

**M.Phil., Ph.D. &
Short Certificate Courses**



PROSPECTUS

Admissions 2024-25

**CENTRE OF EXCELLENCE IN
MARINE BIOLOGY
UNIVERSITY OF KARACHI**

VISION

To become globally recognized Centre of Excellence in the field of Marine Biology

MISSION

- *To establish M. Phil. / Ph. D. and other programmes in Marine Biology in accordance with the standards and requirements of the University of Karachi.*
- *To produce qualified manpower in the field of Marine Biology*

C.E.M.B OFFICIALS

Designation	Name	Telephone	Email
Chairman BOG / Vice-Chancellor	Prof. Dr. Khalid Mehmood Iraqi	99261336-7	vc@uok.edu.pk
Dean, Faculty of Science	Prof. Dr. Masarrat Jahan Yousuf	99261077	dfs@uok.edu.pk
In-Charge, CEMB	Dr. Noor Us Saher	99261551	director_cemb@uok.edu.pk

FACULTY MEMBERS

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ADMINISTRATIVE STAFF

S. No	Name	Designation	Email
1.	Mr. Muhammad Mabroor Khan	Administrative Officer	mabroork@hotmail.com
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INTRODUCTION

The Centre of Excellence in Marine Biology was established as Department of Marine Biology in 1969. In 1973, it was given the status of Institute of Marine Biology. Later on, in 1975 the Federal Government elevated its status as **Centre of Excellence in Marine Biology** under the Centre of Excellence Act of 1974. The Centre is financially supported by the Higher Education Commission. It is administered by a Board of Governors whose Chairman is the Vice-Chancellor of the University of Karachi. The Director is the executive and academic head of the Centre. The Advance Studies and Research Board (ASRB) and the Academic Council of the University of Karachi approve the academic programmes of the Centre.

Centre of Excellence in Marine Biology is the only institution in Pakistan, which offers degrees in Marine Biology at M.Phil. and Ph.D. level. The Centre has produced 125 M.Phils. and 72 Ph.Ds. so far. At present 40 students are enrolled in M.Phil. and 25 students are enrolled in Ph.D. programme. The Centre is staffed with highly qualified scientists who have experience of working in world renowned institutions of marine biology and fisheries. The academic staff consists of 9 Ph. Ds.

The Centre is housed in its own building at the Campus of the University of Karachi. The buildup area is 23,340 sq. ft. It has a fish aquarium annexed to it and a research library of Centre has good collection of 5210 books and 1670 research journals of which 400 are local journals and 1270 are foreign. The library has high speed internet facility and a wide range of online journals are available through HEC digital library. The Centre has a fish museum in which more than 500 specimens of local marine fishes and 200 specimens of marine invertebrates are housed. This museum is mainly used for teaching purposes. The Centre has a shore laboratory on Sandspit beach, about 35 Km away from the main campus. The laboratory is mainly used by researchers who visit sea-side for collection of marine animals.

CEMB undertakes research in the field of Marine Science including Biological, Environmental, Ecological, Biochemical, Chemical, Geological studies on marine life of coastal waters and Northern Arabian Sea.

M. Phil. Degree programme in Marine Biology

The rules & regulations for M. Phil. degree programme are laid out in accordance to the rules prescribed by the University of Karachi as per HEC requirements. CEMB reserves the right to change / amend any rule as and when required through Academic Committee under proper approval of competent authorities.

MASTER OF PHILOSOPHY (M. Phil.)

1. NAME OF DEGREE

The degree awarded shall be named as **M. Phil. in Marine Biology**.

2. NATURE OF DEGREE

- (a) The degree shall be a research degree with course work and thesis as part of requirement.
- (b) The M. Phil. Program shall be minimum of two year duration. In first year (two semesters) course load of 30 credit hours (theory & practical) are required to be completed by each candidate. The second year of M. Phil. Program shall be devoted to research work. Qualified candidate shall write a proposal of thesis research for consideration by the Advanced Studies & Research Board (ASRB), University of Karachi; under supervision of an eligible faculty member. Thesis is to be submitted not later than five years.
- (c) The thesis shall be a piece of work embodying either a discovery of new facts or a fresh interception of facts or theories, in either case the work should show the candidate's capacity for critical examination and judgment.

3. ELIGIBILITY FOR ADMISSION

The admission shall be open to candidates having sixteen years degree (M. Sc. / BS or equivalent) with at least a second division. The preference will be

given to those having Marine Biology or allied subjects such as Zoology, Botany, Chemistry, Biochemistry, Microbiology, Marine Science, Genetics, Geology and Physiology provided that they have background in biological sciences atleast upto BS degree level.

