

UNIVERSITY OF MUMBAI

CIRCULAR:-

No.UG/ 72 of 2006

Mumbai - 400 032.

14th March, 2006.

The Director.
Garware Institute of Career Education
and Development,
Vidyanagari, Kalina,
Santacruz(East).
Mumbai - 400 098.

Sir,

I am inform you that the proposal for introduce the new courses, ~~Your Institute~~¹¹ has been accepted by the Academic Council at its meeting held on 10th February, 2006 vide item No. 7.9 and subsequently approved by the Management Council at its meeting held on 18th February, 2006 vide item No. 3. and that in accordance therewith the following courses are introduced by your Institute with effect from the academic year 2006-2007 :-

- 1) One Year full-time Post-Graduate Diploma Course in Pharma Management.
- 2) One Year full-time Post-Graduate Diploma Course in Hospital Administration.
- 3) Two and Half months part-time Certificate course in personal and Office Skills (POS).
- 4) One Year part-time Post Graduate Diploma Course in Journalism and Communication (Gujarati).
- 5) Four months part-time Certificate Course in I.T. Security (Information Technology).

Further that in exercise of the powers conferred upon Management Council under Sub section (i) 54 of the Maharashtra Universities Act, 1994, the Management Council has made the Ordinances 5586, 5587, 5588, 5589, 5590, 5591, 5592, 5593, 5594 and 5595 and in exercise of the powers conferred upon it under Section 55(i) of the Maharashtra Universities Act, 1994 Management Council has approved Regulations 5321, 5322, 5323, 5324, 5325, 5326, 5327, 5328, 5329, 5330, 5331, 5332, 5333, 5334, 5335, 5336, 5337, 5338, 5339, and 5340 relating to the (1) One Year full-time Post-Graduate Diploma Course in Pharma Management., 2) One Year full-time Post-Graduate Diploma Course in Hospital Administration., 3) Two and Half months part-time Certificate course in personal and Office Skills (POS), 4) One Year part-time Post Graduate Diploma Course in Journalism and Communication (Gujarati), and 5) Four months part-time Certificate Course in I.T. Security (Information Technology) are passed as per Appendices and that the same will be brought into force with effect from the academic year 2006-2007..

A.C./7.9/10-2-06.
M.C./3/18-2-06.

Yours faithfully,





UNIVERSITY OF MUMBAI

Ordinances and Regulations relating to the following Courses

1. One Year full time Post Graduate Diploma Course in Pharma Management
2. One Year full time Post Graduate Diploma Course in Hospital Administration
3. Two and Half Months part time Certificate Course in Personal and Office Skills.
4. One Year part time Post Graduate Diploma Course in Journalism & Communication
5. 4 Months part time Certificate Course in Security (Information Technology)

(With effect from the Academic Year 2006-2007)

**Conducted by The Garware Institute of Career
Education and Development**

UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

One Year Full Time P.G. Diploma in Pharma Management

Preamble :

International Pharmaceutical market is very competitive. It is imperative that pharma companies, biotechnology companies and institutions develop drugs efficiently in short time span to remain competitive. This requires well prepared personnel to handle medical support to marketing, drug development, clinical activities of drug introduction and monitoring in markets. This course is developed to cover knowledge-base in science, medicine, management, technological concepts and environmental factors involved in processes from drug discovery to marketing approval by regulatory authorities in diverse markets. The course is expected to impart knowledge in these areas and develop skills for decision making, control and lead multidisciplinary activities in the dynamic environment. The course is meant to train personnel for medical and research support departments in pharma companies, CROs, Laboratories and Research institutions. There is neither any patient interaction, treatment nor medical activity involved. Medical subjects are taught as a backgrounder to learn and understand management processes in the industry.

Objective of the Programme :

Aimed at preparing candidates for positions in Medical and Product Management Departments in Pharmaceuticals companies, CROs, Drug Development Labs.

UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

One Year Full Time P.G. Diploma in Pharma Management

- O. 5586 TITLE OF THE COURSE :
P.G. DIPLOMA IN PHARMA MANAGEMENT (FULL TIME)
- O. 5587 ELIGIBILITY : ANY GRADUATE. PREFERENCE WILL BE
GIVEN TO MBBS, B. PHARM, B. Sc. / M. Sc. / BAMS /BHMS/
MBA/Paramedical courses.
- R. 5321 DURATION : 1 YEARS' FULL TIME 2 SEMESTERS
- R. 5322 INTAKE CAPACITY: 50 PER BATCH
(FIFTY NUMBERS PER BATCH)
- R. 5323 SELECTION PROCEDURE: ADMISSION ON THE BASIS
OF WRITTEN TEST FOLLOWED BY AN INTERVIEW.

CAREER SCOPE :

The job of a medical person in the pharma industry has 3 dimensions: - Medical support to Marketing, Clinical research and Regulatory. India is now on the threshold of being the originator for various new drugs. This requires building an expertise within the medical community to generate/create and disseminate sturdy medical evidence.

The aspects of a job in the medical department of a pharmaceutical company not covered in any science curriculum are as follows:-

MEDICO-MARKETING:

1. Medical writing: The method in which medical data is put on the visual aid and other promotional inputs and the codes which govern the ethical promotion (IFPMA code).
2. Information search: The various websites, online journals and other web based resources available. The way of going about the search is not known to most and must form a part of training.
3. Analysis/Interpretation of scientific data/ clinical trials: Relevant information on clinical research and statistics should be imparted, so that the person is equipped enough to interpret information.
4. Biotechnology and the current research happening in India: genetics, genome project, proteomics, cloning stem cells and its application, bioinformatics etc could be covered.
5. Marketing aspects: product plan, product life cycle and various ways to growth the product. Retrieval of information and analysis from marketing databases such as ORG and CMARC.

CLINICAL RESEARCH

6. Writing a protocol: designing a study, format and focus on sample size and preparation of Statistical Analysis Plan. Also an introduction to a statistics package like Epistat/SAS would be helpful.
7. Bioequivalence studies: requirements, protocol, pharmacokinetics should be included as a part of this.
8. Pharmacovigilance, rules governing and how to set up a database.

REGULATORY

9. Regulatory aspects: The drug approval process, in-licensing of the drugs, importing of drugs and registration of the manufacturing sites. Drugs and Cosmetics act, including that for Biotechnology.

OTHERS

10. Role of the various bodies and the activities they undertake such as the ICMR, CDRI, ITRC, OPPI.
11. Practical work involves: Study designing, Protocol writing, information search, using of ORG and CMARC databases, case studies analysis
12. Softer skills such as communication of medical data, artfully.

