KERALA UNIVERSITY OF FISHERIES AND OCEAN STUDIES (KUFOS)



Post Graduate and Ph.D Programmes PROSPECTUS 2019-20

Panangad, Kochi 682506 www.kufos.ac.in Published by Kerala University of Fisheries and Ocean Studies *Panangad P.O., Kochi Kerala, India Pin 682 506*

E-mail: utypanangad@kufos.ac.in

Website: www.kufos.ac.in

Contact us:

Academic Section	0484-2701085
Office of the Dean, Faculty of Fisheries	0484-2700273
General Administration	0484-2700598/ 964
Finance Officer	0484-2701095
Department of Fish Processing Technology	0484-2700274
Department of Aquaculture	0484-2700596
Office of the Registrar	0484-2703782
Fax No- Office of the Vice Chancellor	91484-2700337
Fax No- Office of the Registrar	91484-2703782
Fax No- Office of the Finance Officer	91484-2701095
Fax No- Academic Section	91484-2701085





TABLE OF CONTENTS

S.NO	PARTICULARS	PAGE NO
1	IMPORTANT DATES TO REMEMBER	4
2	INTRODUCTION	5
3	OFFICERS OF THE UNIVERSITY	6
4	COURSES OFFERED	8
5	GENERAL RULES	10
6	RESERVATION OF SEATS	10
7	SPECIAL PRIVILAGE	12
8	PENALTY FOR FALSE INFORMATION:	12
9	CHANGE OF DISCIPLINE	13
10	MARKS DISTRIBUTION	13
11	HOW TO APPLY	13
12	APPLICATION FEE	14
13	ENCLOSURES	15
14	REJECTION OF APPLICATION AND DISQUALIFICATION OF CANDIDATES	15
15	ENTRANCE TEST AND INTERVIEW	15
16	ANNOUNCEMENT OF RESULTS	16
17	ADMISSION	16
18	FEES	17
19	EXEMPTION FROM PAYMENT OF FEES	17
20	SCHOLARSHIPS AND FELLOWSHIPS	18
21	INSURANCE SCHEME	18
22	NOTE	19
23	WARNING	19
24	FACILITIES AVAILABLE	19
25	JOB OPPORTUNITIES AND PLACEMENT CELL	24
26	APPROVED RESEARCH CENTERS	24
27	INSTITUTIONS WITH WHOM M₀U EXECUTED	25
28	INTERNATIONAL UNIVERSITIES AND RESEARCH INSTITUTES ASSOCIATED	25
29	CENTRE OFEXCELLENCES	25
30	MASSIVE OPEN ONLINE COURSES (MOOC)	26
31	STUDENT CHAPTERS OF SCHOOL OF MANAGEMENTAND ENTREPRENEURSHIP	26
32	ANNEXURE I COURSE DETAILS- MFSc PROGRAMMES	27
33	ANNEXURE I COURSE DETAILS M Sc PROGRAMMES	28
34	ANNEXURE I COURSE DETAILS MBA PROGRAMMES	45
35	ANNEXURE I COURSE DETAILS M. Tech PROGRAMMES	51
36	ANNEXURE I COURSE DETAILS LLM PROGRAMMES	55
37	ANNEXURE I COURSE DETAILS PG DIPLOMA PROGRAMMES	57
38	ANNEXURE I COURSE DETAILS Ph.D PROGRAMMES	61
39	ANNEXURE I COURSE DETAILS POST DOCTORAL FELLOWSHIPS	63
40	ANNEXURE I COURSE DETAILS DEGREE PROGRAMMES	65
41	ANNEXURE I COURSE DETAILS CERTIFICATE COURSES	68
42	ANNEXURE II FEES STRUCTURE	71
43	ANNEXURE III RESERVATION OF SEATS-COMMUNITY RESERVATION	83
44	OUR CONTACT ADDRESS	84



IMPORTANT DATES TO REMEMBER

S.NO	Event	Da	te	
	For Indian students			
		Post graduate programmes	Ph.D programmes	
1.	Date of notification	28 February 2019	28 February 2019	
2.	Last date of online application	1 April 2019	1 April 2019	
3.	Last date of submission of hard copy of application	8 April 2019	8 April 2019	
4.	Date of entrance test	18 May 2019	16 August 2019	
5.	Date of GD and interview for MBA	20 -23 May 2019		
6.	Declaration of the result	27 May 2019	28 August 2019	
7.	Date of admission for PG programme / Interview and admission for Ph.D/PDF programme	06 - 07 June 2019	05 -06 September 2019	
	For International stud	lents		
1. 2. 3	Date of notification Last date of application Date of admission	28 February 2019 27 May 2019 10 June 2019	28 February 201902 September 201907 September 2019	



INTRODUCTION

The Kerala University of Fisheries and Ocean Studies (KUFOS) established in 2010 by an Act of Kerala Legislative Assembly with the main objective of imparting education in different branches of Fisheries and Ocean Science. The University offers Under-Graduate (UG), Post-Graduate (PG), Diploma and Ph.D programmes. Admission to the Bachelor of Fisheries Science and B.Tech in Food Technology is done by the Commissioner for Entrance Examinations (CEE), Kerala State through Kerala Engineering, Architecture and Medical courses (KEAM) entrance examination. Admission to Post-graduate programme and Ph.D programmes are through a Common Admission Test (CAT) conducted by the University. Procedure for Students admitted through ICAR quota are given separately. Foreign students/Person of Indian Origin have separate admission procedure as mentioned in the *Brochure for International Students*. The courses are offered in the University under the following faculty and schools.

- i. Faculty of Fisheries
- ii. School of Management and Entrepreneurship
- iii. School of Ocean Science and Technology
- iv. School of Fishery Environment
- v. School of Ocean Engineering and Underwater Technology



DFFICERS OF THE UNIVERSITY

Chancellor

Shri. Justice (Retd.) P. Sathasivam

The Hon'ble Governor of Kerala Rajbhavan Kerala, Thiruvananthapuram 0471-2721700,

Fax: 0471 -2720266

Pro Chancellor

Smt. J. Mercykutty Amma.

Hon'ble Minister for Fisheries, Harbour Engineering and Cashew Industries, Govt. of Kerala

0471-2333526, 0471-2327495, Fax: 0471-2323144

Vice Chancellor

Prof.(Dr.) A. Ramachandran

0484-2703781(Direct) 0484-2356133 Res), Fax:0484-2700337 vc@kufos.ac.in

Registrar and RTI Appellate Authority

Dr. V.M. Victor George

0484-2703782 Fax: 0484-2703782

registrar@kufos.ac.in victorgeorge@hotmail.com

Finance Officer

Sri. Joby George P.

0484 - 2701095, 9847137480

Fax: 0484 2701095

fo@kufos.ac.in joby.georgep@yahoo.co.in

Dean Fisheries & Director, School of Management and Entrepreneurship **Prof (Dr.) M.S. Raju,**

0484 2700273 msraju01@yahoo.com Dean, Faculty of Fisheries **Dr. M.R. Bhoopendranath**

9447665875 boopendranath@gmail.com Dean, Faculty of Ocean Science and Technology and Professor of Eminence **Dr. K. Gopakumar**

9447415415 kgopa@yahoo.com



Director, School of Ocean Engineering and underwater Technology

Prof. (Dr.) Suriyakala, C.D.

8281326577 : drcdsk@yahoo.in

Dean Faculty of Ocean Engineering **Prof.** (**Dr.**) **K.** Vasudevan

09447357328 : vasudevan@cusat.ac.in

Dean Faculty of Climate Variability and Aquatic Ecosystem

Dr. K.V. Thomas

9400333128 : thomas.cess@gmail.com

Director of Research **Dr.Sankar, TV**

9446467185 : tvsankar.cift@gmail.com

Director, School of Fishery Environment and Controller of Examinations

Prof. (Dr.) Subhash Chandran K.P.

9447603747 : cekufos@kufos.ac.in

Director of Planning and Development **Dr. Susamma, A.P**

9495936092 : susamma@kufos.ac.in

University Engineer **Sri. Jayakrishnan**

9447871266

Head, Dept of Aquatic Animal Health Management and Member, KUFOS PG &PhD Admission Core Committee

Prof. (Dr.) Devika Pillai

9446111033 : devikamanoj.pillai@gmail.com

Head, Dept of Aquatic Environment Management, NSS, Programme Coordinator and Member KUFOS PG

& PhD Admission Core Committee

Dr. K Ranjeet

9744171986 : ranjeet.kufos@gmail.com

Dean, Faculty of Management, Humanities and Social Sciences

Prof.(Dr.) Harikumar S.

94465788289

Director, School of Ocean Science and Technology

Prof.(Dr.) S. Suresh Kumar

9447508065 : suresh.kufos@gmail.com

Director of Extension

Dr. Daisy C. Kappen

9446353013 : daisyckappen@yahoo.in

Director, Public Relation and Publications Shri. Raju E Raphael

9400325349 : dprp@kufos.ac.in

Head Dept. of Fisheries Resource Management, Head, Dept. of Fish Processing Technology, Associate Patron and Advisor to the Students Union and Member KUFOS PG &PhD Admission Core Committee

Dr. M K Sajeevan

9969651349 : sajeevanfsi@gmail.com



COURSES OFFERED

The details of PG / Diploma and Ph.D programmes to be offered during the year 2019-20 (Detailed information on Annexure I)

1. MFSc

- a) M.F.Sc. Aquaculture
- b) M.F.Sc. Aquatic Animal Health Management
- c) M.F.Sc. Aquatic Environment Management
- d) M.F.Sc. Fish Nutrition and Feed Technology
- e) M.F.Sc. Fish Processing Technology
- f) M.F.Sc. Fisheries Engineering and Technology
- g) M.F.Sc. Fisheries Resource Management

2. MSc

- a) M.Sc. Biotechnology
- b) M.Sc. Climate Science
- c) M.Sc. Disaster Management
- d) M.Sc. Earth Sciences
- e) M.Sc. Environmental Sciences
- f) M.Sc. Food Science and Technology
- g) M.Sc. Marine Biology
- h) M.Sc. Marine Chemistry
- i) M.Sc. Marine Microbiology
- j) M.Sc. Physical Oceanography
- k) M.Sc. Remote Sensing and GIS
- 1) M.Sc. Statistics

3. MBA

- a) MBA dual specialisation (Finance/ Marketing/ Human Resource Management/Rural Management/Fisheries Business Management)
- b) MBA Energy Management



4. M.Tech.

- a) M.Tech. Integrated Coastal Zone Management
- b) M.Tech. Ocean and Coastal Safety Engineering
- c) M.Tech. Coastal and Harbour Engineering

5. LLM

a) LLM (Maritime Law)

6. DIPLOMA

- a) PG Diploma in Aquarium Science and Technology
- b) PG Diploma in Industrial Aquaculture
- c) Diploma in Brackishwater and Marine Aquaculture

7. Ph.D. PROGRAMMES

Doctoral degree programmes leading to Ph.D. are being offered by the five Faculties. The Faculties are

- a) Faculty of Fisheries
- b) Faculty of Ocean Science and Technology
- c) Faculty of Ocean Engineering
- d) Faculty of Climate Variability and Aquatic Ecosystem
- e) Faculty of Management, Humanities and Social Sciences

8. POST DOCTRORAL FELLOWSHIP (PDF) PROGRAMMES

Offered by the five faculties. The faculties are

- a) Faculty of Fisheries
- b) Faculty of Ocean Science and Technology
- c) Faculty of Ocean Engineering
- d) Faculty of Climate Variability and Aquatic Ecosystem
- e) Faculty of Management, Humanities and Social Sciences

9. Degree Programmes (Admitted through NEET/KEAM)

- a) Bachelor of Fisheries Science (BFSc.)
- b) B.Tech. (Food Technology)

10. Certificate Programme

- a) Certificate course on Computer Aided Designing and Drafting (CADD)
- b) Certification Programme on Entrepreneurship Development



GENERAL RULES

I. RESERVATION OF SEATS:

- A) The reservation norms prescribed by the Government of Kerala will be applicable for admission to all courses. List of communities to be considered under the SC/ST category will be as per the list approved by the Govt. of Kerala. Percentages of reservation for eligible communities are furnished in Annexure III. For admission, SC/ST candidates will be given a relaxation of 5% marks in qualifying examination.
- B) Sports Quota: Reservation under Sports Quota is available for the following programmes:

One seat in each of the P.G. programmes where the sanctioned intake is 30 or more. The candidate applying for sports quota should forward a copy of the confirmation page of on-line registration along with attested photocopies of sports merit certificates (highest achievements in each event) to the Secretary, Kerala Sports Council, Thiruvananthapuram - 695001. The Sports Council will allot marks to the candidates according to their proficiency in sports. The maximum mark for proficiency is 500.

The minimum achievement required for consideration: Representing the Educational District / Sports School / Sports Hostels in the Kerala State Schools Championship and winning third place. The Sports Council shall forward the list along with the copy of the confirmation page of the students applied to KUFOS. The marks awarded to the candidates for proficiency in sports by the Kerala Sports Council will be added to the marks obtained by the respective candidates in the concerned Common Admission Test (provided





they are ranked in the Common Admission Test). In the case of Management Programmes C-MAT (AICTE)/K-MAT/ CAT (IIM) Kerala score will be added to the marks awarded by the Kerala Sports Council.

The merit list for each course would be prepared on the basis of inter-se merit of the candidate computed as above. At the time of preparation of the rank list under sports quota, if there is any tie in the total marks, it will be resolved by the same principle of resolution of tie for the preparation of CAT Rank list. The seats under sports quota will be filled up according to the rank from inter-se Merit List prepared for Sports. The sports quota rank list will not be considered for filling up other categories of seats such as general merit. Candidates who claim reservation under Sports Quota should produce, at the time of counseling, a certificate of eligibility for selection under this quota issued by the Kerala Sports Council, as per the guidelines published by them. The achievements in two financial years (1st April to 31st March) previous to the year of selection shall alone be considered. However, in the case of competitions which are not organized annually the immediately previous competitions shall be deemed as held in the previous two financial years for the purpose of this selection.

