libraries at Uvalde, Del Rio, and Eagle Pass. Offer additional access to library spaces and resources. Del Rio, Eagle Pass, and Uvalde students may also use online resources available through SWTJC website, library.swtjc.edu. The SWTJC Libraries serve as pick-up locations for Inter-Library Loan (ILL) and Document Delivery from the Alpine campus

Attendance and Participation

If you do not attend classes, you could lose your financial aid. You must attend and participate in your on-campus or online course(s) before the course certification date and continue beyond the course withdrawal date.

Your instructor is also required by law to validate/certify your attendance in your on-campus or online course(s) in order for you to receive financial aid. To meet this attendance requirement in an online course, you must demonstrate academic activity to establish eligibility for federal student aid with activities such as, but not limited to, the following examples: initiating contact with your instructor to ask a question about the academic subject studied in the course, submitting an academic assignment, taking an exam, completing an interactive tutorial, participating in computer-assisted instruction, attending a study group that is assigned by the instructor, or participating in an online discussion about academic matters relating to the course.

In an online class, simply logging in is not enough to demonstrate academic purpose. You are required to participate in your online class by taking part in an academically related activity as described above.

Classroom Climate of Respect

Importantly, this class will foster free expression, critical investigation, and the open discussion of ideas. This means that all of us must help create and sustain an atmosphere of tolerance, civility, and respect for the viewpoints of others. Similarly, we must all learn how to probe, oppose and disagree without resorting to tactics of intimidation, harassment, or personal attack. No one is entitled to harass, belittle, or discriminate against another on the basis of race, religion, ethnicity, age, gender, national origin, or sexual preference. Still we will not be silenced by the difficulty of fruitfully discussing politically sensitive issues.

Diversity Statement

"I aim to create a learning environment for my students that supports a diversity of thoughts, perspectives and experiences, and honors your identities (including race, gender, class, sexuality, religion, ability, socioeconomic class, age, nationality, etc.). I also understand that the crisis of COVID, economic disparity, and health concerns, or even unexpected life events could impact the conditions necessary for you to succeed. My commitment is to be there for you and help you meet the learning objectives of this course. I do this to demonstrate my commitment to you and to the mission of Sul Ross State University to create an inclusive environment and care for the whole student as part of the Sul Ross Familia. If you feel like your performance in the class is being impacted by your experiences outside of class, please don't hesitate to come and talk with me. I want to be a resource for you."

Academic Integrity

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. A scholar is expected to be punctual, prepared, and focused; meaningful and pertinent participation is appreciated. Examples of academic dishonesty include but are not limited to: Turning in work as original that was used in whole or part for another course and/or professor; turning in another person's work as one's own; copying from professional works or internet sites without citation; collaborating on a course assignment, examination, or quiz when collaboration is forbidden.

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

Plagiarism

A student guilty of plagiarism and/or cheating will receive a grade of "F" in the course involved and the grade will be so recorded on the transcript. Students giving and receiving assistance in any unauthorized manner during an examination will subject themselves to this cheating policy. A pattern of cheating will result in suspension.

Assignments

All assignments are to be submitted via Blackboard. No late work will be accepted without proper documentation or prior approval by the instructor. Daily work will consist of reading, worksheet pages, and budgeting exercises. The laboratory exercises and projects will be completed together during the scheduled class time. It essential that everyone be in attendance for the scheduled class meetings.

Course Communication: The official e-mail communications channel for this course is the Sul Ross State University e-mail account (yourname@sulross.edu) of each student and professor. For the purposes of this course, no other e-mail account is acceptable.

Due dates: All assignments and projects will be given due dates which must be met. All assignments will be due by 11:59 pm on the assigned day. Assignments and projects will not be accepted if they are turned in late without approval. Late assignments will lose ten points per calendar day. Students are responsible for meeting the deadlines even if classes are missed.

Grading Policy

All work will be graded on specific criteria using the following guidelines. Any worksheets will be graded on a points-per-answer basis. Criteria for grading will include accuracy of content, appropriateness of content for assignment, presentation, and clarity. Projects in the lab will be graded on accuracy, neatness, content, adherence to standards, adherence to assignment, and workmanship. Graded items will be broken into specific categories and presented on grade sheets given at the time the assignments are given.

Final grades will be determined by totals in these areas:

- 5% quizzes
- 15% final exam (comprehensive)
- 30% daily work assignments: lab work, site visit, and attendance
- 50% final project (group or individual project)

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

Grades will be earned on the basis that “C” is average work, “B” is above average work, and “A” is well above average work. Barring unusual circumstances, there will be **NO INCOMPLETES** given at the end of this semester.

Design/Build Project

Team Assignments: All team members will receive the same grade on team assignments. Please note that the most successful team projects are developed by teams that take the time to get to know each other outside of class. By investing in these relationships, the work is completed more efficiently and effectively. Invariably, the reports and presentations reflect the strength of the team relationships.

