

Standard Institutionally Developed College: N/A

EDGE Compatible: No

Pre-requisites

MATH 1101 - Mathematical Modeling (201003)

MATH 1111 - College Algebra (201003)

Co-requisites

Course Description

Selected laboratory experiments paralleling the topics in CHEM 1151. The lab exercises for this course include units of measurements, structure of matter, chemical bonding, chemical reactions, gas laws, liquid mixtures, acids and bases, salts and buffers, and nuclear chemistry.

Course Length

	Minutes	Contact Unit
Lecture:	0	
Lab 2:	0	
Lab 3:	2250	
Practicum/Internship:	0	
Clinical:	0	
Total:	2250	1
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Semester Credit Hours:		1

Competencies

Order	Description	Lecture	Lab2	Lab3	Practicum/Internship	Clinical	Total Minutes	Semester Credit Hrs
1	Laboratory Safety	0	0	60	0	0	60	0
2	Units of Measurement	0	0	225	0	0	225	0
3	Structure of Matter	0	0	318	0	0	318	0
4	Chemical Bonding	0	0	317	0	0	317	0
5	Chemical Reactions	0	0	430	0	0	430	0
6	Gas Laws	0	0	225	0	0	225	0
7	Liquid Mixtures	0	0	225	0	0	225	0
8	Acids and Bases	0	0	113	0	0	113	0

Order	Description	Lecture	Lab2	Lab3	Practicum/ Internship	Clinical	Total Minutes	Semester Credit Hrs
9	Salts and Buffers	0	0	112	0	0	112	0
10	Nuclear Chemistry	0	0	225	0	0	225	0
	Totals for Course CHEM 1151L - Survey of Inorganic Chemistry Lab (version 201203):	0	0	2250	0	0	2250	1

Learning Outcomes

Laboratory Safety

Order	Description	Learning Domain	Level of Learning
1	Discuss and apply laboratory exercises encompassing the appropriate practice of laboratory precautions and laboratory safety.	Cognitive	Comprehension

Units of Measurement

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing units of measurement.	Cognitive	Synthesis

Structure of Matter

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing structure of matter.	Cognitive	Synthesis

Chemical Bonding

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing chemical bonding.	Cognitive	Synthesis

Chemical Reactions

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing chemical reactions.	Cognitive	Synthesis

Gas Laws

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing gas laws.	Cognitive	Synthesis

Liquid Mixtures

Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing liquid mixtures.	Cognitive	Synthesis

Acids and Bases

Order	Description	Learning Domain	Level of Learning
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Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing acids and bases.	Cognitive	Synthesis
Salts and Buffers			
Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing salts and buffers.	Cognitive	Synthesis
Nuclear Chemistry			
Order	Description	Learning Domain	Level of Learning
1	Perform and apply laboratory exercises encompassing nuclear chemistry.	Cognitive	Synthesis

References

Order	Reference Type	Description
1	Book with Author(s) Listed	Hein, M., Peisen, J. & Ritchey, J.. (2008). Introduction to general, organic, and biochemistry laboratory manual. (9th). New York, NY: John Wiley & Sons.