Welcome to BYU!!

Class Outline Today

1. Roll, Introductions
2. Chemistry & Math
3. Syllabus, Schedule
4. Being Master of Your Own Learning
5. Resume Assignment
6. Master of Learning Assignment
Chemistry & Math

You need to be in or have taken
- Freshman chemistry (Chem 111 or 105)
- Calculus (Math 112)

If not, please see a professor in ChE

2. Syllabus, Schedule

Class Objectives

Chemical Engineering 191 is a seminar designed to help chemical engineering freshmen and transfer students:
1. Gain knowledge of the chemical engineering major and required curriculum
2. Gain familiarity with the chemical engineering field, career options, and potential job functions
3. Understand the importance of a well-written resume in obtaining professional employment.
4. Learn to take responsibility for their own learning experience at BYU by maintaining disciplined study habits, and
5. Demonstrate a sense of the importance of lifelong learning.

Registration Requirement

- New freshmen must register for and pass one semester of ChE 191
  - Usually during the fall or winter semester of the freshman year
  - Required for graduation in Chem Eng
- Older students who have completed 4 or more full-time semesters
  - at another university or college, or
  - at BYU as a major in another department,
  - AND at least one of those semesters was as a major in an engineering discipline,
  - are not required to take ChE 191
- Fill out and submit a waiver request (the form can be obtained from the Chemical Engineering Department), and the course and the 0.5 credits will subsequently be removed from your requirements

Attendance Requirements

- Minimum of 7 out of 8 class periods
- Including the Dean's lecture for freshman students
- AIChE meetings do not count but are recommended if they do not conflict
- Roll will be passed around class (be sure to mark it)
- Dean's lecture for new engineering students
  - Topic: Leadership
  - Part of a 4-year plan to teach leadership
  - Th, Oct 2, 11 am, JSB Auditorium
- Other Dean's lectures, ChE seminars, etc., are good but do not count for attendance in this class

Written Assignments

Each of the following assignments is described in detail on the attached pages and on the course web site
(http://www.et.byu.edu/~tom/classes/191/191.html).

1. Resume Due Sept 11
2. Master of Your Own Learning Sept 18
3. ChE video Oct 2
4. Career Fair Assignment Oct 2
5. Lifelong Learning Oct 23
6. Course Plan see schedule
Course Plan Assignment

1. Make a plan to graduate, assigning each course to a semester
   - Special Excel worksheet on ChE website to help you do this
   - Prerequisites
   - Many classes only offered once a year

2. Meet with your advisor
   - Your advisor will make sure you did not make a mistake that will cost you an extra year

3. Enter your approved plan into MyMap

Schedule

<table>
<thead>
<tr>
<th>Class</th>
<th>Date</th>
<th>Subject</th>
<th>Assignment Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sept 4</td>
<td>Class Intro/Master of Your Learning</td>
<td>Assignment</td>
</tr>
<tr>
<td>2</td>
<td>Oct 2</td>
<td>College New Student Leadership Workshop</td>
<td>Required</td>
</tr>
<tr>
<td>3</td>
<td>Oct 9</td>
<td>What Do Chemical Engineers Do?</td>
<td>Assignment</td>
</tr>
<tr>
<td>4</td>
<td>Nov 6</td>
<td>Leadership/Lifelong Learning</td>
<td>Assignment</td>
</tr>
<tr>
<td>5</td>
<td>Nov 13</td>
<td>Dating Engineering Outcomes</td>
<td>Assignment</td>
</tr>
<tr>
<td>6</td>
<td>Nov 20</td>
<td>International Outreach</td>
<td>Assignment</td>
</tr>
<tr>
<td>7</td>
<td>Nov 27</td>
<td>Thanksgiving Holiday</td>
<td>Assignment</td>
</tr>
</tbody>
</table>

Who Is Responsible For Your Learning?

We (faculty and staff) will help all we can
But our help is like leading a horse to water
Only YOU can make sure you “drink”
Only YOU can be the...

