



TEXAS ONRAMPS

Experience College Before College



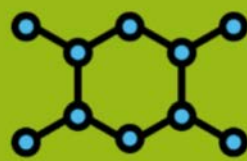


OnRamps seeks to increase the number and diversity of students who engage in learning experiences aligned with the expectations of leading research universities.



Welcome to CH 301 and CH 104M

PRINCIPLES OF CHEMISTRY I



FUNDAMENTALS

[Course Overview](#)

Orientation

[Syllabus](#)

[Fundamentals Learning Activities](#)

QUANTUM MECHANICS: ATOMS AND PERIODICITY

[Atoms Part 1 Learning Activities](#)

[Atoms Part 2 Learning Activities](#)

THE CHEMICAL BOND: STRUCTURE AND BONDING THEORY

[Bonding Part 1 Learning Activities](#)

[Bonding Part 2 Learning Activities](#)

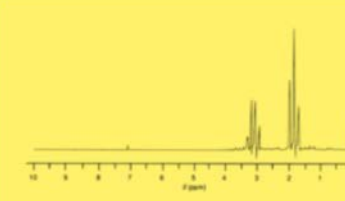
INTRODUCTION TO CHEMICAL PRACTICES I



BAKING SODA STOICHIOMETRY TARGET LAB

[Student Lab Manual](#)

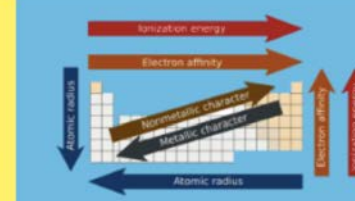
Lab Assessment #1



SPECTROSCOPY LAB

[Student Lab Manual](#)

Lab Assessment #2



PERIODICITY LAB

[Student Lab Manual](#)

