

**MBA-II Semester -III
Pharmaceutical and Healthcare Sector (PHS-I)**

Course: Pharmaceutical Management

1. Objectives:

- 1) To acquaint the students with the dynamics of pharmaceutical industry in India.
- 2) To make the students aware about the various issues involved in managing a pharmaceutical company.
- 3) To increase understanding of pharma marketing and manufacturing.
- 4) To make them aware about the various therapeutic segments and the basic anatomy and physiology of the human body to understand their products better.
- 5) To acquaint them about the legal & regulatory environment governing the pharma industry.

2. Course Duration:

The total hours for teaching this course will be 50 hours, which will be divided into 40 sessions of 75 minutes duration each.

3. Course contents:

The course will contain following modules:

Module No.	Topic/ Sub topic	Sessions	Marks (20% of 70 each)
I	PARADIGMS IN PHARMACEUTICAL INDUSTRY & INDUSTRY OVERVIEW: Brief History & Origin, Industry Structure, Current Status of Industry, Pharmaceutical Environment, International/Multinational Pharma Scenario, Pharmaceutical Scenario-Indian Perspective, Intellectual Property Rights, Patents & Implications on the Indian Pharma Industry, GATT/WTO & EMRs, Post-GATT scenario, Ethical Issues in Pharma, R& D & Strategic alliances	8	14
II	MANAGING PHARMACEUTICAL PRODUCTION & OPERATIONS: Introduction to POM in Pharma industry, Strategic role of Operations in the Industry, Location & Layout decisions for the plant, Inventory Management, Materials Management, Product & Process: Selection, Design & Development, Equipment for Pharma Production, Maintenance Management, Supply Chain Management,	8	14

	Production Planning & Control, Purchase management, Quality Assurance & Quality Control. An Overview of Current Good Manufacturing Practices for Pharmaceuticals (cGMP)		
III	DYNAMICS OF THE PHARMACEUTICAL MARKET AND PHARMA MARKETING: Understanding the Pharmaceutical market, Market Segmentation, Major Therapeutic groups, Market Opportunity analysis, Managing New product development in pharma industry, Price and price control issues (DPCO), Product/Brand management, Role of a Product Manager in pharma marketing, Pharma Selling & Distribution management, Role of Medical Representative in selling and distribution, Promotion and Sales promotion tools in pharma marketing, Pharma Marketing Information Systems, Application of Market Research in marketing & manufacturing decisions, Chemist (Retail store audit) Audit, Doctors' Survey, Prescription Audit, Support of ORG and CMARC in pharmaceutical sales research	8	14
IV	LEGAL AND REGULATORY ENVIRONMENT OF PHARMA INDUSTRY IN INDIA: An Overview of and Implications of the Major Laws and Acts governing the pharma industry – The Drugs and Cosmetics Act, 1940, The Pharmacy Act, 1948, The Drugs and Magic Remedies Act, 1954, The Patents Act, 1970, The DPCO, 1969,1995, The MRTP Act, 1969, The Dangerous Drugs Act, 1930, The IRDA Act, 1951, The Trade and Merchandise Marks Act, 1958, The Opium Act, 1878, The Poisons Act, 1991, The FERA, 1973	8	14
V	BASIC UNDERSTANDING OF ANATOMY, PHYSIOLOGY AND PHARMACOLOGY: Cell Structure, Elementary Tissues of the body and Blood Composition, An Overview of the Digestive System, the Cardiovascular system and cardio vascular disorders, the Nervous system and parts of brain, Structure	8	14

	and Functions of Skeletal Muscles, Endocrine Glands, Hormones & Physiology of Respiration, Urinary & Reproductive System, Structure and Functions of different Organs of Body.		
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4. Teaching Methods:

The course will use the following pedagogical tools:

- A. Case discussions covering a cross section of situations.
- B. Discussions on issues and techniques.
- C. Projects/ Assignments/ Quizzes/ Class participation etc

5. Evaluation:

The evaluation of participants will be on continuous basis comprising of the following elements:

A	Projects/ Assignments/ Quizzes/ Class participation etc	Weightage 10% (Internal Assessment)
B	Mid-Semester examination	Weightage 20 % (Internal Assessment)
C	End –Semester Examination	Weightage 70% (External Assessment)

6. Text Books:

The following books may be used as base book for this course. However, students are also expected to refer books by other authors on the subject. A suggestive list of reference books is also given here. They are also supposed to read business magazines and journals related to the subject.

Sr. No.	Authors	Name of the Books	Publisher	Edition & Year of Publication
T1	Subba Rao Chaganti	Pharmaceutical Marketing in India: Concepts, Strategy and Cases	Pharma Book Syndicate	2007
T2	Alka Ahuja, Sanjula Baboota, Javad Ali	Pharmaceutical Management	Tara Publishers	2007

7. Reference Books:

Imp.: Apart from the following books, it is suggested that the faculty and students should refer latest resources like journals, magazines and news as well as articles available online for topics related to the industry overview for getting latest data and statistics from time to time.

