

VIMALA COLLEGE (AUTONOMOUS)

DEPARTMENT OF ZOOLOGY

STUDENT CENTRIC METHODS

2016-2022

A.EXPERIENTIAL LEARNING

Laboratory study- dissections, practical, specimen study



Dissections : Dissection method and mounting always help the students to gain practical knowledge of the systems they learn in theory courses

Practical in ecology, biochemistry, physiology, developmental biology, cell biology focus on developing the expertise in experimental procedures





Specimen study: The study of vertebrate and invertebrate specimens is always encouraged so that the students get a hands on experience about the specimens they learn in the theory courses. They get to know the diversity of animals that spreads over various major and minor phyla of the animal kingdom. Department maintains a wide variety of museum specimens for this purpose. Preserved, stuffed and slides are using for this purpose.



Computer lab and students learning



Field visits and institutions visit (study tour)

Field visit (Bird walk- at Peechi wildlife sanctuary, visit to sanctuaries and National parks, participation in mosquito eradication and awareness programmes in association in FHC, Vilvattom, Thrissur)

Vector identification class by Dr Sasi kumar, Malaria officer, Dept of Health



House survey as a part of mosquito eradication and awareness programmes



Institutions visit: (NIO,CMFRI,CIFT,CIFNET,NIPHATT,Fishery Survey of India, Matsyafed, Kochi, Zoo and Museum), Aquaculture farms, Malampuzha Fish seed Farm, Shrimp hatchery, fish landing centres, marine aquarium, mangrove forests, ecological study of sandy, rocky, and muddy beaches that spreads over both east and west coasts, estuarine study.

Field study of birds : Study of birds in their natural habitat is encouraged . This always give the student the opportunity of watching the behavioural patterns, calls, nesting- roosting behaviours, and also give them an insight into take up the birding as a hobby. A ‘Bird walk’ was conducted at Peechi Wildlife sanctuary in connection with national birders day.

Bird walk programme



BSc students at Marine aquarium



PG students at Fish landing centre



PG students at Govt. shrimp hatchery



PG students at Mangrove forests



Disaster management support

Flood relief programme

Voluntary service at flood relief camp: Students visited the flood relief camps near the college or their own house premises and extended helping hands in the form of contributing necessary goods, cleaning activities and other required help. Seventeen I DC students, two II DC students, six III DC students and two PG students and 2 faculty members actively involved in the service.

Covid-19 programmes

Students of II year BSc Zoology (2018-2021 batch) prepared an awareness video regarding the mode of infection, life process and preventive methods of Covid-19 virus infection. It was distributed via whats app to different groups of students and parents

Nipah virus awareness programme

Two III DC students have taken class for members from neighbouring area about the mode of infection and preventive measures of Nipah virus in the context of fast spreading of this virus in Kozhikode region of Kerala.



Health Campaigns

Aids awareness programmes at Schools

4-12-2017 : In connection with World AIDS day, a team of one UG and PG students, Ms.Slipa Rajan, 4th sem B.Sc and Ms. Anjumol Joseph, 4 semester M.Sc presented a topic on 'AIDS and HIV' for high school students (121 students attended the class) at Holy Family H.S. School, Thrissur. They conducted an awareness programme and interacted with the students.

5-12-2017;In connection with World AIDS day, a team of one UG and PG students, Ms.Slipa Rajan, 4 semester B.Sc and Ms. Anjumol Joseph, 4 semester M.Sc presented a topic on 'AIDS and HIV' for high school students at Sacred Heart H.S School, Thrissur. They conducted an awareness programme and interacted with the students.



Act against drug abuse

Say 'No' to drugs, a street play was organised in connection with the Observance of world youth day-Anti-narcotic programme on 12-1-2018. A team of 14 final year UG students performed a street play in the municipal town hall, Thrissur

Raise wall against drugs, a street play was arranged in connection with the Observance of world youth day- under the title "Cognizance- Anti-narcotic programme" at Govt Hindi Training Institute, Ramavarmapuram, Thrissur, NS UP School, Cheroor on 18-1-2018. A team of 14 final year UG students performed a street play.