Lab Assessment #3



College
Content

Big Ideas



Innovative
Pedagogy

**Peer
Instruction**



Technology-
Enhanced
Education

**Learning
Catalytics**



Educator
& Student
Excellence

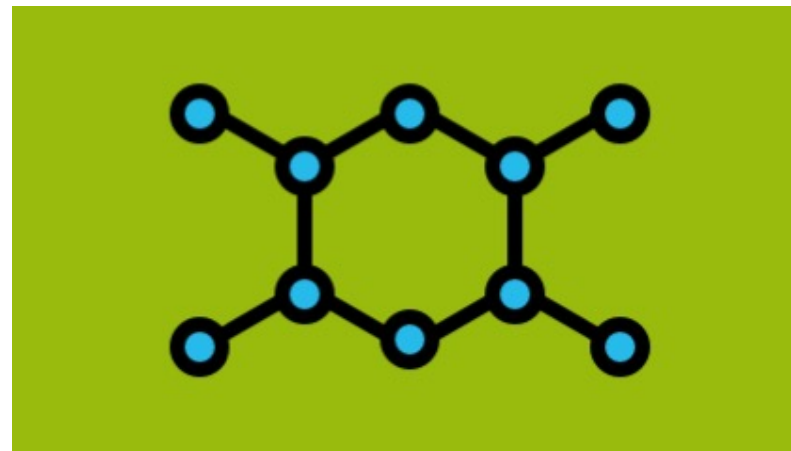
**Professional
Learning &
Development**

Big Ideas Shape CH 301 *College Content*

THE ATOM



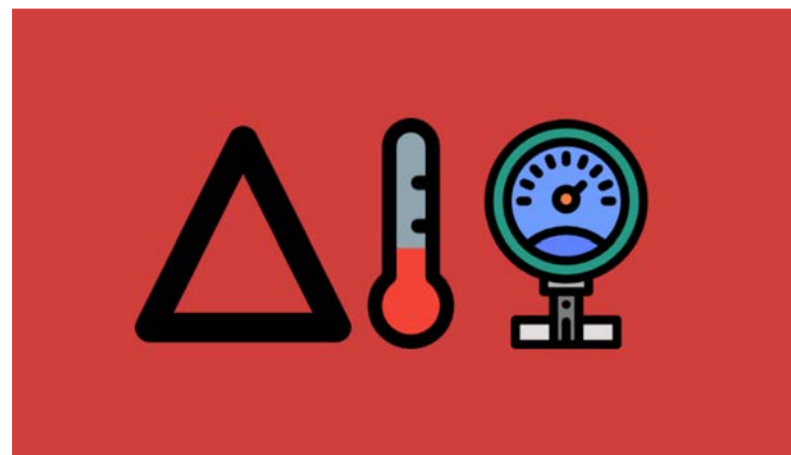
CHEMICAL BONDING



STATES OF MATTER



THERMODYNAMICS

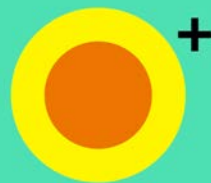


Big Ideas Shape CH 104M *College Content*

BAKING SODA STOICHIOMETRY



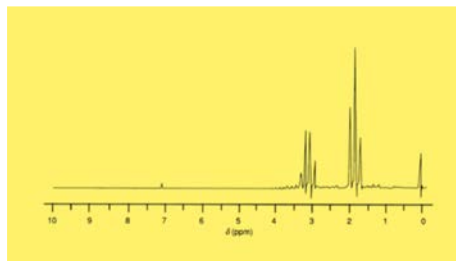
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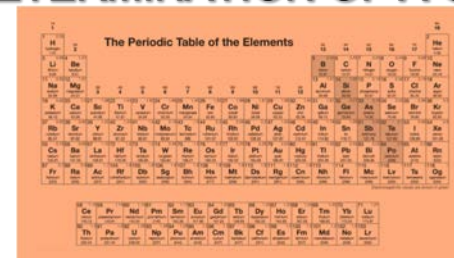
PAPER CHROMATOGRAPHY



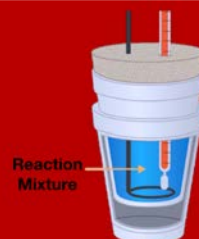
SPECTROSCOPY



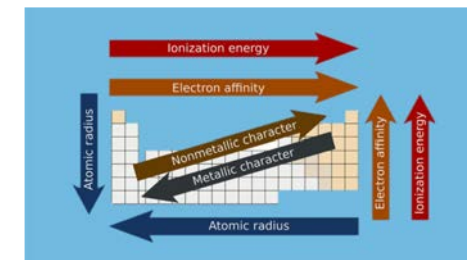
MOLAR VOLUME DETERMINATION OF A GAS



COFFEE CUP CALORIMETRY



PERIODICITY



GIBBS FREE ENERGY DETERMINATION



Innovative Pedagogy

Key Features of Peer Instruction:

- Pre-learning and collaborative work in dynamic teams
- In-class Readiness Test (Individual and Team)
- Frequent and Immediate Feedback
- Evidence-based consensus building



Technology-Enhanced Education



[Settings](#)
[Students](#)
[Teams](#)
[Gradebook](#)
[Share course](#)
[Send course](#)
[Delete course](#)

Create module

Copy module from...

Search: <input type="text"/>				
Module	Type	Date	Results	
Unit 1: The Atom Part 1	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 1: The Atom Part 2	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 2: Bonding Part 1	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 2: Bonding Part 2	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 3: States of Matter Part 1	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 3: States of Matter Part 2	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 4: Thermodynamics Part 1	Instructor-Led Synchronous		○ ○ ○ ○	⚙
Unit 4: Thermodynamics Part 2	Instructor-Led Synchronous		○ ○ ○ ○	⚙

Technology-Enhanced Education

[Download results](#)
[Attendance information](#)
[Messages](#)
[Delete data](#)

Jump to 1 2 3 4

2. multiple choice

(Question Type: Ideal Gas Law)

A balloon filled with helium occupies 20.0 L at 1.50 atm and 25°C. How many moles of helium will there be in the balloon at STP?