- C) Children of Ex-Servicemen (ESM): One seat is reserved under this category for children of Ex-servicemen in one PG programme other than M.F.Sc, M.Tech. Every year the ESM seat is rotated among the courses in the alphabetical order. Based on the rotation of seat, during 2019-20 academic year one supernumerary seat under ESM shall be provided to MSc Climate Science.
- D) Lakshadweep Quota (LQ): From 2018-19 onwards one supernumerary seat for two PG courses offered by KUFOS has been set aside for students hailing from Lakshadweep. The students should register with the Lakshadweep Administration and only those students recommended by the Lakshadweep Authority shall be entitled for the seats. Following the current rotation pattern, one seat each in MFSc Aquatic Environment Management and MSc Disaster Management has been reserved for LQ students during 2019-20.
- D) Physically Challenged (PHC): Certificate from the District Medical Board as stipulated under relevant rules of Government of Kerala in the matter to be produced in original. The certificate produced should be either in Malayalam or in English and should specify the percentage of disability and should have been issued not earlier than 12 months prior to the date of counseling / GD / interview / admission whichever is earlier. The percentage of disability shall not be an index for gaining eligibility / admission. Admission shall be based on merit of the candidates. If necessary, a medical board constituted by the University will examine individual cases prior to admission. The decision of the board will be final. 5% of seats of MSc courses are reserved for the physically challenged candidates with at least 40% disability. The seats allotted to physically challenged candidates are supernumerary in nature.



|| SPECIAL PRIVILAGE

A) Children of fishermen, Kashmiri migrants, foreign nationals, and sponsored candidates by Govt. Departments will be admitted to Post Graduate courses on supernumerary basis, if they fulfill required qualifications prescribed for the admission for the course.

Two seats in each Post graduate programmes will be filled on supernumerary basis from Foreign/Person of Indian Origin (PIO)/Overseas Indian Citizen (OIC) and NRI candidates. Foreign/NRI students need not appear for the Common Admission Test of KUFOS. The marks secured in the qualifying examinations or equivalent examination will be the criteria for admission for these candidates. Foreign students availing fellowship will be given priority for admission subject to the rules and regulations issued by the University/ Govt. of India from time to time. Priority will be given to the foreign students and in the absence of these candidates such seats will be awarded to eligible NRI candidates.

For children of fishermen 20% of the total seats in each course are reserved as supernumerary seats.

One seat in each course is reserved as supernumerary seat for Kashmiri Migrants. Kashmiri Migrants shall have to give proof of his being a Kashmiri Migrant or a ward of Kashmiri Migrant along with the Application Form. The condition of domicile requirement for Kashmiri Migrants is waived off.

B) Non-Resident Indians (NRI): Eligibility and Certificates to be produced:

Any Indian / Person of Indian Origin (PIO) / Overseas Citizen of India (OCI) can apply for NRI seats if he is otherwise eligible.

Sponsorship Certificates / Relationship Certificates are not required for applying under Non-resident Indians (NRI) quota.

Only those candidates who choose the option "NRI" under the head "Special Reservations" while applying on-line and remits the additional fee of Rs.5000/- over and above the normal fee of Rs.1000/- (Rs.500/- in the case of SC/ST Candidates) shall only be considered against NRI seats.

Person of Indian Origin and Overseas Citizen of India applying for NRI seats should produce PIO/OCI cards issued by the Government of India at the time of Admission and/or Counseling and/or Interview and/or Group Discussion.

III. PENALTY FOR FALSE INFORMATION:

Any candidate who is found to have willfully or otherwise given any particulars which are false or has suppressed material information or does not satisfy the requisite qualification for admission shall be disqualified. They shall not be



Post Graduate and Ph.D Programmes

allowed to continue on the rolls of the University, if it is detected at any stage of his/her studentship in the University. In case the candidate has already passed out of the University, then the degree awarded by the University will be withdrawn.

IV. CHANGE OF DISCIPLINE:

Requests for change of discipline will not be considered after the 15th working day from the date of commencement of the PG programme. The re-allotment of discipline will not be given to candidates who have been admitted for the PG programme and subsequently applied for the extension of joining time/temporary discontinuance.

Candidates will be considered for admission only if they qualify the entrance examination.

V. MARKS DISTRIBUTION:

A maximum of 5 marks will be given for merit in sports and games and the distribution will be as follows:

- a) Representing the Nation 5% marks
- b) Representing the State 3 % marks
- c) Representing the University 1% mark
- d) N.C.C. certificate holders-as per Govt. norms

VI. HOW TO APPLY

From academic year 2019-20 onward, the university has initiated an online application system for its Post Graduate, Diploma and Ph.D. programmes. Students are directed to visit the KUFOS website www.kufos.ac.in and follow the online application instructions provided. Candidates can register their name in the website, log in, submit application form online, make payment of fees, check status of application, download hall ticket for the entrance examination and check the status of their admission from the online application portal. Candidates can submit online application through the online application portal following guidelines mentioned therein. The candidate should take a print out of the application and send the same along with proof of remittance of prescribed fee and copies of relevant certificates to The Registrar, Kerala University of Fisheries and Ocean Studies, Panangad P.O., Kochi 682 506 on or before the last date of application.



Foreign/Person of Indian Origin (PIO)/Overseas Indian Citizen (OIC) and NRI candidates can also apply through the online mode. Foreign/NRI students need not write the common Admission Test of KUFOS.

From academic year 2019-20, the University has made available the facility of 'Pre-Admission Online Registration' to the aspiring students. Applicants seeking admission to the courses offered by the University who register through this portal shall be given timely updates on the issue of notification, status of their application form; intimation on the date of examination, declaration of results, etc.

VII. APPLICATION FEE:

General category: **Rs. 1000/-**(Rupees One thousand only) for one to five programmes.

Scheduled Caste/Scheduled Tribe (native of Kerala only): Rs.500/-(Rupees five hundred only) for one to five programmes

Only those candidates who choose the option "NRI" under the head "Special Reservations" while applying on-line/offline has to remits the additional fee of Rs.5000/- over and above the normal fee of Rs.1000/- (Rs.500/- in the case of SC/ST Candidates).

For admission to any academic programme offered by the University, students who are studying in the final semester/ year of the qualifying examination can also apply. However their admission will be provisional pending fulfillment of eligibility.

Students can apply for five programmes at a time. If they wish to apply for more than five programmes they have to remit additional application fee as shown in the Table

Number of programmes to be applied	Application fee in Rs		
	General	SC/ST	
1-5	1000	500	
6-10	2000	1000	
11-15	3000	1500	

The application fee should be paid online through **SBI Collect**, the instructions for which are available in the KUFOS website. No other mode of payment will be accepted.



The last date for online application is **1 April 2019** and last date for submission of hardcopy of application with enclosure is **8 April 2019**.

Application fee once remitted will not be refunded under any circumstances.

VIII. ENCLOSURES:

Each application for admission shall be accompanied with the self attested copies of the following:

- a) Community Certificate obtained from a Revenue Officer not below the rank of VillageOfficer in the case of SC/ST candidates.
- b) For other eligible communities, non creamy layer certificate issued by competent authority.
- c) No Objection Certificate and experience certificate obtained from the controlling officer concerned in the case of in-service candidates.
- d) Certificates of age, qualifications, mark list of qualifying examination, experience, sports activities and N.C.C.
- e) Nativity certificate in the case of candidates from outside Kerala.
- f) Certificate in support of any other reservation claimed as specified in the application to prove their claims.

IX. REJECTION OF APPLICATION AND DISQUALIFICATION OF CANDIDATES:

Applications received late or defective or incomplete in any manner or which do not contain any of the enclosures specified above are liable to be summarily rejected.

Applicants who attempt to canvas or influence the members of the Selection Committee directly or otherwise will be disqualified.

X. ENTRANCE TESTAND INTERVIEW:

Venue of the test: Kerala University of Fisheries and Ocean Studies, Panangad, Kochi, Kerala

Date of entrance test for Post Graduate Programme - 18.05.2019

Date of entrance test for Ph.D Programm - 16.08.2019



Candidates need to download hall ticket for the entrance examination and check the status of their admission from the online application portal. Candidates will be required to attend the entrance test at their own expense. Candidates coming 15 minutes after the commencement of the entrance test will not be permitted to write the test.

In the case of MBA programmes there will be a group discussion and interview at Kerala University of Fisheries and Ocean Studies, Panangad, Kochi, Kerala on 20th – 23rd May 2019.

Ph.D candidates, who qualify in the entrance test need to submit consent of the guide in the prescribed format along with the synopsis of the research work at the time of the Interview scheduled at Kerala University of Fisheries and Ocean Studies, Panangad, Kochi, Kerala during 5-6th September 2019.

XI. ANNOUNCEMENT OF RESULTS:

The list of candidates selected for admission based on Entrance Test/Interview/Group Discussion, will be published at the University head quarters, Panangad and through the KUFOS website www.kufos.ac.in on 27th May, 2019 for the Post Graduate programme and 28th August 2019 for Ph.D. programmes.

XII. ADMISSION:

Candidates selected will be admitted to the course, provided they pay the prescribed fees of the first semester in full on the due date prescribed by the University.

In the case of those candidates selected for admission who have not paid the fees in time and not joined the course on the date fixed, their claims for admission will be cancelled without notice and the seat thus becoming vacant will be filled up with next eligible candidates, if any, from the rank/wait list.

Candidates in Government service/University service are expected to make their own arrangements to get NOC/relieved from their posts in time.

Candidates will be admitted on the basis of the marks secured/pass at the semester immediately proceeding the final semester. It is mandatory that the candidates, once admitted should fulfil the requirements regarding eligibility of marks, etc. before the first semester examination.

Date of admission for Post Graduate Programme : 06th – 07th June 2019

Date of admission for Ph.D Programme : 5th – 6th September 2019



Post Graduate and Ph.D Programmes

The originals of all certificates and documents should be produced at the time of interview/ admission of the programme. (The original certificates in proof of age, qualifications, caste/community certificate obtained from the Village Officer, creamy layer certificate and medical fitness certificate obtained from any Medical Officer not below the rank of an Asst. Surgeon, TC and conduct certificate). Candidates who secured their degrees from Universities outside Kerala have to produce Migration Certificate within one month of admission. Those who do not produce the original documents at the time of admission/interview, shall forfeit their seat and that will be filled from the waiting list or in any other manner deemed fit by the University.

XIII. FEES:

The fee for all P.G, Ph.D and Diploma courses is indicated in **Annexure II** but are liable to be modified by executive order of the University.

Note: Fees once paid will not be refunded on any account.

Foreign students/Person of Indian Origin (PIO)/Overseas Indian Citizen (OIC) need to pay US\$ 2000 (Two thousand US Dollars) or equivalent Indian Rupees per semester excluding hostel fees and in the case of NRI candidates, one time (Admission time) fee of US\$ 2000 (Two thousand US Dollars) or equivalent Indian Rupees and other fees for the academic programmes as prescribed for other general category of students. Hostel fee need to be paid separately.

XIV. EXEMPTION FROM PAYMENT OF FEES:

Nearly 60% of the students who join various academic programmes get the benefit of either government reimbursement of fee or scholarship/ fellowship instituted by the Government/University/other institutions.

Candidates belonging to Scheduled Caste, Scheduled Tribe and Children of Fishermen will be given exemption from payment of tuition fees subject to the grant of educational concession by the Scheduled Caste Development Department/ Fisheries Department, Govt. of Kerala as the case may be. However, they have to pay Admission fee, Caution deposits and other fees prescribed by the University at the time of admission. They should also submit application for fee concession through e-grants within 45 days from the commencement of regular class. All other candidates have to remit fee at the time of admission. No relaxation with regard to payment of fees will be allowed in the case of employees on deputation/study leave or those who are holders of ICAR Fellowships. They shall have to remit fees on the due dates prescribed and make their own arrangements to get the same reimbursed from the respective



authorities. Students who are discontinuing the programme after closure of the admission are liable to pay a liquidated damage as fixed by the University or the entire course fee as the case may be.

In the case of Ph.D. programme government is offering only monthly fellowship and contingency grant and there is no exemption from the payment of semester fee.

XV. SCHOLARSHIPS AND FELLOWSHIPS

KUFOS students are eligible for availing all fees concession and grants sanctioned by the Govt. of India/Govt. of Kerala, according to their eligibility.

In addition to this, Post-graduate and Ph.D students are being awarded the KUFOS Junior Research Fellowship and KUFOS Senior Research Fellowship respectively according to their eligibility.

The main objective of the fellowship is to give financial assistance and incentive to all the eligible Post-graduate and Ph.D students who are taking their research work as a part of the University Research Programme irrespective of their nativity.

- a) **KUFOS FELLOWSHIPS**: Meritorious students admitted to the Master's Degree Programme in the Kerala University of Fisheries and Ocean Studies is eligible for the Junior Fellowship. Meritorious candidates admitted to Ph.D programme are eligible for the Senior Fellowship. Students in receipt of any other scholarship, fellowship or financial assistance from any other source during the period will not be considered for the award of KUFOS fellowships. The University offers five fellowships each for Post graduate and Ph.D students from each School. Junior fellowship is Rs. 2,000/- per month and Senior Research fellowship is Rs. 13,000/- per month.
- b) MANAPPURAM FOUNDATION SCHOLARSHIP: Three students from the general category and three students belonging to the fishermen community undergoing MBA programme are eligible to receive the Manappuram Foundation scholarship. The amount of scholarship is Rs 4000/- per month. This scholarship will be awarded on the basis of the eligible students in each semester.

XVI. INSURANCE SCHEME

An insurance scheme has been adopted by the University to all its students. The insurance scheme covers student's accidental death / permanent total disablement and medical expenses on hospitalization arising out of accident for a sum Rs $3.00\,\text{Lakhs}$.



XVII. NOTE:

The High Court of Kerala will be the only judicial body to decide on the disputes arising if any, in the matter of admission.

The prospectus is subject to further modification as may be considered necessary by the University and will be issued as executive orders/notifications and the students are liable to obey the rules and regulations so amended or modified.

Documents sent along with the application will not be returned.

XVIII. WARNING:

Ragging is a criminal offence as per the 'Anti-Ragging Act' of Kerala. Students indulging in such activities will be punished as per law (http://www.kufos.ac.in/antiragging.doc). University has constituted an antiragging committee as per the directions of UGC. Students can file their complaints at complaints@kufos.ac.in.

XIX. FACILITIES AVAILABLE:

CAMPUS

KUFOS has excellent infrastructure to support the unique and different courses it offers in fishery science and Ocean Science. It provides wide range of facilities to the students to understand the course curriculum in effective manner. The headquarters of KUFOS with its enchanting blue building stands in harmony with the greenery at Panangad, 12 km away from Kochi city, along NH-66. The University now has 75 acres in the headquarters at Panangad.

FISHERIES STATION, PUDUVEYPU.

Major research station of KUFOS covering an area of 50 acres of land, of which more than 50% were earmarked for Mangrove research. Instructional farms comprising various nursery and grow out ponds are the major attraction of the station. School of Fishery environment is functioning in this campus. MSc Remote Sensing and GIS, MSc Disaster Management, MSc Climate Science, MSc Environmental Sciences, PG Diploma in Aquarium Science and Technology, PG Diploma in Industrial Aquaculture and Diploma in Brackish water and Marine Aquaculture are offered from this campus



KUFOS REGIONAL CENTRE KANNUR

The KUFOS Regional Centre Kannur started functioning at Payyanur from February 2018. This centre has been established with the aim of carrying out research, extension and training activities in north Kerala. Enhancing the aquaculture production in the region through the development and dissemination of suitable technologies, livelihood improvement of fishermen through industry incubation and establishment of small scale enterprise, women empowerment and development of strategies for the sustainable utilization of aquatic resources of the region are some of the activities being taken up by this centre.

