



Course Description	Mathematical modeling of chemical plants and processes. Computer simulation. Introduction to numerical optimization techniques.
Instructor	Dr. Simcha Srebnik simcha.srebnik@ubc.ca CHBE 419
Office hours	TBA
TA	Mr. Mahyar Mohaghegh Montazeri mahyarmm@mail.ubc.ca CHBE 603
Lectures	Wednesday, Friday 11–11:50 am
Tutorials	Tuesday 3:30–5:20 pm, Room:
Web page	canvas.ubc.ca
Course texts	1. <i>Product and Process Design Principles: Synthesis, Analysis, and Evaluation</i> by W.D. Seider, D.R. Lewin, J.D. Seader, S. Widagdo, R. Gani, K.M. Ng, 4 th Edition, Wiley, New York, 2016. 2. Aspen Plus and Hysys manuals and help files
Course grade	The final course grade will be based on five assignments/projects (90-100%) and tutorial participation (0-10%).

Assignments

The assignments write-ups (the “paper” part of the report, 1–3 pages) must be uploaded to Canvas before 4:00 pm of the due date. Submit your simulation files (“zipped” to one file) to the CHBE 476 web page before 4:00 pm on the due date. Late assignments will be penalized at the rate of 5 marks per day that they are overdue. Assignments are graded by the TA. If you have questions about the grading, please see the TA first, and if your issue is not resolved then contact the instructor.

Topics

- Introduction to Hysys
- Solids
- Electrolytes
- Reactors
- Optimization
- Crude Oil
- Dynamic Simulation

Academic Integrity

The academic enterprise is founded on honesty, civility, and integrity. As members of this enterprise, all students are expected to know, understand, and follow the codes of conduct regarding academic integrity. At the most basic level, this means submitting only original work done by you and acknowledging all sources of information or ideas and attributing them to others as required. This also means you should not cheat, copy, or mislead others about what is your work. Violations of academic integrity (i.e., misconduct) lead to the breakdown of the academic enterprise, and therefore serious consequences arise and harsh sanctions are imposed. For example, incidences of plagiarism or cheating may result in a mark of zero on the assignment or exam and more serious consequences may apply if the matter is referred to the President's Advisory Committee on Student Discipline. Careful records are kept in order to monitor and prevent recurrences.

Link to the relevant Calendar section: <http://www.calendar.ubc.ca/vancouver/index.cfm?tree=3,286,0,0>