Implementation of these aspects require foundation and training of fresh graduates in industry, possibly in-house. The course has been designed by team of Pharma practicing experts from industry to provide this foundation..

SEMESTER WISE – EXAMINATION PATTERN

TOTAL MARKS : 1500

Detailed Syllabus Semester - Wise Plan

PAPER	SUBJECT	INSTRUC TION HOURS	MARKS	DURATION OF EXAMN HRS
	SEMESTER I			
1.	PRINCIPLES OF MANAGEMENT	60	100	3
2.	MARKETING & SALES	60	100	3
3.	BIOCHEMISTRY & MICROBIOLOGY	60	100	3
4.	GENETICS	60	100	3
5.	CLINICAL PHARMACOLOGY	60	100	3
6.	OVERVIEW OF MEDICINE	60	100	3
7.	BIO STATISTICS & BIO INFORMATICS:	60	100	3
8.	DRUG DEVELOPMENT PROCESS	60	100	3
	SEMESTER I SUBTOTAL	480	800	
	SEMESTER II			
9.	DRUGS	60	100	3
10.	FINANCE & ACCOUNTS	30	100	3
11.	INFORMATION TECHNOLOGY	60	100	3
12.	CLINICAL TRIALS	60	100	3
13.	PROJECT	120	200	VIVA
14.	TRAINING/STUDY TOUR TO INDUSTRY, HOSPITAL, LAB (CORPORATE/COMPANY, CRO, LAB)	60	100	REPORT/ VIVA
	SEMESTER II	420	700	
	TOTAL SEMESTER I & II	900	1500	

Note: 40% of the marks for internal evaluation & 60% marks for paper / project /viva evaluation

SEMESTER I

PAPER	SUBJECT	INSTRUCTION HOURS
1	PRINCIPLES OF MANAGEMENT Management: Science , Theory and Practice, Functions of Manager Evolution of Management thought, Behavioural Sciences Management and Society: External Environment, Social Responsibility, Ethics International Management & MNCs, Japanese Principles Planning: Purpose, steps, process, Objectives, MBO, Developing verifiable goals Strategy, Policy, Decision Making Organising Structure, Departmentation, Span, Environment-entrepreneurial, innovation Line, Staff, Authority, Decentralisation, Delegation Organisations in Pharma, R&D Labs, Hospitals, small scale Performance monitoring through Budgets and MIS Leading: Human Factor and Motivation: Motivational Theories, Strategic Approaches, Special Motivational Techniques: Quality of life, Job enrichment, career advancement, management participation Leadership: Definition, Leadership styles Committees & Group Decision making Communication: Process, Barriers, Effective communication Controlling Process, Control points, Benchmarks, standards, Feedback system, Requirements of a good control system, Use of IT: Gantt Charts, PERT, CPM, Budgets vs Actual MIS, Preventive control Books: Koontz, Harold and Weirich, Heinz : Essentials of Management : an Indian perspective. New Delhi, Tata McGraw-Hill Pub. Co. Ltd., Weirich Heinz and Koontz, Harold : Management : a global perspective. New Delhi, Tata McGrawhill Pub. Co. Ltd., Koontz, Harold & others : Principles of Management New Delhi, Tata McGraw-Hill Pub. Co. Ltd., Drucker Peter F : Management : Tasks, Responsibilities and Practice. New Delhi, Allied Publishers	60
2	MARKETING & SALES Concepts of present day marketing, Developing strategies and plans. Gathering information and scanning environment Marketing Environment for consumer, Ethical and business products Market Research: Secondary, Primary.	60

	Analysing Business Markets Demand Forecasting, Analysing markets, Segmentation in Business and consumer markets Creating Brand Equity, Competition and Strategy, Product Strategy, Pricing Strategies Distribution, Channel Management Decisions, Supply Chain Management Marketing Communication: Advertising, Promotion, Publicity, Personal Selling, Direct Marketing, Event Marketing Product Planning: Marketing plan Introducing New Markets: Tapping Global markets Social Responsibility of Marketing Marketing Budgets: investments, recurring, MIS INTERNATIONAL MARKETING Regional Economic Size: GDP, Trade Patterns, Development of Trade in international scenario. MNCs, Cultural Environment, Attitudes and practices, Free Trade & Controls, GATT: Trade and protection effect, Non-tariff Barriers, Trading framework, Anti dumping IMF, World Bank, Tax havens Opportunities in Developing and Developed countries Strategy for entry in international markets: Joint ventures, mergers Acquisitions Research and information needs and methodology Examples of local controlling authorities, regulations and laws. Marketing: Philip Kotler	
3	BIOCHEMISTRY & MICROBIOLOGY Biomolecules and Biochemical methods, Biochemistry and Disease Chemical constituents of Blood and body fluids Structure and Functions of Proteins and Enzymes Amino Acids, Peptides, Proteins, Enzymes, Carbohydrates, Lipids Nucleotides metabolism, Nucleic Acid structure and function, DNA organization, replication, RNA synthesis and metabolism, Protein Synthesis and Genetic code, Gene expression, Recombinant DNA Technology Hormones Common Lab Tests used in Medicine for Diagnosis Microbiology: Microbes, Bacteria, Fungii, Virus, Parasites. Diseases caused by these. Infection and Immunity. Microbiology tests and results Harper's Biochemistry: RK Murray, PA Mayes, DK Granner, VW Rodwell Prentice Hall Biochemistry: Debajyoti Das Fundamentals of Biochemistry: Dr AC Das Medical Microbiology Greenwood Slack and Pautherer Javetz, Melnick and Adelberg's Medical Microbiology	60
4	GENETICS Brief History, Types of Genetic Diseases Cell Biology: Structure and function of genes and chromosomes: DNA, RNA and Proteins: Heredity at molecular level. Structure of Genes and Genome. Genetic Variation: Source of variation: mutation, Detection and variation of genetic variation Autosomal Dominant & Recessive inheritance,	60