KUFOS REGIONAL CENTRE KOLLAM

The proposed site for regional center for KUFOS is in Kundara. In the erstwhile Align Factory which is located around 12 km eastward towards Kollam town. The center will concentrate on the research activities in Fisheries and Ocean science and address the specific needs of fishermen and fish farmers of south Kerala.

CLASSROOMS

Separate UG and PG smart class rooms with modern teaching aids viz. interactive boards, LCD projector, overhead projector, etc are available in all departments.

LABORATORIES

Well equipped laboratories in the University are used for practical learning as well as for carrying out research and development activities. The main laboratories are aquaculture lab, biology lab, molecular biology lab, hydrography lab, fishing technology lab, water and soil chemistry lab, biochemistry lab, microbiology lab, fish processing plant, food processing lab, biotechnology Lab, physical oceanography, biological oceanography lab, etc.

AQUATIC ANIMAL HEALTH AND ENVIRONMENT MANAGEMENT LABORATORY

Aquatic Animal Health and Environment Management Laboratory have been established with financial assistance from the National Fisheries Development Board (NFDB) Hyderabad. This sophisticated lab, with facilities for level 1, 2 and 3 diagnosis, acts as the referral laboratory for aquatic animal diseases in the





State. The officials of the Central and State Fisheries, farmers, students and researchers are trained in disease diagnosis and awareness programmes in this laboratory. Research programmes aimed at the development of diagnostic methods, treatment protocols and management measures for aquatic animal diseases are also carried out in this lab. This laboratory functions as a referral laboratory for disease diagnosis of cultivable fish and shellfish organisms in the State.

SOIL & WATER ANALYSES LAB

Soil and water analyses lab is a state of the art facility established in KUFOS targeting analysis of soil and water samples of various water bodies in and around the State. This facility is open for the farmers, researchers, industrialists and common public. This lab offers analytical facilities at appropriate rates as per the existing rules and regulations. The present facility include soil analyses- trace metals, organic carbon, pH and water analysis- organic carbon, pH, dissolved oxygen, salinity, trace metals, hardness, nutrients – ammonia, nitrate etc. In addition to this fish samples can also be analysed for contaminants. Lab houses UV Visible Spectrophotometer, Fluorescence spectrophotometer, TOC analyzer, ICP-OES etc for catering the needs of the target groups.

LIBRARY

University library is well-stocked and comprises of books, journals, reports, FAO publications, thesis, standard and personal rich collections given by renowned scientists in fisheries science. There are over 19000 books, out of which 2000 are reference books and 17000 textbooks on fisheries and related subjects. University library provides facilities of lending of text books to the staff and students, provides reference facility for students and researchers from outside and books for educational purpose are issued permanently to students every year at 50% concession rate. University library also provides online database search for Aquatic Biology, Aquaculture, Fishery resources, Fish and fisheries worldwide and Food and human nutrition in AGRIS. Library has inhouse database of books in KOHA software. It also has a database of thesis & bound volume in CDS and ISIS software. Library is provided with internet access available through LAN, reprographic service and scanning facility. University has set up a D-Space Digital Library and Automated Library Information System with Wi-Fi connectivity. Institution repository system named MEENAM is available through LAN. Currently more than 600 online journals are available through CeRA.



MUSEUM AND AQUARIUM

The university has a good museum for fishes, crustacean, molluscs, and an aquatic plant is maintained by the Department of Fishery Resource Management and Harvest Technology. There is also a public aquarium of fresh water fishes maintained by the Department of Aquaculture.

HATCHERIES

Well equipped hatcheries are attached to Faculty of Fisheries. The list of hatcheries include freshwater prawn hatchery, ornamental fish hatchery, carp hatchery with jar and Chinese hatchery

INSTRUCTIONAL FARM FACILITY

Of the total land available, about 12.5 ha. (60 ponds) is used as instructional farm. 2.5 ha. water areas have been developed into a brackish water fish farm comprising 20 ponds of different sizes. 5ha. area is presently utilized for prawn filtration.

TRANSPORT FACILITIES

University possesses well established transportation facility for students. University provides bus service for students and staff for to and fro movement from campus to various locations of the city.

SPORTS FACILITIES

University provides excellent facilities and infrastructure for various games and sports. University also provides well-equipped gymnasium in the campus. A standard playground with six-track is available for the use of students. Other infrastructure facilities for sports and games include 2 basketball courts, 2 volleyball courts, 2 shuttle badminton courts, 4 table tennis boards and a full-fledged fitness centre. All sports and games activities are exercised under the guidance of the Physical Education Teacher.

SWIMMING POOL

The swimming pool has a capacity of four-and-a-half lakh liters of water and is 25-metre long and 10-metre wide. It has four tracks, four starting blocks, all round deck slab, and spring board for diving, separate changing rooms for boys and girls and automatic water purification facility. Life guard's services are provided for the safety of students.



Post Graduate and Ph.D Programmes

COMPUTER FACILITIES

University has a well-furnished computer lab funded by Indian Council of Agricultural Research (ICAR). Lab consist of many computers inter via Local Area Network (LAN). Lab is also provided with fast broadband internet connection to access the global knowledge base. The university provides high speed internet facilities to all students and faculty. Students can also utilize the Wi-Fi facility in the Library

HOSTEL

University provides separate hostel facilities for boys and girls within the campus. Hostels are provided with all the amenities required for a healthy and calm stay away from home. University also has a well-furnished guest house. The Men's hostel has the capacity to accommodate 60 students and has two guest rooms. Ladies' hostel has the capacity to accommodate 133 students. In addition to UG hostels there is a PG hostel for ladies to accommodate Post Graduate students. Priority in admission to hostel shall be given to SC/ST, physically handicapped students and other eligible categories up to 50% of the total seats available.

AMENITY CENTRE

The amenity centre, which is spread across 9,000 sq.ft, will house units that sell the fishlings produced at the university and food products developed by the students, guidance centre for farmers, and banks. The facility, which was set up at a cost of 2.60 crore, would get quality products prepared by the varsity from the amenity centre. The centre would have special sales counters of the university and its cooperative society, medical dispensary, bank, post office, ATM, supermarket, cafes, fish kiosks and rest rooms.

AUDIO VIDEO STUDIO FACILTITY

University has setup a audio video and editing studio for sharing university activities and other relevant information to the key stakeholders of the university through mass media. The facility will be utilized for making audio and video tapes for education, research and extension purposes. Facility will be outsourced for professional videographers and film makers on payment.



XX JOB OPPORTUNITIES AND PLACEMENT CELL

Alumni of KUFOS are working with various international and national academic, research and industrial organizations. KUFOS holds the record of producing maximum number of Agricultural Research Scientists for the nation. A good number of officers in Central and State Fisheries Department are Alumni of KUFOS. KUFOS produced a large number of entrepreneurs/professionals/ scientists in the field of food technology, oceanography, management, maritime law, fish processing, aquaculture, hatchery and ornamental fish sector. A placement cell in the University ensures maximum number of placements to the graduates and post graduates of the University. Export Inspection Agency and Seafood Exporters Association of India (Kerala region), Kochi through a Memorandum of Understanding has agreed to provide training and placement to 20 students every year. Many students of the University opted to go abroad for higher studies, Doctoral programmes in England, Ireland, Norway and postgraduation in Management Studies in England. Many joined Indian Business Schools for their post-graduation Symbiosis Agribusiness School, Pune, VAMNICOM, Pune, FABS, Hyderabad, etc.

XXI. APPROVED RESEARCH CENTERS

- 1. Central Institute of Fisheries Technology(CIFT), Kochi
- 2. Centre for Marine Living Resources and Ecology (CMLRE), Kochi
- 3. Central Institute of Fisheries Nautical and Engineering Training (CIFNET), Kochi
- 4. Govt. Law College, Ernakulam
- 5. Nansen Environmental Research Centre India (NERCI), Kochi
- 6. St Paul's College, Kalamassery, Ernakulam
- 7. Sree Narayana Gurukulam College of Engineering (SNGCE), Kadayiruppu, Ernakulam
- 8. Central Marine Fisheries Research Institute (CMFRI), Kochi
- 9. Indian National Centre for Ocean Information Service(INCOIS), Hyderabad



XXII. INSTITUTIONS WITH WHOM MoU EXECUTED

- 1. Central Marine Fisheries Research Institute(CMFRI), Kochi
- 2. Central Institute of Fisheries Technology(CIFT), Kochi
- 3. Central Institute of Freshwater Aquaculture(CIFA), Bhubaneshwar
- 4. Central Institute of Brackish water Aquaculture(CIBA), Chennai
- 5. National Institute of Oceanography (NIO), Goa
- 6. National Bureau of Fish Genetic Resources(NBFGR), Lucknow
- 7. Export Inspection Agency(EIA), Kochi
- 8. Seafood Exporters Association of India (Kerala region), Kochi
- 9. National Center for Earth Science Studies(NCESS), Trivandrum
- 10. Indian National Centre for Ocean Information Services (INCOIS), Hyderabad
- 11. Agricultural Skill Council of India.
- 12. National Centre for Ocean Information Services, Hyderabad.
- 13. Indian Institute of Spices Research, Kozhikkode

XXIII. INTERNATIONAL UNIVERSITIES AND RESEARCH INSTITUTES ASSOCIATED WITH KUFOS

- 1. Bournemouth University, United Kingdom
- 2. University of Las Palmas de Gran Canaria, Spain
- 3. Royal Melbourne Institute of Technology University, Australia

XXIV. CENTRE OF EXCELLENCES

With the view to accommodate the fast developments in the area of research & development in the field of Fisheries and Ocean studies, KUFOS has established four Centres of Excellence in the core areas of Fisheries and Ocean Science research. The functioning of the centres are aligned to conduct research in core area and facilitate the research by the faculty in line with the mandate of



the centre. All the research activities are focused towards developing the Centres of Excellences. Broadly these CoE's will act as centres facilitating basic research and applied research which will eventually develop in to defined academic centre in the areas concerned. Four Research centre already established are

- 1. Centre of Excellence in Sustainable Aquaculture and Aquatic Animal Health Management [CAAHM]
- 2. Centre of Excellence in Aquatic Resource Management and Conservation [CARMC]
- 3. Centre of Excellence in Food Processing Technology [CFPT], and
- 4. Centre for Advanced Studies and Research in Entrepreneurship Development [CASRED]

XXV. MASSIVE OPEN ONLINE COURSES (MOOC)

KUFOS has initiated Massive Open Online Courses (MOOC) to create an education platform in consortium with top organizations of the country, to offer courses online for all in the field of Fisheries and Ocean Studies. A dedicated website mooc.kufos.ac.in has been launched and the details on student registration, courses being offered and the mode of functioning of MOOC platform has been uploaded. At present KUFOS is offering four courses of 8 weeks duration on the topics; Brackish water fish culture, Feed and Feed Management in Aquaculture, Fish diseases and diagnosis and Basic course on Meteorology.

XXVI. STUDENT CHAPTERS OF SCHOOL OF MANAGEMENT AND ENTREPRENEURSHIP-KUFOS

In Collaboration with The Society of Energy Engineers and Managers (SEEM) and Kerala Management Association (KMA) student chapters of SEEM and Entrepreneurship Development Club(ED club) are started functioning in School of Management and Entrepreneurship (SME). SEEM is the National professional body of Certified Energy Managers, Auditors and Energy professionals in the country. This will benefit the students in various ways such as exposure to management experts in various fields and areas of management for interaction and facilitate them to attend various programs organised by these agencies on the current developments in management areas. Further this will be beneficial to the faculties and university as a whole

COURSE DETAILS

MFSc Programmes

1. INTRODUCTION

Master of Fisheries Science (MFSc) – programmes is being offered by different departments. Basically it is a two years (4 semesters) programme conducted as per the ICAR pattern. The courses are having field application value and well accepted world over.

- a. MFScAquaculture
- b. MFSc Aquatic Animal Health Management
- c. MFSc Fish Nutrition and Feed Technology
- d. MFSc Aquatic Environment Management
- e. MFSc Fisheries Engineering and Technology
- f. MFSc Fisheries Resource Management
- g. MFSc Fish Processing Technology

2. OBJECTIVES

These programmes are designed to offer adequate strength in theoretical and practical training in their respective areas. The syllabi for these courses are designed in such a way as to equip the students to take up any challenge in fisheries and allied areas.

3. ELIGIBILITY

Four year Bachelor's degree in Fisheries Science (BFSc) recognized by Kerala University of Fisheries and Ocean Science with an OGPA of 6.5/10.0 or above (In the case of SC/ST candidates an OGPA of 5.5/10.0).



4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/ records/case study and project reports.

5. NUMBER OF SEATS

Master's degree programme leading to MFSc offered by the various Departments in different disciplines are given below:

1.	Aquaculture	Aquaculture	6	2	8
		Fish Nutrition and Feed Technology	4	1	5
2	Aquatic Animal Health management	Aquatic Animal Health Management	6	2	8
3	Aquatic Environment Management	Aquatic Environment Management	6	2	8
4	Fisheries Engineering	Fisheries Engineering and Technology	4	1	5
5	Fisheries Resource Management and Harvest Technology	Fisheries Resource Management	6	2	8
6.	Fish Processing Technology	Fish Processing Technology	6	2	8
		TOTAL	38	12	50

6. MODE OF SELECTION:

Through common entrance examination and interview conducted by KUFOS. ICAR quata seats will be filled by the All India Entrance test conducted by the Indian Council of Agricultural Research (ICAR), New Delhi

7. Employment Opportunities:

Fisheries Universities and Colleges of the Country employ a sizable number of postgraduates every year as teachers. They can also work as officers/scientists at national level research organizations, consultants in national and overseas industries/research organizations and entrepreneurs. Therefore these courses are considered highly demand driven courses. There is ample scope for joining private companies that produce feed, seed and accessories for aquaculture and ornamental fish farming. Moreover, they can also do Ph.D in the respective areas. They can also join higher positions in the departments of Fisheries and in Banks as Agricultural Officers.

Msc Programmes

2 (a) MSc in Marine Biology

1. INTRODUCTION

The MSc in Marine Biology is offered by the School of Ocean Science and Technology.

2. OBJECTIVES

The objective of the programme is to provide sufficient number of competent young personnel with the sufficient knowledge and skill in the area of Marine Biology to cater the need of the present and future.

3. ELIGIBILITY

BSc with 50% or 6.5/10.0 or 2.2/4.0 marks in any of the following subject combinations.

