LEAD US TO THY LIGHT

RESEARCH & CONSULTANCY LAB
(Approved by Kerala State PCB, Govt. of Kerala)

MARKAZ ARTS AND SCIENCE COLLEGE, ATHAVANAD

NEAR VALANCHERY, MALAPPURAM

INTERNSHIP BROCHURE 2025-26

(For FYUG Students)

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PRINCIPAL'S MESSAGE

It is with great pride and academic satisfaction that I welcome students to the Research & Consultancy Laboratory of Markaz Arts and Science College. This laboratory, duly approved by the Kerala State Pollution Control Board, functions as a centre of scientific inquiry, environmental diagnostics, and applied research dedicated to advancing evidence-based environmental monitoring and analytical sciences.

Internship training in a scientific laboratory is a transformative stage in the academic trajectory of young scholars. It provides an invaluable opportunity to translate theoretical frameworks into empirical investigation through rigorous experimentation, standardized analytical protocols, and data-driven interpretation. Within this laboratory environment, interns will be exposed to contemporary methodologies in environmental assessment, including physicochemical analysis, microbiological evaluation, water quality monitoring, and laboratory quality assurance practices aligned with regulatory standards.

Our laboratory is committed for cultivating scientific temper, critical reasoning, methodological precision, and ethical research practices. Through hands-on training in laboratory instrumentation, analytical techniques, sampling protocols, and data validation procedures, interns will develop the competencies required to address complex environmental challenges and contribute meaningfully to sustainable ecosystem management.

I strongly encourage every intern to approach this training with intellectual curiosity, scientific rigor, and professional discipline. Active engagement with mentors, adherence to laboratory safety and quality standards, and meticulous observation of experimental procedures will greatly enrich your research aptitude and technical proficiency.

I am confident that the knowledge, analytical skills, and research exposure gained during this internship will significantly strengthen your scientific foundation and prepare you for future careers in environmental science, microbiology, biotechnology, and allied disciplines.
I extend my best wishes for a productive, insightful, and rewarding internship experience.

With sincere regards,
Principal
Dr.C.P.Mohamed Kutty

DIRECTOR'S MESSAGE

It is with great academic pride that I welcome internship scholars to the Research & Consultancy Lab, Markaz Arts and Science College. This advanced facility, approved by the Kerala State Pollution Control Board under Government of Kerala, serves as a centre of excellence for environmental diagnostics and applied scientific research.

I express my sincere appreciation to our respected Principal, whose visionary leadership and steadfast commitment to academic innovation and research infrastructure made this laboratory possible. In an era of accelerating environmental challenges, the cultivation of scientific rigor and analytical precision is essential. This laboratory provides a dynamic platform where theoretical knowledge is transformed into empirical investigation through advanced instrumentation and standardized analytical protocols.

The internship programme offers scholars valuable exposure to environmental monitoring, physicochemical water analysis, and microbiological assessment, fostering the technical competence required to address contemporary ecological challenges. We uphold the highest standards of scientific ethics, accuracy, and research integrity. I encourage every intern to approach this opportunity with curiosity, discipline, and innovation. I wish all internship scholars a productive and intellectually rewarding experience.

With sincere regards,
Dr. Vimal.K.P
Director

ABOUT RESEARCH & CONSULTANCY LAB

Markaz Arts and Science college,Athavanad ,Malappuram ,an ISO Certified instituition accredited by NAAC with grade 'A' in the first cycle is taking interest in researches which address community problems like environmental, social and economical problems.The various consultancy services provided include undertaking assessment of drinking water quality and soil analysis as per request from public and also repairing of LED bulbs .There is also the provision of expert advice and testing for projects done by students from other colleges.Department of Biochemistry, Chemistry , Microbiology , Psychology and Botany have skilled and experienced experts for these services.