“Master of your learning”

Don't commit to excessive credits + work

How many hours are there in a week for learning?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Hours per Week</th>
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<tbody>
<tr>
<td>Total: 7 days x 24 hours</td>
<td>168 hours</td>
</tr>
<tr>
<td>Sunday: the Sabbath</td>
<td>- 24 hours</td>
</tr>
<tr>
<td>Sleep: 8 hrs/night x 6</td>
<td>- 48 hours</td>
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<tr>
<td>Meals: 2 hrs/day x 6</td>
<td>- 12 hours</td>
</tr>
<tr>
<td>Prayer/scripture: .5 hr/day x 6</td>
<td>- 3 hours</td>
</tr>
<tr>
<td>Hygiene: 1 hr/day x 6</td>
<td>- 6 hours</td>
</tr>
<tr>
<td>Driving/walking: 1 hr/day x 6</td>
<td>- 6 hours</td>
</tr>
<tr>
<td>Social Life: dates, sports</td>
<td>- 6 hours</td>
</tr>
<tr>
<td>Family Home Evening:</td>
<td>- 3 hours</td>
</tr>
<tr>
<td>Time Remaining</td>
<td>60 hours (or less)</td>
</tr>
</tbody>
</table>

Don't commit to excessive credits + work

How many hours do you need for learning?

In class
- Same number as credits
  - e.g. 15 cr = 15 hrs in class/week
  - 15 hours

Outside of class
- Target: 2 hrs outside/hr inside
- Technical courses: usually higher (say 2.5)
  - e.g. 15 cr = 37 hrs/week
  - 37 hours
  - (note: that’s 6 hours study/homework per day)

Time Needed
- 52 hours (or more)
A Crude Guideline

Work Hours ≤ 60 - 3.5 x Credits

Example: 15 credits means 7.5 work hrs

Really!

I have talked to a LOT of students who end up on academic probation

Results:
• Unhappy
• Embarrassed
• Loss of scholarship

Most Prevalent Causes:
• Trying to work 20-30 hrs and taking 15-18 credits
• Poor study habits from high school
• Distracted when trying to study in your apartment
• Playing too hard with roommates
• Health issues

We want you to be successful!!!

Make Your Study Environment Conducive to Learning

This will be your most demanding race so far!
3 major steps up from high school
Will require your best race

Facilities:
Space
Lighting
Comfort (but not TOO comfortable!)

Quiet
You need ALL of your
MENTAL and SPIRITUAL horsepower

Consider the library! (not your dorm room)

Discipline Yourself to Provide Good Study Habits and Quality Time

There will be many distractions and temptations:

Study to learn,
not just to “get it done” or to “get grades”

Seek to understand rather than memorize

The key to success:
study time: quality + quantity

There is NO SUBSTITUTE!

Schedule Your Study and Homework to Provide Adequate Time to Meet Due Dates

A Metaphor: Surfing

Use a Calendar

Plan Intermediate Mile Posts
I will have the literature search done by...
I will have mastered Chapter 7 by...
I will complete this assignment by… so that I can work on...

Get Ahead - Don’t Fall Behind

I Will Utilize All Important Resources

• Find out about material you missed
don’t adopt an “Oh, well…” attitude
take responsibility

• Seek answers to your questions
  – don’t let yourself not understand
  – write down questions
  – pursue answers
  – use TA’s, instructors, room-mates, etc.

• Seek to learn “by study and also by faith”
I Will Do All of This... Period

“Perhaps the most valuable result of all education is the ability to make yourself do the thing you have to do, when it ought to be done, whether you like it or not.”

Thomas Henry Huxley, in John Bartlett, comp., Familiar Quotations (1968), 723.

Mary Elizabeth Cummings (my wife’s mother)

“If you don’t listen, you’ll have to feel.”

Are you trying to get a degree or an education?

Hint: an education includes a degree!

Some students do the bare minimum to get a degree, but then are not prepared for a job!

Your Assignment: Make a trial resume

Due: Next Thursday Sept. 11

You will give this resume to your advisor to review!

Help Available:

http://chemicalengineering.byu.edu/resume-guides

4. Resume for Career Fair

5. Learning Assignment

Due Sept 18 (2 weeks)

- How will I ensure that the combination of my credit hours and employment hours will not be excessive?
- How will I ensure that my study environment (facilities, lighting, comfort, quiet) will be conducive to learning?
- How will I ensure that I apply study habits and discipline to provide adequate quality study time?
- How will I schedule my assignments to allow adequate time to complete them and to meet due dates?
- How will I utilize resources, including help from TAs and faculty, to maximize learning and success?
Summary

- **Welcome to ChE!** We want YOU to succeed!!
- **We felt strongly** enough about this material to put it into a course!
  1. Manage your time wisely
  2. Find a good place to study
  3. Ask for the Lord's help

- **Review of Assignments**
  1. Mark one of the class rolls
  2. Info sheet (including FERPA signature)
     - Alias for posting grades on web
  3. Resume due next time
     - Bring two copies so two friends can give you comments on your resume
  4. Master of learning assignment in 2 weeks