

ITEC 2301

Quantitative Decision Tools



783 Spr 8W1, 2019 (Official Syllabus 12/17/19)

Basic Information

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Email: winburn_w@utpb.edu

Office Hours: Contact instructor for appointment or email at any time.

Office Phone: Off Campus Not Provided on public syllabus

Course Dates: Jan 13, 2020 – Mar 6, 2020

Course Credits: 3

This course is a Web Course and is conducted within Canvas at <http://utpb.instructure.com>

Course Description

Course Catalog Description: Introduction to financial and quantitative decision making. Financial and accounting terminology and concepts including the time-value of money. Cost estimation, project selection, budgeting, earned-value management and variance analysis. Basic concepts and applications of probability, descriptive and inferential statistics, and statistical process control including quality management tools and risk analysis. Course may be waived for students who have completed ACCT 2302 and introductory statistics.

Purpose: To provide Industrial Technology students an understanding of the financial, accounting, and statistics terminology and concepts needed to succeed in industrial technology courses and technology careers.

Prerequisites: There are no prerequisites for this course

Target Audience: Sophomore Industrial Technology majors

Required for any specific major: BAAS in Industrial Technology, B.S. Industrial Technology.

Method of instruction: online lectures, discussions, exams.

Measurable Learning Outcomes:

By the end of this course, you should be able to:

- Define “financial accounting.”

- Differentiate between financial accounting and managerial accounting.
- Describe the purpose of U.S. generally accepted accounting principles (U.S. GAAP)
- Explain the terms used for costing purposes.
- Identify how costs flow through the three inventory accounts and cost of goods sold account.
- Distinguish between job costing and process costing.
- Explain how direct materials and direct labor costs are assigned to jobs.
- Explain how overhead costs are assigned to jobs.
- Explain the concept of Earned-Value Management and variance analysis
- Identify and explain the basic definitions used in statistics and some of its key concepts.
- Interpret stem and leaf diagrams, frequency histograms, and relative frequency histograms.
- Explain the concept of an event associated with a random experiment.
- Explain the concept of the probability of an event.
- Explain the concept of a random variable.
- Distinguish between discrete and continuous random variables.
- Identify basic facts about the family of normally distributed random variables.
- Explain the logical framework of tests of hypotheses.
- Explain basic terminology connected with hypothesis testing.
- Explain a relationship that is close to linear but which contains an element of randomness.
- Identify and explain Pareto Charts
- Identify and explain cause and effect diagrams
- Identify and explain scatter diagrams
- Identify and explain stratification
- Identify and explain run charts and control charts

Required Materials:

Introductory Statistics c2016 by Illowsky & Dean

ISBN-13: 978-1-938168-20-8

Free textbook for download from www.openstax.org paper version can be purchased

Financial Accounting v. 1.0 a free online textbook from saylor.org

https://saylordotorg.github.io/text_financial-accounting/

Managerial Accounting v. 1.0 a free online textbook from saylor.org

https://saylordotorg.github.io/text_managerial-accounting/

Other materials: Broadband Internet connection and a computer with webcam and microphone capable of running Respondus Lockdown Browser for taking exams. Respondus Lockdown Browser is free and downloaded using the link below.

<http://www.respondus.com/lockdown/download.php?id=841715130>

Important Academic Dates

UTPB Academic Calendar: [Academic Calendar](#)

Course Overview

All activities in this course are required. There are no optional or extra credit assignments.

Readings: 16

Videos: 12

Quizzes: 3

Assignments: 7

Research Projects: 0

Discussion Topics: 7

Final Exam: 0

Presentations: 0

Grading:

Course Category	Number of/points per	Points
Quizzes	3/100	300
Discussions	8/20	160
Assignments	8/20	160
Total Points		620

Grading Scale:

Grade Range	Letter Grade
90 and above	A
80 to 89	B
70 to 79	C
60 to 69	D
Less than 59	F
	(- 0,1,2,) (+ 7,8,9)

Communication, Grading & Feedback:

