



Ekalavya

NEWSLETTER

IGNOU'S STUDY CENTRES - SOME FUNCTIONS

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In a distance education or open university system, the learner is independent, highly motivated and self-disciplined. The system demands that a student work mainly at home. Still, the face-to-face interaction has not been totally discarded from the system. Learners at distance need, besides the self-learning packages, the support of other services such as advising, counselling and tutoring. Support services aim at personalising and humanising the distance teaching system. Student support services are varied and broad. The nature of support services depends on the philosophy, resources and organisational structure of the distance education institution.

The normal structure of the institution for providing student support services, besides the central office of the institution, is its network of Regional and Study Centres. IGNOU has, to this day, established 155 Study Centres throughout the country, in areas of high population as well as in the educationally backward areas. The Study Centres, are the focal point for the meeting of students with the Academic Counsellors. Though the attendance of the students at the Study Centres is not a compulsory component of the system, these meetings are an important element of the programme at all the levels, especially at the undergraduate level.

The main purpose of this contact between the students and the Academic Counsellor is to remedy any academic

weakness or deficiencies of understanding on the part of the student, and to support, the individual student's overall progress, through counselling sessions.

The Study Centres of IGNOU are mainly based in existing institutions of higher learning, such as colleges, training institutions, etc. The University attaches great importance to the Study Centres.

Organisation

Every Study Centre of IGNOU is headed by a senior academic, designated as the "Coordinator". His/her selection is made out of the existing staff members from the same institution where the Study Centre is established. The Coordinator of the Study Centre may be termed as an all-in-one, i.e., as an Administrator, Manager, Supervisor and an Organiser. The Coordinator manages the smooth functioning of the Study Centre under the overall supervision of the head of the institution where the Study Centre is located.

The Coordinator coordinates the work of the Academic Counsellors and acts as a link between the University, the Regional Centre and the Study Centre. Where the student enrollment exceeds a particular limit, some Coordinators are assisted by Assistant Coordinators. Both the functionaries are part-time employees of the University. The Study Centre is also supported by some ministerial part-time staff to assist the Coordinator in his work.

ESSAY

Health Science Education in an Open University System

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1. Introduction

If Health is Wealth, then think of it first!

We briefly outline below areas of activity that can be fruitfully performed under the School of Health Sciences in an Open University System with special reference to the health scene in India. Some regard Health Science to be synonymous with Medical Education, which in turn, is looked upon essentially as patient care with little attention to understand the origin of the disease and its curative mechanism. However, we regard Health Science to be a more broad based, multifaceted activity where faculties of scientists, engineers and management personnel play significant roles in maintaining the health care system. For the purpose of continuity, we first will briefly discuss the concept of the Open University System (OUS) and then build up the main topic.

2. Open University System (OUS)

* Open University System shatters the myth that higher academic knowledge can be acquired only by enrolling as day-scholars in premier institutes. While there is no single well defined/accepted way of describing the openness of OUS, we regard the following features of the OUS that distinguish it from the "regular or day-scholar university system":

Open University :

Operation flood knowledge for the thirsty!
independent of your age (no upper limit), location and status!

3. Health Science Programmes

We suggest the following plan of

activities that can be performed effectively in an OUS framework :

3.1. Developing a Certificate course in General Self-Health Care Education for all adults.

Need: Discussed further below. (Section 4)

3.2. Developing a Certificate course for Medical Laboratory Assistantship.

Need: There are a number clinical/pathology laboratories but the number of skilled personnel working in such much advertised set up are few. This course is suggested to provide well trained skilled workers in the area, which meets a real need of the society.

3.3. Developing a Certificate Course in Small-Hospital/Nursing-Home Administration.

Need: It is a common sight in cities and towns to see the growth of many "Nursing Homes". But how well they are equipped and managed is an open question. It is a dream of every medical graduate to start his own clinic. OUS can fill-in the vacuum existing in this area by providing "all you need to keep/have to run a 10-bed facility".

3.4. Developing a Certificate course on Drug Information/Sale for Medical Representatives and Chemists.

Need: In our country and like many other developing countries, the market is flooded with a host of "combinations" and drug formulations. Many of these are either unnecessary or dangerous. There is need to educate the promoters/distributors with factual information on drugs.

3.5. Certificate course in Med-Bio-informatics targeted to practicing Physicians, Students in Medical/Biological background to increase their awareness on the use of large DATA BASES like MEDLAR, GENE Sequences, etc.

Need: Very little attention is paid in medical schools to prepare the future generation doctors to knowledge pouring-in/around the world in this changing pattern in

Leisure-time Scholars (OUS)

1. Learn mainly through Self-study.
2. Optional attendance at counselling sessions.
3. Syllabus not explicitly defined, but the content is covered in material specially prepared to suit independent study.
4. Provision to select a combination of subjects
5. Choice of study-media, English or Hindi. Some courses even in regional languages, eg. Gujarati.
6. Caters mainly adult clientele. Age 20 +. (no upper age limit)
7. Provides uniform pattern of quality education irrespective of student's location and economic status.
8. Employs print, audio- video- & TV media as aids to Self-study efforts of the student
9. Practicals are conducted for a week or two at one stretch during the course.

