

## **Department of Agriculture & Industry**

IT 4313 | CONSTRUCTION PROJECT CONTROLS | Fall 2024

COURSE SYLLABUS

#### **Instructor Information**

Dr. Eric Busby

Email: eric.busby@sulross.edu

Office: Industrial Technology Building RM 101

Office Hours: By Appointment

Phone: 432-837-8137

Class Time and Location: Monday & Wednesday

2:00pm - 3:45pm

Industrial Technology Building RM 103

#### **Required Textbook:**

Construction Management 4th Edition; Author(s): Frederick Gould and Nancy Joyce Publisher: Pearson/Prentice Hall; 4th Edition ISBN-10: 0132877244; ISBN-13:978-0132877244

#### Reference:

Construction Accounting and Financial Management Author: Steven J. Peterson ISBN 978-0470182710

A Contractor's Guide to Planning, Scheduling, and Control Author: Len Holm

ISBN 978-1119813521

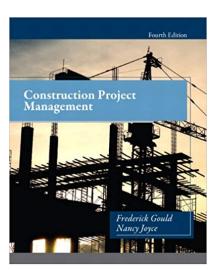
There will also be additional reading material assigned in the form of handouts that contain industry-related information. Students will be responsible for that information on tests and quizzes.



This course provides students with an introduction to construction related financial documents including schedule of values, labor and operations cost reports, and construction budgets. Students will have the opportunity to trace the flow of construction dollars from time sheet to balance sheet.

# **Course Goals and Objectives**

This course focuses on the various aspects of construction which involve financial documents and controlling the progress of the work. The primary emphasis of this course will be to help students understand the documents and methods used to manage the cost of labor, materials, and equipment. Each student must develop analytical skills needed to make them a successful construction leader and manager.



### **Student Learning Outcomes**

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

- 1. Students will be able to demonstrate an understanding of schedule of values.
- 2. Students will demonstrate the ability to make labor and operations cost reports and construction budgets.
- 3. Students will be able to understand the construction dollar flow from time sheet to balance sheet.
- 4. Students will be able to identify the need for risk management, resource management, and project closeout.
- 5. Students will be able to integrate the knowledge learned in estimating, scheduling, computer applications, construction accounting, and other courses to develop a comprehensive execution plan.

#### **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:

- Create written communications appropriate to the construction discipline
- Analyze construction documents for the planning and management of construction processes.
- Understand project delivery methods and methodologies.
- Understand the schedule of values
- Demonstrate the ability to make labor and operations cost reports and construction budgets
- Define and understand the different methods of construction project controls
- Understand the flow of construction funding from time sheet to balance sheet.
- Understand construction contract document requirements
- Identify the need for risk management, resource management and project close out.

Additionally, students will be exposed to the conditions that contractors must perform under to deliver successful projects and to gain a perspective on the types of projects that you might encounter in your career. 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 Statement**

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. Alpine students seeking accessibility/accommodations services can contact Mary Schwartze Grisham, M.Ed., LPC, SRSU's Accessibility Services Coordinator or Ronnie Harris, LPC 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 counseling@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. Rio Grande College (Del Rio, Uvalde, and Eagle Pass) students can contact Alejandra Valdez by email at asv18en@sulross.edu or by calling (830) 758-5006.

## **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, <u>library.sulross.edu</u>. Off-campus access requires logging in with your LobolD and password. Librarians are a tremendous resource for your coursework and can be reached in person, by email (<u>srsulibrary@sulross.edu</u>), or by phone (432-837-8123).

No matter where you are based, public libraries and many academic and special libraries welcome the general public into their spaces for study. SRSU TexShare Cardholders can access additional services and resources at various libraries across Texas. Learn more about the TexShare program by visiting <u>library.sulross.edu/find-and-borrow/texshare/</u> or ask a librarian by emailing <u>srsulibrary@sulross.edu</u>.

New for Fall 2023: Mike Fernandez, SRSU Librarian, is based in Eagle Pass (Building D-129) to offer specialized library services to students, faculty, and staff. Utilize free services such as InterLibrary Loan (ILL) and ScanIt to get materials delivered to you at home or via email.

