

Principles of Chemistry I

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- **Course webpage:**

<http://webs.anokaramsey.edu/aspaas/1061>

- Blank notes (print and bring)
- Completed notes after class
- Audio/video
- Syllabus/Handouts/Practice worksheets

- **D2L**

- Login from course webpage or AR homepage
- Discussion participation required - start by introducing yourself - at least 1 post per chapter for credit
- Grades, lab report submission, etc.

- **Metnet Email:** sign up from link on webpage

- **MasteringChemistry** (access bundled w/ text or available from <http://www.masteringchemistry.com>)

- **Non-programmable calculator** for final exam

Syllabus activity

In your group, read the appropriate section of the syllabus, discuss it with your group members, and have one representative summarize it for the class.

1. Required and optional materials

Math 210 + Intro chem : prereq.

2. Academic civility (respectful, responsible, rise to the challenge)

Put in the effort! Intelligence is earned!

3. Lab

don't miss more than 2!

4. Homework, quizzes, and discussion boards

↳ End-of - chapter not graded but highly rec.
Mastering Chem - 1 per chapter

5. Exams mostly mult. choice

final exam will replace 1 exam if improvement

6. Studying

Make time for chem each day!
use a study group along w/
individual studying

Why chemistry?

Think of something important to you - a hobby, a career plan, an event, etc. and consider how chemistry is related to it. *advanced sciences*

biological sciences pH contaminants

rocks!

engineering meteorology

Beyond chemistry - scientific literacy:

Why is it important that people learn about science in general?

how to think

reasoning, prediction.

logical decision-making based on evidence

What are some important qualities of science that people should be aware of?

Aspects of the Nature of Science (NOS)

Is there anything on here that you wouldn't have originally associated with science?

Tentativeness	Scientific knowledge is subject to change with new observations and with the reinterpretations of existing observations. All other aspects of NOS provide rationale for the tentativeness of scientific knowledge.
Empirical basis	Scientific knowledge is based on and/or derived from observations of the natural world .
Subjectivity	Science is influenced and driven by the presently accepted scientific theories and laws . The development of questions, investigations, and interpretations of data are filtered through the lens of current theory. This is an unavoidable subjectivity that allows science to progress and remain consistent , yet also contributes to change in science when previous evidence is examined from the perspective of new knowledge. Personal subjectivity is also unavoidable. Personal values, agendas, and prior experiences dictate what and how scientists conduct their work.
Creativity	Scientific knowledge is created from human imaginations and logical reasoning . This creation is based on observations and inferences of the natural world.
Social/cultural embeddedness	Science is a human endeavor and, as such, is influenced by the society and culture in which it is practiced. The values and expectations of the culture determine what and how science is conducted, interpreted, and accepted.
Observations and inferences	Science is based on both observations and inferences. Observations are gathered through human senses or extensions of those senses. Inferences are interpretations of those observations. Perspectives of current science and the scientist guide both observations and inferences. Multiple perspectives contribute to valid multiple interpretations of observations.
Theories and laws	Theories and laws are different kinds of scientific knowledge. Laws describe relationships , observed or perceived, of phenomena in nature. Theories are inferred explanations for natural phenomena and mechanisms for relationships among natural phenomena. Hypotheses in science may lead to either theories or laws with the accumulation of substantial supporting evidence and acceptance in the scientific community. Theories and laws do not progress into one another , in the hierarchical sense, for they are distinctly and functionally different types of knowledge .

Science is tentative but durable.