	consanguinity in populations Sex-linked and Mitochondrial inheritance, X inactivation Clinical Cytogenetics: Technology and nomenclature, abnormalities of chromosome number, Pregnancy loss, abnormalities of chromosome structure, clinical abnormalities and phenotypes, cancer Cytogenetics Biochemical Genetics: disorders of metabolism, defects of metabolic process, Pharmacogenetics Gene Mapping and Cloning Immunogenetics: Basic concepts of immune response, immune response proteins, Histocompatibility complex, ABO & RH blood groups, Immunodeficiency diseases Basic concepts of Developmental concepts, molecular toolbox, Pattern formation Multifactorial inheritance and common diseases Disentangling effects of genes and environment, Genetics of common diseases Genetic Testing and Gene Therapy Population screening for genetic diseases, tools for screening and diagnosis, prenatal diagnosis of congenital defects, Gene therapy Need for advising Clinical Genetics and counselling Bioethics and medical Genetics References: Medical Genetics: LB Jorde, JC Carey, MJ Bamshad, RL White	
5	CLINICAL PHARMACOLOGY Clinical and Radiological Investigations and Pharmacology Pharmacokinetics How Drugs act - molecular aspects, Measurements: Bioassay, Chemical Assay Absorption, Distribution, metabolism of drugs Pharmacodynamics Mechanism of drug action, Dose response relationship, Antagonism, enhancement of drug effects Drugs affecting neurohumoral transmission, CNS, Anesthetic Agents, Cardiovascular Agents Diuretic Agents Drugs affecting Hematopoiesis and Hemostasis Analgesics, Anti inflammatory drugs Hormones, Antagonists, and other agents affecting endocrine function Anti infective agents Chemotherapy: sulphonamides, penicillins, antibiotics, tetracyclines, antifungals, UTI, Aids, Tuberculosis, Malaria, Amoebiasis, Pharmacovigilance Toxicology Pharmacology: HP Rang, MM Dale, JM Ritter: Publ: Churchill Livingstone Pharmacology: Leonard Jacob Publ: BI Waverly, New Delhi Pharmacology and Pharmacotherapeutics: Satoskar and Bhandarkar: Popular Prakashan Drug Benefits and Risks: Chris van Boxtel, B Satoso, IR Edwards: John Wiley	60

6	OVERVIEW OF MEDICINE Important diseases, Epidemiology and Treatment scenario Clinical and Radiological Investigations and Diagnosis. Malaria, Tuberculosis, HIV, Influenza, Diarrhea Diseases, ARI / Pneumonia, Fevers and Systemic signs, Cardiology, Chest Medicine, Renal Disease, Gastroenterology Neurology, Dermatology, Endocrinology, Cholera, Diphtheria, Encephalitis, Mumps, Leptospirosis, Viral hepatitis, Hematology: Anemia, Thalesaemia, bleeding disorders, leukemia, Gynecology, Immunosuppressive drugs, Gynecological, Orthopedic Psychiatric diseases. Immunization. Health scenario in different countries/continents, races. Programmes of international bodies like WHO, NGOs, ICMR, Govt health programmes References: Clinical Medicine: Praveen Kumar & Michael Clark Medical Therapeutics: GS Sainani, VR Joshi, PJ Mehta: BI Churchill Livingstone Oxford Handbook of Tropical Medicine: Michael Eddleston & Stephen Pierini	60
7	BIO STATISTICS & BIO INFORMATICS: Introduction: Mean spread, deviation, grouped data, graphical representation Probability Discrete probability distributions: Binomial & Poisson Distribution Continuous Distributions: Standard Normal distribution, Normal approximations to discrete distributions Estimation: Relationship between Population and sample, Random number tables, Randomised clinical trials Hypothesis Testing: One sample reference: test for mean, sample size determination, relationship between hypothesis testing and confidence intervals, Chi square test for variance of a normal distribution, one sample test for Binomial & Poisson distribution Hypothesis testing: Two sample inference: Paired t test Non parametric methods: Sign test, Wilcoxon Signed-Rank test and Rank-Sum test Hypothesis testing: Categorised variable Two sample test for Binomial: Normal theory method, Contingency table method: Yates correction, Mc Nemar's test, R x C Contingency tables, Goodness of fit, Kappa statistics Regression and correlation methods Fitting, least squares, correlation coefficient, multiple logistics regression, metaanalysis Multisample inference One way analysis of variance: ANOVA: Fixed effects, comparison of groups Two-way analysis of variance, Kruskal Wallis test Random effect model, Intraclass correlation coefficient Design and Analysis Techniques for Epidemiologic studies Study design, methods of inference for stratified data: Mantel-Haenszel test Power and sample size estimation for stratified data, Estimation of Survival curves, Kaplan Meier Estimator, Log Rank test, Proportion Hazards Model	60

	References Fundamentals of Biostatistics Bernard Rosner Publisher: Duxbury Thomson	
8	DRUG DEVELOPMENT PROCESS ENVIRONMENT, REGULATIONS & STANDARDS REGULATORY ENVIRONMENT: PATENT ACT, IPR, REGULATORY AFFAIRS AUTHORITIES, APPLICATIONS, INSPECTIONS, TOXICOLOGY Early History of Medicine, Drug Discovery and Development in middle ages, Foundation of current process, Beginning of Modern Pharma industry Evolution of Drug Products Intellectual Property Rights Drug Discovery and Development process: Overview, Economics, Trends Targets and Receptors: Medical needs, Target Identification and Validation, Drug interactions with Targets or receptors, Enzymes, Signal Transduction, Assay development Drug Discovery: Small molecule drugs Rational approach, Antisense approach, Chiral drugs Drug Discovery: Large molecule drugs Vaccines, Antibodies, Cytokines, Hormones, Gene therapy, Stem cells Introduction to CLINICAL TRIALS Ethical Considerations, Regulatory requirements for Clinical Trials, Role of regulatory authorities, Gene therapy and clinical trials REGULATORY AUTHORITIES Drug Controller General of India, US FDA, European Agency for evaluation of Medical products, Japan's Ministry of Health, Labour and Welfare, China's State Drug Administration African, Russian UAE Authorities, Authorities other than Drug Regulatory Agencies International Conference on Harmonization(ICH), WHO Pharmaceutical Inspection Cooperation scheme REGULATORY APPLICATIONS FDA, European Union, Japan, China, Africa, Russia etc GOOD MANUFACTURING PRACTICE: Regulatory Requirements USA, Europe, ICH, Core elements of GMP, Systems, Modifications and reviews of Standards GMP: Drug Manufacturing GMP Manufacturing, Inspection, Small molecule, large molecule APIs, Finished Dosage Forms Future Perspectives Past Advances and Future challenges(may be guest lectures/seminars) Traditional Medicines Gene Therapy, Cloning and Stem cells, Old Age Diseases and Aging, Life Style Drugs, Performance Enhancing Drugs Reference: Drugs from Discovery to Approval: Rick Ng Pub: Wiley-Leiss Pharmaceutical Medicine, Biotechnology and European Law Richard Goldberg, Julian Lonbay: Cambridge University press	60

