



FACULTY OF MANAGEMENT

B.B.A.

Healthcare Management

**(A Three Year Full Time Degree
Programme)**

ORDINANCE & SYLLABUS



Faculty of Management

MJP Rohilkhand University, Bareilly

Bachelor of Business Administration Healthcare Management BBA-HCM is a Three Years Full Time Programme under Faculty of Management. The course structure and programme ordinance are as follows:

PROGRAMME STRUCTURE

The Bachelor of Business Administration in Healthcare Management (BBA-HCM) shall be three years duration i.e. first, second and third year, each consisting of two semesters. However, after successful completion of First Year a Certificate can be awarded, Second Year a Diploma can be awarded and Third Year a degree will be awarded. The list of papers offered during these three years of the programme shall be as follows:

BBA HEALTHCARE MANAGEMENT

PROGRAMME STRUCTURE

YEAR- I

Semester I				
Course Code	Component	Subject	Week Hrs.	Credits
BBA-HCM-101	GEN	Basics of Accounting	4	3
BBA-HCM-102	GEN	Organization and Management Process	4	3
BBA-HCM-103	SKILL	Human Biology and Medical Terminology	4	4
BBA-HCM-104	SKILL	Health Care and Hospital Environment	4	4
BBA-HCM-105	SKILL	Hospital Operations Management	4	4
BBA-HCM-106	OPEN ELECTIVE	Open Elective -I	4	4
BBA-HCM-107		Viva Voce-Comprehensive		2
		Total		24



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Semester II				
Course Code	Component	Subject	Week Hrs.	Credits
BBA-HCM-201	GEN	Entrepreneurship and Business Development	4	3
BBA-HCM-202	GEN	Communication and Report Writing	4	3
BBA-HCM-203	SKILL	Management Information Systems in Hospitals	4	3
BBA-HCM-204	SKILL	Patient Behaviour and Care	4	3
BBA-HCM-205	SKILL	Customer Service Excellence and Patient Satisfaction	4	4
BBA-HCM-206	SKILL	Quality Management in Hospitals	4	4
BBA-HCM-207	OPEN ELECTIVE	Open Elective - II	4	4
		Total		24

- Two Months, Hospital Orientation/Internship after II Semester examination in the consultation and guidance of HSSC.

Year- II

Semester III				
Course Code	Component	Subject	Week Hrs.	Credits
BBA-HCM-301	GEN	Goods and Service Tax	4	3
BBA-HC-302	GEN	Accounting for Decision Making	4	3
BBA-HCM-303	SKILL	Legal and Ethical Issues for Hospitals	4	4
BBA-HCM-304	SKILL	Health Care and Insurance	4	4
BBA-HCM-305	SKILL	Quality Management in Hospitals	4	4
BBA-HCM -306	OPEN ELECTIVE	Open Elective - III	4	4



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BBA-HCM-307		Viva Voce -Based on 2 months Internship Report		2
		Total		24

Semester IV				
Course Code	Components	Subject	Week Hrs	Credits
BBA-HCM-401	GEN	Marketing Management	4	3
BBA-HCM-402	GEN	Financial Management	4	3
BBA-HCM-403	SKILL	Risk and Disaster Management	4	4
BBA-HCM-404	SKILL	Bio Statistics	4	4
BBA-HCM-405	SKILL	Office Management Software	4	4
BBA-HCM-406	SKILL	Basic of Tally and Applications	4	3
BBA-HCM-407	OPEN ELECTIVE	Open Elective-IV	4	3
		Total		24

- Two Months, Hospital Orientation/Internship after II Semester examination in the consultation and guidance of HSSC.



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Year- III

Semester V				
Course Code	Components	Subject	Week Hrs	Credits
BBA-HCM-501	GEN	Human Resource Management	4	3
BBA-HCM-502	GEN	Management Control Systems	4	3
BBA-HCM-503	SKILL	Hospital Planning and Engineering	4	4
BBA-HCM-504	SKILL	Supply Chain Management	4	4
BBA-HCM-505	SKILL	Hospitals and Pharmaceutical Management	4	4
BBA-HCM-506	Open Elective V	Select from Open Elective Table	4	4
BBA-HCM-507		Viva Voce -Based on 2 months Internship Report	—	2
		Total		24

Semester VI			
Course Code	Subject	Hrs	Credits
BBA-HCM-601	Project/Apprenticeship 6 Month in Consultation of HSSC.	48	20
BBA-HCM-602	Report Based , Viva- Voce (Report Evaluation & Viva-Voce Will Carry 200 Marks)		4

Note:-

- i) Two months Internship/Orientation after even semester 2nd & 4th will be in the consultation and guidance of Health Sector Skill Council (HSSC). The college will make sure that the student must present in the internship full time.
- ii) The college will be organised a Hospital/Health Sector industrial visit in 1st, 3rd and 5th semester.