All the course activities will be graded within approximately one week after the set due date. You can check your grades by going to Grades. If there is any discrepancy in the grade, you must contact me immediately via the Canvas Internal Messaging Tool. I will provide individual feedback or a general feedback in the performance of the course activity. Assignments are graded according to the point value allocated in the course assessment section. At the end of the course I will evaluate the Quiz score mean and median, with the low outliers of students who stopped participating removed. I will then adjust the total point value of each student by exactly the same value, **up or down**, to obtain a mean or median, whichever is higher, **of approximately 81 -83%** based on the instructors evaluation of the distribution. This methodology results in a cumulative exam grade for each student based on how they performed relative to peers taking exactly the same course with exactly the same assignments at exactly the same time. **The exams are intended to be rigorous; however, they insure a reasonable grade distribution.** I will notify students of the mean and median of each individual exam so that they may have an

understanding of how they performed relative to the class. Discussion and paper grades are not included in the adjustment because there is no excuse for missing or not doing well on those assignments.

Policies

1. Class Communication Policy

Online classes offer a great deal of flexibility; however, the fact that there is not a regular meeting time complicates communication. Please note that this is a fully online class conducted in the Canvas Learning Management System that students can access 24/7 during the term. It is not a 24/7 private tutoring session via email or texting. Although students may work on assignments day or night, instructors are not required to work 24/7 to respond instantly to student questions or problems. I will log in to the class at least one time per day on weekdays unless some unusual event, such as travel or meetings, prevents me from doing so. I usually log in to the class at least one time over the weekend.

All communication must take place in the Canvas Learning Management System via the Class Problems and Solutions discussion board and the Canvas Internal Messaging tool. During the term of the course, I will not communicate with students about course issues via UTPB internet email. If you email my UTPB email address you will either not get a response or the response will be "Follow Class Communication Policy". The main reasons for this policy are that I get dozens of UTPB internet emails daily and your email will be easily missed among the clutter. More importantly, by keeping all communication within the Learning Management System it is archived and easy to refer back to if needed. When I have a class announcement, I will post an announcement in the course Announcement area that may also be sent to your email account. There is no need to reply to these emails. If you want to ask me any course related question, please use Course Problems and Solutions discussion board and I will reply the next time I log in to the class. If someone has already ask the question do not make a "me too" posting as it only clutters up the discussion board. I will respond within 24-48 hours depending if it is a weekday or weekend. When you have a personal situation involving illness or the grading of your individual assignment, please send me a message using Canvas Internal Messaging tool, these are private, and I will respond within 24-48 hours depending if it is a weekday or weekend. I may interject in the graded discussion forums if I feel necessary. Otherwise I will only be reading and grading the discussion posts. I will not be looking into the group discussion boards unless a problem has been brought to my attention. I use the Paper Evaluation Rubric discussed under the grading section in this syllabus, to grade your papers. If you have any questions before or after taking a quiz, please send a message using Canvas Internal Messaging tool. All the course activities will be graded approximately one week after the set due date. You can check your grades by going to Grades. If there is any discrepancy in the grade, you must contact me immediately using Canvas Internal Messaging tool.. I will provide individual feedback or a general feedback in the performance of the course activity.

2. **Discussion Board:** Discussion Board is primarily for discussing course related topics and issues.

There will be 8 graded discussion topics for the semester. Each discussion topic is worth 20 points; up to 10 points for the initial posting and up to 5 points for each of the 2 required

responses to other students. For each graded discussion question, first, you must respond to the question directly during the first 2 days of the week and second, you must read the other students posts and reply to at least two other students responses. You must ensure that the responses to the questions are meaningful, reflective, refer to personal experience and support your course readings. Avoid postings that are limited to 'I agree' or 'great idea', etc. If you agree (or disagree) with a posting then say why you agree by supporting your statement with concepts from the readings or by bringing in a related example or experience.

You are responsible for reading all of the messages that are posted in the online discussion. Not reading messages is the equivalent of sleeping in class. Use a person's name in the body of your message when you reply to their message. It helps to keep all of us oriented. It helps us maintain a clearer sense of who is speaking and who is being spoken to. As we begin to associate names with tone and ideas, we come to know each other better.

