



SENGAMALA THAYAAR EDUCATIONAL TRUST WOMEN'S COLLEGE
(Affiliated to Bharathidasan University, Tiruchirappalli)
(Accredited with 'A' Grade {3.45/4.00} by NAAC)
(An ISO 9001: 2015 Certified Institution)
SUNDARAKKOTTAI, MANNARGUDI-614 016, TAMILNADU, S.INDIA
DEPARTMENT OF CHEMISTRY
(CURIE CLUB)

PROGRAMME OUTCOMES FOR B.Sc.,DEGREE PROGRAMME

PO No.	Programme Outcomes <i>(Upon completion of the B.Sc. Degree Programme, the Undergraduate will be able to)</i>
PO-1	Disciplinary knowledge: Demonstrate comprehensive knowledge and understanding of one or more disciplines that form a part of an undergraduate program of study in Bachelor of Science.
PO-2	Critical thinking, Problem Solving and Reflective thinking: think critically about the issues and identify, critically analyze and solve problems from the disciplines of concern using appropriate tools and techniques and the knowledge, skills and attitudes acquired and extrapolate the same to real life situations; show critical sensibility to life experiences, with self-awareness and reflexivity of both self and society.
PO-3	Analytical & Scientific Reasoning: evaluate the reliability and relevance of evidence; identify logical flaws and holes in the arguments of others; analyze and synthesize data from a variety of sources; draw valid conclusions and support them with evidence and examples and addressing opposing viewpoints; critically evaluate ideas, evidence, and experiences from an open minded and reasoned perspective.
PO-4	Research-related Skills: develop a sense of capability for relevant/appropriate inquiry and asking questions, synthesize, articulate and report results and to recognize and predict cause and effect relationships, define problems, formulate and establish hypothesis, analyze and interpret and draw conclusions from data, execute and report the results of an experiment or investigation.
PO-5	Digital literacy and Effective Communication: use ICT in a variety of learning situations and speak, read, write and listen clearly in person and through electronic media in English and in one or more Indian languages, and make meaning of the world by connecting people, ideas ,books, media and technology; efficiently communicate thoughts and ideas in a clear and concise manner.
PO-6	Individual and Team Work: effectively accomplish tasks individually as well as work effectively and respectfully as member or leader with diverse teams, facilitate cooperative or coordinated effort on the part of a group, and act together as a group or a team in the interest so for a common cause and work efficiently as a member of a team.
PO-7	Multicultural Competence and Social Interaction: understand the values and beliefs of multiple cultures, global perspectives, engage and interact respectfully with diverse groups and elicit views of others, mediate disagreements and help reach conclusions in group settings.

PO-8	Awareness of Ethical issues, Human values and Gender Issues: embrace moral/ethical values in conducting one's life, formulate a position/argument about an ethical issue from multiple perspectives, and use ethical practices in all work and understand the value of relationship between self and the community and aware of the various issues concerning women and society.
PO-9	Awareness of Environment and Sustainability: understand the impacts of technology and business practices in societal and environmental contexts, and sustainable development.
PO-10	Self-directed and Lifelong learning: acquire knowledge and skills, including learning "how to learn", that are necessary for participating in learning activities throughout life and to engage in independent and life-long learning in the broadest context of socio-technological changes.



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PROGRAMME SPECIFIC OUTCOMES FOR B.Sc. Chemistry

PSO No.	Programme Specific Outcomes (Upon completion of the Course, the Student will be able to)
PSO-1	Students acquire in-depth knowledge of the fundamental concepts in all disciplines of chemistry.
PSO-2	Students can disseminate the basics of chemistry and advanced topics and analytical skills in organic, inorganic and physical chemistry.
PSO-3	Students will be able to develop creativity in academics and research.
PSO-4	Students will be able to apply digital tools to collect, analyse and interpret data and present Scientific findings
PSO-5	Gain competence to pursue higher education and career opportunities in chemistry and allied fields
PSO-6	Exhibit leadership qualities to work individually and within a team in organizing curricular, co-curricular and extracurricular activities
PSO-7	Apply the concepts of chemistry to solve problems in the community, entrepreneurial and research pursuits
PSO-8	Exhibit competence in educational, industrial and research pursuits that contribute towards the holistic development of self and community

