

## CHEM1100 - Fundamental Concepts of Chemistry

| Credits:                        | 3 (2/1/0)  |
|---------------------------------|--|
| Description:                    | Meets MnTC Goal Areas 2 and 3. Course deals with substances, their structures and properties, the changes they undergo and the laws that govern those changes. Intended for prospective elementary teachers, non-science majors and those who need background for General Chemistry. This course includes a lab.   |
| Prerequisites:                  | MATH0095 or placement by assessment  |
| Corequisites:                   |  |
| Pre/Corequisites <sup>*</sup> : |  |
| Competencies:                   | <ol> <li>Outline a brief history of chemistry.</li> <li>Define matter.</li> <li>Outline the states of matter.</li> <li>Perform metric measurements of matter.</li> <li>Analyze the chemical elements.</li> <li>Characterize atomic structure.</li> <li>Interpret the periodic table.</li> <li>Compare chemical bonding schemes.</li> <li>Summarize chemical nomenclature.</li> <li>Analyze chemical reactions and equations.</li> <li>Perform stoichiometric calculations.</li> <li>Analyze gases.</li> <li>Analyze liquids.</li> <li>Outline basic organic chemistry.</li> <li>Use the scientific method to solve problems.</li> <li>Collect experimental data.</li> <li>Analyze data.</li> <li>Communicate results in oral or written form.</li> </ol> |
| MnTC goal areas:                | 2. Critical Thinking<br>3. Natural Sciences  |

<sup>\*</sup>*Can be taking as a Prerequisite or Corequisite.*