- A. 4.55 moles
- B. 1.23 moles**
- C. 0.0446 moles
- D. 22.4 moles

Round 1

x 9

5 responses, 60% correct

A. 0%

B. 60%

C. 40%

D. 0%

Round 2

x 9

5 responses, 100% correct

A. 0%

B. 100%

C. 0%

D. 0%

✓ 2 get it now
 ✗ 0 still don't get it

Flipped Classroom

- Canvas
- Account
- Dashboard
- Courses
- Calendar
- Inbox
- Help

- Home
- Exam Preparation
- Grades
- Lecture Notes
- Laude's Corner
- Supplemental Content
- Review Content

Learning Module 9: Photoelectric Effect, Wave-Particle Duality, and De Broglie Equation

Started: Jul 18 at 11:05am

Quiz Instructions



In this video, Dr. Laude looks at some of the people and experiments that seemed to contradict some of the held views of physics at the time. You will not be required to understand the Schrodinger wave equations, but if you are interested, you can find more information [here](#).

Arguably the most important experiment the shortcomings of classical physics was the photoelectric effect. We will look more at the historical context of the

- Account
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QUESTIONS

- Spacer
- Question 1
- Question 2
- Question 3
- Question 4
- Question 5
- Spacer
- Question 6

Time Elapsed: [Hide](#)
0 Minutes, 53 Seconds

- Home
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Exit Ticket #5: Photoelectric Effect and Classical Mechanics Failures

Due No due date Points 4 Questions 4 Time Limit None

Instructions

Answer all 4 questions in the following exit ticket. You may only use your approved OnRamps Periodic Table and formula chart as your only reference materials during this exit ticket.

[Take the Quiz](#)

Flipped Classroom

Key Features of **Flipped Classroom:**

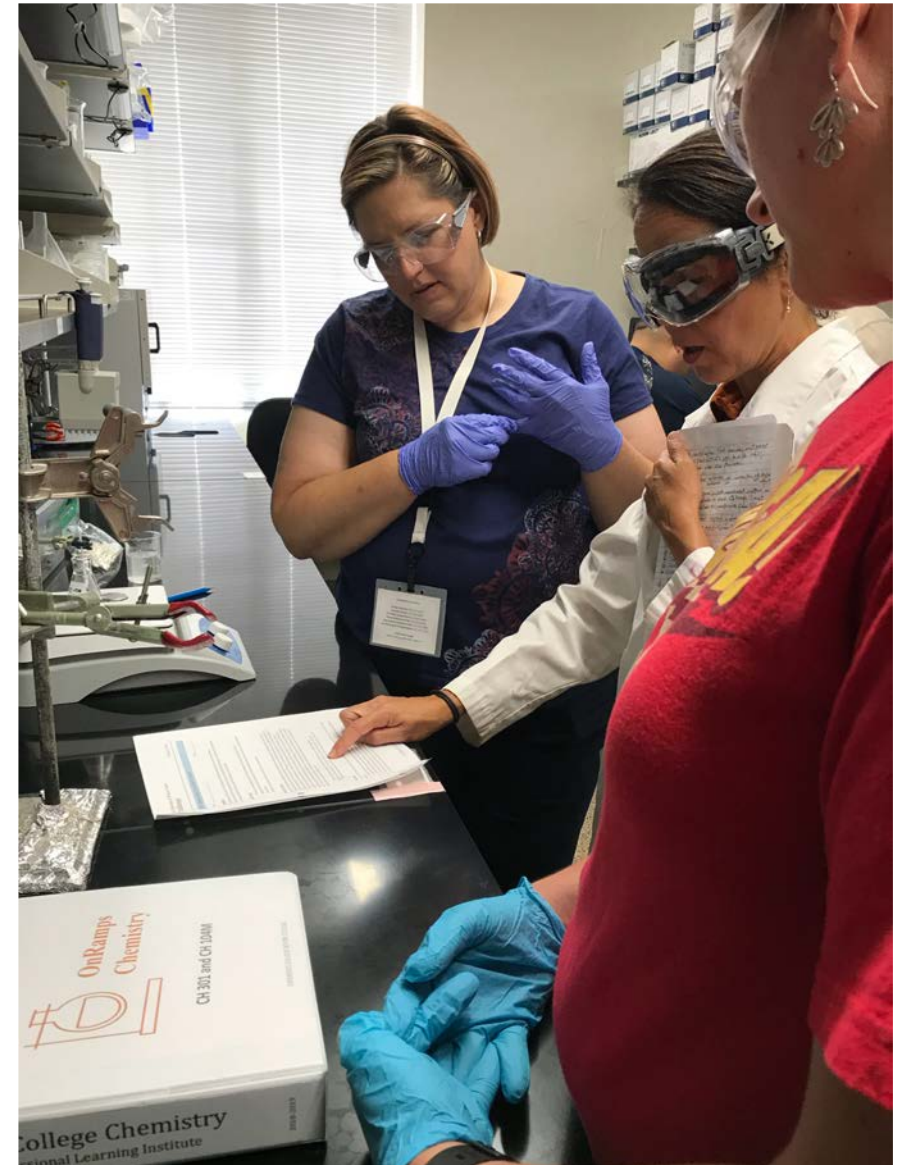
- Flexible Environment
 - ✓ It creates flexible spaces in which students choose when and where they learn.
- Learning Culture
 - ✓ This learning model deliberately shifts instruction to a learner-centered approach, where in-class time is dedicated to exploring topics in greater depth and creating rich learning opportunities.
- Intentional Content
 - ✓ Educators use Intentional Content to maximize classroom time in order to adopt methods of student-centered, active learning strategies, depending on grade level and subject matter.

