

Chem 197 Abbreviated Syllabus (Fall 2019)

Instructor: David Harvey
Office: Julian 364
email: harvey@depauw.edu

Course Goals. From an early age we are drawn to count and to measure; from reciting nursery rhymes such as “One, Two, Buckle My Shoe,” reading stories such as *One Fish, Two Fish, Red Fish, Blue Fish*, to stacking blocks by size, we have an innate desire to take our measure of the world. In this class we will examine measurements as a way of learning to understand (to make sense of) our world, considering questions such as: Why do we measure things? What do we choose to measure? How do we make measurements? How do we report measurements? What are the limits of measurements? How do we improve measurements? Can the act of measuring change what we measure? How do we measure what we cannot see? What can we not measure? What do we choose not to measure? Can we trust measurements? Can measurements do harm? Through a combination of reading, writing, discussing, and making measurements, we will work together to understand better the measure of all things. To this end, our content-specific goals are to . . .

- appreciate the importance of measurements to the development of human society, including how measurements change over time
- understand the role of measurements in our understanding of nature
- summarize the results of measurements using basic statistics
- understand why uncertainty and randomness place limits on our measurements
- consider the appropriate and inappropriate use of measurements

DePauw’s first-year seminar program serves as an introduction to the range of work you will encounter during your four years at DePauw, helping you to reinforce and develop further your academic skills. Taking advantage of a small, seminar course format, our growth-oriented goals are to . . .

- create a sense of intellectual community as we learn together
- develop our ability to read and evaluate critically different types of source materials
- engage in meaningful discussion as a participant, a leader, and a listener
- strengthen our ability to communicate ideas in writing

Working Toward Success in Chem 197. In addition to your usual academic commitments—attending class and lab, completing assignments, and preparing for exams, to name a few items—commit yourself to . . .

- *focusing on our growth-oriented goals as much as you focus on our content-specific goals:* identify the new skills you are developing and the existing skills you are strengthening
- *preparing for class by being an active reader:* read with a pen or pencil in hand and mark-up your texts by identifying important terms and key ideas
- *participating in class:* take advantage of our time together by being an active, engaged learner
- *collaborating with your classmates:* this class is not a competition; you have much to learn from each other and to teach each other
- *reflecting every day, even if for just a few minutes, on our most recent class:* look for connections between a new topic and topics from earlier in the semester; or between this course and other courses you are taking or have completed
- *asking questions:* in-class and out-of-class; of yourself, of me, and of each other; to clarify uncertainty or to satisfy curiosity

Course Web Site. Many useful materials, including a detailed syllabus, a daily class schedule, copies of course materials, and useful links, are available at the course’s web site. The link to the site is:

<http://bit.ly/dpuchem197>