Physical Chemistry for Chemical Engineers (CHE 30324)

University of Notre Dame, Spring 2020

Prof. Bill Schneider

Office: 370 Nieuwland

Classroom: 129 DBRT

Lecture MWF 9:25-10:15

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https://github.com/wmfschneider/CHE30324

Due to conditions beyond our control, we are venturing on a grand experiment to complete the Physical Chemistry for ChEGs course completely remotely. Following are details on how we will accomplish this. While it is impossible to recreate the learning experience of being on campus, the TA's and I will strive to make the experience as constructive as possible.

1 Technology access

Remote learning will be accomplished through web-based technologies. We are fortunate that Notre Dame provides a suite of very capable and easy to use tools. The tools we will be using are

- 1. github for distributing course files
- 2. colaboratory for access to python modeling tools
- 3. Panopto for distribution of asynchronous video content
- 4. Gradescope for turning in and grading homework
- 5. Zoom for synchronous video conferencing
- 6. Slack for group chatting. Check your email for your invitation to our Slack workspace.

Please verify ASAP that you have access to these technologies. If you have any concerns about being able to access any of the technologies above, or other concerns regarding your ability to complete course requirements for any other reason, please alert me via email (wschneider@nd.edu) or phone/text (+1-574-303-8667) as soon a possible. I will make every attempt to accommodate your needs and assure successful completion of the course.

2 Lectures

Lessons will be delivered asynchronously through Panopto. Lectures will be available on the normal schedule (MWF 9:25-10:15), but I will strive to have the lectures uploaded at least a day or two ahead of time. You can observe them at your convenience, as often (or not!) as you like.

3 Course outline

As an adjunct to the Lectures, an extended course outline is available at the course github site. I will continue to update and improve that outline to reflect changes to the course material demanded by the change to all on-line and loss of a week.

4 Homework

Homework will be distributed through the course website as collaboratory notebooks. Once completed, you will create a pdf of your solution and upload through Gradescope into the appropriate assignment. When you upload, you will be prompted to identify the page(s) associated with each question. The TA's will grade in Gradescope, and you will receive your scores there. Answers will be posted on the course website. Anticipated homework schedule is below:

		Due date (5 pm)
HW 7	Atomic Structure	March 27
HW 8	Molecular Structure	April 3
HW9	Basic Stat Mech	April 10
HW 10	Statistical Thermodynamics	April 24
HW 11	Chemical Kinetics	May 1

5 Homework defenses

To be completed using Zoom. If you haven't completed one that you were assigned to do, contact me to arrange a time. Future ones may be done as groups.

6 Office hours

TA and instructor office hours will be held at regular times using Zoom. We will be on-line in our zoom rooms at the designated times, and you can pop in or out at any time. If these times are not convenient, let us know and we will adjust. You all have institutional access to zoom and can arrange group meetings at any time through Zoom.

Bill Schneider	T, Th 3:30 - 4:30 pm	https://notredame.zoom.us/j/5743038667
Amanda Brown	W, $10:30-11:30$ am	https://notredame.zoom.us/j/9886722301
Wei Ge	Th, 3:30 - 4:30 pm	https://notredame.zoom.us/j/2176073704
Xuyao Gao	M, 3 - 4 pm	https://notredame.zoom.us/j/4773820350

7 Chat room

We will use Slack as a tool for you to communicate questions during Office Hours or any time. Slack allows you to instant message with individuals (including the instructor and TAs and tutor), create smaller groups, or share your questions with the whole class. I **strongly** encourage you to use Slack when asking questions, as likely many others will be interested in the answer!

8 Exams

We will have one exam on April 14 and a final on May 5. Each will be distributed electronically at a set time, and you will have some amount of time (greater than an hour) to complete and upload to Gradescope, just like a homework.

9 Final words

We truly are in uncharted water here. But as they say, necessity is the mother of invention, and we may well learn new and better ways to learn and communicate through the experience. I assure you I am here to help you get through the course. Again, contact me with any concerns at any time. - Prof. Bill Schneider