HOLY CROSS COLLEGE (AUTONOMOUS) NAGERCOIL

Accredited with A++ Grade (CGPA 3.53 - V Cycle) by NAAC

(Affiliated to Manonmaniam Sundaranar University, Tirunelveli)

An 1SO 9001: 2015 Certified Institution

DEPARTMENT OF CHEMISTRY PROSPECTUS



EXPLORE THE WONDERS OF CHEMISTRY!

"CHEMISTRY IS A MYSTERY OF CHEMICALS, CHEMISTS ARE THE DETECTIVES WHO SOLVE THIS MYSTERY."



ADMISSION OPEN FOR Academic Year 2025 - 2026



Programmes Offered

B.Sc Chemistry

M.Sc. Chemistry

Ph.D. Chemistry





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>>> ABOUT THE DEPARTMENT

The Department of Chemistry at Holy Cross College (Autonomous), Nagercoil, is a vibrant hub dedicated to provide top-notch education, research opportunities, and hands-on experience to aspiring Chemists. Established with the goal of fostering scientific temper and advanced knowledge in chemical sciences, the department offers undergraduate and postgraduate programs that blend foundational theories with hands-on laboratory experience.

The U.G Department dawned in the year 1966 and from its inception the department has shown remarkable achievements in academic, co-curricular and extra-curricular activities. The P.G programme was started in the year 2012 and the department was upgraded as Research Department in 2017. The thrust areas of research in the department are Polymer Chemistry, Nanochemistry, Environmental Chemistry, Photochemistry, Organometallic Chemistry and Supramolecular Chemistry. The main objective of the department is to promote academic skills, research aptitude, scientific knowledge and guidance to the budding chemists to make them well equipped to face the society.

>>> VISION

Impart quality education, scientific skills, academic excellence, research attitude and skills to face global challenges.

>>> MISSION

- To produce competent graduates infused with professionalism, ethical values and social responsibility.
- To develop intellectual and professional skills of the students.
- To provide a firm foundation in chemical concepts, laws and theories.
- To sharpen the scientific knowledge.
- To enhance critical thinking, problem solving ability, scientific temper and innovation.
- To apply chemistry in medicine, biology, industry and environment.

>>> OBJECTIVES

- To deliver a strong theoretical and experimental foundation in chemistry.
- To develop skills for scientific inquiry, data interpretation, and problem-solving.
- To encourage participation in interdisciplinary and collaborative research projects.
- To prepare students for competitive exams, higher studies, and professional careers in academia, industry, and government sectors.
- To integrate values of integrity, responsibility, and environmental awareness in all aspects of learning.

>>> UG & PG PROGRAMME FRAMEWORK







Theory &
Lab Courses
Value Added
Courses & Skill
Based
Competent
Courses

Industrial & Field Visits.
Internship & Research Projects

Start Steps & Entreprenuerial Ventures

>>> PLACEMENT OPPORTUNITIES

- Academicians
- Pharmaceutical Chemists
- Quality Analysts
- Nanotechnologists
- Data Scientists
- Forensic Chemists
- Food Analysts
- Clinical Chemists
- Petroleum/Chemical/Fertilizer Operators
- Lab Chemists
- Environmental Chemists
- Software Professionals
- Scientific Officers
- Research Assistants
- Chemical Safety Officers















>>> SALIENT FEATURES

- NAAC-accredited institution with a legacy of academic excellence.
- Highly qualified and experienced faculty with specialization in diverse fields of chemistry.
- ICT-enabled teaching and hands-on training in modern instrumentation techniques.
- Student-led Projects and Presentations.
- Support for NET/SET/GATE/JAM coaching.
- Career Guidance and Placement Support.
- Research-driven Curriculum.
- Access to e-resources, research journals, and library facilities.
- Regular industrial visits and field exposure.
- Value education and holistic development programmes.

>>> HIGHLIGHTS

- Dedicated Mentors
- Well-Equipped Laboratories
- Smart Classrooms
- Value Added Courses
- Certificate Courses
- Internships
- Field Trips
- Industrial Visits
- Educational Tour
- TNSCST Student Projects
- Scholarships
- Outreach Programmes
- Lab to Land Programmes
- Chem Clean Startup
- WISE Project
- Placement in Institutions & Industries











>>> STUDENT ACTIVITIES & ENGAGEMENTS

- Accelerating Innovation Patents
- Empowering Communities Lab to Land Programmes
- Observance of Commemorative Days National and International celebrations
- Unlock the potential of students in Research TNSCST Student Projects & Summer Research Fellowship
- Enrichment of Academic Culture Intercollegiate Quiz
- Empowerment of Women Women's Initiative for Skill Enhancement
- Scale Up to Business ventures Start Steps
- Space for promoting Scientific Spirit Chem Explorer Club
- Fostering Human Dignity Joy of Sharing

>>> CHEM EXPLORER CLUB

The CHEM EXPLORER Club conducts series of enriching events including intradepartmental competitions, quiz, guest talks, and wellness sessions. These programmes enhance critical thinking, teamwork, communication, and scientific curiosity among students. Celebrations like National Science Day focus on sustainable development and innovation, while sessions on health and lifestyle promote holistic well-being and are encouraged to adopt healthier daily routines. Overall, the club's activities foster academic enthusiasm, community spirit, and a deeper interest in chemistry. The students showcase their innovative skills, originality, and problem-solving skills in the programmes.













>>> EXTENSION ACTIVITIES

The PG & Research Department of Chemistry actively engages in community-focused outreach through its flagship Extension Programme -"Reaching the Unreached Neighbourhood (RUN)." Conducted every year aimed to bridge classroom learning with real-world impact by fostering environmental consciousness, promoting hygiene and sustainability, and supporting quality education among underserved communities. Activities include door-to-door plastic awareness campaigns encouraging the use of eco-friendly "Manjapai" bags, coastal and waterbody clean-up drives, academic coaching for marginalized children and live demonstrations on preparing household cleaning products under the "Chem-Clean" initiative. This programme continues to empower students as socially responsible and to strengthen their civic values while uplifting neighbouring communities through meaningful, science-based interventions.

>>> WISE PROJECT

The PG & Research Department of Chemistry conducts targeted skill training sessions as part of the Women's Initiative for Skill Enhancement (WISE) Programme. The training focusses on the preparation of soap powder, liquid soap, liquid dishwash, and other house hold articles. These hands-on workshops are aimed to equip women with practical knowledge and entrepreneurial skills to produce and market eco-friendly cleaning products and innovative food items using locally available resources.





>>> GLIMPES OF THE DEPARTMENT

STUDENTS START STEPS



Suriya. K I M.Sc. Chemistry, Art Nest Creations



I M.Sc. Chemistry, Zaira Organic Glow







H. Arputha Yazhini I M.Sc. Chemistry, Epoxy Creations



Rufina Jovith Joy. J III B.Sc. Chemistry, Chem Clean



Abinisha. N



Rajika. M III B.Sc. Chemistry, Riya's Collections



Fathima Jahena. A I B.Sc. Chemistry, Fathima Homemade Soaps Shazras Scrumptious Brownie & Cakes















Sakthi. P I M.Sc. Chemistry, Eyal Neiyappam, Sakthi Arts, Iyal Resins

PRESTIGIOUS ALUMNAE

























JOIN US FOR AN EXCITING JOURNEY INTO THE FASCINATING WORLD OF CHEMISTRY.