Best practices are:

- a. Read all message postings in online discussion.
- b. Respond to the question directly
- c. Reply to minimum of two other student posts.
- d. Use a person's name in the body of your message when you reply to their message.
- e. Avoid postings that are limited to 'I agree' or 'great idea', etc.
- f. Ensure responses to questions are meaningful, reflective.
- g. Support statements with concepts from course readings, refer to personal experience, examples.
- h. Follow **Rules of Behavior**.

3. **Rules of Behavior:** Discussion areas are public to every student in this class (including your instructor) who will see what you write. Please pay attention to the language you use and adhere to the following guidelines:

- Do not post anything too personal.
- Do not use language that is inappropriate for a classroom setting or prejudicial in regard to gender, race, or ethnicity.
- Do not use all caps in the message box unless you are emphasizing (it is considered shouting).
- Be courteous and respectful to other people on the list
- Do not overuse acronyms like you would use in text messaging. Some of the list participants may not be familiar with acronyms.
- Use line breaks and paragraphs in long responses.
- Write your full name at the end of the posting.
- Be careful with sarcasm and subtle humor; one person's joke is another person's insult.

4. **Make-Up/Late Submission Policy:**

Exams and discussion boards are not allowed after the due date and no late submissions are permitted for any Week 8 assignments. Exams are open for several days so there is no excuse for missing them. However, if you do miss exam 1 through 2, there will be a comprehensive makeup exam open the last week of class. This will allow 1 attempt.

- 5. Academic Dishonesty/Plagiarism/Cheating:** The academic community regards academic dishonesty as an extremely serious matter, with serious consequences. Any effort to gain an advantage not given to all students is dishonest whether or not the effort is successful. Any suspicion of academic dishonesty will be reported and investigated. A student who engages in scholastic dishonesty that includes, but is not limited to cheating, plagiarism, and collusion can receive an "F" for the course. Quizzes are to be taken with Respondus Lockdown Browser with webcam. Students must show a complete 360 degree view of the environment to clearly demonstrate that no unauthorized resource are nearby. Quizzes are to be taken with no resources (textbooks, notes, tablets, phones, other computer, people, etc.). The student's eyes should be pointed toward the screen throughout the exam. Continually looking off the screen is an indication of using unauthorized resources. It is the student's responsibility to clearly demonstrate that no other resources are used. Any doubt will lead to the student taking another exam before a live human proctor at an instructor approved testing center at the student's expense. Obvious use of unauthorized resources or other forms of academic dishonesty can result in a grade of F for the class and the student being reported to the Dean of Students Office for academic dishonesty which could result in failure in the class and/or suspension or dismissal from the college.

All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures. For complete information on UTPB student conduct and discipline procedures consult the university's handbook at: [University's Handbook:Scholastic Dishonesty](#)

Academic dishonesty includes, but is not limited to cheating, plagiarism, collusion, falsifying academic records, misrepresenting facts, the submission for credit of any work or materials that are attributable in whole or in part to another person, taking an examination for another person, any act designed to give unfair advantage to a student such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructor, or the attempt to commit such acts.

Plagiarism includes, but is not limited to the appropriation of, buying, receiving as a gift, or obtaining by any means material that is attributable in whole or in part to another source, including words, ideas, illustrations, structure, computer code, other expression and media, and presenting that material as one's own academic work being offered for credit.

- 7. Attendance and Class Participation:** Regular and active participation is an essential, unmistakably important aspect of this online course. Students will log on a minimum of three times every seven days. All students are expected to do the work assigned, notify the instructor when emergencies arise.
- 8. Tracking:** The learning management systems have a tracking features. Statistics are collected that quantifies how often and when students are active in the course and provides information if the student has accessed different pages of the course.
- 9. Absenteeism:** All the course activities have set dates to be completed and submitted. After the due dates the activities will not be available for the students. Not logging into an online course is considered absenteeism. Contact instructor immediately in case of emergency medical situation.