Research & Consultancy Lab in our college is approved by Kerala State PCB, Govt. of Kerala, for analysis of water quality parameters. It is established jointly under the Department of Microbiology, Chemistry, Botany and Biochemistry and is a well-equipped laboratory with equipments such as U-V Spectrophotometer, Laminar air flow safety cabinet, Autoclave, Hot air oven, Bacteriological incubators, pH Meter, Conductivity/turbidity /DO meters, Membrane filter apparatus etc., . The focus of Research & Consultancy Lab is to conduct research on water and water quality parameters, help academic institutions with water quality consultation, biomonitoring of waterbodies and give supporting services to student projects, certificate courses and to carry out FYUG internship for students from other institutions.

A total of 14 parameters can be tested at the lab that include physical (pH, conductivity etc.), chemical (acidity, hardness ,Nitrate,etc.) and microbiological parameters such as total coliform counts and presence of E. coli . Advice to improve water quality also will be given.

Research & Consultancy Lab is organizing an internship program on "Drinking Water Quality Assessment "for 4th semester FYUG students during the vacation period (April–May). The program is designed to provide practical exposure and hands-on training in various techniques involved in water quality analysis. The internship will cover important aspects such as physico-chemical analysis of water, laboratory techniques, interpretation of water quality parameters, and environmental monitoring practices. This program will be highly beneficial for students of Chemistry, biology,Environmental Science, and related disciplines who wish to enhance their laboratory and analytical skills.

FACULTY PROFILE

Dr.Vimal.K.P
Director &HoD,
Post Graduate Department of Microbiology
MSc,PhD in Microbiology

Dr.Seena.P
HoD
Post Graduate Department of Biochemistry
M.Sc, Ph.D in Biochemistry

Dr.Arifa.P.P
Asst.Professor
Post Graduate Department of Biochemistry
M.Sc, PhD in Biochemistry

Dr.Srirasmi
Asst.Professor
Post Graduate Department of Biochemistry
MSc (Botany)PhD in Biochemistry

Dr.Pranamya.N.P
Coordinator & Asst.Professor
Post Graduate Department of Chemistry
MSc,PhD in Chemistry

Mrs.Shamla.A.K
Mentor & Asst.Professor
Post Graduate Department of Microbiology
MSc in Microbiology

Dr.Mohamed Ameen.T
Asst.Professor
Post Graduate Department of Chemistry
MSc,PhD in Chemistry

Dr.Vineetha.K.J
HoD & Asst.Professor
Post Graduate Department of Psychology
MSc.PhD in Psychology

COURSE STRUCTURE

‘DRINKING WATER QUALITY ASSESSMENT’

Brief Objective of the course: This course provides understanding of water quality analysis, with emphasis on the analysis of physical, chemical, and biological parameters of water. Enables students to apply standard analytical techniques for the identification and interpretation of water contaminants in accordance with regulatory standards, and to relate analytical findings to appropriate water treatment and management practices.

Occupation:Water Quality Analyst

Outcomes:

- To understand the principles and the practical approaches and techniques required to effectively monitor the chemical, hydrological and microbiological elements of water quality.
- To understand water quality parameters and their relation to public health and environment.
- To acquire practical, job-oriented skills in water quality analysis and spectrophotometric detection of water contaminants.

Sector: Environmental Science
Duration: 12 days with 5 hours daily
Mode: Hybrid

Chapters discussed

Module 1: Introduction to Water Quality
Module 2: Water Quality Parameters – Classification and Standards
Module 3: Physical Water Quality Parameters
Module 4: Chemical Water Quality Parameters
Module 5: Biological Water Quality Parameters
Module 6: Water Treatment and Management

Eligibility:
Pursuing UG preferably Environmental Science, Chemistry, Biochemistry, Microbiology and other allied science streams
Fee:Rs.2,000
How to Apply: Mail a request to markazcollege@gmail.com addressed to the Director,Research & Consultancy Lab or contact the concerned Mentors.

CONTACT US

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FACULTY MENTORS

Dr.Mohamed Ameen.T
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