

**Government of Punjab  
Department of Medical Education and Research**

**Subject : Need for employment oriented higher education & technical education programmes for long term management of health sector.**

Emergence of very highly sophisticated medical education and health care infrastructure, particularly in the private sector, poses a serious challenge of maintaining the supply line of appropriately educated and trained personnel in the following fields:-

1. Hospital Engineers / Architects / Planners
2. Biomedical Engineers
3. Hospital Managers
4. Hospital Administrators
5. Hospital hardware and software providers

It has become imperative to focus our attention to start certain educational courses in the already existing institutions of higher and technical education to keep pace with the changing times, for example:-

1. B.E. in Hospital Engineering
2. B.E. in Hospital Architecture and Planning
3. M.E. in Biomedical Engineering
4. M.B.A. in Hospital Management
5. Masters in Hospital Administration
6. Diploma / Certificate in Hospital Architecture and Engineering
7. Diploma in Hospital IT Solutions
8. Diploma in Health Jurisprudence

Hospital Engineering is an integration of various engineering streams typically focused at specific high technology needs of modern hospitals. The same is particularly true of hospital planning and architecture. In an age of specialization, Hospital Engineering is the need of the hour.

Besides the course specific knowledge inputs, the students should be fully apprised of the trends in the international healthcare industry and their implications for the organisation, control and management of hospitals, rehabilitation centres and medical practices in different health systems; Macro- and Microeconomics, International Economics; Accounting, Corporate Finance, Financial Management, Controlling; Strategic Management, Marketing Management, Market-oriented Hospital Management; Quality and Process Management, Purchasing, Supply Chain Management, Logistics, IT, Organisational Behaviour, Structure, Leadership, and Culture, Human Resources & Intercultural Management, Communications, Personal Build-up Training, Self-management, Quality Management, Information and Knowledge Management etc, Health related legal framework.

The country-wise, of not global, case studies are particularly important. The programme is intended to demonstrate not only the wide range of approaches and structures adopted for healthcare worldwide, but also the diversity of organizational methods and solutions.

Special modules need to be offered for the specialisation in hospital management:



- Hospital financing systems
  - outline of national and local regulations
  - economic importance of hospitals
  - working with external budgets
- Hospital budgets
  - goals, tasks and functions
  - budgeting basics
  - budgeting procedures and hierarchical structures of responsibility
- Costs and performance calculation
  - aims and contents of cost and performance accounts
  - cost accounting systems for managerial decision-making
  - use of process cost accounting as a calculus instrument
- Planning and calculating performance
  - planning achievement performance programmes
  - organisational systematic budget-orientated performance planning
  - calculating performance within departments and internal performance accounting systems
- Hospital financial controlling
  - strategic and operative finance control
  - controlling and hospital management
  - putting control concepts into action
- Hospital and company management
  - applying management systems
  - managing employees and resources
  - motivational and behavioral strategies
- Resource organization and material management
  - tasks and basic knowledge of material management
  - ABC-, XYZ, - and value analysis
  - budget-orientated purchasing systems
- Ecological aspects of hospitals
  - buying goods ecologically
  - avoiding and reducing waste
  - organizing clinical waste removal
- Planning personnel needs and requirements
  - basics of measuring personnel needs

- planning use of personnel
- organizing personnel
- Health care economics
  - hospitals and health care centers
  - legal forms and outsourcing
  - co-operation and competition
  - marketing concepts and public relations work
  - quality management and quality ensuring systems
  - managed care and disease management

On the IT side, elementary inputs should include computerized management of records relating to:

- ▶ Out-Patient Management
- ▶ Investigations
- ▶ Billing
- ▶ Appointments
- ▶ Operation Theatre
- ▶ Blood Bank
- ▶ In-Patient Management
- ▶ Registration
- ▶ Enquiry
- ▶ Master Management
- ▶ Central Sterile Services
- ▶ Diet Kitchen
- ▶ Bio-Medical Engineering
- ▶ Central Stores
- ▶ Pharmacy Management
- ▶ Patient Medical Records

The undersigned does not claim any originality in the proposal, nor does it require much imagination to think on these lines. The present endeavour is only to invite immediate attention to the need to collectively give a big push to our curriculum framework in a futuristic direction. We should not be left behind our times. Needless to emphasize, the Government Medical / Dental Colleges in the state will whole heartedly collaborate with the Baba Farid University of Health Sciences, Punjab Technical Universities, Punjab University, Punjabi University, Guru Nanak Dev University and Punjab Agricultural University, Engineering Colleges etc. in case they plan new courses or wish to strengthen and modernize the existing courses of health sector management and engineering.

(Sarvesh Kaushal, IAS)  
Secretary Medical Education and Research

TO:  
Vice Chancellors  
of All Universities located in Punjab & Chandigarh.

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