Day-time Scholars (Univ./IIT set up)

- Mainly by attending classes and study
- Compulsory attendance to teaching sessions.
- Syllabus is defined along with a recommended list of books.
- Lectures cover the study areas.
- Generally a fixed combination of subjects.
- No such choices
- Generally youngsters in the age 16-20 only.
- Varies from institution to institution.
- Mainly verbal(class-room) communication with texts available from book shops.
- Practicals are for few hours per week through-out the course.

medical diagnosis, therapy and management. Much of such an information now appears in the form of data bases and through use of on-line facility. In order to effectively use such facilities one needs to get acquainted with the various data bases, now available in India through the ICMR-NIC project. OUS can effectively provide this much needed training.

3.6. Developing Graduate Medical Degree course for Scientists and Engineers so as to improve the "content" of medical education with contributions from interdisciplinary specialists.

Need: In our country where entry to medical schools are characterised by "donations" and other non-merit criteria, much of the talent takes up other professions. If one looks at the advancements like CT-Scan, Whole-body MRI, and other non-invasive techniques diagnostic tools, these are necessarily due to efforts of other professionals deeply committed to improving the health-care system. Once again, OUS can provide "a lost-opportunity" to the talented non-medicos to serve the nation in improving the quality of health-care system in the country.

3.7. Certificate course in Computers in Clinics, Hospitals, Patient-Care and Management.

Need: When our country is taken by the wave of computers for homes, offices and entertainment, should not the medical professionals learn and use this technology? IGNOU has launched courses in the use of computers in Office Management. There exists already much material which can be used to prepare a course specifically aimed at the medical profession.

3.8. Encourage studies/programmes in Molecular Medicine.

Need: Modern chemotherapeutic agents are the outcome of efforts of multi-disciplinary group involving chemists, physicists, pharmacologists, statisticians, plant engineers and doctors. Current approaches rely strongly on the fact that better medicines (less toxic, without side-effects) can be arrived at only by a clear understanding of the basic molecular mechanisms of normal physiology and disease pathogenesis. Computer Assisted Molecular Modelling of these processes are in the forefront Medicinal Research in the west. This tool is similar to what CAD is for engineers. OUS provides an ideal platform to educate the talents in our country both medicals and others

professionals in these developments. (Section 5)

3.9. Updates in Medicine: Certificate courses for practicing physicians, in collaboration with Medical Council of India and other Premier Institutes like AIIMS/PGIMER/JIPMER, etc.

Need: While continuing medical education programmes are being imparted by MCI at premier institutes, the number of doctors who attend such courses are far less when compared to the vastness of our country. When such materials are prepared in distance education format and conducted by OUS, the number of medicos benefited will obviously be in large numbers. This activity requires co-operation of other educational organisation.

3.10. Certificate course in Pharmacology in Nursing.

Need: Much of the routine bed-side patient-care in hospitals are done by this group. With advances in delivery systems and multitudes of combination drugs, etc., it is necessary to up-date knowledge on drug profiles to nurses.

NONE of the above areas (except 9 & 10) are covered in any of Medical Schools TODAY in India. Open University has the tremendous potential to fill-in the vacuum. We must act today and pursue from NOW ON!

While some of the activities (like 3,5,7) may be encroached by the use of certain terminology into activities of other schools, as the primary content of the materials fall within the realm of the Health Science — programme, the faculties of other schools can contribute to the course materials. The philosophy presented here is to highlight the multifaceted nature of Health Science and not to repeat the mistakes present in the conventional education system today. For the purpose of illustration we look at item no.1 and 8 above, in some detail.

4. Self-Health-Care Education

A Certificate Course in General Health Science Education to meet common problems of frequent occurrence by citizens.

Audience: Any literate adult.

Scope: To provide general information on how to face day-to-day health problems and how to take care of them yourself (to the extent possible).

A diploma course in Health-care suitable to Para-medics can be formulated using the above material along with some more technical information on basic human physiology and patho-physiology and pharmacology material. The format of presentation could be as under :

Common health problems: How to treat at home and when to go to a Doctor.

1. / Complaint : /
 2. / Home treatment : /
 3. / When to go to Doctor : /
 4. / Precautions to take : /
 5. / How does this drug help /
 6. / Dosage and interval /
 7. / Likely side effects : /
 8. / Adverse effects : /
 9. / Do not use if ... /
 10. / Remember : Preventive measures /
- This format will be followed for all cases.