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1. Admission in BBA-HCM programme shall be on the basis of Class XII merit. Government norms regarding reservation shall be applicable in admission.
2. English/Hindi shall be the medium of instructions in lectures. University examinations, Question paper internal/external/class test/admission test including presentations and viva-voce examinations preferably in english.
3. The BBA-HCM Programme under Faculty of Management is a skill specific programme offered in the consultation of Health Sector Skill Council of India consists of papers apart from General, Skill/Vocational, Internship and Apprenticeship Project. The programme structured in the light of National Educational Policy.
4. **Co – Curricular courses:**

There will be a co-curricular course, which is of qualifying nature, in each of the semesters till 4th Semester. Every student is required to successfully clear them with at least 40% marks. The grade obtained on the basis of marks in this paper will be shown on mark-sheet, but it will not be taken into account in the calculation of CGPA.

5. **Apprenticeship Project:**

In the third year sixth semester the programme carried 6-month apprentice in the consultation and guidance of Health Sector Skill Council of India (HSSC). Every student have to complete successfully the apprenticeship. The college will assign some faculty member to look after the students. The hospital/health sector industrial unit will also assign a suitable administrative officer to supervise the students. At the end of the apprenticeship the Hospital/Health sector unit will issue a certificate to the students that he/she successfully completed his/her apprenticeship according the norms of HSSC/College/University. This is strictly clear that without successful apprenticeship the Degree programme will not be awarded. After successful apprenticeship every student need to submit a apprenticeship project report in the college. The report will be evaluated by one external examiner and one internal examiner appointed by university and college respectively.

6. **Open Elective Courses**

In order to Ensure multi-disciplinarily approach in Subjects at graduation level, a student is required to choose one paper in each semester from either part A or Part B (Depending upon odd/even semester) of



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Open Electives- I, II & III in first, Second and third year, respectively

Year	Sem	Open Elective	Part	Paper Code	Paper Name	Credit
1	I	Open Elective I	A		Sociology	4
					Philosophy	4
1	II	Open Elective I	B		Psychology	4
					History	4
2	III	Open Elective II	A		Constitutional Government & Democracy	4
					Market Research	4
2	IV	Open Elective II	B		International Business Environment	4
					Stock Market Operations	4
3	V	Open Elective III	A		Cyber Law & Security	4
					Web Development	4

7. Credit and Credit determination:

One paper of one credit will require one hour per week teaching. For example, one semester of 15 week will require 15-hour teaching. Apprenticeship one credit required two hours per week. All work related to credit will be carried out as per the directions of 'Academic Bank of Credit'. One year certificate will be awarded after successfully earning a minimum of 46 credits by the student. Two-year Diploma will be awarded after successfully earning a minimum of 92 credits by the student. Three-year Degree will be awarded after successfully earning 132 credits by the student. The aforesaid mentioned certificate, diploma or degree will be awarded only when the student successfully clears all the qualifying papers required for the same.

Once the credits earned by the student are utilised, it cannot be utilised again by the student. For example, if a student receives one year certificate after earning 46 credits, the credit earned by the



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student will be treated as utilised. If after a few years, the student wants to obtain two-year Diploma, then he will have to surrender his certificate received earlier and thus he will get a re-credit of 46 credits to his/her account. Otherwise, he/she will have to earn 92 credits. If the student studies continuously for three years and earns 132 points and does not claim for certificate and diploma only then he/she will get a three years Degree.

8. Attendance and Credit Determination:

For credit validation successful completion of examination is essential. Without appearing in examination credit will be incomplete. For appearing in final examination 75% attendance is mandatory. After ensuring 75% attendance, if a student fails to appear in examination, he/she can appear in the next year examination, as Ex-Student. He will not be required to attend the classes again.

9. End-Semester Examination:

All papers will be of 03 hours duration. The maximum marks allotted for each paper will be 75.

10. Mid-Semester Examination:

There shall be Two mid-semester written examination (Average of both exam will be calculated for final marks) of two hours duration for each paper, which shall carry 15 marks. This exam will be compulsory for the students. In case, if any student fails to appear in one or more papers on medical grounds, then

he/she may be provided one more chance during the same semester on payment of re-examination fee of Rs. 1000/- with permission dean.

