

Chemical Engineering 391

Chemical Engineering Career Skills 2

Winter 2021
M W 1:00-1:50 pm (online)

Professor: Thomas H. Fletcher, 330Q, 422-6236 (tom_fletcher@byu.edu)
Office Hours: As available, or by appointment.
Class web page: <http://www.et.byu.edu/~tom/classes/391/391.html>

Assistant:

Catalog Description:

Technical and business presentation skills.

Goals:

To help students build career skills necessary for chemical engineers by providing training and experience in presentation of technical and business material

Learning Outcomes:

1. Students will be able to communicate effectively with a range of audiences. (Communication: ABET Student Outcome 3)
2. Students will be able to give effective, well-organized oral presentations to a technical audience. (BYU Course Objective)
3. Students will be able to give effective, well-organized oral presentations to a business audience. (BYU Course Objective)

Grading:

30% Technical presentations
10% Self evaluation of technical presentation
30% Business presentation
10% Self-evaluation of business presentation
10% Attendance and punctuality
5% Participation and attitude
5% Course evaluation

Attendance:

Much of the learning in this course results from participating, observing, and analyzing the presentations given in class. Each student is, therefore, **required to be present at all student presentations**. However, knowing that emergencies arise, you will be allowed to miss 1 of the required presentation sessions without penalty if you watch the recorded class period. Beyond that, if a student must miss a class, he/she will please see me as soon as possible to arrange make-up work.

Participation:

Each student will each give **two seminars** on a chemical engineering topic. One of the seminars will be to simulate a talk at a technical meeting, and the other seminar will be for a business meeting. All presentations will be made using PowerPoint online using Zoom. Each presentation will be recorded, and each presenter will critically review his or her presentation. A copy of your presentation will be available on Learning Suite. The self-evaluation must be performed within one week of the presentation so that you can remember the presentation experience. Students will be expected to **dress as professional engineers during their presentations** (ties for the men, dresses or dressy pant suits for the women). In addition, **each student must fill out an evaluation form on each speaker each day of class**. There will be a moderator for each pair of presentations, so that each student will be able to serve as a moderator. To simulate the business meeting, the audience will ask questions during the presentation instead of just at the end.

Seminar Approval:

Each seminar topic must be approved by me **1 weeks** before the presentation date. The topic may be based on research or work the student has done, or from an internship, or from personal study. Web sites

are useful and easy to use, too, but sometimes contain inaccurate information. The topic/presentation must involve sufficient technical content (mathematics, graphical material, mechanistic reasoning, etc.) to challenge the presenter to do more than a simple qualitative overview of the subject.

Advanced Preparation:

- 1 weeks before:
 - get approval of topic of presentation (submit title to professor)
- 2 days before:
 - outline of presentation
 - rough draft of visual aids
 - 2 questions to be answered (please do not put these questions formally into your presentation!)

Course Evaluation

The online course evaluation and in-class ABET evaluation will be required of each student, and will count 5% of the grade.

Honor Code Standards

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and every instructor's expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Preventing Sexual Misconduct

Brigham Young University prohibits all forms of sexual harassment—including sexual assault, dating violence, domestic violence, and stalking on the basis of sex—by its personnel and students and in all its education programs or activities. University policy requires all faculty members to promptly report incidents of sexual harassment that come to their attention in any way and encourages reports by students who experience or become aware of sexual harassment. Incidents should be reported to the Title IX Coordinator at t9coordinator@byu.edu or (801) 422-8692 or 1085 WSC. Reports may also be submitted online at <https://titleix.byu.edu/report> (<https://titleix.byu.edu/report>) or 1-888-238-1062 (24-hours a day). BYU offers a number of resources and services for those affected by sexual harassment, including the university's confidential Sexual Assault Survivor Advocate. Additional information about sexual harassment, the university's Sexual Harassment Policy, reporting requirements, and resources can be found in the University Catalog, by visiting <http://titleix.byu.edu> (<http://titleix.byu.edu>), or by contacting the university's Title IX Coordinator.

Student Disability:

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. A disability is a physical or mental impairment that substantially limits one or more major life activities. Whether an impairment is substantially limiting depends on its nature and severity, its duration or expected duration, and its permanent or expected permanent or long-term impact. Examples include vision or hearing impairments, physical disabilities, chronic illnesses, emotional disorders (e.g., depression, anxiety), learning disorders, and attention disorders (e.g., ADHD). If you have a disability which impairs your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 801-422-2767 to request a reasonable accommodation. The UAC can also assess students for learning, attention, and emotional concerns. If you feel you have been unlawfully discriminated against on the basis of disability, please contact the Equal Employment Office at 801-422-5895, D-285 ASB for help.

Plagiarism:

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, which may not be a violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education where all members of the university are expected to acknowledge the original intellectual work of others that is

included in their own work. In some cases, plagiarism may also involve violations of copyright law. Intentional Plagiarism-Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote. Inadvertent Plagiarism-Inadvertent plagiarism involves the inappropriate, but non-deliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually results from an ignorant failure to follow established rules for documenting sources or from simply not being sufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance. Examples of plagiarism include: Direct Plagiarism-The verbatim copying of an original source without acknowledging the source. Paraphrased Plagiarism-The paraphrasing, without acknowledgement, of ideas from another that the reader might mistake for the author's own. Plagiarism Mosaic-The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source. Insufficient Acknowledgement-The partial or incomplete attribution of words, ideas, or data from an original source. Plagiarism may occur with respect to unpublished as well as published material. Copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Academic Honesty:

The first injunction of the Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character. "President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p.6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

Industry Internship Search Sites

- Indeed.com
- Glassdoors.com
- Aiche.org
- Engineeringjobs.com

Research Internship Sites

- <http://www.pathwaystoscience.org/>
- http://www.nsf.gov/crssprgm/reu/list_result.jsp?unitid=10006
- <http://www.seasoasa.ucla.edu/student-opportunities/internship-pdfs/february-2012/BioMaP%20REU%20Summer%20Research%20Opp..pdf/view>
- http://www.engineering.cornell.edu/research/undergraduate/summer_opportunities.cfm
- http://index.about.com/index?am=broad&q=cancer+research+internships&an=msn_s&askid=e224e3a2-b48d-4ee9-b1c0-b554bc9abd45-0-ab_msb&dqi=&qsrc=999&ad=semD&o=29602&l=sem
- http://www.indeed.com/jobs?q=Summer+Research&utm_source=adcenter&utm_medium=cpc&utm_term=%2Bsummer%20%2Bresearch%20jobs&utm_campaign=Query-7-Search-Broad
- <https://www.fatomei.com/summer-research-internships.html>
- <http://www.aps.org/programs/women/scholarships/ibm/> (for women only)
- <http://www.acs.org/content/acs/en/education/students/college/experienceopp.html>

Also search

- National Labs (Sandia, Los Alamos, Lawrence Livermore, Argonne, etc.)
- REU sites (Research experience for undergraduates)
- Hometown area via friends, relatives, church members