



Laboratory Facilities

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1. List of Laboratory Facilities

Sl No	Room No.	Laboratories	Area in Sq.m
1.	A 205	Computer Science Lab	82
2.	B 102	Biochemistry Lab-Home Science	72
3.	B 204	Zoology Lab	81
4.	B 206	Zoology Museum	36
5.	B 304	Psychology Lab	54
6.	B 305	Counselling Room- Psychology Dept.	24
7.	C 103	Nutrition/Textile lab	96
8.	E 301	Tissue Culture Lab	48
9.	E 302	Plant Pathology Instrumentation Room- Dept of Botany	24
10.	E 306	Research Lab Botany	36
11.	E 307	Herbarium	32
12.	F 204	Digital Resource Centre-Dept of English	24
13.	F207	Soft Computing Lab, Dept. of Maths	24
14.	F301	BSc Botany Lab	120
15.	F302	Instrumentation Lab	60
16.	F304	MSc Botany Lab	60
17.	F305	Biochemistry Lab- Botany	60
18.	G 101	Physical Chemistry Lab	64



19.	G 102	B.Sc. Chemistry Lab	64
20.	G 201	M. Sc. Chemistry Lab	64
21.	G 202	Wet Lab for Research work	36
22.	G 306	Equipment Room, Dept. of Chemistry	24

2. Botany Laboratories

Botany Main Lab

The Department is furnished with a digital TV and a variety of glassware and instruments for biochemical assays. A maximum of 40 students may be accommodated in the primary laboratory simultaneously. The botany laboratory offers students an optimal setting in which to deepen their comprehension of the plant kingdom by investigating the morphological, anatomical, and physiological attributes of plants. It is furnished with microscopy, such as compound, dissecting, and research microscopes, to facilitate the examination of plant cells and structures in greater detail. Furthermore, the lab offers the requisite infrastructure, which offers students invaluable opportunities to improve their skills and knowledge in the field of botany.







KORAMBAYIL AHAMED HAJI MEMORIAL
UNITY WOMEN'S COLLEGE, MANJERI

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(Govt.-Aided and Affiliated to University of Calicut)

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Botany PG Lab







Biochemistry Lab

In the biochemistry lab, students engage in practical experiments that provide hands-on experience, reinforcing theoretical knowledge and fostering a deeper understanding of biochemical concepts. Safety protocols and precision are paramount in this dynamic learning environment. The lab has refrigerators and freezers for the safe storage of samples and reagents.







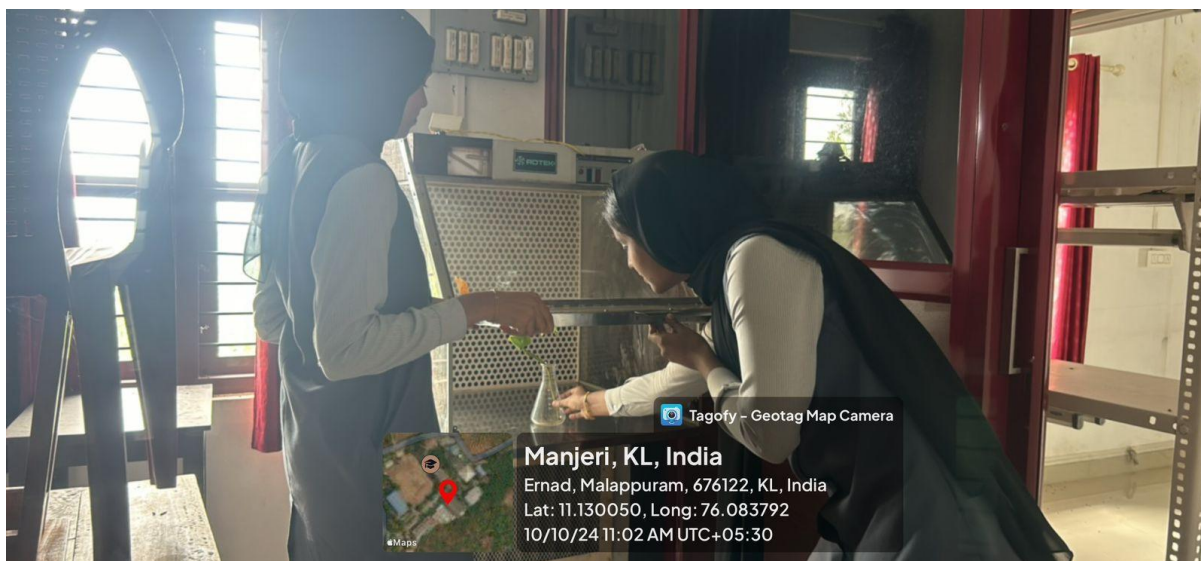
Instrumentation Room





Tissue Culture Lab

The tissue culture lab of the Department of Botany is equipped to support the sterile growth and study of plant cells and tissues. Key components include laminar flow hoods for contamination-free handling, growth chambers that maintain optimal temperature, humidity, and light, and autoclaves for sterilizing media and tools. Refrigerators and freezers store sensitive materials, while microscope stations enable detailed examination of cultures. Workbenches provide ample space for media preparation and experiments, and storage cabinets keep glassware and tools organized. Additionally, pH and conductivity meters are essential for monitoring media conditions, facilitating comprehensive research in plant propagation, conservation, and biotechnology.