SEMESTER II

9	DRUGS DRUGS KEY LABELLED EFFICACY AREAS & GEOGRAPHICAL MARKETS PRODUCTS THERAPIES & MECHANISM OF ACTIONS : API, GENE THERAPY, SURGICAL TOOLS, PROCEDURES, NON-INVASIVE SURGERIES / INVESTIGATIONS ANALYTICAL PROCESSES & TECHNIQUES IN DRUG DEVELOPMENT INTERNATIONAL MARKETS FOR DRUGS, NEUTRACEUTICALS, LIFESTYLE DRUGS, PERFORMANCE ENHANCING DRUGS ETC. Reference: Manuals like Indian Drug Review, MIMPS Medicines Management: Rhona Panton & Stephen Chapman BMJ Books, UK	60
10	FINANCE & ACCOUNTS Introduction to Accounting Practices, Capital Investments, Structure, ROI Balance Sheet and Profit & Loss Account, Ratio Analysis Process and Batch Costing Inventory Management Credit in Business Working Capital Requirements Project Preparation, Sensitivity Analysis Forecasting Demand Maintenance of Accounts IT in Accounting MIS (Management Information System) Books: Khan M. Y. & Jain, P. K. : Financial Management : Text, Problems & Cases. New Delhi, Tata McGraw Hill Pub. Co. Prasanna, Chandra : Financial Management New Delhi, Tata McGrawHill Pub. Co. Ltd	60
11	INFORMATION TECHNOLOGY WORD, EXCEL, MS:PROJECT MANAGEMENT, AI. IT Systems in Industry: ERPs, Networking, Telecom networks, Operating systems/Database management selection criterion, vendors and deployment Review of Drug Development Softwares Seminars two.	60
12	CLINICAL TRIALS ICH, IUFAR, GMP in Practice PRE-CLINICAL PROCESSES, ETHICS REQUIREMENTS, CLINICAL TRIALS (PLANNING), PROTOCOL DESIGNS SITE MANAGEMENT & MONITORING , GOOD QUALITY CONTROL PRACTICES CLINICAL TRIALS EXECUTION / SUBMISSIONS Apothecaries White Book for Clinical Research by Apothecaries Foundation, New Delhi. Second Edition	60
13	PROJECT Industry/CRO/Hospital / Lab	120



14	INTERSHIP TRAINING IN INDUSTRY, HOSPITAL, LAB(MANUFACTURING, RESEARCH OBSERVATION)	60
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GUEST LECTURES

To facilitate exposure on some topics it is suggested to organize guest faculty lectures(ten) on topics like:

- Guest lectures & Presentations by Pharma companies, CROs, NGOs, Regulatory bodies, Research labs, equipment vendors.
- Indian & International Health Scenario
- Quality in Clinical Research
- Marketing to corporate sector
- Operations Research
- Research Methodology
- Six Sigma
- Ethics Committees
- Communication Skills
- Presentation Skills
- OR: Linear Programming
- Management of Change
- Project Management
- IT in Clinical Research
- Outsourcing services in research
- Customer Relationship Management

R. 5324 Standard of Passing

1. Students will have to attend the classes regularly to complete the PG Diploma course. No student will be permitted to appear for the examination unless he/she completes 75% attendance.
2. The minimum percentage required for passing will be 50% in each paper.
3. Students securing 50% marks will be declared as "pass" in the "second class". A student securing 60% marks will be declared as "pass" in the "first class".
4. A student failing in maximum two subjects can move to second semester and clear these subjects in supplementary examination held before the next semester regular exam. Student failing in more than two subjects can appear in supplementary examination in all subjects but cannot go to the next semester.

**UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE**

One Year Full Time P.G. Diploma in Hospital Administration

Preamble :

India has large potential and scope for expansion and improvement of medical care. Having realized this government, trust-sector, corporate have on-going plans to expand capacities and modernize healthcare. Demand on improvement of quality of medical care and service is apparent. Health insurance is also coming in. Cost increases and competition is putting pressure on reduction of costs and improvement of productivity. The legal framework is also putting more pressure on operations for systematization. All this has necessitated deploying trained man power for providing support services to hospitals. The course is aimed at training manpower for hospital functions like: Front office, Billing, Accounts, Finance, Management Information systems HR, Materials Management, logistics, documentation, Marketing, Work flow, Maintenance, House keeping, Patient service and relationship management.

Objective of the Programme :

Aimed at preparing candidates for administrative functions at various levels of Hospitals

UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

One Year Full Time P.G. Diploma in Hospital Administration

- O. 5588 TITLE OF THE COURSE :
P.G. DIPLOMA IN HOSPITAL ADMINISTRATION (FULL TIME)
- O. 5589 ELIGIBILITY : ANY GRADUATE. PREFERENCE WILL BE
GIVEN TO MBBS, B. PHARM, B. Sc. / M. Sc. / BAMS /BHMS/
MBA/PARAMEDICAL COURSES.
- R. 5325 DURATION : 1 YEAR FULL TIME. 2 SEMESTERS
- R. 5326 INTAKE CAPACITY: 50 PER BATCH
(FIFTY NUMBERS PER BATCH)
- R. 5327 SELECTION PROCEDURE: ADMISSION ON THE BASIS
OF WRITTEN TEST FOLLOWED BY AN INTERVIEW.

CAREER SCOPE :

The course is aimed at training manpower for hospitals, insurance companies, diagnostics centres, laboratories etc.

SEMESTER WISE – EXAMINATION PATTERN

TOTAL MARKS : 1800

Detailed Syllabus Semester - Wise Plan

PAPER	SUBJECT	INSTRUC TION HOURS	MARKS	DURATION OF EXAMN HRS
	SEMESTER I			
1.	PRINCIPLES OF MANAGEMENT	50	100	3
2.	HEALTH SCENARIO INDIA & INTERNATIONAL	50	100	3
3.	SUPPORTIVE SERVICES IN HOSPITAL	50	100	3
4.	CLINICAL SERVICES IN HOSPITALS	50	100	3
5.	MODERN TECHNOLOGIES IN DIAGNOSTICS & TREATMENT	50	100	3
6.	OVERVIEW OF MEDICINE I	50	100	3
7.	HUMAN RESOURCE MANAGEMENT	50	100	3
8.	HOSPITAL INTERNSHIP/TRAINING	400	200	VIVA
	SEMESTER I SUBTOTAL	750	900	
	SEMESTER II			
9.	OVERVIEW OF MEDICINE II	50	100	3
10.	MATERIALS MANAGEMENT	50	100	3
11.	FINANCE & ACCOUNTS	50	100	3
12.	INFORMATION TECHNOLOGY	50	100	3
13.	HOSPITAL PLANNING & DESIGNING	50	100	3
14.	MARKETING & LEGAL FRAME WORK	50	100	3
15.	HOSPITAL INTERNSHIP/TRAINING	400	200	VIVA
16.	PROJECT(CONDUCTED DURING INTERNSHIP)		100	VIVA
	SEMESTER II	700	900	
	TOTAL SEMESTER I & II		1800	

