

# CHEM 1151L - Survey of Inorganic Chemistry Lab ( version 201003L )

## Course Title                      Course Development      Learning Support

Survey of Inorganic Chemistry Lab                      Standard                      No

## 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.

## Pre-requisites

Pre-requisites: None

## Regstr. Co-requisites

Regstr. Co-requisites: NoneMATH 1101 OR MATH 1103 OR MATH 1111 AND CHEM 1151.

## True Co-requisites

True Co-requisites: All Required

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| CHEM 1151 - Survey of Inorganic Chemistry ( 201003L ) |
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## Course Length

|                              | Lecture Contact Time | Regular Lab Type | Reg. Lab Contact Time | Other Lab Type     | Oth. Lab Contact Time | Total Contact Hrs |
|------------------------------|----------------------|------------------|-----------------------|--------------------|-----------------------|-------------------|
| Contact Hours Per Week       | 0 hrs                | N/A              | 0 hrs                 | Lab                | 3 hrs                 | 3 hrs             |
| Contact Min/Hrs Per Semester | 0 min                |                  | 0 min                 |                    | 2250 min              | 45 hrs            |
|                              | Lecture Credit Hours |                  | Lab Credit Hours      | Total Credit hours |                       | WLU               |
| Semester Credit Hours        | 0                    |                  | 1                     | 1                  |                       | 56.25             |

## Competencies & Outcomes

### Order Description

#### 1      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     |

#### 2      Units of Measurement

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

#### 3      Structure of Matter

| Order | Description | Learning Domain | Level of Learning |
|-------|-------------|-----------------|-------------------|
|-------|-------------|-----------------|-------------------|

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|   |  |           |           |
|---|--|-----------|-----------|
| 1 | Perform and apply laboratory exercises encompassing structure of matter. | Cognitive | Synthesis |
|---|--|-----------|-----------|

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4      **Chemical Bonding**

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

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5      **Chemical Reactions**

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

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6      **Gas Laws**

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

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7      **Liquid Mixtures**

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

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8      **Acids and Bases**

| Order | Description  | Learning Domain | Level of Learning |
|-------|--|-----------------|-------------------|
| 1     | Perform and apply laboratory exercises encompassing acids and bases. | Cognitive       | Synthesis         |

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9      **Salts and Buffers**

| Order | Description  | Learning Domain | Level of Learning |
|-------|--|-----------------|-------------------|
| 1     | Perform and apply laboratory exercises encompassing salts and buffers. | Cognitive       | Synthesis         |

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10     **Nuclear Chemistry**

| Order | Description  | Learning Domain | Level of Learning |
|-------|--|-----------------|-------------------|
| 1     | Perform and apply laboratory exercises encompassing nuclear chemistry. | Cognitive       | Synthesis         |

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