4. ADMISSION PROCESS

- a. The candidate is required to clear CEMB Entry Test & interview.
- b. Entry test shall comprise of MCQs in basic science subjects, general knowledge and English. The qualifying marks shall be 50%.
- c. The successful candidates shall be provisionally admitted on the basis of merit / availability of seats. The admission cases will be submitted to ASRB, University of Karachi for consideration.
- d. No student of M. Phil. Courses shall undertake any employment during the period of his/her work.
- e. No student shall, without the permission of the Director, join any other course(s) of studies or appear at any other examination conducted by any University or public body.
- f. All admitted candidates shall execute an undertaking as per Karachi University rule and a declaration on stamp paper of appropriate value. (Declaration format may be obtained from Director's Office)

5. COURSE WORK

- a. All selected candidate will be required to complete 10 courses of 30 credit hours in two semesters.
- b. In each semester, there will be 5 courses of 3 credit hours each.
- c. In first semester 5 compulsory courses will be offered.
- d. In second semester optional courses will be offered and the candidates can opt for 5 courses of their interest.
- e. The candidate has to pass the course work with CGPA 3.0 or above for being able to continue research in the second year. In case the candidate fails to get the required CGPA, he/she will be allowed to improve the grade. Only one chance for improvement will be given.
- f. At least 75% attendance in each course is compulsory. Candidate with 60% or more attendance shall have to pay a fine for being eligible to appear in exams as per rule.
- g. In case the candidate passes all subjects but fails to get required CGPA 3.0, a **PGD in Marine Biology** will be given.

6. AWARD OF FELLOWSHIP

- a. Fellowship shall be awarded on purely merit basis depending on the availability of funds.
- b. Candidate securing less than 60% marks in not more than two courses or failing in one course will not be entitled to Fellowship / Stipend unless the percentage is improved. Candidates repeating the same performance in the second semester will not be entitled to stipend. They may however, be allowed to join one year research programme provided the aggregate percentage is atleast 60% (3.0 CGPA) and the research supervisor finds him/her suitable for research within a probationary period not exceeding three months.
- c. On completion of first & second semester and after the approval of synopsis by the ASRB, the candidates will be awarded Junior Research Fellowship @ Rs. 8,000/- per month for a period of One Year extendable to Second Year.
- d. All recipients of the fellowship shall in addition, also execute an agreement for undertaking fellowship, a guarantee (as part of the undertaking) and a certificate of the financial soundness of the guarantor on non-judicial stamp paper.

7. CONFIRMATION OF ADMISSION

Successful candidates with CGPA 3.0 or higher shall apply through proper channel for confirmation of admission and approval of research proposal. The candidate will submit a research proposal / synopsis along with research topic, bibliography, name of research supervisor and copy of the marks certificate issued by the Semester Examination Section, University of Karachi & other relevant documents. Candidate shall carry out research as per approved proposal / synopsis.

8. DURATION OF STUDY

The duration of M. Phil. is minimum 2 years and maximum 5 years from the date of provisional admission.

9. EVALUATION & AWARD OF M. PHIL. DEGREE

The thesis will be evaluated by two experts and the supervisor. The viva-voce examination will be conducted after receipt of positive reports from the experts and approved by the ASRB, University of Karachi. On successful

defense of the thesis, **M. Phil. Degree in Marine Biology** will be awarded by the University of Karachi.

Ph. D. Degree programme in Marine Biology

DOCTOR OF PHILOSOPHY (Ph. D.)

1. NAME OF DEGREE

The degree awarded shall be named as **Ph. D. in Marine Biology**.

2. ELIGIBILITY FOR ADMISSION

- a. The admission shall be open to candidates possessing M. S. / M. Phil. degree in Marine Biology with Course Work.
- b. No entrance test is required for candidates with M. S. / M. Phil. degree in Marine Biology with course work. Candidates with M. S. / M. Phil. degree without course work shall have to appear for entrance test.
- c. A letter of leave for three years from the employer, if the candidate is in service or a certificate of non-employment stating that during research no employment shall be undertaken, executed on a stamp paper worth Rs. 100/- (attested by Notary Public/ Oath Commissioner).
- d. Teachers and employees of organization where research work is conducted are exempted from leave. However, a NOC from the employer and a certificate stating that employment is relevant to his/her research from the Chairperson/Director of the concerned Department/ Institute/ Center will be required and should submit within three months after the date of provisional admission.