Student centric teaching methods

e- Study materials are prepared on regular basis by the faculty members and it is accessible through mail, LINWAYS, Google class room and MOODLE

Recorded audio and video lectures by the faculty are shared in G class room for the effective repeated learning process

Induction programme and entry level assessment was done for the newly admitted students (2020-2021, 2021-2022)

B.PARTICIPATIVE LEARNING

Student organised initiatives

All UG and PG students are members of the Department Association 'Vimala Zoological Society'. Various Student organised initiatives like observance of Teachers day, Gandhi jayanthi, Animal welfare day celebrations, preparation of videos in connection with the observance of days of national/international importance and uploaded in You tube, health and wellness related activities in connection with COVID-19 pandemic, Onam celebrations, Christmas celebration, Fresher's day, organise competitions - departmental, interdepartmental, intercollegiate level, Zoofest and Exhibitions, Food fest, flash mob, street play, college day programmes, social day programmes, green campus activities, mass cleaning drives etc

Webinars for interacting with faculty from foreign universities (Experts from Universities from United states)

3-03-2020: Students interacted with an eminent researcher and academician from the foreign university, Dr. Finosh Thankam, Professor, Western University of Health Sciences, US. He delivered a talk on “Career and research opportunities for Zoology students in India and Abroad. Ten I year PG, Eleven II year UG and nine I year UG students attended the webinar along with all faculty members

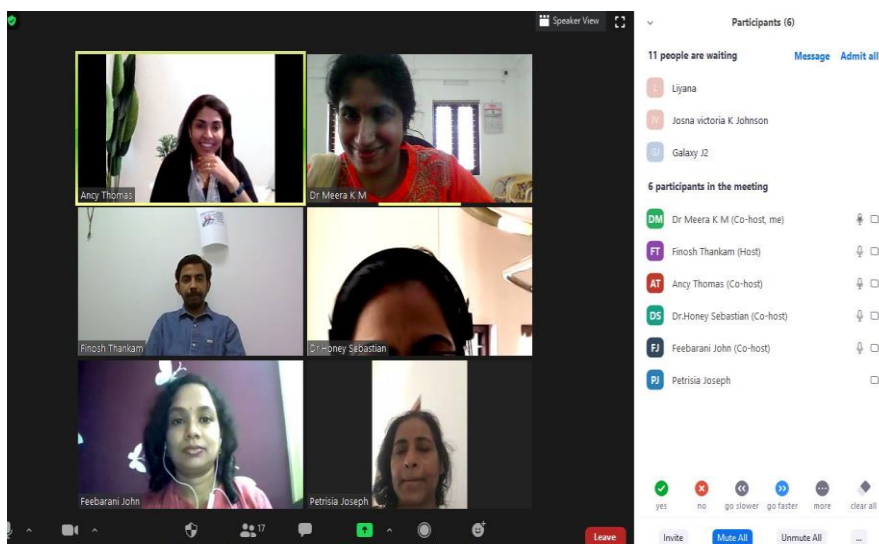


05-09-2020: students interacted with two expert researchers from the North western University, Chicago and Dept. of Translational Research, Western University of Health Sciences, Pomona, California, United States via an International webinar organised by the department on the topic ‘Co-Existence-international webinar on covid-19’

The topic of the meeting was CO-EXISTENCE based on the pandemic situation of COVID 19. A total of 119 registrations around India were obtained for the Webinar which include UG, PG students, Research Scholars and Faculties. 100 participants attended the session.

The first session was taken by Dr. Ancy Thomas, Post Doctoral fellow at Robert H. Lurie Comprehensive Cancer Centre, Northwestern University, Chicago. The topic discussed was ‘Learn And Adapt, Survive The Pandemic’.

Meet photo- Dr. Ancy Thomas is presenting the topic



The second session was taken by Dr. Finosh G Thankam, Assistant Professor, Tissue Engineering and Regenerative Medicine, Dept. of Translational Research, Western University of Health Sciences, Pomona, California, United States. The topic discussed was 'Fundamentals And Immunological Signalling In Covid-19 Comorbidity'.

Meet photo - Dr.Finosh Thankam is presenting the topic

Invited lectures are organized on regular basis.

Interface with illustrious alumnae- Alumnae lecture series '**Zooalumnar**' organised in order to motivate students to peruse their higher education in biological sciences. It was arranged during 2020-2021 and 2021-2022

23-09-2020: Motivational talk by Sherin Varghese, PG 2019 pass out student, for I semester PG students