- 1. BSc in Zoology
- 2. BSc in Aquaculture
- 3. BSc in Industrial Fish and Fisheries
- 4. BFSc
- 5. BFSc(N)
- 6. BSc in Microbiology
- 7. BSc in Zoology/Botany/Chemistry
- 8. BSc in Life Science
- 9. BSc in Biotechnology
- 10. BSc in Bio- informatics / B. Tech. Bio- informatics



4. ASSESSMENTAND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/ records/case study and project reports. Assessment will be based on both internal and external evaluation

5. NO. OF SEATS: 25

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES:

Marine Biology careers in India are enormous and diverse. In this field, there are various job opportunities in India and abroad especially in education, research and industry. The manpower requirement in the area is huge and hence the course has great relevance. Institutions like ICAR, CIFT, CMFRI, CIBA and Central Institute of Fisheries Education offer job opportunities in Research and Development sectors. State Fisheries departments and State Biodiversity Boards etc. are other options for the MSc Degree holders. Besides opportunities in academic and R& D institutions, students who obtained MSc Degree in Marine Biology can also enter into aquaculture and seafood industries. Those who would like to be an entrepreneur can take up aquaculture, ornamental fish culture and trade. A placement cell is also functioning in KUFOS with the cooperation of faculties and student representatives.

2 (b) MSc in Physical Oceanography

1. INTRODUCTION

There is acute shortage of manpower in the area of analysing ocean phenomena. The course is designed in such a way as to equip the students to study the various components in the area so that they can take up any challenge in the field.

2. OBJECTIVES

The basic objective of the programme is to provide sufficient number of competent young personnel with the necessary knowledge and skill in the area of Physical Oceanography to cater the need of the present and future.



3. ELIGIBILITY

Bsc with 50% or 5.5/10.0 or 2.2/4.0 marks in any of the following subject combinations.

- 1. Physics main with Mathematics and Chemistry as subsidiaries
- 2. Physics main with Mathematics and Statistics as subsidiaries
- 3. Physics main with Mathematics and Computer Science/Computer applications as subsidiaries.
- 4. Physics main with Mathematics and Electronics as subsidiaries
- 5. Physics main with Mathematics and Geography as subsidiaries
- 6. Mathematics with Physics and Statistics as subsidiaries
- 7. Mathematics main with Physics and Computer Science / Computer Applications as subsidiaries.
- 8. Three main with Physics, Mathematics and Chemistry
- 9. Three main with Physics, Mathematics and Statistics
- 10. Three main with Mathematics, Physics and Computer Science/Computer application
- 11. Bachelor of Science in Nautical Science

Candidates awaiting their final results of the qualifying degree examination can also apply but they should produce their qualifying degree/mark upto the semester preceding the last semester at the time of interview.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/ records/case study and project reports. Assessment will be based on both internal and external evaluation.

5. NO. OF SEATS: 10

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES:

Making a career in Oceanography is challenging as well as rewarding and it takes



students to the world within our oceans which is yet to be discovered. This emerging field gives the opportunity to gain scientific knowledge as well as employment in various public and private organizations. There are large employment opportunities for Oceanographers in both public and private sectors. A professional in Oceanography can be absorbed as a Marine Environmental Scientist, Geologist, Geographer, Geophysicist, Hydrographer, Oceanographer or Mining engineer at various organizations in India and abroad. One can find opportunities in any of the following: Offshore oil and gas industry, ONGC, GSI, Indian Meteorology Department, University departments/IIT, NIO, NIOT, NRSA, ICMAM, SAC, NEERI, ISRO, Fishery survey of India, Navy, CIFT, CMFRI, CIFNET, TORMET and similar organizations.

2 (c) MSc in Food Science & Technology

1. INTRODUCTION

Food science is getting emphasized importance in the day to day life of man. Therefore, courses like this have great relevance and in this context, the present programme awaits great job opportunities.

2. OBJECTIVES

The basic objective of the programme is to provide sufficient number of competent young personnel with the necessary knowledge and skill in the area of food science and technology to cater to the need of the present and future.

3. ELIGIBILITY

A Science degree with 50% marks or 5.5/10.0 OGPA or 2.2/4.0 OGPA in any of the following subject combinations.

- 1. BSc in Food Science and /or Technology
- 2. BSc in Food Engineering
- 3. BFSc
- 4. BSc in Agriculture/Horticulture/other allied agricultural sciences
- 5. BVSc
- 6. BSc in Dairy Science
- 7. BSc in Chemistry/Zoology/Botany/Allied Life sciences
- 8. BSc in Microbiology/Bio Chemistry/Bio technology
- 9. B. Tech in Food science and technology



Candidates awaiting their final results of the qualifying degree exam can also apply, but they should produce their qualifying degree/mark list at the time of admission.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/ records/case study and project reports. Assessment will be based on both internal and external evaluation.

5. NO. OF SEATS: 25

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

Processing of foods, especially easily perishable food is a challenge. But this field faces severe manpower shortage. Hence there is a great deal of career opportunities for those who pass out this course from KUFOS. MSc in Food Science and Technology enables students to work as competent food technologists. They have significant job opportunities in India as professionals like food scientists and food technologists. Food processing units in government sectors and private sectors can offer employment options to the students.

2 (d) MSc in Disaster Management

1. INTRODUCTION

Disaster Management is a strategy for avoiding, reducing, managing and overcoming any type of catastrophic event that threatens humans and the environment. It is of utmost importance to identify potential disasters, man-made or natural and to create contingency plans and procedures to be initiated whenever disaster strikes. This course provides information on natural and human-induced disasters and their impact on societies worldwide. The student will be exposed to various concepts of disaster management and understand the interaction of earth system with the human system.



2. OBJECTIVES

The course offers a thorough knowledge on the Atmospheric & Hydrological Disasters (Heat& Cold waves, Lightning, Flood, Drought, Cyclones, and Avalanches), Geologically Related Disasters (Earthquake, Tsunami, Landslides, and Volcanic Eruption) as well as Issues & Challenges, Warning, Preparedness, Mitigation& Response measures, Case Studies etc. As for Environmental Disasters, the important aspects like the Environmental Impact Assessment, Wetland conservation & Restoration, Quarrying, Solid waste & E-Waste Management – Issues, Challenges & Remedial Measures, Rules & Regulations, Alternative Technologies etc., are dealt in detail. The course covers Tourism & Environment, Environmental Acts and Policies in India. Air, Water & Land Pollution, Climate Change and its Impacts, Integrated Coastal Zone Management, Urban Risks & Management, Biologically Related Disasters -Disaster Mitigation and Management form some of the core parts. Manmade, Chemical, Industrial & Nuclear related disasters, Road, Rail, Boat & Air Accidents, Dams & Reservoirs- Dam Safety & Reservoir Induced Seismicity, Dam Failure –Causes, Mitigation and Management measures etc are covered in detail. The students will have to carry out a Project Work in their final semester of the program which includes preparation of a 'Disaster Management Plan' for an establishment/industrial unit/ward/area using GIS.

3. ELIGIBILITY

Bachelor's Degree in Science or B.Tech/BE Degree of any discipline with 50% marks or equivalent OGPA.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/records/case study and project reports. Assessment will be based on both internal and external evaluation.

5. NO. OF SEATS: 10

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.



7. EMPLOYMENT OPPORTUNITIES

There are employment opportunities in government and non-government organizations like Delhi Disaster Management, Urban Disaster Risk Reduction Research Centre, JTCDM, Kerala Disaster Management Authority, the Red Cross and consultancy companies. Large industrial establishments also maintain cells. The students, after completion of the master's program can also join for research, training and teaching.

2. (e) MSc in Biotechnology

1. INTRODUCTION:

Biotechnology has a strong potential in advancing our nations interest in science and economy by utilizing and exploiting the vast potential that remains unexplored. Msc Biotechnology program involves theoretical and practical training and includes research projects (dissertation) and the course covers all latest developments in the field and prepares student for the highly competitive academic and industry oriented environment. The MSc in Biotechnology programme will be offered by the School of Ocean Science and Technology. MSc in Biotechnology programme at Kerala University of Fisheries and Ocean Studies runs on a credit and semester system consisting of four semesters. Students admitted to the programme are eligible for the award of MSc degree in Biotechnology on successful completion of the course.

2 OBJECTIVES:

Biotechnology is a multidisciplinary area on the educational scene and programmes have been developed to meet the growing demand for trained manpower for any meaningful Biotechnology activity in the country. The programmes are designed to expose the students to recent exciting developments in the area of genetic engineering and biotechnology and their exploitation in industry, medicine, agriculture and allied sciences.

3. ELIGIBILITY:

A Bachelor of Science with 50% marks or 5.5/10.0 OGPA or 2.2/4.0 OGPA (50% for SC/ST candidates) in any of the following subject combinations.

- 1. BSc in Life Science
- 2. BSc in Biotechnology



- 3. BSc in Microbiology
- 4. BSc in Zoology/Botany
- 5. BSc in Zoology/Botany/Chemistry
- 6. BSc in Bio-informatics/Biochemistry/Marine Biology
- 7. BSc in Aquaculture
- 8. BSc in Industrial fish & fisheries
- 9. BFSc in Fisheries/BFSc (Nautical Science)

Candidates awaiting their final results of the qualifying degree exam can also apply, but they should produce their qualifying degree/mark list up to the semester preceding the last semester at the time of the interview.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/records/case study and project reports. Assessment will be based on both internal and external evaluation.

5. NO. OF SEATS: 15

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

Biotechnology is a multidisciplinary area on the educational scene and programmes have been developed to meet the growing demand for trained manpower for any meaningful Biotechnology activity in the country. Students are given intensive training in the multidisciplinary areas of biotechnology including recent advances in cell biology, molecular biology, genomics, genetic engineering and bioinformatics. The programme is designed to prepare the students in recent exciting developments in the area of genetic engineering and biotechnology and their exploitation in industry, medicine, agriculture and allied sciences.



2 (f) MSc in Marine Microbiology

1. INTRODUCTION:

The MSc in Marine Microbiology Programme will be offered by the School of Ocean Science & Technology

2. OBJECTIVES:

Basic objective of the programme is to provide sufficient number of competent young personnel with necessary knowledge and skill in the area of marine microbiology to cater the needs of the present and future.

3. ELIGIBILTY

A Science degree with 50% marks or 5.5/10.0 OGPA or 2.2/4.0 OGPA (50% for SC/ST candidates) in any of the following subject combinations.

- 1. BSc in Biotechnology/Microbiology
- 2. BSc in Food Science & Technology
- 3. BSc in Chemistry/Zoology/Botany/Biochemistry/Life Science
- 4. BSc in Aquaculture/Fisheries Science
- 5. BFSc

Candidates awaiting their final results of the qualifying degree exam can also apply. But they should produce their qualifying degree/mark list up to the semester preceding the last one at the time of the interview.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, assignments, seminars, records, project reports etc. Assessment will be based on both internal and external evaluation.

5. NO. OF SEATS: 20

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.



7. EMPLOYMENT OPPORTUNITIES

The area of Marine Microbiology is so vast that it can absorb talented human resources in its fold of activities. Students who have completed the course can be placed in pharmaceutical industries. They can also find placement as quality control personnel in commercial establishments dealing with food products. Placement avenues are also open in government/ Private academic and research institutions in this area.

2 (g) MSc in Statistics

1. INTRODUCTION

Statistics has emerged as an important branch of Science and it helps in strengthening research in almost all disciplines of study. The MSc in Statistics programme is designed in such a manner that it provides sound theoretical background for developing methods and procedures in applied areas. The students are trained to handle, independently, problems in modeling and analysis of data, optimal decision making processes, planning and conduct of experiments and analyzing problems using statistical software.

2. OBJECTIVES

The primary objective of the course is to bring out trained hands in Statistics to serve in various research and development organizations in the country. The course is so planned to make the student a professional in Statistics so that he/she can serve as Statistician in industries as well as in R & D organizations. The students shall as well develop mathematical theory so as to suit different situations.

3. ELIGIBILTY

Regular Bachelor's degree with Statistics as main subject and Mathematics as Subsidiary (complementary) or Mathematics as main subject and Statistics as Subsidiary (complementary) or Triple main with Mathematics and Statistics as subjects, or its equivalent from a recognized University with minimum 55 % marks (50 % for SC/ST candidates).

4. ASSESSMENT AND STANDARDS OF PASSING

The course is offered under credit and semester system. The minimum credits required for the successful completion of the programme is 85. Out of the total, 73



credits will be for compulsory papers (including Dissertation / Project work) and 12 credits for elective papers. The elective courses are to be selected from a list of electives covering most recent developments in Statistics. There will be six papers in each of the first three semesters, and three papers and Dissertation work in the fourth semester. Each compulsory paper is of four credits and elective paper is of three credits. There shall be five modules in a paper.

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/ student seminars/ practical records/ class participation and project reports. Assessment will be based on internal and external evaluation.

5. NO. OF SEATS: 10

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

The course provides opportunities as professionals in the related field such that he/she can serve as Statisticians, Consultants, Statistical Programmers, Data Analysts and Research Associates in various industries as well as in teaching and research institutions. Post graduates in Statisticsshall enter into Indian Statistical Service; get jobs in Bureau of Economics and Statistics, Planning Departments of Government and industrial organizations and Actuaries in the insurance sector.

2(h) MSc in Remote Sensing and GIS

1. INTRODUCTION

This course will provide a basic grounding in the fields of oceanography, satellites, and the applications of remote sensing to oceanographic studies. The objectives of the programme is to provide sufficient number of competent personnel with sufficient knowledge and skill in the area Ocean Remote Sensing and GIS to cater the need of the present and future need of skilled people to analyze data and advance the science.



2. OBJECTIVES

The objectives of the Ocean Remote Sensing and GIS course are to support the environmental, social and economic well-being of the coast by linking people, information and technology. Linking coastal decision makers with relevant data and information derived from remote sensing technology through Product Development, Applied Research & Development.

3. ELIGIBILTY

A University degree with 50% or 5.5/10.00 or 2.2/4.0 marks in any of the following subject combinations. Degree in Physics/ Geophysics / Geology/Mathematics/Computer application/ Environmental Sciences with GIS /BE/B.Tech in Civil Engineering/ Natural Sciences/Fishery and life Sciences.

Graduates with (+2 level Mathematics and Physics) /Biology/BSc in Environmental Sciences/BSc Natural Sciences can also be considered for admission.

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/student seminars/records/ case study and project reports. Assignment will be based on both internal and external evaluation.

5. NO. OF SEATS: 10

6. MODE OF SELECTION

The selection of the candidates will be on the basis of Entrance examination and previous academic performance. Candidates will be considered for admission only if they secure a minimum of 40% marks in the entrance examination. (The minimum mark is 30% for SC/ST candidates). The minimum mark will be subject to revision as per decision of the Admission Committee. The departmental/sponsored candidates can also apply and they should have at least 3 years' experience while applying.

7. EMPLOYMENT OPPORTUNITIES

This course is being offered only in very few institutions in India and hence there is a dire dearth of manpower. Hence the course has great relevance. The students can be employed in areas of Generation of Potential Fishing Zone Advisories,



Identification of harmful Algal blooms, Ecosystem studies, Bio-optical modelling of costal ecosystem and monitoring of oil spills etc. nation needs skilled people to analyze data and advance the science. The course is designed to promote training and capacity building leading towards a global observation scheme for the oceans.