3. INTERVIEWS

Interviews of successful candidates will be held at the office of Director, Centre of Excellence in Marine Biology by the Admission Committee. Final credential of the candidate e.g., no. of attempts in each profession, any gold medals or distinctions, Diploma or minor qualification in relevant field work / research experience in a recognized institution. Number of research articles published in a National or International Journal will be assessed. Professional attitude of the candidates will also be assessed.

4. CONFIRMATION OF ADMISSION

Successful candidates shall apply through proper channel for confirmation of admission and approval of research proposal. The candidate will submit a research proposal / synopsis along with research topic, bibliography, name of research supervisor and copy of the relevant documents. Candidate shall carry out research as per approved proposal / synopsis.

5. AWARD OF FELLOWSHIP

- a. Fellowship shall be awarded on purely merit, subject to the availability of funds and provided that candidate is not receiving salary from any other sources / organizations (Public or Private Sector), after the confirmation of admission and approval of research topic by the ASRV, University of Karachi.
- b. Eligible candidates after approval of synopsis shall be awarded a Fellowship @ Rs. 10,000/- per month for two years as per rule.
- c. All recipients of the fellowship shall in addition, also execute an agreement for undertaking fellowship, a guarantee (as part of the undertaking) and a certificate of the financial soundness of the guarantor on non-judicial stamp paper.

6. DURATION OF STUDY

The duration of Ph.D. is minimum of three (03) and maximum of eight (08) years from the date of provisional admission. No further extension will be given. Moreover minimum duration for Ph.D. thesis submission is three (3) years from the date of synopsis approval.

7. EVALUATION & AWARD OF PH. D. DEGREE

- a. The candidate has to publish at least one research paper in “W” category journal (HEC Journal Recognition System) during course of study.
- b. The candidate also has to carry out seminars (MB-801, MB-802, MB-803 & MB-804) as a part of PhD course work.
- c. The thesis will be evaluated by two foreign experts and the research supervisor. The viva-voce examination will be conducted after receipt of positive reports from the examiners and approved by the ASRB, University of Karachi. On successful defense of the thesis, a **Ph. D. degree in Marine Biology** shall be awarded by the University of Karachi.

CERTIFICATE COURSES

The Centre is going to conduct different certificate courses of eight weeks duration (*classes will be held on Friday & Saturday : 02 hours duration per class*) in the following field to strengthen manpower in the field of Marine Biology :

1. Biological Laboratory Tolls & Techniques
2. Fisheries Statistics Tools
3. Sea Food Quality & Packaging
4. Aquaculture Techniques
5. Aqua Feed Technology
6. Marine Environmental Assessment
7. Scientific Diving
8. Scientific Writing
9. Introduction to Shore Field Ecology

RESEARCH FACILITIES:

There are ten scientific laboratories well-equipped for marine scientific research, a teaching laboratory, a lecture room with audio-visual facility, a library with good collection of recent books on marine biology, a fish museum and aquaculture laboratory.

CARRER OPPORTUNITIES:

After completing M. Phil. or Ph.D. in Marine Biology, the candidate would be able to take job in: Research Organization such as, National Institute of Oceanography, Marine Fisheries Department of Sindh & Balochistan, Environmental Protection Agencies, PCSIR, Foreign countries where biodiversity, aquaculture and other industries related to marine resources are highly developed. Teaching at College, Institutional and University level etc.

FEE STRUCTURE – 2024

S. No.	For M. Phil. Students	Fees
1.	Processing / Test Fee	5000
2.	Admission Fee	22000
3.	Semester Fee (per six months)	38500
4.	Departmental Charges (per semester)	7500
5.	Thesis Evaluation / Viva Examination Fee	50000

S. No.	For Ph. D. Students	Fees
1.	Processing / Test Fee	5000
2.	Admission Fee	22000
3.	Semester Fee (per six months)	44000
4.	Departmental Charges (per semester)	11000
5.	Thesis Evaluation / Viva Examination Fee	85000

S. No.	For Certificate Courses	Fees
1.	Certificate Course Fee	6000

Note: In case of admission in more than one short certificate course, Discount of Rs. 1000/- will be granted.

Note: All the fee mentioned above shall be deposit in Centre’s Account except Thesis Evaluation/Viva Examination Fee which will be deposit in University of Karachi after all codal formalities.