Botany Museum



Research Lab

The Botany Department's research laboratory is equipped with sophisticated instruments, such as a UV spectrophotometer, laminar airflow hoods, and research microscopes with digital cameras, for extensive investigations into plant biology and physiology. Fundamental instruments such as pH meters, centrifuges, and Soxhlet apparatus facilitate diverse studies, whilst the Digital Resource Centre offers access to internet databases and literature. The lab focuses on innovative research, including tissue culture, phytochemical analysis, and responses to environmental stressors, fostering an environment of collaboration and academic excellence.



Mushroom Research, Development and Training Centre





Botany Herbarium



3. Chemistry Laboratories

Research Lab

The Department of Chemistry has a Research lab with four working tables and essential facilities.





UG & PG Laboratories

The department is furnished with three well-equipped laboratories, which are designed to accommodate both undergraduate (UG) and postgraduate (PG) studies. These laboratories include a preparation room and a storage room. These labs are outfitted with essential facilities such as a muffle furnace, high-sensitive electronic balances (both three-digit and two-digit), a digital flame photometer, and a double distillation unit. Additional equipment includes hot air ovens, a spectrophotometer, centrifuge machines, a filtration unit, a vacuum pump, a colorimeter, a chromatographic column, a heating mantle with a regulator, and a magnetic stirrer with a hot plate, ensuring comprehensive resources for various research and practical applications.

UG Lab





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PG Lab





Instrumentation Room





4. Home Science Laboratories

Nutrition Lab

The department has a well-equipped nutrition lab to provide practical knowledge of how to plan a diet keeping in mind the patient's needs and requirements. The students are taught to plan the menu scientifically, based on the calorific value of the food materials. Food Science experiments create an understanding of the influence of food ingredients, the amounts in which they need to be used for a required product and how methods of preparation and processing can be altered for desired results. Common home measures in use in India and their weight and volume equivalents in metric units and identification of common adulterants, the effect of browning, heat and pH on vegetables and fruits have been added to enable the students to make use of this book more effectively. This booklet contains the Method of recipes which may be useful for Home Science students in providing nutritious menus.







Textiles Lab

The Textile Testing Lab is equipped with the latest equipment to provide practical knowledge to students. Clothing construction is an integral part of home science. It is concerned with imparting skills in drafting adaption and construction of different garments. These skills are taught in a laboratory equipped with sewing.





Biochemistry Lab

The Biochemistry Lab, used by the UG and PG students, is equipped with the latest equipment to provide practical knowledge.





5. Physics Laboratory

General Physics, Optics, and Electronics labs run under the Department of Physics, which is fully equipped with the tools required for minor courses in Energy Physics, Materials Physics, and Semiconductor Physics. A 65-inch LED TV is also available



to support virtual lab experiences and video demonstrations, so augmenting the learning process.



6. Zoology Laboratory & Museum

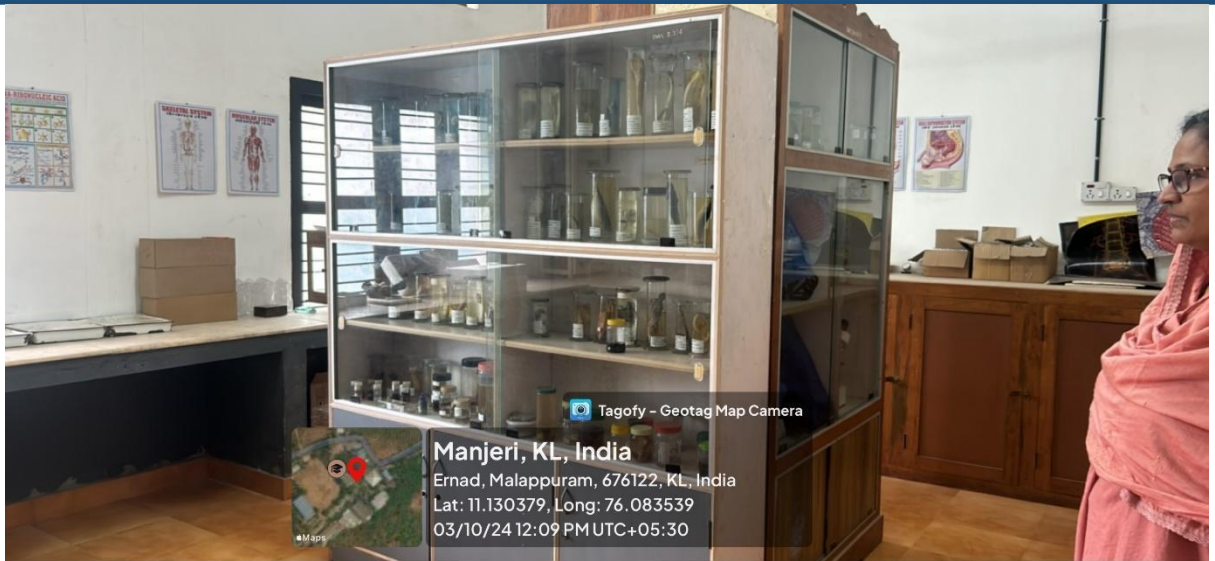
The Zoology Lab is equipped with a variety of facilities to support teaching and learning in animal biology. It includes dissection laboratories with tools for studying animal anatomy; microscopy facilities featuring both compound and digital microscopes; and a



