**Chemistry**

**GC/Chem-101**

**Checklist of Course Content**

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| **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>
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| 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>
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| 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://chem.libretexts.org/Bookshelves/Organic_Chemistry/Map%3A_Organic_Chemistry_%28Smith%29/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> |