**Chemistry**

**GC/Chem-101**

**Checklist of Course Content**

|  |  |
| --- | --- |
| **Course Content** | **Sources of Course Material** |
| 1. **Physical chemistry:**   **introduction to chemistry,**  **elements, compounds, mixtures, chemical and physical properties, chemical and physical changes, symbols and formula, atomic weight.** | <https://slideplayer.com/slide/6172987/>  <https://www.slideshare.net/KhanSaif2/1-introduction-to-chemistry-70006498>  <https://www.slideshare.net/mlong24/elements-compounds-and-mixtures> |
| 1. **Stoichiometry, Chemical reactions, oxidant numbers, Oxidation reduction, Reducing agents.** | * <https://www.slideshare.net/Quazanne/stoichiometry-28188041> * <https://www.slideshare.net/rmahfouz/stoichiometry-1614813> * <https://www.slideshare.net/memijecruz/stoichiometry-45215730> |
| 1. **Structure of the atom: discovery of the election, cathode ray tube, radioactivity, discovery of proton, Rutherford experiment, electronic symbol, electronic configuration.** | * <https://www.slideshare.net/ishajaiswal169/atomic-structure-38027284> * <https://www.slideshare.net/vinayDesai12/basic-atomic-structure-69886815> * <https://www.slideshare.net/itutor/atomic-structure-22851132> |
| 1. **General chemistry of: sodium chloride, sodium Hydroxide, sodium carbonate, sodium bi carbonate, steel, Pyrex, plastic, aluminium**. | * <https://www.slideshare.net/VISHALTHAKRE3/sodium-bicarbonate> * <https://www.slideshare.net/ahmed191141/sodium-carbonate-111623802> * <https://www.slideshare.net/VISHALTHAKRE3/sodium-hydroxide-80785391> * <https://www.slideshare.net/Cherusher/sodium-55598806> * <https://www.slideshare.net/PoojaVishwanath1/steel-42421973> * <https://www.slideshare.net/UmaNnenna/pyrex-media-70680944> * <https://www.slideshare.net/nikitaloknathan/plastics-32176538> * <https://www.slideshare.net/kaiwan1996/aluminium-51474084> |
| 1. **Solutions: types of solutions,**   **role of solutions in our daily lives,**  **solutions and solvents,**  **water as solvent.** | * https://www.slideserve.com/effie/types-of-solutions   <https://www.slideshare.net/rafeyayaz/uses-of-solvents-and-solutions>  <https://www.slideshare.net/DrSarahAyoub/1-ppt-solution>  <https://www.slideshare.net/bhagwadgeeta/water-as-solvent> |
| 1. **Acid and bases: concept of acids, concepts of bases, salt formation** | * Downloads |
| 1. **Organic chemistry:** 2. **Introduction: hydrocarbons, saturated and unsaturated,** 3. **methane, preparation and properties,** 4. **ethane, preparation and properties,** 5. **acetylene, preparation and properties.**   **b. Alcohols, preparation and properties.**  **c. Aldehydes and ketones, preparation and properties.**  **d. Carboxylic acid, preparation and properties.** | * <https://www.slideshare.net/saisukesaiful/introduction-of-organic-chemistry>   <https://www.slideshare.net/Hardik_Mistry/methane-20171099>  https://www.slideshare.net/Hardik\_Mistry/alkanes-20171796  <https://chem.libretexts.org/Bookshelves/Organic_Chemistry/Map%3A_Organic_Chemistry_(Smith)/Chapter_01%3A_Structure_and_Bonding/1.9%3A_Ethane%2C_Ethylene%2C_and_Acetylene>  <https://www.slideshare.net/mizakamaruzzaman/chapter-1-alcohols>  <https://www.slideshare.net/gizelsantiago/chapter-5-adehydes-and-ketones>  <https://www.slideshare.net/amnamunir9/carboxylic-acid-80209919> |