UNIVERITY OF CALICUT

PROSPECTUS- M.Sc. RADIATION PHYSICS COURSE 2012-13

Applications are invited for admission to the three year M.Sc. Radiation Physics course conducted by the University of Calicut.

ABOUT THE COURSE: M.Sc. Radiation Physics course is a highly specialized multidisciplinary course in Applied Physics. The course will emphasis on the interaction of radiation with human body, applications in radiotherapy and the safety measures. The course has immense job potential as highly demanded **Medical Physicists** and **Radiological Safety Officers** in Advanced Hospitals, Industrial and Research Organizations, in India and abroad.

NUMBER OF SEATS: 12

DURATION OF THE COURSE : Two years course work – Four semesters each of 6 months followed by **clinical training of 1 year** in two semesters. A project work is to be submitted during the period.

ELIGIBILITY FOR ADMISSION: A pass in B.Sc. Physics as core subject, with Mathematics as one of the subjects, from University of Calicut or equivalent with 60% marks in aggregate of the subjects or equivalent grade.

ADMISSION CRITERIA: The admission is made on the basis of the performance in qualifying examination and an entrance test of the objective type/ short answer questions of 2 hours duration with the syllabus of B.Sc. Physics of the University of Calicut and on general knowledge in human physiology and anatomy. Weightage shall be given by adding 50% of marks obtained by qualifying examination and 50% of the marks obtained in the entrance examination for preparing the rank list.

The entrance examination shall have 100 marks; multiple choice type, or short answer questions – covering subjects as detailed below:

Physics of B.Sc. level - 60 %
Mathematics of B.Sc. Subsidiary level – 20%
Chemistry of B.Sc. Subsidiary level – 10%
Basic Human Physiology and Anatomy – 10%

COURSE CONTENT:

SEMESTER I:	**20 credits**
RPH1C01. Mathematical methods in Physics,	4 credits
RPH1C02. Numerical techniques and statistics	4 credits
RPH1C03. Basic Electronics	4 credits
RPH1C04. Nuclear Physics	4 credits
RPHC105 Electronics Practical	2 credits
RPHC106 Nuclear Physics Practicals	2 credits

SEMESTER II	**20 credits**
RPH2C07. Quantum mechanics	4 credits
RPH2C08. Radiation Physics Fundamental	4 credits
RPH2C09. Anatomy, Physiology and Radiobiolgy	4 credits
RPH2C10. Radiation Detection, Measurement and Instruments	4 credits
RPH2C11 Practical in Instrumentation in Radiology	2 credits
RPH2C12 Practicals in Computer applications	2 credits
SEMESTER III	**22 credits**
RPH3C13. Radiation Hazards safety, evaluation and control	4 credits
RPH3C14. Physics of Medical Imaging	4 credits
RPH3C15. Physics of radiotherapy	4 credits
RPH3C16. Nuclear Medicine	4 credits
RPH3C17 Practicals in Radiation Measuring Instruments	2 credits
RPH3C18 Practicals Medical Imaging	2 credits
RPH3C19 Dosimetry in Radiotherapy	2 credits
SEMESTER IV:	**24 credits**
RPH4C20. Quality assurance and commissioning Radiotherapy equipment	4 credits
RPH4C21. Radiotherapy Treatment Planning	4 credits
RPH4C22. Modern trends in Radiation therapy	4 credits
RPH4C23 Radiotherapy Planning and Dosimetry	2 credits
RPH4C24 Q/A and calibration of radiological equipments	2 credits
RPH4C25 Project work	8 credits
SEMESTER V&VI : Field training	**12 credits**
Total	**98 credits**

Radiological Safety Officer (RSO) Approval by Atomic Energy Regulatory Board:
The University shall initiate steps to get RSO (Level III- Medical Applications) certification for all candidates. The examination for the same shall be conducted as directed by Atomic Energy Regulatory. Expenses involved in this respect should be born by the student. Students qualifying this examination will be eligible for RSO.

Field Training:
Field training will be an integral part of the course. Total duration of the training will be 12 months (as prescribed by the AERB). It should be done under the supervision of a designated academic staff member of recognized institute. The supervisor must certify to the adequacy of the field training on the basis of the thesis report submitted by the candidate. The students should necessarily present at least one seminar on the basis of the field training and the record of the field training must be duly certified by the designated officer in the centre and the Course Coordinator. (The students should pay the charges for clinical training as required by the host institution.)

Project Work:
Every candidate must do a project work under an approved supervisor (approved by the Coordinator) in a topic having relevance to the application of radiation in medicine, industry, agriculture and research in the 4th semester. The project thesis should be submitted to the University. The supervisor should certify about the satisfactory completion of the project. Each

candidate should present his work in a seminar before a committee constituted by the course coordinator. Project Report must be submitted before the last working day of the semester.