specialized museum for specimens. The lab facilitates ethology experiments for behavioural studies. Additionally, storage and preparation rooms ensure organized access to specimens and materials used to examine the detailed anatomy of animals.

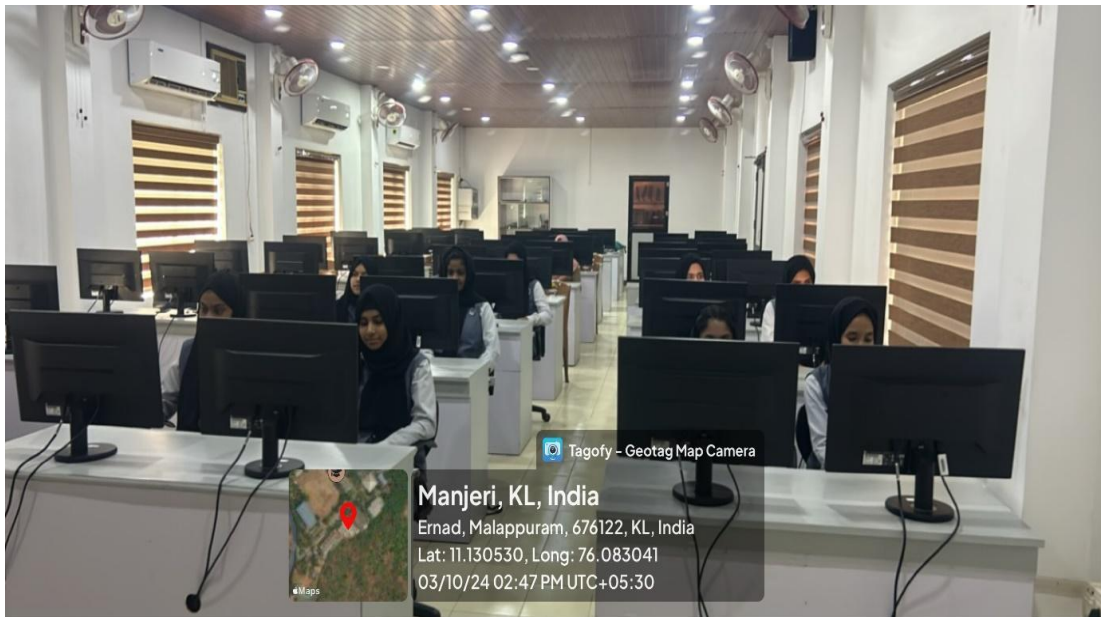


Zoology Museum



7. Computer Science Lab

The Department of Computer Science has a well-equipped, fully air-conditioned lab featuring 50 high-configuration i7 desktop systems, all connected via a local area network (LAN). A Smart TV enhances the teaching experience, while CCTV surveillance ensures security. Each desktop is paired with a 24-inch IPS panel monitor and supported by reliable power backup. Additionally, a 50 Mbps leased-line internet connection is available to enrich the research and subject knowledge of students and staff.



8. Soft Computing Lab

The Department of Mathematics has a dedicated soft computing lab equipped with five computers, providing specialized training in Python and computational mathematics. This facility supports advanced learning and research in computational techniques and problem-solving. It is also used to familiarize students with software such as LaTeX, Overleaf, and MATLAB.