11. Guidelines for Internal Evaluation:

- It shall be based on verifiable means.
- The distribution of marks of internal evaluation will be as follows:

Written Test	15marks
One term paper/assignments/presentations/regularity in attendance	10 marks

Whenever the score in internal evaluation is 90% or more (except in papers of quantitative nature) the written test answer books could be re-evaluated by two teachers of the department.

- All assignments will be submitted in his/her handwriting only.



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12. The maximum marks allotted for each paper will be 100 marks the distribution of marks as follows:

- i) End-Semester examination 75marks
- ii) Internal Evaluation 25 marks

The minimum passing marks in each individual paper will be 40% and in aggregate 50%. These percentages will apply on aggregate marks of internal evaluation and end-semester examination. Any candidate who fails to secure a minimum of 40% marks but secures 20% or more marks in not more than two paper in first semester of the academic year will be promoted to the next semester of BBA- HCM Part I or BBA- HCM Part II or BBA- HCM Part III as the case may be. However, in BBA- HCM Part II (III semester), only those candidates will be admitted who have cleared at least two papers in each of the I & II semester of BBA - HCM Part I exams and not declared as fail.

In case of BBA- HCM V semester, only those candidates will be admitted who have cleared at least two papers in each of the III & IV semester of BBA HCM Part II exams and not declared as fail. The exams of the back papers will be held along with the regular exams of subsequent year. The candidate has to clear all his/her back papers within the period of six years from the year of his/her admission.

If the candidate clears his/her I, II, III, IV, V semesters, but obtains back(s) only in VI semester, then treating it as a special case, the exam/s of the back paper/s of VI semester could be held along with I & III & V semester exams.

13. A candidate who has secured minimum marks to pass in each paper but has not secured minimum marks to pass in aggregate may reappear in any of the paper(s) of the semester concerned (subject to a maximum of two theory papers in each semester), according to his/her choice in order to secure the minimum marks prescribed to pass in the aggregate (i.e. to clear back in aggregate).

14. Evaluation Pattern for BBA- HCM: For passing a candidate is required to obtain pass percentage in both theory and skill , separately in order for promotion in next semester or for the award of certificate/diploma / degree



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Award of Grades & Grade Points Based on Absolute Marks

Marks Range (out of 100)	Grade	Grade Point
90 – 100	O	10
80 – 89	A	9
70 – 79	B	8
60 – 69	C	7
50 – 59	D	6
40 – 49	E	5
20 – 39	Bp	4
00 – 19	F	0
Absent	Ab	0

Letter grades O, A, B, C, D & E in a paper means that the student has been able to clear that paper (i.e. passed in paper).

Letter grade Bp in a paper means that the student has not been able to clear the paper and is entitled to appear in the Back Paper examination if he/she satisfies other conditions for Back Paper examination.

Letter grade F means that the student has failed.

Letter grade Ab means that the student was absent.

Calculation of SGPA, YGPA and CGPA The following procedure shall be used to calculate the Semester Grade Point Average (SGPA), Yearly Grade Point Average (YGPA) and Cumulative Grade Point Average (CGPA):

The SGPA is the ratio of sum of the product of the number of credits multiplied with the grade points scored by a student in all the courses of the semester divided by the sum of the credits of all the courses of the semester i.e.

$$\text{SGPA} = \frac{\sum (C_i \times G_i)}{\sum C_i}$$



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where C_i is the number of credits of the i th paper and G_i is the grade point scored by the student in the i th paper.

The YGPA is also calculated in the same manner taking into account all the semesters undergone by a student over a year, i.e.

$$YGPA = \frac{\sum(C_j \times S_j)}{\sum C_j}$$

The CGPA is also calculated in the same manner taking into account all the semesters undergone by a student over the programme, i.e.

$$CGPA = \frac{\sum(C_j \times S_j)}{\sum C_j}$$

where S_j is the SGPA of the j th semester and C_j is the total number of credits in that semester.