FEE STRUCTURE:

The students have to pay the following fee on admission. Since the admission is strictly on the basis of merits, there is **no payment seats** for this course.

a) Tuition Fee	: **Rs. 50,000/- per semeseter** (for 1- 4 semesters)
b) Caution depsoit	: **Rs. 30,000/-** (at the time of admission refundable without interest after completion of the course)
Admission Fee:	Rs. 2,000.
Recognition Fee	Rs. 50/-
Matriculation Fee	Rs. 50/-
Sports Affiliation Fee	Rs. 30/-
Departmental students Union Fee	Rs. 50/- per year
Fees NRI	
Tuition fee	US$ 4000/- per annum
Admission Fee	US$250/-

The SC/ST candidates will be reimbursed the Tuition Fee paid by them if the Government reimburses the same to the University. They have to apply for fee concession in the prescribed form in order to get the sanction from the District Development Officer within one month of the date of Admission. (As per G.O. (M.S.) No. 48/2004/S.C.S.T. Devpt. dept. dt. 17.7.2004 only 10% of SC/ST students will be eligible for fee concession. Hence Students with the highest rank in the admission list will be eligible for fee concession of the Government.

Condition for discontinuance of the course:

a) Before the commencement of the course

The admission and tuition fee remitted by the student will be refunded only after deducting an amount of Rs. 1000/- as handling charges, provided the seat so vacated is filled up by another student so that the university does not incur any loss.

b) During the currency of the course: The fee already paid will not be refunded

c) The caution deposit will be refunded while issuing the Transfer Certificate and other documents of the candidates

Examination Fee: All students have to a pay an examination fee of Rs. 1000/- per semester or as fixed by the Controller of Examinations

HOW TO APPLY:. The application form and prospectus can be down loaded from the web site http://www.universityofcalicut.info. Duly filled in application forms along with copies of mark sheets and other documents should be sent to **The Coordinator, MSc Radiation Physics, Department of Physics, University of Calicut, Calicut University P.O., pin 673635** on or before the closing date. The application fee of Rs 300/- (Rupees three hundred only) should be paid in the form of Demand Draft drawn in favor of Finance Officer, University of Calicut, payable at State Bank of Travancore, Calicut University Branch (Code 70200) or by chalan receipt. Cash and cheque are not accepted.

Further details may be available from the course coordinator (Mobile: 9745509190, email: mm_musthafa@rediffmail.com)

ENCLOSURE TO BE SENT ALONG WITH THE FILLED IN APPLICATION FORM:

1. Photocopy of the 1st page of S.S.L.C book (proof of age)
2. Photocopy of mark lists/certificates of qualifying examinations
3. Photocopy of Nativity Certificate for candidates eligible for Nativity weightage
4. Photocopy of community, nativity and income certificate for candidates eligible for reservation. (O.B.C. candidates are eligible for reservation as per rule.)
5. Any other certificate for extra curricular activities and additional weightage as per rule.

IMPORTANT DATES

Date from which the application form is available on-line	**27.09.2012**
Last date for submission of application form:	**10.09.2012**
Date of Entrance Examination :	**15.09.2012**
Declaration of result and publication of rank list:	**07.09.2012**
Date of admission:	**19.09.2012**
Commencement of classes:	**25.09.2012**

Time, Venue of examination: **10.00 am, Department of Physics, University of Calicut**

!! No separate intimation will be issued for entrance examination !!
!! Register No. will available in website on13.09.2012 onwards !!
Contact No. 04942407415,7416 (Office)

Serial No.

Paste a pssport size photograph

UNIVERSITY OF CALICUT

CALICUT UNIVERSITY P.O., KERALA, 673635

Application for Admission to M.Sc. Radiation Physics Course

Details of the fee submitted	*Amount* *Rs. 250/-*	*DD/Chalan No. &Date*	*Payable at* *State Bank Of Travancore, Calicut university branch.* *(Code 200)*

1. NAME OF THE APPLICANT (in Block letters)	
2. Age and Date of Birth	
3. Sex	
4. Address for communication (In Block letters with email and phone no.)	Permanent Address (In Block Letters)
5. Name and Address of Parent/Guardian	
6. Occupation of parent	
7. Annual income	
8. Are you eligible for reservation If yes give details of community and caste	

EDUCATTIONAL QUALIFICATIONS

Name of the Course	*Institution*	*Year of Passing and register number*	*Marks /grade obtained*	*Percentage /CGPA*
SSLC				
HSC/+2				
B.Sc.				
Core	**Physics**			
Compl. 1	**Mathematics**			
Compl. II				

Scholarships/ awards	
Academic distinctions	
Extra curricular activities (Give details of prizes, certificates, if any)	
Additional informations if any	

Place: *Signature of the Applicant*

Date: *Signature of the Parent*

For Official Use

Register No.	
Rank	
Reservation or not with community/caste	
No. and date of transfer certificate	
Enrollment No.	

Date : *Signature of the Coordinator*

UNIVERSITY OF CALICUT

ENTRANCE TEST FOR ADMISSION TO
M.Sc. RADIATION PHYSICS COURSE 2012

ADMISSION CARD

ROLL NO:

Attested
Passport size
Photograph
to be affixed here

Name & Designation
of the Identifying Officer
(Identifying Officer may please
sign across the Photograph)

(To be filled by the candidate)

1. Name of the Candidate :

2. Address :

3. Subject :

4. Venue of the test : **Department of Physics, University of Calicut**

5. Date and time of the test : **15.09.2012, 10.00 am**

Signature of the Candidate

(To be signed before the Identifying Officer)