9. Digital Resource Centre of Commerce Department

This Digital Resource Centre focuses on empowering commerce education through digital excellence. It provides a comprehensive digital platform for undergraduate (UG) and



postgraduate (PG) students of the Commerce Department, facilitating simple access to learning resources, research materials, and academic support. For UG students, it facilitates their practical know-how in accounting software, e-books and online textbooks, video lectures and tutorials, study guides and notes, and virtual classroom sessions. It primarily assists our PG scholars with their PG theses by providing research databases and journals, thesis and dissertation repositories, academic writing and citation guides, and webinars. The Digital Resource Centre facilitates the online courses and certifications on accounting software offered by the Department of Commerce.



10. Digital Resource Centre of English Department

The Digital Resource Centre of the PG & Research Department of English at KAHM Unity Women's College, Manjeri, is a multi-purpose resource centre for academic



activities and extension services of the department. Equipped with six computers, the centre provides students with access to Digital resources, E-books and N-List resources of INFLIBNET. Both UG and PG Students of the Department utilize the centre for the DTP works of their degree projects and PG dissertations. Additionally, it is also used as a language clinic for offering extension services.



11. Psychology Laboratory & Counselling Centre

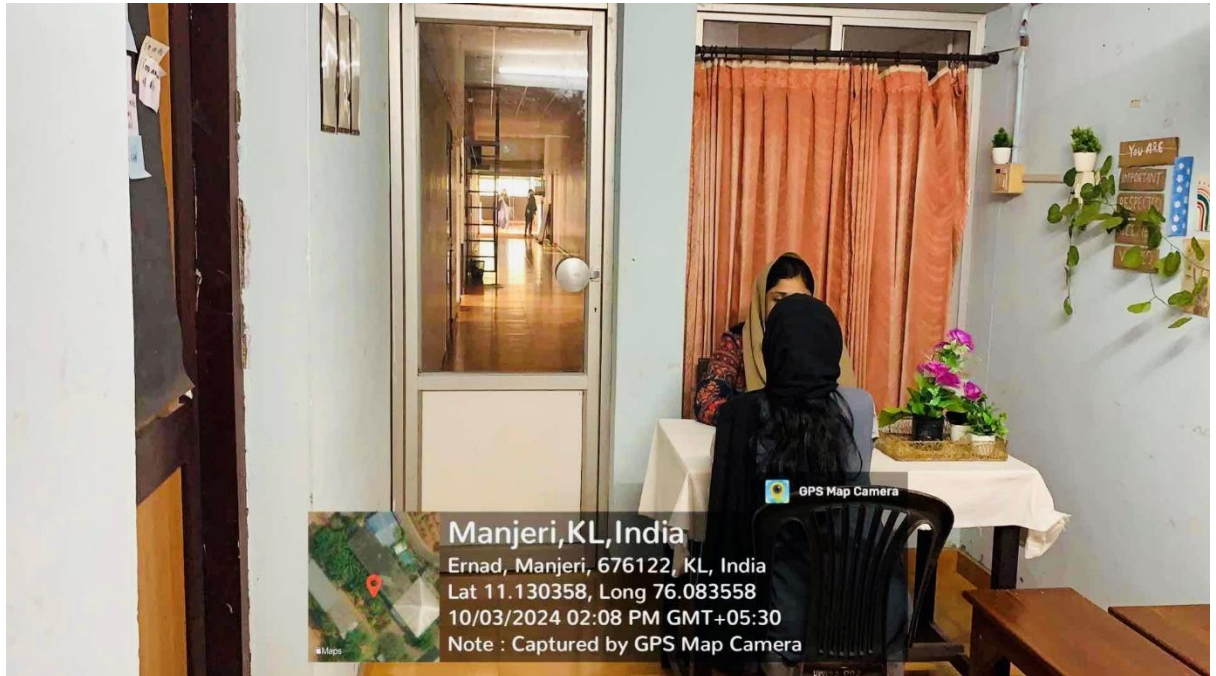


The psychology lab is equipped with tools to help students understand the psychological concepts taught in class. It includes instruments for studying attention, memory, dexterity, intelligence, and other psychological processes. Additionally, there are paper-and-pencil tests designed to measure various psychological traits. The Jeevani Wellness Club, an initiative of the Government of Kerala for students, offers counselling services in collaboration with the Department of Psychology.





Jeevani Counselling Centre



12. IoT Lab

The Internet of Things (IoT) Lab at the Department of Computer Science fosters hands-on learning, bridging academia and industry. Equipped with modern tools like Arduino, Raspberry Pi, and various sensors, the lab enables students to design and test IoT systems. It hosts workshops, projects, and exhibitions, encouraging innovation through the IoT Club. Notable student-led projects include a robotic kiosk, a smart agriculture system, and an automated cloth drying system. The lab supports interdisciplinary research and prepares students for real-world technological challenges, aligning with the college's mission of producing competent graduates.








13. Language Lab

With a focus on enhancing language proficiency, the college library manages the Language Lab, which features 20 computers equipped with specialized software for language learning, providing students with essential resources for improving their linguistic skills in English.




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