

CHEM1112 - General Inorganic Chemistry II

Credits:	5 (4/1/0)
Description:	Meets MnTC Goal Areas 2 and 3. This course is the second course of a two-course series (CHEM1111 and CHEM1112). Students will learn the general chemistry principles: solution chemistry, kinetics, chemical equilibrium, acid-base chemistry, solubility equilibrium, thermodynamics, oxidation-reduction, electrochemistry, coordination chemistry, nuclear chemistry and introductory environmental chemistry. The course includes a lab.
Prerequisites:	<ul style="list-style-type: none"> • CHEM1111
Corequisites:	
Pre/Corequisites*:	
Competencies:	<ol style="list-style-type: none"> 1. Characterize solutions. 2. Compare solute/solvent interactions. 3. Predict solubility changes. 4. Solve kinetic chemistry problems. 5. Compare reaction mechanisms. 6. Predict equilibrium shifts using Le Châtelier's Principle. 7. Apply equilibrium constant theory. 8. Analyze acids and bases. 9. Predict buffer capacity and pH. 10. Compare Lewis and Brønsted-Lowry theories. 11. Explore environmental chemistry. 12. Compare entropy and spontaneity. 13. Determine Gibb's free energy. 14. Analyze systems using thermodynamics. 15. Balance oxidation-reduction equations. 16. Prepare and analyze voltaic cells. 17. Characterize nuclear reactivity. 18. Correlate elemental characteristics. 19. Investigate metallurgy. 20. Analyze ligands. 21. Explore crystal field theory. 22. Use the scientific method to solve problems. 23. Collect experimental data. 24. Analyze data. 25. Communicate results in oral or written form.
MnTC goal areas:	<ol style="list-style-type: none"> 2. Critical Thinking 3. Natural Sciences

**Can be taking as a Prerequisite or Corequisite.*