2 (i) MSc in Climate Science

1. INTRODUCTION

The climate on the earth has been changed substantially from the past. There are natural and man-made causes for such changes. This course will provide an indepth knowledge about the physics and dynamics of the atmosphere and about the processes responsible for production of different weather systems.

2. OBJECTIVES

The curriculum includes the courses on weather abnormalities affecting different walks of life. Different working models on weather prediction are included in the syllabus.

3. ELIGIBILTY

The students 50% or 5.5/10.00 or 2.2/4.0 marks in BSc. Physics/Mathematics.

4. ASSESSMENTAND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/student seminars/records/ case study and project reports. Assignment will be based on both internal and external evaluation.

5. NO. OF SEATS: 10.

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

The MSc Climate Science graduates may get employment / research opportunities in the institutions like India Meteorological Department (IMD), Indian Institute of



Tropical Meteorology (IITM), National Institute of Oceanography (NIO), Indian National Centre for Ocean Information Services (INCOIS), State Disaster Management Authorities of different States of India, Universities etc.

2. (j) MSc in Earth Sciences

1. INTRODUCTION:

The study of Earth Sciences explores the Geology, Geophysics and Geochemistry of the earth system, beneath, within and above the oceans. Here scientists study the entire earth incorporating all the principal scientific disciplines physics, chemistry, biology and mathematics from space, on the ground and deep below the earth's surface. Marine geoscience studies help in compiling coastal and digital elevation models, high resolution models for Tsunami Inundation studies and in preparation of navigational charts. Geoscientists also study corals from a sedimentologists or paleoclimate prospective.

2. OBJECTIVES:

The objectives of the programme is to provide sufficient number of competent personal with sufficient knowledge and skill in the areas of Applied Geo Sciences with special reference Marine Geosciences to cater the need of the present and future.

3. ELIGIBILITY:

A University degree with 50% or 6.5/10.00 or 2.2/4.0 marks in any of the following subject combinations. Degree in Geology / Geophysics/Physics/Mathematics/Chemistry/Environmental Sciences with Geology or GIS/Degree in Electronics/Civil Engineering/Coastal Engineering/Degree in Nautical Sciences.

4. ASSESSMENT AND STANDARDS OF PASSING:

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records/ case study/project report and final semester's thesis valuation and viva. Assessment will be based on both internal and external evaluations.



5. NO. OF SEATS: 10

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES:

This course is being offered rarely in Universities and hence the manpower availability is low. The understanding of Geo-Science is even now in the primitive stage and therefore, the PG students coming out of the course will have great job opportunities. The students can work as professionals who can predict geological phenomena and in the area of integrated coastal and disaster management. The course may also have the potential to develop advisors in the area of disaster management and climate change.

2 (k) MSc in Marine Chemistry

1. INTRODUCTION

Oceans play an important role in day-to-day lives of human population, and over 65% of the world's population lives in coastal areas. Knowledge in Marine Chemistry is vital for our economy, regulate climate, food, and biodiversity and ultimately have immense societal significance. The course provides opportunity to gain knowledge and experience on the properties and composition of seawater; Biogeochemical cycles, the importance, distribution, relationships and cycling of inorganic nutrients; dissolved gases; trace elements; Marine Pollution; Marine Natural products.

2. OBJECTIVES

The major objective this course is to create skilled manpower in marine chemistry to cater the need of academia and industry alike. To mould world class professionals in marine science to harness resources from ocean and help conserve ocean.

3. ELIGIBILITY-

Bachelor's degree with Chemistry as main subject.



4. ASSESSMENTAND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records/ case study/project report and final semester's thesis valuation and viva. Assessment will be based on both internal and external evaluations.

5. NO. OF SEATS: 15

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES:

This course is being offered rarely in Universities and hence the manpower availability is low. The students can work as professionals in the chemical industries. The course may also have the potential to develop advisors in the area of chemical oceanography.

2 (I) MSc in Environmental Sciences

1. INTRODUCTION

This is a newly introduced post graduate programme intended to create a cadre of trained professionals who are equipped to deal with scientific, technological, legal, socio-economic and policy aspects related to environment and resource management. The programme intends to provide students with a deep understanding of the complex set of circumstances that impact environmental issues, and how environmental decisions and policies attempt to find a balance between environmental conservation and economic development. The curriculum has been designed seamlessly by integrating the concept of sustainable development in an inter-disciplinary framework with an emphasis on research and application. It addresses the growing need for professionals in society who can apply best management practices drawn from various disciplines to create innovative solutions for a sustainable future.

2. OBJECTIVE

The programme aims to develop a holistic approach to environmental and resource problems in students from diverse academic, professional and cultural



backgrounds. Emphasis is placed on techniques for examining recent environmental change, methods of contemporary monitoring and providing the context for possible future climate change impacts in a range of environments. The programme has a strong practical component within which there is specialist training in a wide variety of field and laboratory techniques.

3. ELIGIBILITY

Any bachelor degree in Science/ Technology with 50% marks or equivalent OGPA

4. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records/ case study/project report and final semester's thesis valuation and viva. Assessment will be based on both internal and external evaluations.

5. NO. OF SEATS: 15

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

It is an advanced course of study that can lead to employment in the public or private sector. Students in this program can specialize in many different areas such as engineering, conservation, ecology, biology and chemistry. Generally speaking, the graduate will work in areas related to locating and protecting the earth's resources. This can include predicting hazards and advising on issues related to regulatory compliance. The field of environmental science is expected to continue growing at a robust level. As worldwide environmental regulations continue to be implemented, more jobs are being created. The MSc in Environmental Science graduates may get employment / research opportunities in Indian School of Mines, Centre for Ecological Sciences, IISc, Centre for Environmental Studies, IIT, Bangalore, Indian Institute of Ecology and Environment and The Energy and Resources Institute (TERI).

MBA Programmes

3. (a) MBA Programme(Dual Specialisation)

1. INTRODUCTION

The Kerala University of Fisheries and Ocean Studies, Kochi offers two year MBA programme with dual specialization from among Finance, Marketing, Human Resource Management, Rural Management or Fisheries Business Management. No other University in India or abroad offers specialization in Fisheries Business Management at present. The basic objective of the programme is to provide sufficient number of competent young personnel with the necessary knowledge and skill to man the executive positions in organizations engaged in industry, trade services and fisheries business. The degree is suited to a wide range of interests, but is particularly relevant to those who plan a career in organizations that conduct business beyond the boundaries of a country. For example, the MBA is relevant for those planning careers in multi - national companies; export oriented firms, fisheries business, commercial banks & other financial institutions and public sector bodies. The University has commenced MBA programme in 2012 and the first three batches have come out successfully.

2. OBJECTIVES

The main objective of the Master of Business Administration (MBA) programme is to prepare students to work in a management position in an ever-changing international environment where advanced technology and



multicultural situations occupy an increasingly important place in the daily affairs of business firms. This Programme produces trained professionals to work in a managerial position in an ever changing business environment, where advanced technology and multicultural situations play important roles in operation of business and industry. This Programme is aimed to develop professionals for the analytical and managerial skills required for a professional manager and to enrich them with adequate background of humanities and social values that would create an awareness of the social responsibility, necessary to enable him/her to play an effective role as manager for the benefit of the society. This programme exposes the students to key issues in business management, provides insight into relevant social, political, legal, and micro and macroeconomic conditions affecting national and international business.

3. SCOPE OF THE PROGRAMME:

The MBA Programme of KUFOS provides the students an option to specialize in any two areas from Finance, Marketing, Human Resources Management, Rural management and Fisheries Business Management during the second year of their course. It imparts diverse set of knowledge and skills to manage business & industry and exposes students to real world situation through case studies and industrial visits. Hence it is a good training ground for budding managers and entrepreneurs and adds value to a person's career, as the curriculum encompasses all that industry expects.

It is a four semester two year programme under the credit and semester system. There will be five modules in a paper. Each course will carry a maximum of 100 marks each. The Elective courses will be offered in the 3rd and 4th Semesters. Each course is for four credits and will carry a maximum of 100 marks each. Out of the total marks 50% will be through continuous evaluation and the remaining 50% through external evaluation.

After the second semester, students have to undergo an organisation study/internship for a stipulated period of time and based on their studies they have to prepare reports and also should present the same in a seminar.

In the fourth semester, the students should undertake a major project/dissertation work preferably from the area of their specialization for a period of not less than 8 weeks and complete a project work. They have to present the findings of the study in a seminar and also prepare and submit a project report/dissertation to the university. Further, the students should appear for a comprehensive viva-voce as part of their fourth semester final examination.

4. ELIGIBILITY FOR ADMISSION

(a) Graduates/Post Graduates in Science, Arts, Commerce or professional graduates from Indian/Foreign Universities recognized by KUFOS/UGC with a minimum of 50% marks or equivalent CGPA in aggregate in optional subjects under the



system (10+2+3); (SC /ST candidates are eligible for 5% concession).

or

- (b) All professional graduates of State Agricultural Universities/Deemed Universities under the ICAR system with a minimum OGPA of 6.0/10.0 (5.5/10.0 for SC/ST Candidates).
- (c) Candidates awaiting their final results of the qualifying degree/marks can also apply for the MBA course, but they should have secured their qualifying marks before the commencement of the first semester examination. If they fail to do so their admission will be cancelled.

5. MODE OF ADMISSION

Admission to the MBA programme is based on the score of

KMAT - http://www.kmatkerala.in/

CAT - https://iimcat.ac.in/per/g01/pub/756/ASM/WebPortal/1/index. html?756@@1@@1#!

CMAT - http://www.aicte-cmat.in/College/Index_New.aspx/ and GD and Interview.

6. NO. OF SEATS: 35.

7. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course will be based on his/her performance in various examinations, term papers/assignments/student seminars/records/case study and project reports. Assessment will be based on both internal and external evaluation.

8. EMPLOYMENT OPPORTUNITIES

MBA Degree holder of KUFOS is well trained in the relevant areas of both Business and Industrial management. Since no University in India and abroad offers MBA in Fisheries Management, the students of KUFOS have opportunities in the management level in a highly developed fisheries sector in India and abroad. Again, this MBA programme provides job opportunity in all areas of Business and Industry with added opportunity in the Fisheries sector. KUFOS students have career options in all the traditional management positions too.



3. (b) MBA in Energy Management (Dual specialisation)

1. INTRODUCTION

MBA in Energy Management is a unique dual specialization programme offered from KUFOS. Energy (all sources of renewable and non-renewable energy) is possibly the most critical input to rapid economic growth and development of an economy. There is an immense investment scope in energy infrastructure and energy management, energy production in an environmental friendly manner. Major initiatives which are structurally changing the energy policy also are accelerating the scope of harnessing renewable energy sources and energy management. KUFOS is the pioneer in Kerala by launching the MBA programme in Energy Management to develop and train professionals in the areas of energy management to meet the demand of Energy Management professionals. The focus of the MBA programme is to impart extensive training in the various areas of specialization through electives, thereby providing a wide array of career opportunities in energy domain and consulting.

2. OBJECTIVES

The programme is designed to facilitate students/professionals in understanding, developing, integrating, and applying knowledge of both core and specialized areas of management and their concepts and practices in the domain of the Petroleum & Energy sector, Renewable Energy Sources, Energy Auditing, Energy Efficiency and Management.

The main objective of this course is to equip aspiring global managers with managerial, economical, legal, political, and relevant technical competence. They will serve as experts who provide the crucial link between the world of technology, business, and sustainable energy management.

The objectives of the MBA Course are:

- To attract the best talents who have talent in the area of energy management, infrastructure finance, leadership role etc. to satisfy the needs of energy sector and to empower them to manage the future demand for energy.
- To develop leaders who are competent in driving and sustaining global energy business
- To equip the students / professionals to excel in energy auditing and energy management and mould them to start own consultancy and energy related enterprises.
- To carry out Action-oriented Research in emerging fields of Energy Management with active industry participation and to shape the future with energy management as their career.



 To develop professionals to handle sustainability and efficiency to manage demand side, quality and reliability on supply side, Environmental and other sustainability aspects.

3. SCOPE OF THE PROGRAMME:

The MBA programme of KUFOS provides the students an option to specialize in Areas of Energy Management. It imparts diverse set of knowledge and skills to manage business & industry and exposes student to real world situation through case studies and industrial visits. Many opportunities are available for the candidates in areas of Energy Auditing, to work as Energy Managers, areas of Solar Plant system Design and Installation, Wind Energy related firms and other areas related to renewable energy systems such as Ocean Thermal Energy, Hydrogen Fuel Cell Technologies and Tidal Energy. Employment opportunities linked with renewable energy ranges from places like Airport, Ports, Harbourto energy systems at office, industries. Hence it is a good training ground for budding managers and entrepreneurs and adds value to a person's career, as the curriculum encompasses all that industry expects.

It is a two year programme under the credit and semester system. The elective courses will be allotted in the 3rd and 4th semesters. There will be five modules in a paper. Each course is for carry a maximum of 100 marks each. Out of the total marks 50% will be through continuous evaluation and the remaining 50% through external evaluation. After the second semester, students have to undergo organisation study/internships for a stipulated period of time and based on their studies and observations; they have to prepare reports and also should present the same in a seminar.

In the fourth semester, the students should undertake a major project/dissertation work preferably from the area of their specialization for a period of not less than 8 weeks and complete a project work. They have to present the findings of the study in a seminar and also prepare and submit a project report/dissertation to the university. Further, the students should appear for a comprehensive viva-voce as part of their fourth semester final examination.

4. ELIGIBILITY

The eligibility for admission to MBA (Energy Management) degree course under the KUFOS is a pass in the B.Tech./B.E. examination with 50%/equivalent CGPA (SC/ST candidates are eligible for 5% concession) as minimum marks preferably in Mechanical / Chemical / Electrical / Electronics / Petroleum / Automobile / Marine Engineering / Polymer Technology / Production and Industrial Engineering, M.Sc in Physics or Chemistry from graduates from Indian/Foreign Universities recognized by KUFOS/UGC. The admission will be based on the performance of the candidate in the qualifying degree (30%), CAT/CMAT/KMAT entrance examination (50%), Group Discussion and



interview (weightage of 10% and 10% each totaling to 20%). Candidates awaiting their final results of the qualifying degree can also apply for the course, but they should secure their qualifying marks before the commencement of the first semester examination.

5. ASSESSMENT AND STANDARDS OF PASSING

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments/student seminars/records/casestudy/debates/discussions and project reports. Assessment will be based on both internal and external evaluation.

6. NO. OF SEATS: 20

7. MODE OF SELECTION

Admission to the MBA programme is based on the score of

KMAT

http://www.kmatkerala.in/

CAT

https://iimcat.ac.in/per/g01/pub/756/ASM/WebPortal/1/index.html?756@@1 @@1#! CMAT http://www.aicte-cmat.in/College/Index_New.aspx/ and GD and Interview.