Flipped Classroom

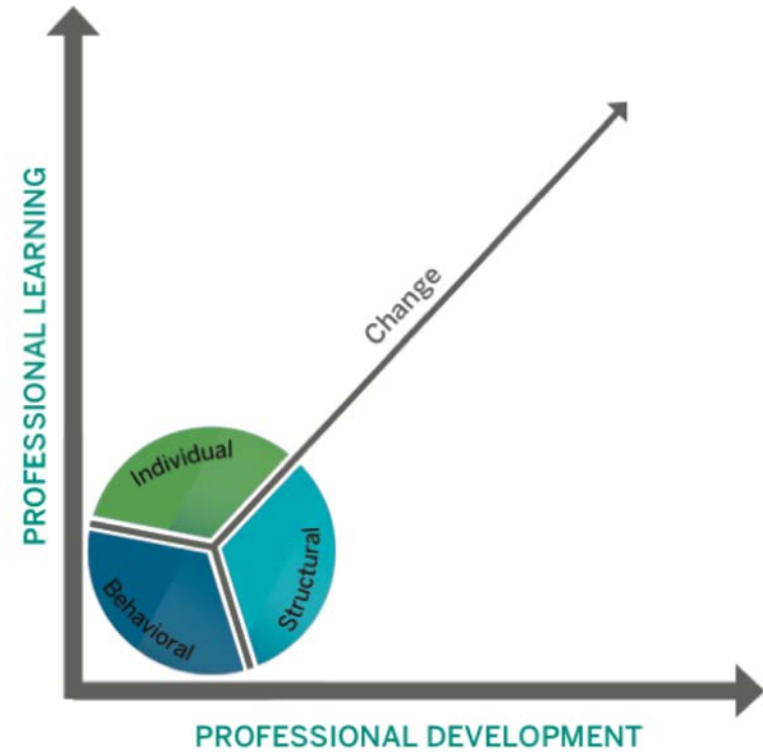
Key Features of Flipped Classroom:

- Professional Educator
 - ✓ While professional educators take on less visibly prominent roles in a flipped classroom, they remain the essential ingredient to improve students instruction.
 - ✓ Professional Educators are reflective in their practice, connect with each other to improve their instruction, accept constructive criticism, and tolerate controlled chaos in their classrooms.

Reference: Flipped Learning Network (FLN). (2014) The Four Pillars of F-L-I-P™



Educator Excellence Professional Learning and Development





College Content

- **Big Ideas**
- **Review Notes**
- **Course Development Methodology**



Innovative Pedagogy

- **Peer Instruction**
- **Flipped Classroom**
- **Retrieval Practice**



Technology-Enhanced Education

- **Learning Catalytics**
- **Student Response Tool**
- **PhET Simulations**
- **Canvas LMS**



Educator & Student Excellence

- **Professional Learning & Development**
- **Online Video Coaching**
- **Virtual Conferences**



Thank you!

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