The SGPA, YGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

Illustration of Calculation of SGPA, YGPA and CGPA

Illustration for SGPA

Paper	Credit	Grade Letter	Grade Point	Credit Point
Paper 1	3	B	8	$3 \times 8 = 24$
Paper 2	3	C	7	$3 \times 7 = 21$
Paper 3	3	O	10	$3 \times 10 = 30$
Paper 4	3	E	5	$3 \times 5 = 15$
Paper 5	3	D	6	$3 \times 6 = 18$
Paper 6	3	A	9	$3 \times 9 = 27$
Paper 7	4	C	7	$4 \times 7 = 28$
	22			163

Thus, SGPA = $163/22 = 7.41$



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Illustration for YGPA

Semester I	Semester II
Credit : 30	Credit : 26
SGPA:6.9	SGPA:5.8

$$YGPA = \frac{\sum(C_j \times S_j)}{\sum C_j}$$

$$YGPA = \frac{(30 \times 6.9) + (26 \times 5.8)}{\sum C_j}$$

$$\text{Thus, } YGPA = 357.8/56 = 6.39$$

Illustration for CGPA

Semester I	Semester II	Semester III	Semester IV	Semester V	Semester VI
Credit : 30	Credit : 26	Credit : 32	Credit : 34	Credit : 32	Credit : 30
SGPA:6.9	SGPA:5.8	SGPA:7.3	SGPA:6.8	SGPA:6.4	SGPA:6.9

$$CGPA = \frac{\sum(C_j \times S_j)}{\sum C_j}$$

$$CGPA = \frac{(30 \times 6.9) + (26 \times 5.8) + (32 \times 7.3) + (34 \times 6.8) + (32 \times 6.4) + (30 \times 6.9)}{\sum C_j}$$

$$\text{Thus, } CGPA = 1234.4/184 = 6.71$$

The conversion formula for converting YGPA or CGPA to the corresponding Percentage of Marks will be as follows:

$$X = 10 Y - 5$$

where, X = Percentage of Marks

$$Y = YGPA \text{ or } CGPA$$

15. In the first five semesters the candidate will be declared only as 'Pass' or 'Fail'. Division will be awarded only on the basis of combined result of all six semesters of BBA Healthcare I, II and III years.
16. If a candidate fails to appear Apprenticeship /OJT examination, then he/she may be provided a second chance with due permission of the Registrar on payment of prescribed fee for each Viva-Voce.



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17. No regular admission will be given to failed students. Any candidate who fails in exams or is entitled to carry over papers as "Back Papers" may appear in the next subsequent exams. However, the marks obtained previously by the candidate in the internal evaluation of the paper concerned, shall be retained and added with the marks obtained in the subsequent end semester exams.
18. There will be re-evaluation or supplementary exams with the permission of Vice-Chancellor.
19. The syllabi will be prescribed by the Board of Studies.
20. The award of division to the successful candidate will be on the basis of the combined results of BBA - HCM Part I, II & III (of all six semesters) as follows:

(i) Candidates securing YGPA or CGPA 6.5 and above	Ist Division
(ii) All Other	IIInd Division
(iii) Candidates securing YGPA or CGPA less than 5.5	Fail
21. The student will have to fulfil the minimum requirement of attendance as per the university rule.
22. No person shall be admitted as a candidate for the examinations any of the part after the lapse of six years after the admission to the first year of BBA Healthcare Management programme. However under special circumstances this period may be extended with special permission of Dean.

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DETAILED SYLLABUS

SEMESTER-I

BBA-HCM-101

BASICS OF ACCOUNTING

Course Objective: The course will provide the basic understanding of accounting concept, Standards. Preparation of journal ledger trial balance and final accounts of an organisations.

UNIT-I	Introduction: Meaning and Process of Accounting, Basic Terminology of Accounting, Book keeping, Difference Between book keeping and Accounting, Importance and Limitation of Accounting. Various Users of Accounting information.
UNIT-II	Accounting Principles: Concept & Conventions, Revenue and Capital Income expenses, Financial Accounting Standards (Including IFRS): Process of Standard Setting, Objectives and Advantages.
UNIT-III	Accounting Equation, Dual Aspect of Accounting, Types of Accounting, Rules of Debit and Credit. Accounting Process: Journal, Ledger, Closing of Ledger and Trial Balance. Subsidiary Books of Accounting: Cash Book, Sales Book, Purchase Book Etc.
UNIT-IV	Depreciations and its Different Methods, Depreciation Accounting, Valuation of Stock, Accounting Treatment of Stock.
UNIT-V	Preparation of Final Accounts (Trading, Profit & Loss Account with Balance sheet) including adjustments.