10. Course Incomplete/Withdrawal/Grade Appeal:

All students are required to complete the course within the semester they are signed up. Incomplete grades for the course are rarely given, will only be granted if the student has completed the majority of course activities with a grade of C or better and provides a valid, documented excuse for not being able to complete the course on time, and has contacted the instructor prior to the scheduled last class to request an extension. The student signs a contract that includes the incomplete course activities and the new due dates. Find information and dates regarding drops and withdrawals at <http://www.utpb.edu/services/academic-affairs/office-of-the-registrar/adds-drops>. For grade appeal process go to <http://www.utpb.edu/campus-life/dean-of-students/grievances>. **NOTE: The due dates and times for the activities will adhere to the Central Time Zone.**

11. Accommodation for Students with Disabilities: Americans with Disabilities Act: Students with disabilities that are admitted to The University of Texas of the Permian Basin may request **Students with Disabilities:** The University of Texas of the Permian Basin in compliance with the Americans with Disabilities Act and Section 504 of the Rehabilitation Act provides “reasonable accommodations” to students with disabilities. Any student with a disability who is requesting an accommodation for this course must provide the instructor with official documentation in the form of a letter from the ADA Officer for Students. Only those students who have officially documented a need for an accommodation will have their request honored.

ADA Officer for Students: Mr. Paul Leverington

Address: Mesa Building 4243/4901

Voice Telephone: 432-552-4696

Email: ada@utpb.edu

For the accessibility and privacy statements of external tools used within courses, go to [Accessibility and Privacy Statements](#).

This is a partial list that addresses

- Canvas
- Google (e.g. YouTube)
- Microsoft (e.g MS Word)
- Adobe (e.g. PDFs)

Computer Skills, Technical & Software Requirements

Student will need to create word processing documents, save files, and submit files. You will need to turn in files in Word (.doc or .docx or .rtf). You may also need to create spreadsheet files in .xls or .xlsx format or presentation files in .ppt or .pptx format. All the course assessment activities will be submitted in Canvas. Keep in mind the following standards/practices for submission of assignments: a. All course assessment activity files that will be submitted to the instructor should be in MS Word (.doc, .docx, or .rtf). If required, spreadsheets must be in .xls or .xlsx format. Some ITEC courses may require the use and submission of files from specialized software for areas such as computer drawing or project

management. In those cases specific instructions will be given on what software to obtain and where to obtain it and what file formats to submit the assignments.

UTPB provides support for Canvas for PC and Mac operating systems. ChromeBook, Linux, and iPad are not supported. Students can use cloud version of Word, PowerPoint and other Microsoft products through use of their UTPB Outlook 365 and UTPB email address. Students can use cloud version of Word, PowerPoint and other Microsoft products through use of their UTPB Outlook 365 and UTPB email address. For more information refer to [UTPB Office 365 Page](#)

Computer Technical Requirements: Information at [Technical Requirements](#)

Online Student Authentication

UTPB requires that each student who registers for an online course is the same student who participates in, completes, and receives credit for the course. UTPB's Distance Education Policy requires faculty members to employ at least two methods of verification to ensure student identities. To access online courses students must login to the UTPB learning management system using their unique personal identifying username and secure password. UTPB's Distance Education Policy requires at least one additional student identification method within the course that has been determined and approved by the faculty or academic program. This course satisfies the second method of student authentication by using Lockdown Browser with Respondus Monitor with the requirement to present an approved photo ID through a web cam. This course requires the use of LockDown Browser and Monitor for online exams.

Watch this short video (<http://www.respondus.com/products/lockdown-browser/student-movie.shtml>) to get a basic understanding of LockDown Browser and Monitor.

Download and install LockDown Browser from this link:
<http://www.respondus.com/lockdown/download.php?id=841715130>

To take an online test, open LockDown Browser which opens Canvas and navigate to the exam. (You cannot access the exam with a standard web browser.)