# **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 person 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.

### **Supportive Statement**

I aim to create a learning environment for my students that supports various perspectives and experiences. I understand that the recent pandemic, economic disparity, and health concerns, or even unexpected life events may 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 a supportive 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.

## **Attendance and Participation**

Attendance is necessary! Attendance and regular participation in the classroom are essential for maintaining the best learning environment. Learning not only occurs between the student and course materials, but, just as importantly, peer to peer, professor to student, and student to professor. 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.

Participation in this course via the Internet is the responsibility of the student. Your instructor is also required by law to validate/certify your attendance in your on-campus or online course(s) for you to receive financial aid. To meet this attendance requirement in an any 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.

Any student dropped for non-participation will receive an "F" in the course dropped. Inactivity may include the following:

- not logging on to the course not submitting assignments
- not participating in scheduled activities
- not communicating with the instructor by phone or email, and/or
- not following the instructor's participation guidelines stated in the syllabus

Any student who has not attended, logged on to this course, or submitted assignments by September 26, 2024 will be considered to have exceeded the University's policy on "excessive absences" and may be automatically dropped from the course. Blackboard statistics track the logins made and document the sections of the course accessed. These statistics will be used by your professor as a factor in documenting your participation in the course.

Your professor will use Blackboard statistics to document logins to the course and assignments accessed.

#### **Class Structure**

The course is a traditional "Face-to-Face" course with online lectures. This course is designed to be a guided study, and not just a dissemination of information. It will be run on a lecture\discussion\activity format. Lectures will utilize power points, demonstrations, videos, and visits to the internet for research. Lectures will be given primarily to enhance the learning environment, and answer questions about the material that should have been studied prior to the class period. There may 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 to share information, demonstrations, activities, and so questions are answered. Students are responsible for completing all assigned work.

## **Discussion Participation** (As Required)

Discussion topics are set up for each module; you are expected to contribute to each discussion by posting a comment and replying to at least 2 other posts. Five points can be earned for each discussion following the guidelines below. Spelling and grammar count.

#### **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.

### Assignments

All assignments are to be submitted via Blackboard. No late work will be accepted without proper documentation or prior approval by the instructor.

**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:** All work will be graded on specific criteria using the following guidelines. Any worksheets will be graded on a points-per-answer basis. Any sketches and drawings assigned will be graded on a 100-point (percentage) scale. 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.

### **Grading Policy**

Final grades will be determined by totals in these areas:

- 5% quizzes
- 25% final exam (comprehensive)
- 40% daily work assignments: lab work, site visit, and attendance
- 30% 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.

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 any unusual circumstances there will be <u>NO</u> <u>INCOMPLETES</u> given at the end of this semester.

### **Academic Integrity**

Students in this class are expected to demonstrate scholarly behavior and academic honesty in the use of intellectual property. Students should submit work that is their own and avoid the temptation to engage in behaviors that violate academic integrity, such as 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. Students should also avoid using open AI sources unless permission is expressly given for an assignment or course. Violations of academic integrity can result in failing assignments, failing a class, and/or more serious university consequences. These behaviors also erode the value of college degrees and higher education overall.

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

#### <u>Plagiarism</u>

A student guilty of plagiarism and/or cheating will receive a grade of "F" in the course involved and the grade will be 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.

#### 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, 9-11, 2024. 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 4313 Construction Project Controls Fall 2024

## **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 #	Reading/Subject
1	Introduction to course, Schedule Office Hours Visit, Schedule Job Site Visit
2	Chapter 1: The Construction Industry
3	Chapter 2: Project Participants
4	Chapter 3: Organizing and Leading the Construction Project
5	Chapter 4: Project Delivery Methods
6	Chapter 5: Project Chronology
7	Chapter 6: Construction Services during Design
8	Chapter 11: Controlling Project Cost, Time, and Quality
9	Chapter 10: Project Planning and Scheduling
10	Chapter 9: Estimating Project Costs
11	Chapter 7: Bidding and Procurement
12	Chapter 12: Project Administration
13	Chapter 8: Construction and Closeout
14	Chapter 13: Construction Law
15	Chapter 14: Construction Safety and Health
16	Final Exam