- Daily 4 hours internship in a hospital for 200 days
- 40% of the marks for internal evaluation & 60% marks for paper / project /viva evaluation

SEMESTER I

PAPER	SUBJECT	INSTRUCTION HOURS
1.	PRINCIPLES OF MANAGEMENT Management: Science , Theory and Practice, Functions of Manager Management and Society: External Environment, Social Responsibility, Ethics Planning: Purpose, steps, process, Objectives, MBO, Developing verifiable goals Strategy, Policy, Decision Making Organising Structure, Departmentation, Span, Environment- entrepreneurial, innovation Line, Staff, Authority, Decentralisation, Delegation Leading: Leadership: Definition, Leadership styles Committees & Group Decision making Communication: Process, Barriers, Effective communication Controlling Process, Control points, Benchmarks, standards, Feedback system, Requirements of a good control system Books: Koontz, Harold and Weirich, Heinz : Essentials of Management : an Indian perspective. New Delhi, Tata McGraw-Hill Pub. Co. Ltd., Weirich Heinz and Koontz, Harold : Management : a global perspective. New Delhi, Tata McGrawhill Pub. Co. Ltd., Koontz, Harold & others : Principles of Management New Delhi, Tata McGraw-Hill Pub. Co. Ltd., Drucker Peter F : Management : Tasks, Responsibilities and Practice. New Delhi, Allied Publishers	50
2.	HEALTH SCENARIO: INDIA & INTERNATIONAL National Health Planning: Five year plan Government organization, departments at Central and state level. Role and structure of Public Health and Medical Education departments. Research initiatives and funding patterns. Research and training projects of Indian Council of Medical Research Dept of Biotechnology initiatives International NGOs in specific projects like AIDS. Activities of WHO, UNICEF, Red cross etc. ESIS, CGHS, Social Insurance initiatives. Hospitals of Public Sector Companies: public service and referrals to specialty hospitals Health Insurance	50

	Epidemics, Vaccination programmes, Major initiatives and projects of government Health systems in USA, UK, Middle east	
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3.	SUPPORTIVE SERVICES IN HOSPITAL Front office: Admission, Discharge, Transfer, Reservations. Billing. Planning and organizing of departments for physical: layout, workflow, equipment, materials, manpower. Cleaning, housekeeping services Utilisation and workload, control and deployment, shift scheduling Documentation Decentralization and implementation of authority to staff and control Patient Satisfaction Feedback and correction Organisation of Blood donation camps, eye donation, camps, vaccination drives, health check-ups, disaster management services, hygiene-epidemic studies in specific areas and remedial measures Laundry, CSSD, Food services, Dietetics, Surgical Waste disposal, Pharmacy, Pest Control and Fumigation routines and services, Fire and Safety control and readiness, Security, Ambulance, Attendance etc Books Principles of hospital, administration and planning by B.M. Sakharkar Jaypee Publication Hospital management, accounting, planning and control by G.R. Kulkarni, National Health Management Institute Supportive Services: Dr GRM Patil	50
4.	CLINICAL SERVICES IN HOSPITALS Planning and organization of clinical services IPD, OPD, Lab, Radiology, OTs, ICU, Emergency, Super specialty Care: Radiation, Non-invasive techniques, Ortho, ENT, Oncology, AKD, O&G, Paed, Ophthalmology, transfusion medicine. Deployment of consultants, shift doctors, nursing staff. Material and Equipment deployment: ordering medicines, consumables, tools. Work flow planning, patient movement. Medical records, ICD Coding. Standardisation, Quality control, Infection control. Statutory Reporting: Births, deaths, Blood Bank, Infectious diseases etc. Clinical Services: Dr GRM Patil	50

5.	MODERN TECHNOLOGIES IN DIAGNOSTICS & TREATMENT Principle of operation, application, pricing, vendors, making comparative statements, generic benefits, supplier specific benefits, critical comparative points of competitive equipments Biomedical equipment: ICU Patient monitoring equipment, Life support equipment, incubators, neonate support equipment Xray, C Arm, MR, CT, PET, Cathlab., DSA, Ultra Sound, Biochemistry analysers, Microbiology test equipment, microscopes, electron microscopy Genetic analytical equipment, Liquid Chromatograph etc OT equipment, anaesthesia equipment. Perfusion equipment, Transfusion, Component separation, Plasma fractionation Ophthalmology equipment, Physiotherapy equipment, Monitoring of cardiac rehabilitation Radiation Oncology and Dose maintenance, Isotope treatment, Linear Accelerator Navigation equipment for ortho and neuro surgery Equipment for chest medicine. Tools: Pacemakers, hearing aids, valves, implants Supplies and consumables Telemedicine, video conferencing MAINTENANCE MANAGEMENT Contracts, complaints, preventive and breakdown maintenance Power supply, Medical Equipment Maintenance Procurement decisions of consumables. Procurement Initiations for equipment Drawing Equipment and Maintenance Contracts Quality in Maintenance Management Fire alarm, CCTV, audio communication, Cable TV, Telephony, Broad Band, Telecom services	50
6.	OVERVIEW OF MEDICINE I Important diseases, Epidemiology and Treatment scenario Clinical and Radiological Investigations and Diagnosis. Malaria, Tuberculosis, HIV, Influenza, Diarrhea Diseases, ARI / Pneumonia, Fevers and Systemic signs, Cardiology, Chest Medicine, Renal Disease, Gastroenterology Neurology, Dermatology, Endocrinology, Cholera, Diphtheria, Encephalitis, Mumps, Leptospirosis, Viral hepatitis, Hematology: Anemia, Thalessemia, bleeding disorders, leukemia, Gynecology, Immunosuppressive drugs, Gynecological . Orthopedic, Psychiatric diseases. Immunization. Health scenario in different countries/continents, races. References: Clinical Medicine: Praveen Kumar & Michael Clark Medical Therapeutics: GS Sainani, VR Joshi, PJ Mehta: BI Churchill Livingstone Oxford Handbook of Tropical Medicine: Michael Eddleston & Stephen Pierini	50