When taking an online exam, follow these guidelines:

- Setup web cam for exams using Monitor and present an approved photo ID to the webcam when requested.
- *Approved photo identifications are: passports, government issued identification, driver's licenses, military ID from DoD; dual credit and early college high school students use school district identifications.
- Do not wear any hats or dark glasses while taking the exam
- No other person may be near you or assisting you in any way (exceptions for those with approved disabilities needing assistance)
- Any light should be from behind the camera toward your face, not from behind you into the camera lens
- Ensure you're in a location where you won't be interrupted.

- Turn off all mobile devices, phones, tablets, televisions, radios, etc. and remove them from the immediate area.
- Clear your desk of all external materials — books, papers, other computers, or devices and clearly demonstrate in the environmental view that the area is clear.
- Remain at your desk or workstation for the duration of the test.
- LockDown Browser will prevent you from accessing other websites or applications; you will be unable to exit the test until all questions are completed and submitted.
- It is the student’s responsibility to clearly demonstrate compliance with procedures and that no unauthorized resources are used. Failure to do so will result in a minimum of having to take another exam before a live proctor at an instructor approved testing facility at the students cost which could exceed \$100. Obvious violations can result in a grade of F for the class and being reported to the Dean of Students office for academic dishonesty.

Preparation for Emergencies

Computer Crash: Not having a working computer or a crashed computer during the semester will NOT be considered as an acceptable reason for not completing course activities at a scheduled time. NOTE: Identify a second computer before the semester begins, that you can use when/if your personal computer crashes.

Complete Loss of Contact: If you lose contact with course connectivity completely (i.e. you cannot contact me via Canvas or email), you need to call instructor, and leave message regarding connectivity loss and contact information.

Lost/Corrupt/Missing Files: You must keep/save a copy of every project/assignment on an external drive, UTPB Outlook 365 OneDrive, or personal computer. In the event of any kind of failure (e.g. virus infection, student’s own computer crashes, loss of files in cyberspace, etc) or any contradictions/problems, you may be required to resubmit the files.

End-of-Course Evaluation & Instructor Evaluation

Every student is encouraged to complete an end-of-course evaluation/survey provided by UTPB. During the last few weeks of class, you will receive an announcement through email notifying you that the Course/Instructor Survey is available. You may follow the link in the email to complete the survey using the same credentials to access your courses here. When entering the emailed Survey link you will see a list of surveys for you to complete.

The survey is anonymous, and your responses are confidential. Your feedback is critical to us and to your instructor as we strive to improve our offerings, and our support of you, the students.

Student Support Services

SERVICE	CONTACT
ADA Accommodation/Support	Testing Services & Academic Accommodations Department (432) 552-4696

SERVICE	CONTACT
Advising	(432) 552-2661 UTPB Academic Advising Center
Bookstore	UTPB Campus Bookstore (432) 552-0220
Email, Office 365, my.utpb.edu	Information Technology
Financial Aid and Scholarship	UTPB Financial Aid (432) 552-2620
Library	The J. Conrad Dunagan Library Online at (432) 552-2370
Registrar	UTPB Registrar (432) 552-2635
Student Services	Student Services (432) 552-2600
Technical Support	Canvas 1-866-437-0867
Tutoring & Learning Resources	If you are taking courses through UTPB the following links provide services: Smarthinking Online Tutoring (provides tutoring services), SmarterMeasure (measures learner readiness for online course).

Disclaimer & Rights

Information contained in this syllabus was to the best knowledge of the instructor considered correct and complete when distributed for use in the beginning of the semester. However, the instructor reserves the right, acting within the policies and procedures of UTPB to make changes in the course content or instructional techniques without notice or obligation. The students will be informed about the changes, if any.

Copyright Statement

Many of the materials that are posted within UTPB courses are protected by copyright law. These materials are only for the use of students enrolled in the course and only for the purpose of the course. They may not be further retained or disseminated.

Schedule

First Day

Last Day

Week 1	Mon Jan 13	Sun Jan 19
Week 2	Mon Jan 20	Sun Jan 26
Week 3	Mon Jan 27	Sun Feb 2
Week 4	Mon Feb 3	Sun Feb 9
Week 5	Mon Feb 10	Sun Feb 16
Week 6	Mon Feb 17	Sun Feb 23
Week 7	Mon Feb 24	Sun Mar 1
Week 8	Mon Mar 2	FRIDAY Mar 6

WEEK 1

Topics: Financial Statement usage and terminology.