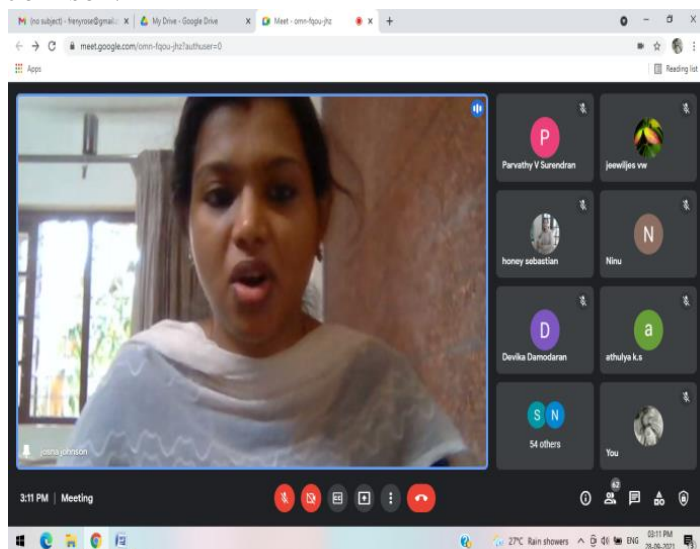
27-09-2020: 'Motivational talk on 'Prospects of academia' by UG 2013 pass out students, for all UG and PG students

Priyanka N.P, Ph.D Scholar, Sastra University, Thanjavoor, TN

Athulya Girish K. Ph.D Scholar, National Centre for Biological Sciences, Bangalore

28-09- 2021

An orientation and motivational talk was done by the Alumnae Mrs Josna Victoria K Johnson.



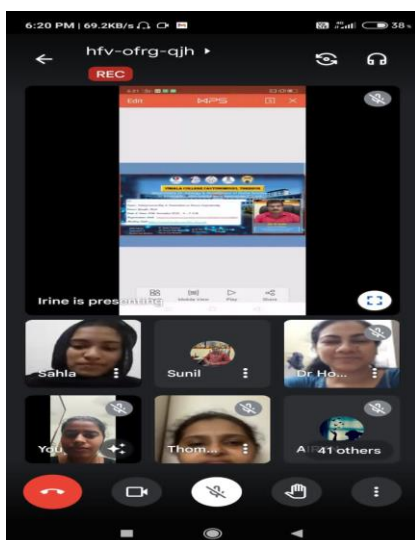
IIC activity: In 2021-2022, one department level and 3 inter departmental webinars were organised in association with IIC with the active involvement of students. The IIC student coordinators , Sahala Sakeer and Anaswara VA from II DC and Anjaly Rajendran, Anuja from III DC, coordinated the overall function.

1.30-8-2021: IPR webinar on the topic ' Intellectual property rights and IP management for start-up' in association with the Institutions innovation council and IPR cell of the college.

2. 10-11-2021:Dept of Zoology and Home Science organised a webinar on the topic 'Apiculture' with the aim to create awareness in Apiculture as a means of entrepreneurial opportunity and think critically to diversify for innovation, in association with Institution's Innovation Council, with the Collaboration from MHRD' Innovation cell, Govt. of India, Ministry of Education, Govt. of India

3.10-02-2022: Dept of Zoology and Physics organised a Workshop on Entrepreneurship skill, attitude and behaviour development in association with Institution's Innovation Council, with the Collaboration from MHRD' Innovation cell, Govt. of India, Ministry of Education, Govt. of India

4. 23-04-2022: Postgraduate Department of Zoology and Department of Political Science jointly organised a webinar on 'IPR' in association with IPR cell of the college and Institution's Innovation Council, with the Collaboration from MHRD' Innovation cell, Govt. of India, Ministry of Education, Govt. of India



Flipped class rooms – recorded video of lecture is uploaded in the Google class for benefitting students who have taken late admission

Group discussion – organized by some faculty members in the form of Discussions & Debates which provides a platform for the expression of their thoughts and ideas

Active participatory learning programme was conducted by some faculty members for the active involvement of students in learning process

Journal club discussion forum for PG students names '**Zootopia**' –organise discussions on articles published in the Zoology journals and also organise research paper presentation competitions for PG and research scholars during the year 2020-2021 and 2021-2022

Blended learning procedure- ICT oriented teaching methods are followed along with board teaching. Online mode of assessments includes test papers, quizzes, first internal examination, seminars and assignment

Tutorial system: Both UG and PG tutors have conducted tutorial programme.