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PROGRAMME OUTCOMES FOR M.Sc.,DEGREE PROGRAMMES

PO.No	Programme Outcomes
	(M.Sc., Chemistry)
PO-1	<p>Disciplinary Knowledge: demonstrate in-depth knowledge and understanding of theories, policies, and practices in one or more disciplines that form a part of a Post Graduate program of study in Master of Science.</p>
	<p>Critical Thinking and Problem Solving: apply analytic thought to a body of knowledge, analyse and evaluate evidence, arguments, claims, beliefs on the basis of empirical evidence, identify relevant</p>
PO-2	<p>assumptions or implications, formulate coherent arguments, critically evaluate practices, policies and theories by following scientific approach to knowledge development: solve problems and extrapolate the same to real life situation</p>
	<p>Information/digital literacy and Communication Skills: use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources, and</p>
PO-3	<p>use appropriate software for analysis of data: communicate thoughts and ideas analytically and effectively in writing and orally using appropriate media, and present complex information in a clear and concise manner to different groups.</p>
	<p>Research-related skills: conduct independent inquiry in a chosen scientific discipline, demonstrate sense of inquiry and capability for asking relevant/appropriate questions, problematising, synthesizing</p>
PO-4	<p>and articulating; recognize cause-and-effect relationships, define problems, formulate hypotheses, test hypotheses, analyse, interpret and draw conclusions from data, establish hypotheses, predict cause-and-effect relationships; plan, execute and report the results of an experiment or</p>

	investigation.
PO-5	Scientific reasoning and Reflective Thinking: analyse, interpret and draw conclusions from
	quantitative/qualitative data and critically evaluate ideas, evidence and experiences from an
	open-minded and reasoned perspective; critically and sensibly evaluate life experiences, with
	self awareness and reflexivity of both self and society.
PO-6	Multidisciplinary Approach, Innovation and Entrepreneurship: propose novel ideas of
	interdisciplinary approach in providing better solutions and new ideas for the sustainable
	developments; identify opportunities, entrepreneurship vision and use of innovative ideas to
	create value and wealth for the betterment of the individual and society.
	Moral and ethical awareness/reasoning: Embrace moral/ethical values in conducting one's
	life, formulate a position/argument about an ethical issue from multiple perspectives, and use
	Ethical practices in all work, demonstrate the ability to identify ethical issues related to one's
PO-7	work, avoid unethical behavior such as fabrication, falsification or misrepresentation of data or
	committing plagiarism, not adhering to intellectual property rights, appreciate environmental and
	sustainability issues, and adopt objective, unbiased and truthful actions in all aspects of work.
PO-8	Self directed Learning: work independently, identify appropriate resources required for a project, and manage a project till completion
	Lifelong Learning: engage in continuous learning for professional growth and development,
PO-9	Acquire knowledge and skills, adapt to changing environment and to changing trades and
	demands of work place through knowledge/skill development/reskilling.
PO-10	Multicultural Competence, Social Interaction and Effective Citizenship: understand the values and
	beliefs of multiple cultures, global perspectives, engage and interact respectfully with diverse groups and
	elicit views of others, mediate disagreements and help reach conclusions in group settings, and
	demonstrate empathetic social concern and equity centered national development

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PROGRAMME SPECIFIC OUTCOME (PSO)	
Program Specific Outcomes	
PSO No.	(M.Sc., Chemistry)
PSO1	Placement: To prepare the students who will demonstrate respectful engagement with others' ideas, behaviors, beliefs and apply diverse frames of reference to decisions and actions
PSO2	Entrepreneur: To create effective entrepreneurs by enhancing their critical thinking, problem solving, decision making and leadership skill that will facilitate startups and high potential organizations
PSO3	Research and Development: Design and implement HR systems and practices grounded in research that comply with employment laws, leading the organization towards growth and development.
PSO4	Contribution to Business World: To produce employable, ethical and innovative professionals to sustain in the dynamic business world.
PSO5	Contribution to the Society: To contribute to the development of the society by collaborating with stakeholders for mutual benefit