8. EMPLOYMENT OPPORTUNITIES

The role of new and renewable energy has been assuming increasing significance in recent times with the growing concern for the country's energy security. Energy self-sufficiency was identified as the major driver for new and renewable energy in the country a student doing his master's in Business Management with energy and environment will be able to deal effectively in energy audits, environmental economics and offer solutions in energy conservation, energy production, energy management which is the need of the hour.

M.Tech Programmes

4. (a) M. Tech in Integrated Coastal Zone Management

1. INTRODUCTION

The coastal zone contains many of the earth's most complex diverse and productive ecological systems. Many coastal zones face problems of deterioration of their natural, socio-economic and cultural resources. To improve the situation in the area, an Integrated Coastal Zone Management is essential for our coastal zone. This course provides principles and tools in ICZM. It will allow students to develop the skills in the management of coastal zones by examining the available technical and analytical frameworks.

2. OBJECTIVES

The objective of the programme is to provide sufficient number of competent personal with knowledge and skill in the area of Integrated Coastal Zone Management to cater the need of the present and future. The need of skilled people is required to analyze the information in ecological systems and to improve wellbeing of coastal population.

3. ELIGIBILITY:

B.Tech/BE in Integrated Coastal Zone management/ Civil Engineering/ Mechanical Engineering/ Environmental Engineering/ Harbour Engineering/ Coastal Engineering, Law graduates, MSc in Marine geology/Geo Science, Geo Physics, Marine biology & Oceanography and BFSc. A minimum mark of 50% mark is required for the qualifying degree.



4. ASSESSMENT AND STANDARDS OF PASSING:

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records, project reports etc. Assessment will be based on both internal and external evaluation and viva.

5. NO. OF SEATS: 6

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS

7. EMPLOYMENT OPPORTUNITIES

After the completion of the course students will understand the need sustainable development in coastal zones. Hence they will be able to work as practitioners in implementing coastal zone management strategy. They will get jobs in national and international ocean studies centers which diagnose the problems in coastal zones and provide diverse information in this regard.

4(b) M. Tech in Ocean And Coastal Safety Engineering

1. INTRODUCTION

All activities including port and vessel operation, fishery and oil and natural gas drilling in the marine and coastal environment are quite often prone to accidents. Cyclones, storm surges, monsoon waves and tsunami are hazardous to coastal and marine systems. Life and property in the coastal and marine areas are always under threat due to the forces from the sea. Management of marine accidents and coastal and marine hazards through technological and social intervention to ensure coastal and marine safety is very important for coastal and marine area development.

2. OBJECTIVES

The M.Tech Course in Coastal and Ocean Safety engineering proposes to impart knowledge on coastal and marine processes that lead to coastal and marine hazards and accidents. It aims to develop expertise in coastal and marine safety engineering for implementing measures to prevent coastal and marine accidents and manage mitigation measures through technological and social



interventions. Skill development for technological interventions for the safety of fishery related activities, and management of coastal erosion and flooding also form part of the major objectives of the course.

3. ELIGIBILITY:

B.Tech in Marine Engineering / Civil / Mechanical / Safety & Fire / EEE / Naval Arch / 60% marks preferably with GATE/NET.

4. ASSESSMENTAND STANDARDS OF PASSING:

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records, project reports etc. Assessment will be based on both internal and external evaluation and viva.

5. NO. OF SEATS: 10

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES:

Coastal and marine safety engineers are in demand in all types of coastal and marine industry, and port and harbor. Environmental and disaster management authorities and organizations are also in need of experts in Coastal and marine safety.

4(c) M.Tech in Coastal & Harbour Engineering

1. INTRODUCTION

Ports and harbours are the major development hubs all along the coastal zones of the world. India also has numerous ports and harbours along its extensive coastal zone. Many more ports and harbours are under development or being planned. Proper design, development and management of ports and harbours continue to be a challenging task considering the vagaries of the dynamic coastal and ocean environment and its adverse impacts on coastal morphology. Some of the present approach to control coastal erosion based on coastal engineering interventions



has resulted in adverse impacts which calls for innovative and environment friendly designs.

2. OBJECTIVES

The M.Tech, course in Coastal and Harbour engineering is expected to mould Coastal and Harbour Engineers with sufficient knowledge and expertise in the design of coastal structures, and port and harbours. It also provides the students with skills in the management of ports and harbours, and coastal erosion. Expertise in innovative methods for coastal engineering solutions for coastal erosion will also be acquired through the Course. The M.Tech, course will be based on a sound knowledge of the science of coastal and marine processes.

3. ELIGIBILITY:

B. Tech in Civil/Mechanical/Marine/Naval Arch. 60% preferably with GATE.

4. ASSESSMENT AND STANDARDS OF PASSING:

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records, project reports etc. Assessment will be based on both internal and external evaluation and viva.

5. NO. OF SEATS: 15

6. MODE OF SELECTION

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

Coastal and harbour engineers are required by port and harbour industry. They are also required by government and quasi government organizations concerned with harbour development and management. Expertise of coastal engineers is also sought for coastal erosion control and coastal zone management. Environmental management authorities and organizations are also in need of experts in coastal and harbour engineering.

LLM Programme

5. LLM (Maritime Law)

1. INTRODUCTION

This course is intended to train Law Graduates in the sophisticated new area of Maritime and Ocean Laws. Disputes in the Ocean are increasing and disposal of such cases are pending. This is due to the absence of qualified persons. Therefore, a course like this will have great 46 importance and job opportunities will be very high. They can also function as practitioners. Hence the course is highly relevant and more service oriented. The LLM course shall be of two year duration in semester pattern consisting of four semesters. There shall be thirteen papers, teaching, practical and internship, one dissertation and a viva-voce examination.

2. OBJECTIVES

The major objectives of this course are to produce (i) Law professionals who will be competent to critically analyze and evaluate the laws and legal systems with a juristic perspective (ii) Experts, specialized in areas of maritime law and jurisprudence and other related laws which are of emerging importance and relevance in society and, (iii) Good and efficient law teachers and researchers which the society and the legal system require.

3. ELIGIBILITY:

Candidates who have passed the LLB Degree Examination of any University in the State of Kerala or of any other University recognized as equivalent there to



and has secured not less than 50% of the marks in the aggregate (45% for SC/ST Students and Law graduates with 10 year experience) shall be eligible to be considered for admission. The students awaiting final results may also apply provided they produce the pass certificates and marks statements up to the prefinal semester at the time of admission.

4. ASSESSMENT AND STANDARDS OF PASSING:

The evaluation of the students in a course shall be based on his/her performance in various examinations, term papers/assignments, seminars, records, project reports etc. Assessment will be based on both internal and external evaluation and viva.

5. NO. OF SEATS: 15

6. MODE OF SELECTION:

Through common entrance examination conducted by KUFOS.

7. EMPLOYMENT OPPORTUNITIES

There is a dearth of awareness in the emerging area of law as evident in the context of recent legal issues evolved in the Italian Mariners controversy. The manpower shortage in this area was evident with this incident. Hence, students of KUFOS have great opportunities in national and international arena of Marine and Ocean related organizations. It also ensures qualified and well trained legal experts capable of addressing all kinds of legal issues both in Fisheries and Marine sectors.

PG Diploma Programmes

6. (a) PG Diploma in Aquarium Science and Technology

1. INTRODUCTION

It is a one year programme providing comprehensive training on all aspects of setting up, monitoring and maintenance of aquaria, covering fresh water as well as marine units.

2. OBJECTIVE:

The curriculum content is designed to meet requirements of new entrepreneurs, equipping them to initiate business ventures in trade and marketing of aquarium products, setting up of house hold aquariums to meet domestic demands, setting up of medium scale aquaria for hotels and other establishments. sale of aquarium accessories, breeding of ornamentals and sale of seeds to farmers, rearing of ornamentals to marketable sizes, sale of fish feeds both live and formulated, and taking up of AMC of aquaria.

- **3. ELIGIBILITY:** Graduation in any science discipline.
- **4. COURSE DURATION**: 1 year (2 Semesters)
- 5. ATTENDANCE: As per regulations



6. NO. OF SEATS: 20

7. JOB OPPORTUNITIES

Placement avenues of the successful candidates include areas such as in existing aquarium trade houses, Aqua-parks, Dolphinaria, Oceanaria and Agricultural banks and aqua ventures of any type - in view of the expertise in live feed culture, formulated feeds, captive breeding and rearing of fishes

6. (b) PG Diploma in Industrial Aquaculture

1. INTRODUCTION

KUFOS is starting a new PG Diploma Course in "Industrial Aquaculture" at Fisheries Station, Puduveypu. It is a one year course with two semesters.

2. OBJECTIVE

The objective of the course is to address the problem "Dearth of skilled human power in the low and middle level management in the fisheries sector.

3. ELIGIBILITY

B.Sc. any Biological subjects including Botany, Zoology, Fisheries, and Biotechnology etc.

- **4. COURSE DURATION**: 1 year (2 Semesters)
- 5. ATTENDANCE: As per regulations
- 6. NO OFSEATS: 20

7. JOB OPPORTUNITIES

Placement avenues of the successful candidates include areas such as in existing aquacultural farms, hatcheries, aquarium trade houses, Aqua-parks, Dolphinaria, Oceanaria and Agricultural banks and aqua ventures of any type - in view of the expertise in live feed culture, formulated feeds, aqua farming, captive breeding and hatchery production.



6. (c) PG Diploma In Maritime Law (Evening Course)

1. INTRODUCTION

There has been an increasing awareness as the importance of this branch of law, i.e., Maritime Law, known earlier as "Admiralty Law? in India and elsewhere especially in the context of increased maritime activities due to economic and trade liberalization. Many times we, in India found ourselves in an embarrassing position when we are confronted with maritime legal issues in situation such as determination of maritime frontiers of boundaries, exploitation of deep sea bed resources, maritime jurisdictional issues, and protection against maritime pollution and preservation of marine biological diversity, activities of shipping and related trades and maritime safety and security. On such occasion we find a dare dearth of well trained and qualified lawyers, administrators and other experts in the field of law, whether to advice the government, business institutions or to defend our interest in the cases arising out of maritime issues. It in this background, department of legal studies in KUFOS has started LL.M Maritime Law courses which is a PG programme comprising of four semesters. At the same time for those who cannot afford to spend two years PG programme after obtaining L.L.B. degree the department is presently planning to start a two semester diploma course in maritime law this will provide opportunities for the product of this course to seek employment in maritime centers and institution and also provide continuing education for those who are already employed in such centers

2. STRUCTURE AND DURATION

Diploma in Maritime Law course shall be of one year (two semester) duration. The number of papers dissertation and viva–voce shall be decided by the regulation.

3. NUMBER OF SEATS

The number of students admitted for the diploma course shall be ten till it is revise from time to time

4. ELIGIBILITY

Candidate who passed the L.L.B. Degree Examination of any University in the state of Kerala or of any other University recognized as equivalent there to shall be eligible to consider for admission.

5. ADMISSION

Admission to the diploma course shall be made only on the basis of qualifying marks and the marks for interview.



6. FEES

The tuition fees, examination fees and other fees will be as prescribed by the University from time to time. However, the tuition fee for the course shall be Rs.25,000/- per semester.

7. ATTENDANCE

In order to be eligible for admission to the end semester examination, a candidate shall have attended not less than 75% of the lecturers in each paper. However 5% of attendance deficiency to make up the required minimum can be condoned by the Vice-Chancellor on the recommendation of the head of the department.

8. EXAMINATION

There shall be a University Examination at the end of each semester. Passing of the examination in one semester is not compulsory for admission to the next semester.

9. INTERNALASSESSMENT

50% marks in each paper shall be given on internal assessment.

10. VIVA-VOCE

There shall be a viva-voce examination at the end of the second semester. Viva-voce shall be conducted by a Board, consisting of the Head if the Department and a senior teacher of the department.

11. PASSING STANDARD AND GRADATION

A candidate who obtains not less than 50% of marks in each individual paper in the two semesters and viva-voce shall be declared to pass the course. Provided for passing the individual paper, the candidate has to secure 50% of the aggregate and 40% of the internal and external semester examination separately. A candidate who obtains not less than 60% of the aggregate marks in all the semesters shall be placed in the first class.

12. EMPLOYMENT OPPORTUNITY

For the products of the Diploma course in Maritime Law there is ample scope for employment in maritime centers like Ports, Shipyards and other maritime institutions and government sectors as administrators, law officers and advisers in maritime legal issues.

Ph.D Programmes

7. Ph.D Programmes

Doctoral degree programmes leading to Ph.D are being offered by the five Faculties. The Faculties are

- 1. Faculty of Fisheries
 - a. Dept of Aquaculture
 - b. Dept. of Aquatic Animal Health Management
 - c. Dept. of Fisheries Resource Management
 - d. Dept. of Aquatic Environment Management
 - e. Dept. of Fish Processing Technology
 - f. Dept. Fisheries Engineering
 - g. Dept. of Fisheries Extension, Economics and Statistics
- 2. Faculty of Ocean Science and Technology
 - a. Dept of Biological Oceanography
 - b. Dept. of Physical Oceanography
 - c. Dept. of Marine Geosciences
 - d. Dept. of Food Science & Technology.



- 3. Faculty of Ocean Engineering
 - a. Dept. of Remote Sensing Technology & GIS.
 - b. Dept. of Coastal & Offshore Engineering
- 4. Faculty of Climate Variability and Aquatic Ecosystem
 - a. Dept. of Climate Variability and Aquatic Resource Management
 - b. Dept. of Coastal Zone Management
 - c. Dept. of Meteorology and Disaster Management
 - d. Dept. of Monsoon Studies
- 5. Faculty of Management, Humanities and Social Sciences
 - a. Dept of Business Administration & Management
 - b. Dept. of Legal Studies.

1. ELIGIBILITY:

Masters degree in the respective / related discipline recognized by Kerala University of Fisheries and Ocean Science with an OGPA of 7.0/10.0 (In the case of SC/ST candidates, an OGPA of 6.5/10.0).

2. MODE OF SELECTION:

Through the Common Entrance Examinations conducted by KUFOS.

Post Doctoral Fellowship

8. Post Doctoral Fellowship Programmes

1. INTRODUCTION

The prestigious KUFOS Post Doctoral Fellowship Programmes (PDF) programme is being instituted from the Academic year 2018-19 in order to stimulate the research and to utilise the available intellects who can conduct quality research in emerging areas of Fisheries and Ocean Studies through cutting edge technology for the benefit of the society. Eight such post-doctoral fellowships are been proposed under the following Faculties

- 1. Faculty of Fisheries
- 2. Faculty of Ocean Science and Technology
- 3. Faculty of Ocean Engineering
- 4. Faculty of Climate Variability and Aquatic Ecosystem
- 5. Faculty of Management, Humanities and Social Sciences

2. ELIGIBILITY:

- 1. The candidate must have a doctorate degree in the relevant subject preferably with published research work to their credit
- 2. In case of general/open category, 55% marks at UG level and 60% of marks at PG level. For reserved categories (SC/ST/OBC/PH) candidates, 50% at UG level and 55% at PG level.



