9. Please list aspects of this course that you found valuable and should be continued:

- -Kevin's teaching style is good and interesting
- -more trouble shooting tutorials -tutorials are good to work through problems -video taping lectures is a good idea so students can review material -example problems
- -video lectures -troubleshooting -

Class presentations: we learn a lot from them and by them. The custom course ware and the slides are very well made but may need a little updating.

Course website, list and calendar of things to do/reminders, troubleshooting tutorial, video-recordings of lectures.

Good critical thinking; the troubleshooting segment was especially interesting and useful

Good to have a final project.

Having time (tutorials) to work on questions so that we can practice what we learnt in lectures was very helpful especially since we had the instructor and TA on hand to answer all our questions.

He is a great instructor; always pushing his students to their full potential - I really appreciate that, most of the time. This was a very valuable course to me because I learned a lot about the economics of chemical engineering and its all very applicable material that I don't even need to wait until after graduation or to have a full time job to see the benefit of it.

I found it valuable that all aspects of my chemical engineering career was entwined into one course. It applied my previously obtained knowledge with new knowledge to real-life scenarios that I will be facing in the workforce. I believe that this should be continued.

I liked the instructor's enthusiasm and did a good job teaching the course for his first time, even though the work load was heavy.

Instructor was available and resourceful during the tutorials. Introduction to materials outside of lecture notes regarding economics and personal finance. Group collaboration through google docs and paperless submission.

Kevin is the most dedicated professor I have met. He even video tape the class for students who might miss class. I think this is brilliant idea and it helps so much. This especially helpful for finally students, as a lot of them might miss class due to conflict with interview schedule.

Kevin is very keen to make the most of our assignments and of class time, and tries his best to ensure that we are satisfied with how things are going. He performed his own informal course evaluations a few weeks into the term,

and took several suggestions into action. He is always prompt answering questions and is available for help whenever we need it. His assignments and tests require some critical and independent thought rather than focussing strictly on equation based/plug and play questions. He is a great speaker and is doing a great job teaching. The availability of both lecture slides and videos of the lectures make it easy to catch up on missed classes.

Organization of course was good.

Posted Lecture slides, Posted Updates and Filmed Lectures were all very helpful and should be continued.

Problem based learning Applications Troubleshooting Engaging Approachable Organized Video podcasts!! Self directed learning Group work Chairperson

Real life application to industry was very helpful. Prof was very organized and clearly cared about our understanding of course matieral.

Relating content to important business concepts is helpful for all programs, especially engineering

Same course material, very real world and very helpful

The different sections of the course are useful and the tutorials were helpful.

The organization of the course, how was used the Tutorial time to encourage assignment activities.

The questions on the assignments help us to check the understanding of the course materials, not just plugging in equations Giving us a chance to write formal cover letter, just like what we have to do in the real world

The Sdl project is a lot of work but seems to be valuable. The courseware is beneficial. Kevin is the best teacher chem eng has. Give that man a raise.

the time value of money section was very benficial.

The troubleshooting portion was interesting and fun to do. The overall economic balances (depreciation, tax, etc) were useful to learn for those of us not in business. Overall the course was well taught, and I liked the candid approach taken at times.

The tutorial excercises are great. The Project also encourages SDL and research very well. I liked the guest speakers/lecturers for the class

The tutorial sessions were helpful The instructor made him self very accessible The instructor was very helpful and enthusiastic

The videos that were available online were extremely useful

troubleshooting session was fun!

Troubleshooting tutorial, personal finance.

Troubleshooting was my favourite part of this course. Do more of it next year, maybe two tutorials.

Tutorials, group work, recording of lectures

tutorials, troubleshooting, lecture videos, guest lectures

video taping class!

Way too much work. Dont have time to learn anything aside from doing assignments and projects.

10. Please list aspects of this course that might be improved:

- -Have more tutorials that deal with trouble-shooting
- -less assignments
- -more detailed economics section
- -tutorials are VERY time consuming, and require multiple hours outside of given time, which is made more difficult through constant group work -should either let students choose their groups, or should fully choose groups it is misleading to fill out a form of wanted group members, and then not have them anyways -content should be sorted out before class time, as some lectures were rather confusing -process flow sheets should be given to all groups for the SDL project, as it is unfair to only provide for some groups -project should be done through tutorial time, so students are not overwhelmed at the end of the term with a large project that they have not covered material for in class yet (ie: instead of just tutorial questions, could do aspects of the project each week so feedback can be given and students are able to start it earlier) -marking should be completed faster -course ware should be specific to what is covered, as majority of it was not used and there are many additional notes that need to be printed

CHEM_ENG 4N04 Full Report

4N is a blueprint for other courses. Please spend more time improving others using this one rather than tweaking 4N.

Assignment and midterm grades should be returned more quickly. Economics section took too much time. Operability and troubleshooting sections are more interesting and relevant to engineers, bud were not covered as thoroughly as economics section. Cost estimation using Don Woods method seem to be a little outdated and took up significant class time. It might be better to introduce some contemporary methods for cost estimation, or at least show some contemporary examples where the Don Woods method are still valid. SDL project starting too late with unclear objective and grading criteria. Need more guidance on topic selection and project management.

