

## SCHOOL OF INTERDISCIPLINARY STUDIES

The newly established School of Interdisciplinary Studies will be introducing the M.Sc. (Medical Physics) course with effect from the academic year 2014-2015. Medical Physics is a two years degree course which basically deals with the applications of Physics, Electronics, and computing in medicine and human health. In fact, medical physics course has large number of branches such as (i) Radiotherapy (utilizing linear accelerators for treatment of cancer tissues), (ii) Nuclear medicine (employs radioactive tracers for disease diagnosis, (iii) Magnetic Resonance Imaging and (iv) Medical Electronics (Monitoring and processing instruments).

The course is designed to provide the knowledge of physics/electronics as applied to health care clinical management. It will also provide technical expertise in various imaging techniques as well as in monitoring sophisticated instruments. Upon completion of the course, students can be employed as a Medical physicist in hospitals throughout India. The students also become eligible to appear for RSO qualifying exam. conducted by AERB in collaboration with BARC, Mumbai, and thus they can have additional opportunity to become Radiation Safety Officers in General Hospitals in India. Additionally by studying this course, it will help further in making your career in health departments, tertiary institutions, and medical instrumentation companies as well as pursue research career in India and abroad. The students can also seek admission for Diploma in Radiation Physics conducted by BARC Mumbai.

This degree course will be of four semesters duration having theory papers and practical sessions split over three semesters, while the fourth semester would be exclusively for the Dissertation / project work. A science graduate student with combination of subjects such as Physics, Biophysics, Electronics, Instrumentation, Computers, Biotechnology, and B.E. student with Electronics and Tel., Electrical and Instrumentation, etc is eligible for seeking admission to this course. The course will be taught by the selected expertise available on the campus as well as off the campus. The faculty members from Dr. S.C. Govt. Medical College, Nanded, S.G.G.S. College of Engineering & Technology, Vishnupuri, Nanded, as well as experts from Command Hospital, Pune. Monark Cancer Hospital, Nanded. Life Line Hospital Diagnostic Division, Nanded will also contribute to conduct theory and practical sessions. Few theory & practicals regarding radiation related Treatment to patients will be taken by the faculty members of pravaranagar Institutes of Medical Sciences, Loni. The Students will also have opportunity to have field work in radiological centres/Hospital in Nanded city & other reputed laboratories in India.

The following curriculum is proposed for four semester duration.

1. Radiation Physics/Radiation Dosimetry.
2. Anatomy and physiology
3. Medical Electronics.
4. Statistics/Radiological Mathematics.
5. Medical imaging Physics/Clinical medical Imaging.
6. Radiation detectors/Instrumentations/Radiation safety
7. Clinical Radiation Biology
8. Laboratory/Practical sessions in Nuclear lab., Electronics Lab. & Radiation (Linac) Centers.
9. Dissertation/Project work / Six months training in Govt. Hospital.

<b>Name of Courses</b>	<b>Intake Capacity</b>	<b>Duration</b>	<b>Eligibility</b>
M.Sc. Medical Physics	10	2 Years	B.Sc. with Physics as main subject with the combinations of any following subjects: Biophysics, Electronics, Instrumentation Computer Sciences, Bio-technology

### **FACULTY:**

<b>Name of Faculty</b>	<b>Designation</b>	<b>Specialization</b>
<b>Dr. R. S. Khairnar</b> M.Sc., M.Phil., Ph.D.	Professor & Director	Physics, Gas Sensors, Radiation Physics
<b>Dr. Mrs. M. P. Mahabole</b> M.Sc., M.Phil., Ph.D.	Professor	Radiation Effects in Material, Nuclear Physics
<b>Dr. K. A. Bogle</b> M.Sc., M.Phil., Ph.D.	Assistant Professor	Radiation Detectors, Electronics

<b>FEE STRUCTURE (IN RUPEES):</b>		
Sr. No	Particulars	M.Sc. Medical Physics
01	Admission Fee	50/-
02	Tuition Fee	15000/-
03	Library Fee	150
04	Laboratory/Lab. Fee	6000/-
05	Magazine Fee	25/-
06	Sports Fee	50/-
07	Gymkhana Fee	50/-
08	Inter University Sports & Cultural Activities Fee	20/-
09	Students Council	15/-
10	Students Welfare	40/-
11	Field Work/Field Tour	----
12	Study Tour/Computer Lab.	----
13	S.A.F. Fees	20/-
14	I-Cards	10/-
15	Miscellaneous	25/-
16	E.Suvidha	50/-
17	Internet	600/-
18	Sports Uniform	----
19	Internal Examination Fee	250/-
20	Dissertation Fees	250/-
Total Rs.		22605/-

#### **DEPOSIT**

01	Library deposit	200/-
02	Laboratory/Lab. Deposit	500/-

Certificate Course Fee (Spanish/French) = Rs. 2000/-

Diploma Course Fee (Spanish) = Rs. 2000/-