3. The upper age limit for applicants is 35 years for the candidates belonging to general/open category and 40 years for SC/ST/OBC/PH/Minority communities, as on 1st July on the year of application.

3. NO. OF SEATS: 8

4. MODE OF SELECTION:

The applications received will be scrutinised by the screening committee. Later, the short listed candidates will be called to appear before the selection committee constituted by the University. Selection will be based on the research aptitude, research experience and the proposed Post doctoral research programme of the candidate.

5. FELLOWSHIP:

The fellowship carries an amount of R. 42000/- (consolidated).

6. DURATION:

For one year period, can be extended up to 2 years based on the performance of the candidates and or research needs of the University.

Degree Programmes

9.1 BACHELOR OF FISHERIES SCIENCE (B.F.Sc.)

1. INTRODUCTION:

Bachelor of Fishery Science is a premier course offered by KUFOS for undergraduate students. The course caters to the need to growing fisheries sector. The syllabus and course content of the 4 year (8 Semester) with 172 credits including industrial and rural work experience Bachelor of Fisheries Science degree programme has been designed at par with premier institutes of the country perceiving the present need and future requirements of trained manpower in Fishery Industries. The major disciplines in the Course include Fisheries Biology, Aquaculture, Fish Processing Technology and Microbiology, Fisheries Engineering, Fisheries Resources, Economics, Statistics, Extension Education and Fisheries Hydrography. A comprehensive industrial & rural work experience of one year duration forms an integral part of the curriculum and is intended to provide practical hands-on experience in the various aspects of Fisheries and allied industry processes. Provision has also been made in the syllabus for field visits, educational tours to cover syllabus related to Marine Fisheries and Brackish water Fisheries.

2. ELIGIBILITY/SELECTION CRITERIA FOR ADMISSION:

Basic qualification for the course is XII Std. Candidates who have passed Higher Secondary examination of the Board of Higher Secondary Education, Kerala, or examinations recognised equivalent thereto, with 50% marks in Biology separately, and 50% marks in Physics, Chemistry and Biology put together, are eligible. Biotechnology will not be considered as a subject for



academic eligibility. Those students who qualify National Eligibility cum Entrance Test (NEET - UG) administered by the National Testing Agency for Medical stream shall be allotted for admission to BFSc. course, if opted by the candidate, by the Commissioner of Entrance Examination, Kerala www.cee.kerala.gov.in shall be admitted based on their KEAM rank. For online application click https://cee.kerala.gov.in/main.php

3. SEATS AND RESERVATIONS

Total seats for BFSc. Program are 80. Mandatory reservation to the eligible communities shall be maintained by the Commissioner for Entrance Examinations (CEE), Kerala as allotment of candidates are made by the CEE. 15% seats are reserved as ICAR quota for those candidates who qualify the All India Entrance Examinations conducted by the Indian Council of Agricultural Research (ICAR), New Delhi. 20% of seats are reserved for candidates belonging to 'Children of Fishermen' category. They shall upload the relevant certificate while they register in KEAM.

9.2 B.TECH. (FOOD SCIENCE AND TECHNOLOGY)

1. INTRODUCTION

Food is one of the basic necessities for survival. Providing food security to the teeming millions is a day—to—day challenge that developing countries are facing today. The study and application of food science and technology principles would enable us to combat such difficult situations. In an era of increasing population, decreasing energy sources and increasing poverty, it is but imperative that appropriate technology, with an aim towards providing food security be developed. Applications in the realm of food production, processing and preservation could help transform the economic and cultural structure of developing nations across the globe.

2. OBJECTIVES

Food Technology is the key to the conversion of raw agricultural materials into a wide variety of properly processed and preserved foods, thus contributing to the well-being, economy, standard of living, and progress of humanity. Acquaint the student with the basic scientific understanding of foods and food processing as determined through biochemistry, chemistry, microbiology, and other sciences. Train manpower in Food Science, Food Technology, Nutrition, Engineering, Business Management and Product Development to meet demand of rapidly increasing food based industries.



3. ELIGIBILITY/SELECTION CRITERIA FOR ADMISSION:

Candidates who have passed Higher Secondary Examination, Kerala, or Examinations recognized as equivalent thereto, with 50% marks in Mathematics separately, and 50 % marks in Mathematics, Physics and Chemistry put together are eligible for admission. In case, the candidate has not studied Chemistry, the marks obtained in Computer Science shall be considered. In case, the candidate has not studied Chemistry and Computer Science, the marks obtained in Biotechnology shall be considered. In case, the candidate has not studied Chemistry, Computer Science and Biotechnology, the marks obtained in Biology shall be considered. The marks as shown in the mark list of the Board of Examination obtained from the respective Higher Secondary Board shall be considered for academic eligibility.

Students who have been ranked in the Kerala Engineering Agriculture Medical (KEAM) degree examination for Engineering stream conducted by the Commissioner of Entrance Examination, Kerala www.cee.kerala.gov.in shall be admitted based on their KEAM rank. For online application click https://cee.kerala.gov.in/main.php

Note:-

- (i) In two year Kerala Higher Secondary courses or examinations
- (ii) In Higher Secondary courses or examinations the class (final year), the marks in the respective subjects as shown in the mark lists of the respective Higher Secondary Boards will be considered for academic eligibility.
- (iii) For all other type of Higher Secondary courses or examinations
- (iv) The Vocational Higher Secondary Examination, Kerala, has been
- (v) In the case of nominees of Government of India and nominees of reciprocal quota seats who are selected on the basis of the marks in the qualifying examination, the academic eligibility as specified in clause 7.2.3 is applicable.

4. NO. OF SEATS AND RESERVATIONS

Total seats for BTech. Program are 48, which include mandatory reservation to the eligible communities. 8 seats are reserved for candidates belonging to 'Children of Fishermen' category

Certificate Courses

10.1 Certificate Course on Computer Aided Designing and Drafting (CADD)

1. INTRODUCTION

CADD – Computer aided designing and drafting is used to accomplish preliminary design and layouts, design details and calculations, designing and analysis of 3-D models, marketing, manufacturing, and end-user personnel. CADD facilitates the manufacturing process by transferring detailed information about a product in an automated form that can be universally interpreted by professionals. It can be used to design either two-dimensional or three-dimensional objects.

2. OBJECTIVES

Certificate Course on Computer Aided Designing and Drafting will enable the students to acquire technical skill in modern drafting and prints. Will give exposure of design and modelling of real life complex objects, machine parts and other accessories with the support of modern drawing software. Programme includes visual guideline and understanding of designed objects, cultivation of developing detailed cross sectional and structural views and designing tool for research activities.



3. ELIGIBILITY

ITI/ Diploma/B.Tech/B.F.Sc/M.F.Sc/M.Sc/M.Tech/MBA/Ph.D in Engineering or Science (on-going students can also apply for this course).

4. COURSE DURATION

8 weeks (4 hours per week)

5. No. OF SEATS

20 students per batch

6. JOB OPPORTUNITIES

This course is essential for those who are involved as design engineers, draftsmen, research engineers, project engineers, scientists, young professionals, management trainees and research scholars etc in the fields of industrial engineering, infrastructure development, product designing, production engineering, Research & Development, manufacturing technology and those working in government funded or sponsored projects. The course is a key tool for both science and engineering graduates. Nowadays this course is proving to be inevitable in medical, agriculture, and marine, coastal & harbour food technology and food science fields. It is also a stepping stone for entrepreneurs to start new businesses.

7. COURSEFEE

The course fee is Rs. 5500/- and for KUFOS students fee will be Rs.4500/-

10.2 Certification Programme on Entrepreneurship Development

1. Introduction

Role of entrepreneurs is significant in the economic development of our country and they contribute a major share of our GDP and focus towards nation building. The present programme covers theoretical and practical aspects on the subject and exposure to different areas of specialization in agri-business currently undertaken by KUFOS.

2. Objectives

The curriculum is designed to meet the requirements of new and aspiring entrepreneurs, equipping them to initiate business ventures in food processing and preservation, fish processing and aquaculture.



3. Eligibility

Basic qualification for the course is a pass in higher secondary examination. Candidates who have passed Higher Secondary Examination of the Board Of Higher Secondary Education Kerala or examinations recognized equivalent thereto.

- 4. Course duration:-Two weeks
- **5. Course fee:** Rs. 5000/-
- **6. No. of seats:** 30

7. Job opportunities

Initiating, developing and establishing own business in the MSME sector



ANNEXURE II

Fees structure (As per Acad (1)/10282/2017dated 16.01.2019)

M F Sc Programmes:

				Amount (Rs.)			
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1 Fee to be remitted at the time of admission							
	Adm	ission Fee	300	0	0	0	300
	Caution Deposit		3,000	0	0	0	3,000
	Academic Hand Book		250	0	0	0	250
2	Tuiti	on Fee (Per Semester)	14,640	14,640	14,640	14,640	58,560
3	Spe	cial Fees:					
	Libra	ary fee (Annual)	0	1,000	0	1,000	2,000
	Stati	onery fee(Annual)	0	1,000	0	1,000	2,000
	Athletic/Sports/Games Fee (Per Semester)		r) 250	250	250	250	1,000
	Association Fee (Per Semester)		100	100	100	100	400
	Mag	azine Fee (Annual)	0	500	0	500	1,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	250	1,000
	Com	Computer Fee (Per Semester)		500	500	500	2,000
	Insu	rance (Annual)	118	0	118	0	236
4.	Diss	sertation/Viva-voce	-	-	-	2,000	2,000
	Sem	ester Examination Fee	1,000	1,000	1,000	-	3,000
	Tota	I	20,408	19,240	16,858	20,240	76,746



M.Sc Programmes (other than M.Sc Statistics)

				Amou	nt (Rs.)		
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1	Fee	to be remitted at the time of admiss	sion				
	Adm	ission Fee	10,000	0	0	0	10,000
	Cau	tion Deposit	5,000	0	0	0	5,000
	Acad	demic Hand Book	250	0	0	0	250
2	Tuiti	on Fee (Per Semester)	27,500	27,500	27,500	27,500	1,10,000
3	Spe	cial Fees:					
	Libra	ary fee (Annual)	0	1,000	0	1,000	2,000
	Stati	ionery fee (Annual)	0	1,000	0	1,000	2,000
	Athle	etic/Sports/Games Fee (Per Semeste	er) 250	250	250	250	1,000
	Asso	ociation Fee (Per Semester)	100	100	100	100	400
	Mag	azine Fee (Annual)	0	500	0	500	1,000
	Univ	versity Union Fee (Per Semester)	250	250	250	250	1,000
	Con	nputer Fee (Per Semester)	1,000	1,000	1,000	1,000	4,000
	Insu	rance (Annual)	118	0	118	0	236
4	Diss	ertation/Viva-voce	-	-	-	2,000	2,000
	Sem	nester Examination fee	2,000	2,000	2,000	-	6,000
	Tota	ıl	46,468	33,600	31,218	33,600	1,44,886



Msc Statistics

	Amount (Rs.)						
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1	Adm	nission Fee	10,000	0	0	0	10,000
	Caut	ion Deposit	5,000	0	0	0	5,000
	Acad	lemic Hand Book	250	0	0	0	250
2	Tuitio	on Fee (Per Semester)	22,000	22,000	22,000	22,000	88,000
3	Spec	cial Fees:					
	Libra	ry fee (Annual)	0	1,000	0	1,000	2,000
	Stati	onery fee (Annual)	0	1,000	0	1,000	2,000
	Athle	etic/Sports/Games Fee (Per Semester	250	250	250	250	1,000
	Asso	ciation Fee (Per Semester)	100	100	100	100	400
	Mag	azine Fee (Annual)	0	500	0	500	1,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	250	1,000
	Com	puter Fee (Per Semester)	1,000	1,000	1,000	1,000	4,000
	Insu	rance (Annual)	118	0	118	0	236
4	Diss	ertation/Viva-voce	-	-	-	2,000	2,000
	Sem	ester Examination Fee	2,000	2,000	2,000	2,000	8,000
	Tota		40,968	28,100	25,718	30,100	1,24,886



M.B.A Programmes

				Amou	nt (Rs.)		
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1	Fee	to be remitted at the time of admission	n				
	Adm	ission Fee	10,000	0	0	0	10,000
	Caut	ion Deposit	5,000	0	0	0	5,000
	Acad	lemic Hand Book	250	0	0	0	250
2	Tuitio	on Fee (Per Semester)	27,500	27,500	27,500	27,500	1,10,000
3	Spec	cial Fees:					
	Libra	ry fee (Annual)	0	1,000	0	1,000	2,000
	Stati	onery fee (Annual)	0	1,000	0	1,000	2,000
	Athle	etic/Sports/Games Fee (Per Semester	r) 250	250	250	250	1,000
	Asso	ciation Fee (Per Semester)	100	100	100	100	400
	Mag	azine Fee (Annual)	0	500	0	500	1,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	250	1,000
	Com	puter Fee (Per Semester)	1,000	1,000	1,000	1,000	4,000
	Insu	ance (Annual)	118	0	118	0	236
	Diss	ertation/Viva-voce	-	-	-	2,000	2,000
4	Sem	ester Examination fee	2,000	2,000	2,000	2,000	8,000
	Tota	I	46,468	33,600	31,218	35,600	1,46,886



Mtech. Programmes

Amount (Rs.)							
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1	Fee	to be remitted at the time of admis:	sion				
	Adm	ission Fee	10,000	0	0	0	10,000
	Caut	ion Deposit	5,000	0	0	0	5,000
	Acad	lemic Hand Book	250	0	0	0	250
2	Tuitio	on Fee (Per Semester)	33,000	33,000	33,000	33,000	1,32,000
3	Spec	cial Fees:					
	Libra	ry fee (Annual)	0	1,000	0	1,000	2,000
	Stati	onery fee (Annual)	0	1,000	0	1,000	2,000
	Athle	etic/Sports/Games Fee (Per Semester	250	250	250	250	1,000
	Asso	ociation Fee (Per Semester)	100	100	100	100	400
	Mag	azine Fee (Annual)	0	500	0	500	1,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	250	1,000
	Com	puter Fee (Per Semester)	1,000	1,000	1,000	1,000	4,000
	Insu	rance (Annual)	118	0	118	0	236
4	Diss	ertation/Viva-voce	-	-	-	2,000	2,000
	Sem	ester Examination Fee	2,000	2,000	2,000	-	6,000
	Tota	I	51,968	39,100	36,718	39,100	1,66,886



LLM (Maritime Law)