7.	HUMAN RESOURCE MANAGEMENT Role of HR in an Organization. Training, attitude development Team building programmes in hospitals. Recruitment, training of manpower, attendance, leave, salary, duty scheduling, facilities like canteen, uniforms, treatment/eligibility, crèche, record maintenance, promotions etc. Human Factor and Motivation: Motivational Theories, Strategic Approaches, Special Motivational Techniques: Quality of life, Job enrichment, career advancement, management participation Books: Dr. Kaila, H. L. : Human Resource Management in 2 volumes. Delhi, Kalpaz publication Goyal R. C. : Human Resource Management in Hospitals. New Delhi , Prentice Hall of India Pvt. Ltd. Sarma A. M. : Personal & Human Resource Management Mumbai, Himalaya Pub. House	50
8.	HOSPITAL INTERNSHIP/TRAINING Students should maintain record of the activities covered and knowledge acquired in a Log Book.	200

SEMESTER II

9.	OVERVIEW OF MEDICINE II Important diseases, Epidemiology and Treatment scenario Clinical and Radiological Investigations and Diagnosis. Malaria, Tuberculosis, HIV, Influenza, Diarrhea Diseases, ARI / Pneumonia, Fevers and Systemic signs, Cardiology, Chest Medicine, Renal Disease, Gastroenterology Neurology, Dermatology, Endocrinology, Cholera, Diphtheria, Encephalitis, Mumps, Leptospirosis, Viral hepatitis, Hematology: Anemia, Thalesaemia, bleeding disorders, leukemia, Gynecology, Immunosuppressive drugs, Gynecological, Orthopedic, Psychiatric diseases: Immunization. Health scenario in different countries/continents, races. References: Clinical Medicine: Praveen Kumar & Michael Clark Medical Therapeutics: GS Sainani, VR Joshi, PJ Mehta: BI Churchill Livingstone Oxford Handbook of Tropical Medicine: Michael Eddleston & Stephen Pierini	50
10	MATERIALS MANAGEMENT Material Planning Stores Codification, layout, types of stores: Medicines, equipment, Tools, spares, linen Periodic Stock Verification, Stock Accounting, Inventory Valuation, Pricing, Scrap and waste management Purchase Indents, Purchases, receipt and payment authorizations, Quality certification, scrap and waste disposal Workflow Delivery, receipts, tracking of material on loan, returns, rejection, free, donations Vendor Management Vendor evaluation, Rate contracts, Credit policy Inventory control: ABC, VED(Vital, Essential, Desirable), SDE(Scarce, Difficult, Easily available), HML(High, medium, low cost), FSN(Fast, slow, Non-moving), Reorder levels. Supply Chain Management System Control through MIS. Use of web for supplier communication. Books: Dr. Khan R. R. : Purchasing and Storekeeping Mumbai, Fine Publishing House. Dr. More Patil, G. R. : Material Planning and Management. Mumbai, Drishti Advertising.	50
11	FINANCE & ACCOUNTS Introduction to Accounting Practices, Capital Investments, Structure, ROI Balance Sheet and Profit & Loss Account, Ratio Analysis Working Capital Requirements Project Finance Maintenance of Accounts Cost Accounting Budgets and Control through MIS Reports Banking Services Insurance of assets. Pandey I. M. : Financial Management New Delhi, Vikas Publishing House Books:	50

	Khan M. Y. & Jain, P. K. : Financial Management : Text, Problems & Cases. New Delhi, Tata McGraw Hill Pub. Co. Ltd., Prasanna, Chandra : Financial Management New Delhi, Tata McGrawHill Pub. Co. Ltd.,	
12	INFORMATION TECHNOLOGY : WORD, EXCEL, Power Point, MS: PROJECT MANAGEMENT. IT Systems in Hospitals: ERPs, Networking, Telecom networks, Operating systems/Database management selection criterion, vendors and deployment HIS Software : Components, Evaluation, Deployment. Seminars two. Performance monitoring through Budgets and MIS	50
13	HOSPITAL PLANNING & DESIGNING Business Plan, Project Plan, Project Finance Plan, Equipment Plan, Project Implementation Plan, PERT/CPM, Hospital Process Design, Hospital Building Planning College Project and Government Licensing. Maintenance Planning Books: Hospital Planning Design & Management: Kunders GD &c Hospital and Health Service Administration: Tabish, Syed Amin Sakharkar BM: Principles of Hospital Administration and Planning	50
14	MARKETING & LEGAL FRAME WORK SECTION A :MARKETING Concepts of present day marketing, Developing strategies and plans. Gathering information and scanning environment Marketing Environment for consumer, Ethical service marketing Market Research: Secondary, Primary. Demand Forecasting, Analyzing markets, Segmentation in Business and consumer markets Creating Brand Equity, Competition and Strategy, Product Strategy, Pricing Strategies Marketing Communication: Advertising, Promotion, Publicity, Personal Selling, Direct Marketing, Event Marketing. Product Planning: Marketing plan Sales Management & Customer Relationship Management SECTION B :LEGAL FRAMEWORK & Labour laws applicable to hospitals: Industrial Disputes Act, Labour court procedures, Maternity benefits act, PPF act, Domestic Enquiry procedure Labour agreements, Contracts of manpower, consultants, hired services, Trust Act Medico Legal Framework IRDA, Claims in relation to IRDA, Mediclaim, Third party Administrators , Claims management. Marketing: Philip Kotler	50
15	HOSPITAL INTERNSHIP/TRAINING	400
16	PROJECT(CONDUCTED DURING INTERNSHIP)	

GUEST LECTURES

To facilitate exposure on some topics it is suggested to organize guest faculty lectures(ten) on topics like:

- Quality in Healthcare
- Marketing to corporate sector
- Health Insurance
- Operations Research
- Research Methodology
- Current Motivational Practices in Hospitals
- Six Sigma
- Accreditation of Hospitals
- Ethics Committees
- Communication Skills
- Presentation Skills
- OR:Linear Programming
- Management of Change
- Project Management
- MIS for control in hospital
- Manpower Training
- Project Finance
- Collection of Outstandings
- Outsourcing services in hospitals

R. 5328 Standard of Passing

1. Students will have to attend the classes regularly to complete the certificate course. No student will be permitted to appear for the examination unless he/she completes 75% attendance.
2. The minimum percentage required for passing will be 50% in each paper.
3. Students securing 50% marks will be declared as "pass" in the "second class". A student securing 60% marks will be declared as "pass" in the "first class".
4. A student failing in maximum two subjects in first semester can move to second semester; and clear these subjects in supplementary examination held before the next semester regular exam. Student failing in more than two subjects can appear in supplementary examination without going to next semester.

**UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE**

Two And Half Months' Part-Time Certificate Course In Personal & Office Skills (POS)

Preamble :

The course is developed to enhance job prospects for candidates during and after their college education in public and private sector. The course is also suitable for candidates starting their business. The world over, persons having attained or developed these skills are in demand; and have high success in future career.

Objectives of the Programme :

To impart training in English language and effective communication
To introduce computer and train in functionalities and applications in office.
To introduce Basics of Accounting and provide practice on Accounting software eg Tally.

