

Ch En 475

UO Lab 1 Introduction

Section 1
M-W 2:00 – 4:50 pm
Tom Fletcher

BYU | CHEMICAL ENGINEERING
IRA A. FULTON COLLEGE

BRIGHAM YOUNG
UNIVERSITY

Schedule for Today

- Business
- Introduction
- Syllabus
- Computer Setup
- Lab Tour/Safety Map
- LabVIEW Tutorial
 - LabVIEW Assignment will be done in class on Wednesday

Course Objectives

- Perform experiments that reinforce concepts learned in the Chemical Engineering curricula. This semester focuses on:
 - fluid dynamics
 - heat transfer
 - thermodynamics.
- Experience more open-ended problem statements to simulate more of an industrial experience
- Improve skills in safety, group work, statistics, writing, and presentations

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What is UO Lab?

- UO Lab is a place to:
 - See real-world equipment
 - Apply the theory seen in classes
 - Practice writing
 - Practice designing experiments
 - Think deeply about practical applications
 - Where data are not always consistent, things don't always work, and THINKING is required
 - Like the real world

Things To Practice and Learn in UO Lab

- Practice safety
- Learn “new” things
- Have fun
- Practice statistics
- Practice teamwork
- Learn the questions that should be asked

This is an active-learning class

What isn't UO Lab?

- UO Lab is NOT:
 - A writing class
 - A plant design class
 - A statistics class
 - A choose-your-own adventure class
 - A place to catch up on HW for other classes

Let's Make This A Great Class!!

- Your attitude will make all the difference in the world!
- You will get out of this class what you put into this class!!

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Fletcher's Ideal Scenario

- Positive learning environment
 - Have fun!
 - Culture of safety
- Dedicate 3 hours during the lab period to this class
- Multitask:
 - Gathering data
 - Analyzing data
 - Writing
- No outside distractions
 - Homework for other classes
 - Email, games, etc.

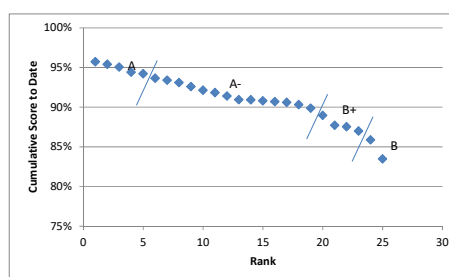


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Syllabus

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Typical Grade Distribution



Avg GPA = 3.66

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Schedule

DATE	Class Activity	Notes and Instructions	Assignment Due by End of Class
6-Jan	Introduction, Safety, Lab Tour, Labview	Notetaking/Labview	in-class safety lab assignment
6-Jan	Labview	Labview	Labview assignment
13-Jan	Project #1: Proposal proposal	Proposal Example	Project #1: Proposal, Safety Sheet
15-Jan	Project #1: Proposal proposal	Proposal Example	Project #1: Proposal, Safety Sheet
20-Jan	Martin Luther King Holiday		
22-Jan	Project #1: Begin experimental work	Statistics (Mean, Conf Interval)	
27-Jan	Project #1:	Progress Report Example	
28-Jan	Project #1:	Linear Regression	Statistics Assignment (in class), Project #1: Progress Report
3-Feb	Project #1: End experimental work	Figures and Graphs	
5-Feb	Project #1: Project writing	Complete Report Example	Leadership Review #1 to group members (in class)
10-Feb	Peer Review of Project #1		Project #1: Complete Report to peers
13-Feb	Final Report on Project #1		Project #1: Revised Report, Oral/Leadership Report
17-Feb	President's Day Holiday		
19-Feb	Project #2: Proposal proposal		
24-Feb	Project #2: Proposal proposal		Project #2: Proposal, Safety Sheet
26-Feb	Project #2: Begin experimental work		
3-Mar	Project #2:		
4-Mar	Project #2:	Project #2: Progress Report	
9-Mar	Project #2: End experimental work		
11-Mar	Project #2: Project writing		Leadership Review #2 (in class)
16-Mar	Peer Review of Project #2		Project #2: Memo Report to peers, Leadership Report #2
18-Mar	Project #3: Proposal proposal		Project #3: Revised Report, Oral
23-Mar	Project #3: Proposal proposal		Project #3: Proposal, Safety Sheet
25-Mar	Project #3: Begin experimental work	Review Statistics	
30-Mar	Project #3:	Statistics Quiz	
1-Apr	Project #3:	Project #3: Progress Report	
6-Apr	Project #3: End experimental work		
8-Apr	Project #3: Presentation preparation		
11-Apr	Project #3: Presentation preparation		Project #3 Quiz, Leadership Review #3 (in class)
13-Apr	Project #3: Oral presentation (15 min/team)		Project #3: Oral Presentation, Leadership Report #3

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Notes on Computers

- 16 students in ChEn 475
 - 30 students in ChEn 477
- Be courteous!**
- CAEDM will suspend your privileges if they see you with food or drink near a computer
 - These computers are not your lockers!
 - Please clean up when you are done
 - Logout when not in use