				Amou	nt (Rs.)		
SI.	No	Item	First semester	Second semester	Third semester	Fourth semester	Total
1	Fee	to be remitted at the time of admiss	sion				
	Adm	ission Fee	10,000	0	0	0	10,000
	Caut	ion Deposit	5,000	0	0	0	5,000
	Acad	lemic Hand Book	250	0	0	0	250
2	Tuitio	on Fee (Per Semester)	33,000	33,000	33,000	33,000	1,32,000
3	Spec	cial Fees:					
	Libra	ry fee (Annual)	0	1000	0	1000	2,000
	Stati	onery fee (Annual)	0	1000	0	1000	2,000
	Athle	etic/Sports/Games Fee (Per Semester	250	250	250	250	1,000
	Asso	ciation Fee (Per Semester)	100	100	100	100	400
	Maga	azine Fee (Annual)	0	500	0	500	1,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	250	1,000
	Com	puter Fee (Per Semester)	1,000	1,000	1,000	1,000	4,000
	Insur	rance (Annual)	118	0	118	0	236
4	Disse	ertation/Viva-voce	-	-	-	2,000	2,000
	Sem	ester Examination Fee	2,000	2,000	2,000	2,000	8,000
	Tota		51,968	39,100	36,718	41,100	1,68,886



Ph.D Programmes

Г				Amount	(Rs.)		
SI.	No	ltem	First semester	Second & Fourth semesters*	Third & Fifth semesters*	Sixth semester	Total
1	Fee	to be remitted at the time of admission					
	Adm	ission Fee	500	0	0	0	500
	Caut	tion Deposit **	3,000	0	0	0	3,000
	Acad	demic Hand Book	250	0	0	0	250
2	Tuitio	on Fee (Per Semester)	16335	16335	16335	16335	98010
3	Spe	cial Fees:					
	Libra	nry fee (Per Semester)	450	450	450	450	2700
	Stati	onery fee (Per Semester)**	450	450	450	450	2700
	Athle	etic/Sports/Games Fee (Per Semester)**	250	250	250	250	1,500
	Asso	ociation Fee (Per Semester) **	100	100	100	100	600
	Mag	azine Fee (Annual)	0	500	0	500	1,500
	Univ	ersity Union Fee (Per Semester) **	250	250	250	250	1,500
	Com	puter Fee (Per Semester) **	500	500	500	500	3,000
	Insu	rance (Annual) **	118	0	118		354
4		ertation/Viva-voce	-	-	-	2,000	2,000
	DC r	neeting for 6 months review	1,000	1,000	1,000	1,000	6,000
		I (for Ph.D. Scholars admitted at KUFOS	23,203	19,835	19,453	21,835	1,23,614
		I (for Ph.D. Scholars admitted at roved Research Centres	18,535	18,285	17,785	20,285	1,10960

^{*} To be paid each semester

The semesters for PhD courses will be from 1st October to 31st March and from 1st April to 30thSeptember each year. The last date for payment of fee for PhD Scholars for each semester without finewill be on 5th October and 5th April and with a fine of 10% of semester fee for the next fifteen days.

Further delay in remitting fee will be considered only on payment of a super fine of Rs.5, 000/- and require re-registration.

^{**} Ph.D Research scholars at approved research centers are exempted from remitting these fees.



BFSc.

				Amount (Rs.)		
SI.	No	Item	First semester	Second , Fourth, Sixth & Eighth semesters *	Third, Fifth & Seventh semesters *	Total
1	Fee	to be remitted at the time of admis	sion			
	Adm	ission Fee	100	0	0	100
	Caut	ion Deposit	1,000	0	0	1,000
	Acad	demic Hand Book	250	0	0	250
2	Tuitio	on Fee (Per Semester)	7320	7320	7320	58,560
3	Spec	cial Fees:				
	Libra	ry fee (Per Semester)	200	200	200	1,600
	Stati	onery fee (Per Semester)	200	200	200	1,600
	Athle	etic/Sports/Games Fee (Per Semeste	er) 100	100	100	800
	Asso	ociation Fee(Per Semester)	100	100	100	800
	Mag	azine Fee (Annual)	200	0	200	800
	Univ	ersity Union Fee(Per Semester)	100	100	100	800
	Com	puter Fee(Per Semester)	500	500	500	4,000
	Insu	rance (Annual)	118	0	118	472
4	Sem	ester Examination Fee	500	500	500	4,000
	Tota		10,688	9,020	9,338	74,782

^{*}To be paid in each semester.



B. Tech Food Technology

		Amount (Rs.)				
SI	. No	Item	First semester	Second , Fourth, Sixth & Eighth semesters *	Third, Fifth & Seventh semesters *	Total
1	Foo	to be remitted at the time of admis	sion			
'		ission Fee	10,000	0	0	10,000
		on Deposit	5,000	0	0	5,000
		lemic Hand Book	250	0	0	250
2	Tuitio	on Fee (Per Semester)	33,000	33,000	33,000	2,64,000
3	Spec	ial Fees:				
	Libra	ry fee (Per Semester)	500	500	500	4,000
	Stati	onery fee(Per semester)	500	500	500	4,000
	Athle	tic/Sports/Games Fee(Per Semester	r) 250	250	250	2,000
	Asso	ciation Fee (Per Semester)	100	100	100	800
	Mag	azine Fee (Annual)	500	0	500	2,000
	Univ	ersity Union Fee (Per Semester)	250	250	250	2,000
	Com	puter Fee (Per Semester)	1,000	1,000	1,000	8,000
	Insur	ance (Annual)	118	0	118	472
4	Sem	ester Examination Fee	2,000	2,000	2,000	16,000
	Total		53,468	37,600	38,218	3,18,522

^{*}To be paid in each semester.



Diploma in Brackish Water & Marine Aquaculture

SI.No.	Item	Semester I (in Rs.)	Semester II (in Rs.)
1.	Admission fee	3,000	0
2.	Course fee	6,000	9,000
3.	Library fee	800	0
4.	Stationary fee	100	0
5.	Caution Deposit	100	0
6.	Course Material	0	1,000
7.	Semester Exam fee	500	500
	Total	10,500	10,500

The fee for all the academic programmes mentioned above are prescribed only for the students who secure admission to UG, PG, PhD and Diploma Programmes offered by the University during the academic year 2019-20.

I) Certificates

Item	Amount(in Rs.)
Bachelor's Degree Certificate	1,000
Master's Degree Certificate	1,500
Doctorate Degree Certificate	2,000
Diploma Certificate	1,000
PG Diploma/Titles	1,000
Additional fee for issue of Degree Diplomas, Titles and Certificates	500
(I) after one year or more but before 5 years of examination	1,000
(ii)after 5 years but before the expiry of 10 years of examination	1,500
(iii) after 10 years of examination	
Provisional Degree Certificate	300
Transcript for UG courses	200
Transcript of PG courses	2000
For issuing Certificates or copies of documents authenticated by the	
Registrar for transmission to foreign Universities (per copy)	500
For issuing certified extracts from the records of the University	200
Migration Certificate	400
Rank Certificate	150
Duplicate Certificate, excluding postage charges	1,000
Equivalency Certificate	500
Certificate other than mentioned above	200



(II) Other fees

SI.No.	Item	Amount(in Rs.)
1	Late registration of semester	
	(i)within 7 working days from the last date of registration	500
	(ii) beyond 7 working days and within 15 working days	1,000
2	Duplicate Identity Card	100
3	Comprehensive Examination fee for Masters' Degree	650
4	Comprehensive Examination fee for PhD Programme	1,500
5	Late fee for submission of thesis(i)PG(ii)PhD	5001,000
6	Re – Examination/Repeat Examination (per paper)	450
7	Revaluation (per paper)	500

Students who secure admission to the University Hostels shall remit the fees as per reference read 3rd as given below:

SI. No.	Description	Fee (in Rs.)
1	Caution deposit at the time of admission to Ladies & Men's Hostels and Converted Quarters for all students irrespective of course.	2.000
	all students irrespective of course.	2,000
2	Hostel rent for UG students at the Ladies and Men's Hostels	1,800 Per semester including electricity and water charges
3	Hostel rent for PG students at the Ladies and Men's Hostels	2,400 Per semester including electricity and water charges
4	Rent for PG students at the Converted Quarters	3,000 Per semester including electricity and water charges
5	Guest charges at the Ladies/Men's Hostels	40 Per day with prior permission of the Asst. Warden of the respective Hostel

No student will be allowed to attend the classes without registering the respective semester by remitting prescribed fees.



ANNEXURE III

Reservation Of Seats-community Reservation

Category	Sub category	Reservation of seats
Contail on LE		20
Socially and Ed	lucationally Backward Classes (SEBC)	30
Ezhava	a (EZ) 9%	
Muslim	(MU) 8%	
Other E	Backward Hindu (BH)	3%
Latin C	atholic and Anglo Indian(LC-AI)	3%
Dheeva	ara and related communities (DV)	2%
Viswak	arma and related communities (VK)	2%
Pot-ma	king castes (KN)	1%
Other E	Backward Christian (BX)	1%
Kudum	bi (KU)	1%
Scheduled Cas	tes & Scheduled Tribes	10%
Schedu	uled Castes (SC)	8%
Schedu	uled Tribes (ST)	2%



Name of the course	Total	Total seats*	Numbe	Number of seat									H
		(EZ)	MU)	(BH)	LC-AI	(DV)	(VK)	(KN)	(BX)	(KU)	(SC)		Post C
Reservation in percentage		6	∞	3	3	2	2	_	_	<u></u>	∞		iradı
MFSc in Aquaculture	9	0.58	0.44	0.3	-0.64	0.24	0.24	0.12	0.12	0.12	-0.04		iate :
MFSc in Fish Nutrition and Feed Technology	4	0.36	-0.36	0.24	0.24	0.16	0.08	0.04	0.04	0.04	0.32		and I
MFSc in Aquatic Animal Health Management	9	0.56	0.08	0.36	0.36	0.14	0.12	90.0	90.0	90.0	0.48		Ph.D
MFSc in Fisheries Resource Management	9	0.44	0.16	0.54	-0.04	0.26	0.44	0.12	0.12	0.12	0.76		Pro
MFSc in Aquatic Environment Management	9	0.62	0.42	-0.46	0.24	-0.72	0.12	0.12	0.08	0.12	0.48	_	gran
MFSc in Fisheries Engineering and Technology	4	-0.28	0.42	0.21	0.21	0.16	0.08	0.04	0.04	0.04	0.32	0.08	imes
MFSc in Fish Processing Technology	9	0.70	-0.04	0.36	0.32	0.16	0.08	0.04	0.04	0.04	0.32	0.28	
MSc in Physical Oceanography	10	0.7	1.8	9.0	9.0	-1.8	0.4	0.3	0.2	0.2	0.4	9.0	
MSc in Marine Biology	25	2.5	1.75	0.25	1.25	0.5	0.5	0.25	0.75	0.25	2.00	0.00	
MSc in Earth Sciences	10	1.7	1.6	9.0	9.0	9.0-	0.4	0.3	0.2	-0.8	-0.4	0.4	
Msc in Statistics	10	06.0	09.0	0.30	0.30	0.40	0.20	0.10	0.10	0.10	0.80	0.20	
MSc in Remote Sensing and GIS	10	_	1.2	-0.1	-0.1	0.30	0.30	-0.7	0.1	0.2	8.0	0.2	
MSc in Food Science and Technology	25	1.75	2.00	0.25	0.25	0.5	0.5	0.75	0.75	0.75	2.00	0.5	
MSc in Disaster Management	10	8.0	1.2	0.30	-0.4	9.0-	0.1	0.2	0.1	-0.8	_	0.2	
MSc in Biotechnology	15	0.95	1.2	0.45	0.45	0.3	-0.1	0.45	0.4	0.4	9.0	6.0	
MSc in Climate Science	10	0.90	0.80	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.80	0.20	
MSc in Marine Microbiology	20	2.4	8.0	-0.2	-0.2	0.4	_	9.0	9.0	9.0	8.0	1.2	
MSc in Marine Chemistry	15	-0.95	1.57	0.35	-0.55	0.3	8.0	0.45	0.45	0.45	2.4	9.0	
Msc in Environmental Sciences	15	-0.95	2.2	0.35	0.35	<u></u>	-0.1	0.3	0.30	0.45	1.85	6.0	
MBA (Dual Specialisation)	35	3.30	2.60	1.75	1.40	-0.60	1.05	-0.3	0.70	-1.3	2.6	0.90	
MBA in Energy Management	20	2.20	1.20	09.0	09.0	0.40	0.40	0.20	0.20	0.20	1.60	0.40	
M.Tech in Integrated Coastal Zone Management	9	0.54	0.48	0.18	0.18	0.12	0.12	90.0	90.0	90.0	0.48	0.12	
M.Tech in Ocean and Coastal Safety Engineering	10	0.90	0.80	0.30	0.30	0.20	0.20	0.10	0.10	0.10	0.80	0.20	
M.Tech in Coastal and Harbour Engineering	15	0.7	0.4	6.0	6.0	9.0	9.0	0.3	0.3	0.3	1.4	-0.4	
LLM (Maritime Law)	15	1.35	1.2	0.45	0.45	0.30	0.30	0.30	-0.7	0.15	1.2	0.30	
Comminity reservation for a course will be followed by taking each course as a	i taki	ngeach	20 0 0 0 011	-narate uni	. <u>+</u>								

Community reservation for a course will be followed by taking each course as a separate unit

Cases where the reservation of communities is fractional in nature, communities with higher fraction will be considered first and then the next one will be considered in the descending order of the fraction.

All other terms and conditions specified in the prospectus of KEAM for claiming reservation will be followed

^{*} Supernumerary seats for the children of fishermen, Kashmiri migrants, Foreign nationals, PIO, NRI and sponsored candidates by ICAR, Govt. Departments and Institutes were not inclu



How to reach

BYAIR:

The nearest airport is Cochin International Airport which is the busiest airport of Kerala and just 25Km away from KUFOS, Panangad. The recommended option is to catch a Taxi/ Cab from Airport to Madavana (Vytilla - Eramelloor Road). But the cheapest option will be utilizing the local City Bus Services from the airport connecting the stops Aluva – Edapally – Vytilla – Madavana.

BYTRAIN:

The nearest railway station is Ernakulam junction located near South of the Cochin City / Jose Junction. However, certain trains pass through Ernakulam town which is located near North of the Cochin City. The best option to reach KUFOS from railway station is to catch a Taxi/ Cab/ Auto Rickshaw. But the cheapest option will be utilizing the local City Bus Services connecting the stops south – Kadavanthra – Vytilla – Madavana.

BYBUS:

The nearest major bus station is in the heart of Cochin City which connects with all national inter-city transports of South India. The best option to reach KUFOS from Bus Station (Madavana) is by Taxi/ Auto Rickshaw or by utilizing the local City Bus services.



KERALA UNIVERSITY OF FISHERIES AND OCEAN STUDIES

(KUFOS)

Panangad, Kochi 682506 www.kufos.ac.in