UNIVERSITY OF MUMBAI
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

Two And Half Months' Part-Time Certificate Course In Personal & Office Skills (Pos)

- C. 5590 TITLE OF THE COURSE :
CERTIFICATE COURSE IN PERSONAL & OFFICE SKILLS (PART TIME)
- O. 5591 ELIGIBILITY : PASS IN STANDARD X
- R. 5329 DURATION : TWO AND HALF MONTHS' PART-TIME
- R. 5330 INTAKE CAPACITY: 50 PER BATCH
(FIFTY NUMBERS PER BATCH)
- R. 5331 SELECTION PROCEDURE: ADMISSION ON THE BASIS
OF WRITTEN TEST FOLLOWED BY AN INTERVIEW.

CAREER SCOPE :

To provide foundation and generate interest in the student to develop and nurture communication and office skills in young students

SEMESTER WISE – EXAMINATION PATTERN

TOTAL MARKS : 400

Detailed Syllabus Semester – wise Plan

Total Hours of Four Semesters : 180 Hrs.

PAPER	SUBJECT	HOURS	MARKS
I	GRAMMAR & ELEMENTS OF EFFECTIVE COMMUNICATION	70	200
II	COMPUTERS: MICROSOFT OFFICE	50	100
III	ACCOUNTING PRINCIPLES	60	100

PAPER	SUBJECT	HOURS
I	GRAMMAR & ELEMENTS OF EFFECTIVE COMMUNICATION GRAMMAR Nouns, Adjectives, Verbs, Adverbs Articles, Prepositions, Parts of Speech. Tenses Punctuation, Sentence Construction, Paragraph Writing, Spelling Comprehension Choice of Appropriate words, Proper Usage of Phrases ELEMENTS OF EFFECTIVE COMMUNICATION Oral Communication 1. Pronunciation, Diction, Speeches 2. Group Discussion, Debates and Role Plays 3. Attitude Building, Goal Setting 4. Preparation for interviews 5. Time Management Written Communication 1. Defining the problem/subject, developing objectives, clarity & Style 2. 4S Rule of Writing: Shortness, Simplicity, Strength, Sincerity 3. Memos and Routine correspondence 4. Preparation of CVs 5. Report Writing	70

PAPER	SUBJECT	HOURS
II	COMPUTERS: MICROSOFT OFFICE COMPUTERS: MS OFFICE CREATING FILES, FORMATS IN WORD, JPG; ACROBAT ETC WINDOWS OFFICE WINDOWS EXCEL POWERPOINT, GRAPHS OUTLOOK EXPRESS, ADDRESS BOOK, EMAIL MICROSOFT OUTLOOK	50
III	ACCOUNTING PRINCIPLES ACCOUNTING PRINCIPLES Double Entry Book keeping PREPARATION OF DOCUMENTS Indent, Enquiry, Quotation, Comparative Statement, Vouchers, Invoices, Purchase Order, Delivery Note, Payment Vouchers, Accounts Payable Customer Order, Delivery Challan, Invoice, Credit Note, Debit Note, Accounts Receivable, Bank Book, Cash Book General Ledger Profit & Loss Account, Capital: Working Capital, Fixed Assets, Current Assets, Balance Sheet items Teach all above on Tally or another software. Meaning of MIS	60

R. 5332 Standard of Passing

Periodic Evaluation will be made.

1. A candidate will be placed in the First Class if He/She secures a minimum of 60 percent marks in aggregate and in each paper minimum of 50 percent of marks.
2. A candidate will be placed in the Second Class if He/She secures a minimum of 50 percent marks in each paper and in aggregate.

UNIVERSITY OF MUMBAI'S

GARWARE INSTITUTE OF CAREER EDUCATION
AND DEVELOPMENT

KALINA , SANTACRUZ (EAST),
MUMBAI – 400 098.

CURRICULUM
FOR
POST-GRADUATE DIPLOMA
IN
COMMUNICATION & JOURNALISM
(GUJRATI)

Ordinance, Regulations And Syllabus
Relating To The
POST - GRADUATE DIPLOMA
IN
JOURNALISM

Common syllabus for English /Hindi/ Marathi, now applicable to Gujarati also.

INTRODUCTION :

Communication and journalism are areas of expanding employment opportunities. This trend will accelerate with the growth of mass-media, spurred by growth of literacy of infrastructure facilities for mass communication and changes in information technology. It is therefore believed that occupational skills for professionals in communication and journalism must receive high priority in any scheme of career education at the university level. There is presently a clear training gap in this field and this is sought to be filled by the institute through this course in communication and journalism. The course seeks to train students in the basic skills and arts, which will enable them to take up jobs with professional bodies, in various mass media institutions like news paper, news agencies, public relations department in Governments or the private sector, AIR, Doordarshan, films division, advertising agencies, Public opinion and Social Science Research Institutions, Magazine and book Publishing Houses.

O. 5592 **TITLE OF THE COURSE :**

**POST GRADUATE DIPLOMA IN COMMUNICATION AND
JOURNALISM (GUJRATI)**

O. 5593 **ELIGIBILITY: MUST HAVE A GRADUATE DEGREE
OF ANY RECOGNIZED UNIVERSITY IN ANY FACULTY.**

R. 5333 **DURATION : ONE YEAR. (PART TIME)**

R. 5334 **INTAKE CAPACITY :ONE BATCH OF 50 (FIFTY)
STUDENTS.**

R. 5335 **SELECTION PROCEDURE: ADMISSION ON THE
BASIS OF WRITTEN TEST FOLLOWED BY AN INTERVIEW.**

R. 5336 **STANDARD OF PASSING : -(FOR ALL SEMESTERS)**

- 1) A candidate will be placed in the first class if he/she secures a minimum of 40 percent marks in each of the papers and at least 60 percent aggregate marks.
- 2) A candidate will be placed in the second class if he/she secures a minimum of 40 percent marks in each of the papers and at least 50 percent aggregate marks.
- 3) A candidate will have to secure at least a second class to pass the examination.
- 4) A candidate who fails in any particular theory paper/s, practical/s, will be allowed to appear again for that theory paper/s, practical/s, and will be entitled to the Second or the First Class, as the case may be, on passing he/she need not appear for the entire examination.
- 5) A candidate, who secures a minimum of 40% marks in each of the 16 units (Theory papers I to XIII, Practicals I & II, and the Dissertation), considered separately and fails to secure a minimum of 50% aggregate marks required for passing the examination, may appear again for examination in theory papers of his/her choice (from papers I to XIII), as and when supplementary examinations are arranged, so as to enable him/her to improve his/her aggregate percentage marks needed to pass the examination and obtain appropriate class.

