



# SACRED HEART COLLEGE (AUTONOMOUS)

Tirupattur – 635 601, Tamil Nadu, S.India

Resi : (04179) 220103

College : (04179) 220553

Fax : (04179) 226423

Ready for  
Every Good Work

A Don Bosco Institution of Higher Education, Founded in 1951 \* Affiliated to Thiruvalluvar University, Vellore \* Autonomous since 1987

Accredited by NAAC (4<sup>th</sup> Cycle – under RAF) with CGPA of 3.31 / 4 at 'A+' Grade

Name of the Course	Course Code	Name of the Program	Activities with direct bearing on Employability/ Entrepreneurship/ Skill development	Year of introduction
Physical Chemistry-I	CH718	M.Sc Chemistry	<b>Skill Development:</b> Content: Group theory Activity: Identify the symmetry elements and symmetry operations, Construct the character table for some simple chemical system	2021-22
Elective-I Pharmaceutical Chemistry	CH719C	M.Sc Chemistry	<b>Skill Development:</b> Content: Pharmacology, Viral and Bacterial Infections and some common disease Activity: Identifying the cause and symptoms of various diseases caused by viral and bacterial infection, Knowing the basic knowledge about the analgesic, types	2021-22

			of drugs and drug name and dosage of drug in various diseases.	
Inorganic Chemistry-II	CH819	M.Sc Chemistry	<p><b>Skill Development:</b>  Content:  Steroisomerism of Coordination complex,  Bioenzyme Catalysts.  Activity:  Determine the stability and stereochemistry of Inorganic complexes by various methods.  Structural features of Macrocyclic ligands. Describing the functions and active site in the structure of metalloproteins and metalloenzymes</p>	2021-22
Physical Chemistry-II	CH820	M.Sc Chemistry	<p><b>Skill Development:</b>  Content:  Introduction to Quantum Chemistry,  Statistical thermodynamics  Activity: Derive the Schrodinger's wave equation for simple systems and interpret the results with suitable operator, Relate the partition function</p>	2021-22

			with thermodynamic function.	
Inorganic Practicals-I	PCH814	M.Sc Chemistry	<p><b>Skill Development:</b>  Content: Semi-microanalysis of Inorganic Mixtures  Activity: Qualitative analyzes of salt mixture by semi micro analysis. Operating centrifugation  Estimating the quantity of Ca, Mg and Zn by complexometric titration. Synthesis of Inorganic complexes</p>	2021-22
Physical Practicals-I	PCH815	M.Sc Chemistry	<p><b>Skill Development:</b>  Content: Adsorption, Distribution law and kinetics  Activity: Estimate the amount of substance adsorbed on the activated charcoal and find out the concentration of the solution, Determine the distribution coefficient and equilibrium constant of a reaction and also</p>	2021-22

			determine the order of some common chemical reactions	
Inorganic Chemistry-III	CH919	M.Sc Chemistry	<p><b>Skill Development:</b>  Content:  Magnetism in inorganic Materials, norganic Spectroscopy.  Activity: Apply UV-Visible, FT-IR, NMR, NQR technique to determine the inorganic compound properties. ESR, ASS and ICP AES spectroscopy used for structural elucidation.  Identify a proper lanthanide materials for sensor.</p>	2021-22
Spectroscopy	CH920	M.Sc Chemistry	<p><b>Skill Development:</b>  Content: Semi-Microanalysis  Activity:  Determine the ions present in the given inorganic salt mixture. synthesis of Inorganic complexes. Operate centrifugation and precipitation by semi- Micro analysis</p>	2021-22

Inorganic Chemistry-IV	CH1018	M.Sc Chemistry	<p><b>Skill Development:</b>  Content:  Hydrogenation of oils using catalyst,  Activity:  Determination of various organometallic compound.  Analyzing the different metallocene and  Identifying the advantages of nuclear fuel and conventional energies.</p>	2021-22
Physical Chemistry Practicals	PCH1015	M.Sc Chemistry	<p><b>Skill Development:</b>  Content:  Conductometric measurements  Activity:  Determine the concentration of solution by using the conductometric titration, Verify the Ostwald's dilution law and Kohlraush law</p>	2021-22