PTA meetings: in order to build-up confidence in students to progress in academics, tutors interact with their parents on a regular basis

Student organized webinars – Student organised seminars were carried out by final year UG students from 2018 onwards on a regular basis. They got an opportunity to interact with eminent academicians from various fields of biological sciences. Student organised webinar was named as 'Synergy' and organised by final year UG and PG students during 2020-2021 and final year PG students in 2021-2022

The newsletter '**Zoowalleria**' was published by II year PG students from 2019 onwards Student **hand written magazine** is prepared by the II UG students every year and win prizes in the best hand written magazine competitions

Introduced the programme '**Zooera**' - a series for bio enthusiasts, with the aim of encouraging presentation on a topic of current Zoological importance by selected advanced learners from final year UG and PG batches

Zoofest/Exhibitions

Zoo fest 'Sramsana 2020' and a flash mob announcing the Zoofest was organised by the II year UG students on 22, 23 January 2020



Aqua show



Zoo fest 'Pygus 2k19' and flash mob announcing the zoo fest was organised by the II year UG students on 24, 25 January 2019



Teacher's day celebrations

Students organizing teachers day celebrations in the Zoology lab



Zoo related extension activities: Degree and PG students go to the Zoo and Museum, Thrissur, for performing **Street play/flash mob** proclaiming the importance of conserving the wildlife and environment in connection with the observance of National wildlife week, they act as zoo guides/volunteers to educate the Zoo visitors, organize quiz programmes at Zoo, maintenance of museum specimens in the Zoo, they prepare the eco biological aspects of the animals kept there and articles was prepared by all UG and PG students (2019-2020) which is edited by the faculty and published with ISBN number. (Zoo fable)

2016-2017: Final year BSc Zoology students organised a series of activities like theme song, skits and games for the Zoo visitors in connection with the observance of 'Wildlife week celebrations' at State Zoo and Museum, Thrissur- It is mainly meant to be an awareness week for the public regarding the nature and wild life and also to make them aware of the need to protect the same.

Skit presentation



Theme song



8-10-2017: Wild life week celebration- closing ceremony- students performed a street play for imparting awareness on the need of protecting wild life.



2-08-2019: Third semester M.Sc students played flash mob on the theme 'Life below water: for people and planet' in connection with Wildlife week celebrations at State Museum and Zoo, Thrissur.

Flash mob/street play at zoo



Butterfly garden



Start up- Maintenance of fish culture in the campus-‘Aquaphilia’ and aquarium fishes in the lab

Fish harvesting: Fishes attained marketable size in January 2019. Harvesting programme was inaugurated by the Principal, Dr.Sr.Beena Jose on 25.01.2019 and sale of the catch was done on the same day



Insect live culture and African snail culture in the lab

Objectives

Help students to give a firsthand experience with the live creatures that are used as a test organisms

PG Project works can design with the live culture from our laboratory

Students will get a training for maintain a live culture in laboratory condition and would be an added advantage for their future higher studies and carrier purposes as well

Students would be enthusiastic in collecting all possible information about the organisms they are maintaining. It eventually make them to connect with other similar organisms and the different research areas related with it.

Students will get a clear idea about different biological processes like the importance of space, feeding pattern and food quality, temperature, reproduction, and other requisites of life stages, value and complexity of each life forms.

Student projects-UG, PG

UG and PG student projects are undertaken every year in the diverse fields of biological sciences. Department maintains a strong academic linkages and collaboration with various research centres for carrying out student projects.

Local Biodiversity record-UG

As a part of the practical syllabus of first 4 semester of BSc Zoology programme, students have to prepare the report of biodiversity observed by them in their area or house premises. Teacher in charge, Dr Honey Sebastian discussed on the importance of local biodiversity and the need to conserve them. Careful observation is required for recording the eco-biological aspects of microscopic protists upto birds. After discussing with the students, it was decided to conduct local

biodiversity record of protists, reptiles and aves. The observation of protists was done during the 2nd semester by collecting freshwater samples from the college campus. Students placed a drop of water in a glass slide and observed under compound microscope and observed the various genera of protists in it. Teacher helped them to identify the organisms. Observation of birds and capturing their photos was given as an assignment topic in the 4th semester. All students have prepared report based on their birding experience and uploaded in linways along with the pictures of birds they have captured. Even though, they are in shortage of binoculars, the pictures taken by them using their mobile phone was good enough to identify some of the common birds. For the identification of some birds, expert opinion from an eminent birders, Mr Jose Kallookkaran and Mr Raphy Kallettumkara was taken. Teacher evaluated the reports and corrections in the identification of the birds was done. Department is having binoculars which is used by the teachers and students while observing birds within the campus and during visit to wildlife sanctuaries.

Similarly the observation of common reptiles in their house premises was done by the students and report was prepared. The eco biological aspects of various animals are prepared based on information given in the academic websites.

This unique method of learning adopted gave a special opportunity for the students to experience the life of animals in its natural habitat and its eco biological aspects. This will definitely help the students to develop a concern for the animals live in their surroundings and an awareness that to conserve the local biodiversity is the need of the hour. Apart from that, observing live animals that they learn in I to IV semesters of core courses gave them a real life experience.