Team Member Firing Procedure: Should the team decide that a team member is not contributing to the team in an acceptable manner, the team may "fire" the team member. A firing typically results in a zero (0) for the project for the fired team member. This option should NOT be taken lightly.

In the business world, when a person is fired from a team or job, that firing should never come as a surprise. The person is generally notified in writing at least twice before formal firing procedures are started. In addition, help is usually provided to assist that person in his/her performance. People are often times not aware of how their work style, attitude, or performance is affecting the team and it is only fair to discuss these issues with the person before launching a formal procedure.

To fire a team member the following must take place and be documented:

1. The team must address their concerns/dissatisfactions with the team member by talking with him/her and putting in writing the behaviors and actions that are detrimental to the team progress and indicate what must be done within a realistic and specified time frame. A copy of this documentation must be emailed to the professor.
2. In addition to presenting the written document, the team members must hold a meeting to allow the member in question to ask for clarification, to respond to the notification, and to give him/her a chance to rectify the situation. The minutes from this meeting must be forwarded to the professor. The team member in question must make a written response and submit a copy to the professor.
3. If the situation is not rectified within the specified time frame, and the team members want to pursue the firing, a meeting with the professor must be scheduled.

Design/Build Project: Construction Site Visit/Detail Report

You will select (1) One Construction Site to visit and document or select your studio design project. During the Site Visit, you will document the Construction Methods and Materials with photographs and drawings. After the each Site visit, you will research and find at least (1) one Construction Detail /Architectural Graphic that represents an Onsite Construction detail in your documentation of the site. You will generate reports with your site photos and drawings. Trace or Draw at least (2) additional details related to the materials and methods found at the site. Use your book and / or other references listed for architectural details. Clearly date and label photos and drawings. The Due Date will be announced when the project is assigned.

Class Structure

This course is designed to be a guided study and not just dissemination of information. It will be run on a lecture\discussion\activity format. Lectures will utilize overheads, power points, demonstrations, videos, and visits to the internet. Lectures will be given primarily to enhance and answer questions about the ***material that should have been studied prior to the class period.*** There will be some step-by-step guided practice, individual assistance, and demonstrations during the scheduled class time in areas where there seems to be a need. It is essential that everyone be in attendance for the scheduled meetings for sharing information, demonstrations, activities, and so questions are answered.

Time Commitment

Students should be prepared to spend at least 4-6 hours per week outside of class on assignments that will include: Homework, Reading Assignments, Lab work and studying for tests and quizzes.

Phones & Electronic Devices

No electronic devices other than calculators are allowed in the class or lab.

Lab Time

As with all the Industrial Technology classes there will be a substantial amount of lab work to be done. Normally 6 hours outside of scheduled class time each week for researching, reading, and general homework is expected for college level work. All 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. Hours for access to the lab will be announced when set.

Supplies

There are some expendable supplies you will need for the class such as pencils (lead), erasers, and paper. These supplies may be provided through the department through a set materials fee based on the average material use by students.

Storage

The lockers in the hallway may be checked out and used for storing your equipment and supplies. These lockers must be signed out with the secretary in the IT main office. You must supply your own lock. Do not leave any of your work or equipment lying around in the lab!

Quizzes

You will not be given advance notice of quizzes. They will be primarily written in nature. There will be no make-up quizzes.

Tests/Exams

All exams will be given on the announced date. Everything discussed and everything in the assigned reading, including laboratory material, is fair game for tests and quizzes. It is your responsibility to be in attendance the day of scheduled exams. Tests will be either administered through Blackboard or written in nature using various styles of questions covering terminology, equipment, processes, and other items discussed. Attendance for the tests is mandatory; no makeup tests will be given.

Midterm Exam

There will be no midterm exam given.

Final Exam

The final exam will be during the week of December 6-8, 2021 or per the university testing schedule. The specific date and time will be announced during the semester. The exam will include written, practical, and analytical portions, and will be comprehensive of the entire semester. Do not make any other plans for that day and time.

IT 3301 Integrated Construction and Design

Fall 2021

Tentative Course Outline

The following is a tentative schedule for the semester. The dates provided are the dates the reading is assigned, and the reading is to be completed by the following class day.

Week #	Subject/Topics
1	Introduction to course, Schedule Office Hours Visit, Schedule Job Site Visit
2-15	Safety Blueprints Building Codes Floor Framing Building Codes Foundations/Footings Foundation Layout Wall Framing Door Framing Window Framing Wood/Lumber Engineered Panels Fasteners Scaffolds, Ladders, and Horses Stairs Roofing/Roof Framing Insulation and Ventilation Electrical Plumbing Siding and Cornice Construction of Decks, Porches, and Fences Drywall Construction Wall Paneling and Wall Tile Ceiling Finish Interior Trim Stair Finish Finish Floors Cabinets and Countertops
16	Final Exam

THIS SYLLABUS MAY CHANGE AT ANYTIME