Sr. No.	Authors	Name of the Books	Publisher	Edition & Year of Publication
R1	Vedpuriswar, A.V. Ed	'Case Study Series: Pharma Sector'	ICFAI, Hyderabad	2001
R2	Vivek Mehrotra	Essentials Of Pharmaceutical Sales Management	Cambridge University Press	2007
R3	Potdar Manohar	cGMP Current Good Manufacturing Practices for Pharmaceuticals	PharmaMed Press, An imprint of Pharma Book Syndicate	2008

R4	R. B. Smarta	Revitalizing the Pharmaceutical Business: 'Innovative Marketing Approaches'	Response Books, Sage Publications	1999
R5	Corstjens Marcel	Marketing Strategy in the Pharmaceutical Industry	Chapman & Hill	1992
R6	Mickey Smith, Ed.	Principles of Pharmaceutical Marketing	CBS Publishers, New Delhi	2002
R7	B. M. Mithal	Textbook of Forensic Pharmacy	Vallabh Prakashan, New Delhi	Latest Edition
R8	N. K. Jain	Textbook of Forensic Pharmacy	Vallabh Prakashan, New Delhi	Latest Edition
R9	Derashari and Gandhi	Human Anatomy and physiology	B.S. Shah Prakashan	Latest Edition
R10	Goyal R.K., Derasari & Gandhi	Elements of Pharmacology	B. S. Shah Prakashan	Latest Edition
R11	Carter S.J., Cooper and Gunn	Tutorial Pharmacy	CBS Publishers, Delhi	Latest Edition

R12	G. Vidya Sagar	Pharmaceutical Industrial Management	Pharma Book Syndicate	2005
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8. List of Journals/ Periodicals/ Magazines/ Newspapers:

Express Pharma pulse available online also – www.expresspharmaonline.com

Pharma biz available online also – www.pharmabiz.com

The Pharmaceutical Executive available online – www.pharmexec.com

NB: The Instructor/s (Faculty Member/s) will be required to guide the students regarding suggested readings from Text(s) and references in items 6 and 7 mentioned above.

9. Session Plan:**Pharma and Healthcare Sector**

Session no.	Topic
1	Brief History & Origin, Industry Structure, Current Status of Industry
2	International/Multinational Pharma Scenario, Pharmaceutical Scenario-Indian Perspective, Major Industry Issues (Case study discussion)
3-7	Intellectual Property Rights, Patents & Implications on the Indian Pharma Industry, GATT/WTO & EMRs, Post-GATT scenario, Strategies of large & small pharma companies (Case study discussion)
8	Ethical Issues in Pharma, Issues of R& D & Strategic alliances
9	Introduction to POM in Pharma industry, Strategic role of Operations in the Industry, Location & Layout decisions for the plant
10	Inventory Management, Materials Management
11	Product & Process: Selection, Design & Development, Equipments for Pharma Production
12	Maintenance Management, Supply Chain Management
13	Production Planning & Control, Purchase management
14	Quality Assurance & Quality Control
15-16	An Overview of Current Good Manufacturing Practices for Pharmaceuticals (cGMP)
17	Understanding the Pharmaceutical market & marketing, Market Segmentation, Major Therapeutic groups, Market Opportunity analysis
18	Managing New product development in pharma industry
19	Price and price control issues (DPCO)
20	Product/Brand management, Role of a Product Manager in pharma marketing
21	Pharma Selling & Distribution management, Role of Medical Representative in selling and distribution
22	Promotion and Sales promotion tools in pharma marketing
23-24	Pharma Marketing Information Systems, Application of Market Research in marketing & manufacturing decisions, Chemist (Retail store audit) Audit, Doctors' Survey, Prescription Audit, Support of ORG and CMARC in pharmaceutical sales research
25	An Overview of and Implications of the Major Laws and Acts governing the pharma industry – The Drugs and Cosmetics Act, 1940
26	The Pharmacy Act, 1948
27	The Drugs and Magic Remedies Act, 1954, The Dangerous Drugs Act, 1930
28-30	The Patents Act, 1970, The MRTP Act, 1969, The IRDA Act, 1951, The DPCO, 1969, 1995
31	The Trade and Merchandise Marks Act, 1958, The FERA, 1973
32	The Opium Act, 1878, The Poisons Act, 1991
33	Basic understanding of Anatomy, Physiology and Pharmacology, Cell Structure, Elementary Tissues of the body, Blood Composition & Structure and Functions of different Organs of Body.
34-35	The Digestive System, The Cardiovascular System and Cardio-vascular disorders

36	The Nervous System and parts of Brain
37	Structure and Functions of Skeletal Muscles
38	Endocrine Glands, Hormones & Enzymes
39-40	Physiology of Respiration, Urinary & Reproductive System