Areas to be covered are :

- (i) Respiratory Problems
 1. Colds & flu
 2. Cough
 3. Sore throat
 4. Allergic rhinitis
 5. Respiratory symptoms for direct referral
- (ii) Gastrointestinal tract Problems
 6. Mouth ulcers
 7. Heartburn
 8. Indigestion
 9. Nausea and Vomiting
 10. Constipation
 11. Diarrhoea
 12. Haemorrhoids
- (iii) Skin Conditions
 13. Acne
 14. Warts and Verrucae
 15. Common Childhood rashes
- (iv) Painful Conditions
 16. Headache
 17. Sprains
- (v) Womens' Problems
 18. Urinary tract infections
 19. Period pains.
- (vi) Eye and Ear
 20. Eye problems
 21. Common ear problems
- (vii) Childhood Conditions
 22. Napkin rash
 23. Head lice
 24. Threadworms

Appendices include :

11. Drug Interaction alert chart.
12. Alphabetical list of complaints.
13. Alphabetical list of commonly used (WHO short list) drugs each with dosage chart separate for:
 - a) adults 12+
 - b) children 5 - 12 years
 - c) children 2 - 5 years
 - d) children 1 - 2 years
 - e) babies upto 12 months

14. Alphabetical list of brand names and their relation to non-proprietary names.
15. Home Pharmacy: List medicines and other items.
16. Immunisation chart/schedule.
17. Medicine literature references for the inquisitive.
18. Medical terms: how they are formed.
19. First aid: Elements of...
20. Special topics: Alert situations like
 - a) convulsion cases,
 - b) sudden collapse/dizziness in diabetics.
 - c) pregnant women
 - d) heart attack cases
 - e) Looking after elderly people (Geriatrics)
 - f) etc. (?)
21. Daily intake diet requirements: Elements of nutrition.
22. Food intake during sickness period.
23. How to measure temperature, types of thermometers.
24. Common tests/ routine laboratory investigations. Urine, blood, stools. (Normal values, variation and their extent of significance)
25. Sub-area faculties

5. Molecular Medicine

There is an "Untold Emergency" in the area of Medicine as :

- (i) we do not know, the precise structure and interactions of many bio-molecules involved in normal physiology and disease pathogenesis.
- (ii) we do not know, for a majority of drugs, their molecular mechanism of actions, and
- (iii) we do not have safe drugs of choice for nearly two-third's (66%) of diseases !

A possible way out of this "crisis" is the

aim of the thrust area of the research work - Molecular Medicine.

The principal reason for this thrust of activity is the increasing realisation of the fact that better patient care can only come from better understanding of the basic biology, patho-physiology, drug action/interactions, etc. at the molecular level. Current trend in medicinal research in the West, especially in the chemotherapy area, is to arrive at safer, less toxic drugs by employing a combination of tools of medicinal chemistry, molecular pharmacology, molecular modelling using computers and color graphic facilities. To cite an example, NMR was until recently, primarily used in basic science research activity, but now has emerged as a powerful non-invasive diagnostic tool (CAT-SCAN) to the physicians. Likewise, in the coming decade, the field of molecular medicine is expected to become an integral part of undergraduate and postgraduate medical education. As an excerpt from this new discipline of activity, we present here a short account of how a therapeutic molecule is arrived at. (See Scheme 1)

The whole process involves extensive cooperative interaction with as many as 80 different disciplines. Consequently, it is not surprising that the cost involved in putting a new drug into the market is of the order Rs. 50 to 100 crores! It is a fact that newer agents are being developed, at the same time lack of knowledge on the molecular architecture of the receptors makes the search for new agents a fantasy !

The relevance of such an activity in India is as under: Majority of drugs and their formulation used in our country are of outside collaboration, for we have no manpower trained to utilise advances in Computer Aided Molecule Design techniques now in use in

the West by pharmaceutical companies. OUS can easily develop such knowledge imparting programme wherein chemists/pharmacologists in industry get exposed to these developments and thereby help in improving the drugs availability in our country.

The Molecule of a nation state is the individual. What is the state of this molecular India? If we understand this, then only can we understand the question of brain-drain/development, and the optimum utilisation of science in our country.

6. Related Open Question

When we wish to embark on such a line of action many questions arise. Principal among them are :

- (i) whether sufficient enrollment can be expected ?
- (ii) will it benefit the student (age no bar) ?
- (iii) will it brighten his employment prospects ?

Obviously activities such as items 1, 2, & 7 can attract high enrollment, on the other hand, items like 3, 4 & 5 meets vacuum existing in our present education pattern although it improves the quality of service of the health care system.

While items 6 & 8 are revolutionary in nature and require elaborate planning and discussion, may well fit for M.Phil. & Ph.D. programmes benefitting the country in the long run. Should we not be aware of/get prepared for such activities today? Open university needs to offer both the foundation as well all advanced courses to meet the aspirations of wide spectrum of the society. Let's act today with confidence and dedication to meet these challenges facing Education Today !