Assignments may be easy for the instructor, but does not mean they are easy for the students.

Assignments toward the end of the course were overlapping the project start date which naturally delayed the project start date. For the future, perhaps the instructor should warn students ahead of time that while looking for their SDL topic that they should be 100% they have all the information they need to cost before pursuing the topic.

Broad range of topics to be covered. It felt as if the last third of the course was rather rushed. Not sure how this can be avoided. Also, a little heavy on the weekly assignments, perhaps make them biweekly.

Coverletters for assignments are redundant, possibly reconsider this as a requirement, or create a separate assignment for it so it is only completed once. The volume of work was very high; some assignments (ie. costing assignment) were far more work than they were worth.

grading scheme of assignments

Grading scheme was very unorganized and hard to follow - a solid grade scheme allows students to prioritize the tasks they have to complete for a course, which is essential for good time management

Having more time to work on the SDL project in tutorial time, rather than doing assignments and then having to meet on top of the tutorial time to finish assignments and also work on the SDL.

I believe the instructor can add an extra troubleshooting tutorial for better understanding.

I think the assignments are bit high on the number of questions. Assignment 4(the one where we costed an entire plant) could have been a really good assignment if one or two more weeks were given. A more thorough analysis could have been completed.

I think the work load is heavy in this class, maybe less assignment in the future.

Instructor made mistakes in examples. No confidence, too much time was spent on arguing over test dates.

Kevin Dunn definitely has his own method of teaching where he likes numerous assignments, however between 4N and 4M I believe there has to be a reduction in the quantity of work required to be completed outside of class time. The notes being used need to be cut in half, or a quarter. It will probably take years to cut it down but it is a nightmare at times going through them.

less assignments as there are competing demands during the school term that influence the quality of work submitted

less assignments, very large time required for assignments slow marking of assignments and midterm not good explainasion on how marks were lost on assignments

Less focus on economics

More emphasis should be placed on material from second half of course.

More exposure to the last few sections (thought they were rushed)

Organization of course project. 1 pdf handed out in October so that the project requirements aren't so vague.

Organization of the course ware with respect to lectures, or let the class know what slides are being used or which would be use before hand so it is easier to follow along and keep coherent notes.

Scale back the amount of work expected of us/ the work load.

SDL project should be given a longer time - especially the early stages where a group must find a responsive company to work with.

Should distribute better the time to ensure a good coverage in topics as Operability and Troubleshooting.

Some of the economics was gone through quickly, and some of the process operability sections were also covered a little too fast.

The instructor was unorganized in terms of lecture notes and the coursepack was a waste of money considering that he barely used any of it. I would've rather he made his own lectures and followed them instead of jumping around through the old lectures which was very confusing.

The instructor, was very poor at listing expectations he had from written evaluations. The whole course was one big self-directed learning and although it was a good real-world experience, it was very hard to understand the instructor's expectations. The instructor was also very vague on resources available for the self directive learning. In some portions of the course this approach to learning was actually not appropriate because of the lack of external resources and their precision in explaining concepts.

Took a while to get assignments and midterm back. Not complaining I know Kevin was busy

Update the slides to a more appropriate format. I do understand, however, that the prof has a lot on his plate due to the need to change 3K and 4M as well.

With weekly tutorial assignments, some of which took a considerable amount of time to complete, this course occupied a lot of time. It was nice to receive regular feedback about our progress through the term, but some of the assignments could have been a bit smaller and accomplished the same thing. Additionally, working with the same assigned group on all the weekly assignments as well as the term project doesn't give the clearest indication of what a person is capable of, due to the often uneven distribution of work that is done in group settings.

workload is massive compared to other courses at a similar level, consider EOW tutorials

11. Additional Written Comments:

A wonderful class and very informative. Kevin is an excellent professor. The lecture material is well refined to give a taste of concepts that are truly necessary in the last year as they maybe the first ones applied in the field.

Appreciate the flexibility of the instructor on the school work Appreciate the effort that the instructor put on this course and the time he spent on the material Appreciate how the instructor want to improve himself and the course

Because the topic of Engineering economics is very foreign with engineers, in my opinion it is useful to minimize the self-directive learning when it comes to the economics section of the course. I have completed the course (almost) and realize that i was rushed to complete graded assignments and test, however had little time to research and learn on my own, and the instructor did not spend the time to explain the material thoroughly. Therefore i feel like i could have learnt more in this course but did not get the chance.

decrease total workload

Enjoyable semester so far, thanks!

Good course Kevin!

Great job, especially considering the overhaul.

I really appreciate Kevin, I learned so much from this class. I believe the content I learned from this class will benefit my personal life as well, such as, mortgage my own house.

It would have been nice to have the one week of no classes...

Kevin Dunn is a great professor! He is helpful and friendly towards students. The course material is very helpful too.

Kevin is a great professor, he keeps the class lively and interesting.

Kevin's a great prof. And his site is far better than avenue's (although, if there was a way to make the announcements link to somewhere which gives us notifications, that'd be nice).

N/A

overall great course, not much needs revising

Professor Dunn is a good professor and very enthusiastic about this course.

SDL so mch work Prof is the best

Thanks Kevin, I really appreciate the time you put into your courses.