Reference books:

1. Maheshwari S N, Financial Accountings, S Chand Publications.
2. Agarwal B.D., Advanced Accountin
3. Chawla & Jain, Financial Accounting
4. Chakrawarti K.S., AdvancedAccounts.
5. Gupta R.L. & Radhaswamy, Fundamentals of Accounting
6. Jain & Narang, AdvancedAccounts



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BBA-HCM-102

ORGANISATION AND MANAGEMENT PROCESS

Course objective: The objective of this course is to teach the students the principles of management including group dynamics and organisational development.

Unit I	Concept of Management and Business – Various approaches to Management – Universality of Management Principles – Functions of Management – Social Responsibilities of business. Planning – Nature, purpose, steps, types – objectives, purpose – Management by objectives – Decision – making process.
Unit II	Organizing: Nature and purpose, principles: Departmentalization importance, methods of Departmentalization. Span of control Decentralization and delegation. concept uses, process, preconditions – Line and staff Relationships - Organizational conflict – Types – Management of conflict – (Organizational change – Resistance Measures.) – Management of change.
Unit III	Directing , Nature, Managing the human factor, Motivation, techniques, theories of Vroom, Maslow, Herzberg. Leadership – Definition functions and nature –Theories of leadership: Trait theory, Situational theory, and managerial grid.
Unit IV	Group Dynamics – Formation and Development of Groups – Group cohesiveness – Stress Management. Leadership Styles – Motivation – Communication.
Unit V	Organizational Development – Interventions Techniques - Assessment – Organizational culture Creating and sustaining organizational culture – Organizational climate – Developing sound organizational climate – Organizational effectiveness.

Reference Books:

1. Koontz 'O' Donnel and Weirch: Management (Tokyo, McGraw Hill).
2. Last and Tenczning: Organisation and Management (New York: McGraw Hill 1980).
3. Peter F. Drucker: The Practice of Management (Bombay: Allied Publishing Co., 1989).
4. Fred Luthans. Organisational behavior, McGraw Hill Co., Tokyo.
5. Keith Davis. Human Behavior at Work, Tata McGraw Hill, New Delhi.
6. Abraham K. Karmam. Organizational Behavior, Prentice Hall, New Delhi.
7. Stephen P. Robbins. Organisational Behavior, Prentice Hall New Delhi.



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BBA-HCM-103

HUMAN BIOLOGY AND MEDICAL TERMINOLOGY

Course objective: The student will get a familiarity with medical jargon and human body system so that he can be an effective member of the operational team.

Unit I	Human Anatomy and Physiology: Basic functions and importance of following system in Human body: Digestive System Respiratory system-Circulatory System-Central Nervous system. Musculoskeletal system-Reproductive system Excretory system-Endocrine Glands Special Senses.
Unit II	Medical Terminology-Reasons for using medical terms-Glossary of medical terms: major Diseases and medical specialties.
Unit III	Roots, Prefixes, Suffixes, Abbreviations and symbols-Common roots: element referring to, usage and definition-Common prefixes and suffixes-Common abbreviations: departments, time, general healthcare, routes of medication and laboratory Symbols.
Unit IV	Illness-Defining illness: Direct and indirect causes - Classification and description of diseases. Infection Control: Medical asepsis, Nosocomial infection and communicable diseases, Reservoir, carrier and mode of transmission.
Unit V	Overview of Hospital Services Intensive care unit – Coronary care Unit – Burns, paraplegic & Malignant disease treatment – Hospital welfare services – Hospital standing services – Indian red cross society – Nursing services. Pharmacy – Medical Stores – Housekeeping – Ward Management – Central sterile supply department. Medical Records – Fatal documents – Medical Registers – Statutory records.

Reference Books:

1. BM Sakharkar, *Principles of Hospital Administration and planning* – Jaypee brothers Publications.
2. Francis CM, Mario C de Souza ; *Hospital Administration* – Jaypee brothers Medical Publishers (P) Ltd., New Delhi, 2000
3. Modigli GD: *Medical Records, Organization and Management*, Jaypee brothers Medical Publishers (P) Ltd., New Delhi, 2001
4. Sakharkar BM: *Principles of Hospital Administration and planning*, Jaypee Brothers Medical Publishers (P) Ltd., New Delhi, 1999
5. McGibony JR: *Principles of Hospital Administration*, GP Putnam's sons 'New York, 1969



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BBA-HCM-104

HEALTH CARE MANAGEMENT AND HOSPITAL ENVIRONMENT

Course Objective: To make the student to understand Health Care Sector and Hospital setup in a larger perspective with an emphasis on the systems.

