

# “Evolution” of CHEM 129

**The Reality**: Large number of students who need chemistry for their major, but are unprepared to be successful in CHEM 130 (Chemical Principles I)

- This number seems to be on the rise.

**The Challenge**: How do we give these students an opportunity to recover from this challenge and be successful in their programs?

- Enter CHEM 129, first taught Summer 2010
  - Small class size (24 max), 3 credit hours
  - Intensive introduction to concepts and problem-solving
  - Diagnostic exam and math placement helps determine suitability
  - 460 students (20 sections) between Summer ‘10 and Spring ‘12
  - Common final exam

# Current Experiment

- Given budget and staffing challenges, multiple small CHEM 129 sections became unfeasible.
- How do we help students develop the skills they need in a less faculty-intensive manner?

Two parallel approaches, both involve an instructor meeting with a large section (up to 72 students) twice a week with instruction supplemented in one of two ways:

1. Out of class online guided problem solving using ALEKS
    - Dr. O'Brien
  2. Utilization of student supplemental instructors to meet with a smaller (24 student) section of the class once a week.
    - Dr. Lamp
- Observations/outcomes from Fall 2012 and Spring 2013

# Plans for Fall 2013

- Maintain large class sizes (up to 72 students)
  - Two sections, Dr. O'Brien and Dr. Kramer
- Increase faculty-student class time from 2 hours to 3 hours per week
  - Adjust pace and perhaps present opportunities for more interaction
- All sections will utilize ALEKS online system
  - Encourages development of problem solving skills
  - Minimize amount of homework that must be physically collected and grades