

# CH-101: Advanced General Chemistry – Part I

## Syllabus Fall 2025

Week	Date	Topic
1	September 9, 16:15-18:00	Introduction/fundamentals: Topic: Fundamentals B
1	September 12, 11:15-12:00	Topic 1A: Investigating atoms
2	September 16, 16:15-18:00	Topic 1A: Investigating atoms Topic 1B: Quantum theory
2	September 19, 11:15-12:00	Topic 1B: Quantum theory
3	September 23, 16:15-18:00	Topic 1C: Wavefunctions and energy levels
3	September 26, 11:15-12:00	Topic 1D: The hydrogen atom
4	September 30, 16:15-18:00	Topic 1D: The hydrogen atom Topic 1E: Many-electron atoms
4	October 3, 11:15-12:00	Topic 1F: Periodicity
5	October 7, 16:15-18:00	Topic 2A: Ionic bonding Topic 2B: Covalent bonding
5	October 10, 11:15-12:00	Topic 2B: Covalent bonding
6	October 14, 16:15-18:00	Topic 2C: Beyond the octet rule Topic 2D: The properties of bonds
6	October 17, 11:15-12:00	Topic 2D: The properties of bonds
Semester break		
7	October 28, 16:15-18:00	Topic 2E: The VSEPR model
7	October 31, 11:15-12:00	Topic 2F: Valence-bond theory
8	November 4, 16:15-18:00	Topic 2F: Valence-bond theory Topic 2G: Molecular orbital theory
8	November 7, 11:15-12:00	Topic 2G: Molecular orbital theory
9	November 11, 16:15-18:00	Topic 3D: Intermolecular forces
9	November 14, 11:15-12:00	Topic 3F: Liquids
End of atomic structure part		