Unit I	Introduction – Theoretical frame work - Environment - Internal and External – Environmental Scanning – Economic Environment – Competitive Environment – Natural Environment – Politico Legal Environment – Socio Cultural Environment - International and Technological Environment.
Unit II	A Conceptual Approach to Understanding the Health Care Systems – Evolution – Institutional Settings - Out Patient services – Medical Services – Surgical Services – Operating department – Paediatric services – Dental services – Psychiatric services – Casualty & Emergency services – Hospital Laboratory services – Anaesthesia services – Obstetrics and Gynaecology services – Neuro – Surgery service – Neurology services.
Unit III	Overview of Health Care Sector in India – Primary care – Secondary care – Tertiary care – Rural Medical care – urban medical care – curative care – Preventive care – General & special Hospitals- Understanding the Hospital Management – Role of Medical, Nursing Staff, Paramedical and Supporting Staff - Health Policy - Population Policy - Drug Policy – Medical Education Policy
Unit IV	Health Care Regulation – WHO, International Health regulations, IMA, MCI, State Medical Council Bodies, Health universities and Teaching Hospitals and other Health care Delivery Systems
Unit V	Epidemiology – Aims – Principles – Descriptive, Analytical and Experimental Epidemiology - Methods - Uses

Reference Books:

1. Paul's, *Readings in Economics*, Tata McGraw Hill, New Delhi , 1992
2. Dwivedi D.N. *Microeconomic Theory*, Vikas Publications, New Delhi, 1996
3. Seth, M.L. *Macroeconomics*, Laksminarayana Agrawal, Edu. Pub. Agra, 1996
4. Varshey, R.L. & Maheshwari, K.L., *Managerial Economics*, Sultan Chand, Delhi, 1996 Peter, Z & n Fredrick, B., *Health Economics*, Oxford Pub., New York, 1997
5. Shanmugansundaram, Y., *Health Economics*, Oxford Pub. New York, 1997 Mills, A & Lee, K., *Economics of Health*, OUP, Oxford, 1983.



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BBA-HCM-105

HOSPITAL OPERATIONS MANAGEMENT

Course objective: To familiarise the student with hospital operational activities. The student shall understand the process of purchase and inventory management in a health care establishment, apart from productivity aspects.

Unit I	Introduction to functions of Hospital Front Desk Coordinator Functions of Hospital Front Desk Coordinator, Patient Management, Front Desk Management
Unit II	Front Office-Admission – Billing – Medical Records – Ambulatory Care-Death in Hospital – Brought in Dead. Maintenance and Repairs Bio Medical Equipment-
Unit III	Clinical Services- Clinical Departments – Out patient department (OPD) – Introduction – Location – Types of patients in OPD – Facilities – Flow pattern of patients – Training and Co-ordination.; Radiology – Location – Layout – X-Ray rooms – Types of XRay machines – Staff - USG – CT – MRI – ECG.
Unit IV	Supporting Services – House Keeping –Linen and Laundry, - Food Services -Central Sterile Supply Department (CSSD)- Facility Location and Layout importance of location, factors, general steps in location and selection decision process, types of lay outs – product, process, service facility layout; Introduction, setting work standards, techniques of work measurement, time and motion study, standard time, PMT, work sampling, calibration of hospital equipment's. Productivity measures, value addition, capacity utilization, productivity – capital operations, HR, incentives calculation, applications in hospital
Unit V	Purchasing strategy process – organizing the purchasing function – financial aspects of purchasing – tactical and operational applications in purchasing management Inventory Management: valuation and accounting for inventory – physical location and control of inventory – planning and replenishment concepts – protecting inventory; Value Management, Value engineering, value analysis.



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Reference Books:

1. Madhuri Sharma, *Essentials for hospital support services and physical infrastructure*, Jaypee Brothers Publications.
2. Sakharkar BM, *Principles of hospitals administration and planning*, Jaypee Brothers publications.
3. Francis CM, Mario C de Souza: *Hospital Administration*, New Delhi, 2000.
4. Reaction of patients towards evening OP services in Delhi Hospitals, *Hospital Administration*, 14 (13), 1977.
5. Chakravarthy S: *Planning of Surgical Suites*, National workshop on hospital planning and Design, AIIMS, New Delhi, 1987. Prabhu KM, Sood SK: *Hospital Laboratory Services Organization and Management*, Journal of Academy of Hospital Administration, 2(@) 1990.