



SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

12B status by UGC

Rajiv Gandhi Salai, Chennai 600119.



**Introducing a unique course for
Marine Biology enthusiasts**

B.Sc in Marine Biology

Course begins in July 2021

Register here

<https://forms.gle/zDywGtLxi8p9K2P29>



CENTRE FOR CLIMATE CHANGE STUDIES

www.sathyabama.ac.in

www.centreforclimatechangestudies.com

Course overview

This 3-year B.Sc Research degree course will provide range of marine science based modules across the multidisciplinary areas of physical, chemical, and biological oceanography allowing the students to develop a deep understanding of the marine living resources, associated ecosystems and their interactions. It is a rigorous field and laboratory-based course that engages students more directly in the discovery process, data analysis and interpretation.

Students will be exposed to practical aspects and encouraged to undertake extensive field based studies, participation in cruises, visiting different laboratories, participate in national and international research forums. 6th Semester will be reserved for major project so that students get a formal education towards solving core marine related ecological issues.

Thrust areas

Tropical Marine Biodiversity, Systematics – Invertebrates and Vertebrates, Plants, Algae, and Microbes, Marine Ecology and Evolutionary Biology, Intertidal, Subtidal and deep water ecosystems, Ecological Monitoring and Conservation (law and policy), Marine Pollution and Eco-toxicology, Marine Genomics and Bioinformatics, Marine Biotechnology, Marine Geological Processes, Biogeochemistry, Physical and Chemical Oceanography, Environmental Impact Assessment, Citizen Science, Sustainable Fisheries Management and coastal Aquaculture, Extremophiles, Research design and Biostatistics, Methods in Biology (instrumentation), Climate Change, Remote Sensing and Geographical Information System, Marine Disaster Management.



Allied subjects

CCCS have a mutual agreement with various departments and faculties of Sathyabama Institute of Science and Technology to provide the students with variety of allied subjects: Language (Tamil, English and French), Remote Sensing Technology, Research Methodology, Artificial Intelligence, Visual Communication, Skill based developmental Programs, Waste Management etc. Students are also encouraged to choose one allied subject per semester as a part of the curriculum.

Eligibility criteria

- ❑ Students must have passed the H.S.C (10+2) examination with a minimum of 60% marks or cumulative grade point average of 6/10. Mandatory subjects are Physics, Chemistry, Biology or/and Mathematics.
- ❑ More than basic qualification, students should be passionate towards nature, ocean and interested to take up Marine Biology Research as a career.
- ❑ Students should be ready to participate/assist the Scientists in the laboratory and field-based research.
- ❑ Students should be ready to participate in expeditions in research vessels
- ❑ Students should know swimming (desirable qualification).

Student assessments during the course

Students can expect session of 5 days a week, involving theory and practical. They will be required to undertake a minimum period of work experience (such as research intern, summer internships, online courses etc.) to enhance their research and employability skills and build their CV. Students will be assessed through various means including exams, scientific reports, essays, oral and poster presentations.

Technical Highlights

- The highlight of this course is the successful completion of **1 short-term and 1 long-term research** projects.
- Although, students will be guided and advised by an expert, a postgraduate researcher will take full responsibility for their work.
- Students will have ample opportunity to grow their scientific skills through participation in research vessel, and other field activities.



What students can expect

- ✓ Students can gain deep knowledge about marine life and receive first class University education
- ✓ They can interact with subject experts and will have the access to specialized equipment's and laboratories
- ✓ Students will have the opportunity to participate in the field trips, practical activities, research expeditions and underwater surveys while visiting Sathyabama Marine Research Station at Rameswaram to build their skills
- ✓ Students will learn research ethics, how to write, communicate and publish research articles in their field of interest

About the Centre for Climate Change Studies (CCCS)

CCCS is located in the International Research Centre, Sathyabama Institute of Science and Technology. The centre was established in the year 2011, with a primary mandate to investigate the impact of climate change on marine organisms from various ecosystems like Coral reefs, Seagrass meadows, Seaweeds, Intertidal zones and Mangrove ecosystems.



Sathyabama Marine Research Station (SMRS), Rameswaram

Sathyabama Marine Research Station was established in the year 2019 to encourage our researchers to do cutting-edge marine ecology and climate change research to sustainably use, manage and conserve the natural ecosystems for the benefit of the coastal communities of Gulf of Mannar and Palk Bay regions.



Facilities at the centre

Algal culture units, Marine aquaculture set up with 10,000 ltrs seawater storage capacity, Mesocosm facility for climate change experiments, Sampling tools for field studies (Quadrats, Niskin water sampler, Grab, plankton nets, etc), SCUBA diving equipment, underwater notebook, camera, Microscopes (compound, stereo zoom, fluorescence, AFM, FeSEM), PCR, Microbiology lab set up, RAMAN spectroscopy, UV-VIS spectrophotometer, PAM fluorometer, lux meter, sensors for DO, temperature, pH, TDS, Salinity, pH computers etc.

CCCS and SMRS social outreach

We are actively engaged in imparting skills through various lectures and hands-on-training sessions and promoting citizens to involve in coastal conservation

Contact us

Course Coordinators

Dr. S. Prakash

Dr. Amit Kumar

Centre for Climate Change Studies

Email: marbio.cccs@gmail.com

Phone: **9498380513/ 9094486533**

Program Coordinator

Dr. T. Sasipraba

Vice Chancellor

Sathyabama Institute of Science and Technology

The Sathyabama Institute of Science and Technology (SIST) launch two new initiatives, India

Centre for Climate Change Studies
Sathyabama Institute of Science and Technology

Marine Ecology Reseracher's Club

Citizen Marine Science Program

SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY
Centre for Climate Change Studies

"Intertidal Ecology and Climate Change (IECC 2020)"

First field course on

Date: 11 - 13th February 2020

Organized by
Centre for Climate Change Studies
Sathyabama Institute of Science and Technology
Rajiv Gandhi Satal, Chennai 600119.