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 1, 2, 3, 4, 5

Read:

Hermanson, Edwards, and Maher Chapter 1: The Accounting Environment

Hermanson, Edwards, and Maher Chapter 2: Accounting and its use in Business Decisions

Hermanson, Edwards, and Maher Chapter 3: Recording Business Transactions

Hermanson, Edwards, and Maher Chapter 4: Adjustments for Financial Reporting (only 4.3, 4.4, 4.5)

Activities:

Complete Introduction Discussion by end of Week

Work on Week 1 Homework

WEEK 2

Topics: Plant, Property, Equipment, depreciation, Direct and Indirect Costs, Overhead, Inventory, Types, Job & Process Costing, Budget

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 7, 8, 9, 10, 11, 12, 13

Read:

Hermanson, Edwards, and Maher Chapter 10: Property, Plant, and Equipment (whole chapter)

Hermanson, Edwards, and Maher Chapter 11: Plant Asset disposals, natural resources, and intangible Assets (only 11.2, 11.3, 11.5, 11.6, 11.7)

Hermanson, Edwards, and Maher Chapter 18: Managerial Accounting Concepts/Job Costing (whole chapter)

Hermanson, Edwards, and Ivancevich Chapter 19: Process: Cost Systems (only 19.1 to 19.6)

Hermanson, Edwards, and Ivancevich Chapter 21: Cost-Volume-Profit Analysis (only 21.5 to 21.9)

Hermanson, Edwards, and Ivancevich Chapter 23: Budgeting for Planning and Control (whole chapter)

Hermanson, Edwards, and Ivancevich Chapter 24: Control through Standard Cost (only 24.1 to 24.5)

Activities:

View Assigned Videos

Complete Week 2 Discussion

Week 1 Homework 1@20

Week 2 Homework1@20

WEEK 3

Topics: time-value of money, present value, future value

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 14, 15, 16, 17, 18

Read:

No Assigned Readings

Activities:

View Assigned Videos

Complete Week 3 Discussion

Complete Quiz 1 by last day of Week 3

Week 3 Homework1@20

WEEK 4

Topics: Sampling, Descriptive Statistics, Correlation

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 19, 20, 21, 22, 23, 24

Read:

Introductory Statistics Illowsky & Dean Chapters 1, 2, & 12.

Activities:

View Assigned Videos

Complete

Week 4 Discussion

Week 4 Homework1@20

WEEK 5

Topics: Probability, Discrete and Continuous Random Variables,

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 25, 26, 27, 28, 29, 30, 31, 32, 33, 34

Read:

Introductory Statistics Illowsky & Dean Chapters 3, 4, 5.

Activities:

View Assigned Videos.

Complete Week 5 Discussion by last day of Week 5

Complete Quiz 2 by last day of Week 5

Week 5 Homework1@20

WEEK 6

Topic: Normal Distribution, Central Limit Theorem, Confidence Intervals

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 35, 36, 37, 38, 39, 40

Read:

Introductory Statistics Illowsky & Dean Chapters 6, 7, 8.

Activities:

View Assigned Videos

Week 6 Homework1@20

WEEK 7

Topics: Hypothesis Testing

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 41, 42, 43, 44, 45, 46, 47, 48

Read:

Introductory Statistics Illowsky & Dean Chapter 9 & 10.

Activities:

View Assigned Videos

Complete Week 7 Discussion

Complete Quiz 3 by last day of Week 7

Week 7 Homework 1 @ 20

WEEK 8

Topics: Chi-square Probability Distribution

EXPLICIT LEARNING OBJECTIVE (LO) ALIGNMENT: 49, 50, 51, 52, 53

Read:

Introductory Statistics Illowsky & Dean Chapter 11 & 13.

Activities:

Week 8 Homework 1 @ 20

Complete Course Reflection Discussion by last day of Week 8

Complete Quiz 4 by last day of Week 8

Sample Syllabus