The Diploma will not be awarded to a candidate unless the candidate has fully passed in all the theory papers and Practicals prescribed for the course.

EXAMINATION PATTERN

Examination (1400 Marks)

No.	Paper	Theory Paper	Terminal	Continuous Evaluation	Total (Marks)
I	Principles of Journalism, Press Laws and History of Journalism.	100	50	---	150
II	Reporting and Current Affairs.	100	50	50	200
III	Writing	100	50	50	200
IV	Editing	100	50	50	200
V	Mass Communication and Media	100	50	50	200
VI	Awareness of Computer Application.	100	---	---	100
	PROJECT (PRACTICAL WORK)				
	1. Study Paper	---	---	---	100
	2. Viva Voce on Study Paper	---	---	---	100
	3. Current Affairs	---	---	---	100
	4. Lab Journal	---	---	---	50

DETAILED SYLLABUS SEMESTER - WISE PLAN

(TOTAL HOURS OF SIX SEMESTERS –600 hrs.)

	SEMESTER - I	TOTAL HRS.
PAPER I :	PRINCIPLES OF JOURNALISM	
	<u>SECTION I : PRINCIPLES OF JOURNALISM</u> ➤ Its scope, nature, function. Canons of Journalism viz – objectives, accuracy, authenticity and fairness. Professional standard in Journalism., qualities and responsibilities of a Journalist, Government Vs press with reference to Dictatorship, Communism, and Democracy. <u>SECTION II : CONSTITUTION AND PRESS LAWS:</u> ➤ Basic features of Indian Constitution -Fundamental Rights, Directive Principles. ➤ <u>Press Laws :</u> Laws-governing the freedom of the Press. Official secrets Act.1923 and amendments, Constitution (Art 19(I)a) Copyright Act, 1957, Press and Registration of Books Act,1967, declaration and other legal formalities for editors IPC Sec. 124 A, (Sedition); Defamation – civil and Criminal laws; Evidence Act and privilege of non disclosure of sources, Contempt of Courts Act, Contempt of Legislative Parliamentary Proceedings (Protection of Publication) Act, 1977; Prevention of Publications of Objectionable Matters Act. Working Journalists (Conditions of service and Miscellaneous Provisions Act), 1955; Palkar Award, Press Council Act, 1955. ➤ HISTORY Beginning of the Press in India, Press during the Pre-independent era; development of Indian Press since	

	1947, Press during the emergency. A brief history of the Press in major Indian languages ; News Agency Journalism in India; Professional Association.	
PAPER II :	REPORTING	
	➤ What is news? Definition – news values - Human interest qualities and responsibilities of a reporter ➤ Structure of news report : Inverted Pyramid form, Intros, lead, Types of Lead, Use of quotations in reporting. ➤ News gathering : Reporters beat assignment, sources of news, cultivation of sources, sources of confidentiality. ➤ Kinds of Reporting : Interpretative, Investigative, Development. ➤ Interviews : Interviewing skills, homework, face-to-face authenticity, kinds of interviews. ➤ Reporting on Special Events ; Civil affairs, legislative bodies, commerce, elections, court, crime, disaster, sports. ➤ Photo Journalism : Reporter – photographer, human element in pictures ; picture and words – their complementary functions; photo features.	

PAPER-III :	WRITING	
	➤ Distinction between journalistic writing and creative writing tools and technique of writing-language, form and content. ➤ Fundamentals of writing : Grammar and composition, presentation of ideas. ➤ Contents Finding ideas, sources and collections of information of writing, slanting and selling feature – use of picture, caption writing. ➤ Editorial Writing – Types of editorials, column, articles and opinion pieces. ➤ Specialised Writing – Science and technology, industry, women, children, and sports.	
PAPER-IV:	EDITING	
	➤ Introduction : General principles of editing – functions of editor, assistant editor, news editor, and sub-editor. ➤ Sub-editor : Qualifications, Duties, functions, responsibilities and rights – aptitudes and professional training. ➤ Copy Matter : Different types of copy, sources of copy, Testing copy for News value. Testing copy for libel, slant and colour, advertisement matter passing off as news. ➤ Processing the copy : Its location and size, paragraphing, and breaking up of stories with sub heading. Linking up similar stories. Use of editing marks, style book. ➤ Information retrieval : Reference books and photographic, library, Research. ➤ Editing : Rewriting, improving the lead, Headlines, variations language, style and typography, Telegrams. Agency	

	reports. News pictures, sources, briefing the cameraman. Selection and editing. Proof reading. ➤ Page Marking : Different types of make up. Front page and other pages. Late stories – fillers. Making the front page for attention, appeal, sensation, surprise, advertisements, display, classified etc. ➤ Type Setting : Different methods, monotype, linotype, prototype-use of video, terminal, computer, satellite. ➤ Printing : A brief introduction to the main printing process and their characteristics. ➤ Newspaper Management : General principles of management, functions of circulation, production and advertising departments, forms of newspaper ownership; newsprint policy.	
PAPER-V :	MASS COMMUNICATION AND MEDIA	
	➤ Definition and Meaning : Distinction between interpersonal communication and mass communication, barriers to mass communication. ➤ Public Opinion : Mass Media's role in its formations, the two step theory, opinion, leaders. ➤ Effect of Mass Communication : Predisposition, Reinforcement, selective exposure, retention and perception, conversion and persuability, Audience image of source characteristics including one side versus two sides, channelisation, repetition explicitness. ➤ Mass Media and Mass Culture : Types of audience stereotypes formulas, escapist, fare myth world, with reference to Indian film effects of media portraying crime, violence etc. Popular culture versus high brow culture. ➤ History of Mass Communication : Theories of Mass Communication, Authoritarianism, Libertarianism, Social responsibility, and communist theory Arguments for freedom and restraint. Distribution pattern of mass media in national development in Education, Agriculture,	

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| <p>Literature, Health and Family Welfare.</p> <ul style="list-style-type: none"> ➤ History and role of Radio in India :
A.I.R Organisational set up and legal aspect, the question of autonomy spoken word, Programmes talks, discussion, interview, news. ➤ Radio features and documentaries.
Sport+s coverage commentaries.
Special Audience program for rural listeners, youth, women, workers, children etc. ➤ History and Development of India Cinema – The language of the screen. The screenplay. The visual the literary and the auditory factors. The educational and the instructional film. The documentary film and the commercial film with reference to India. Role of cinema in India's economic and social development. ➤ History of development of Television :
Origin, T. V. in India, a comparative study of T.V. and cinema, sociological and psychological aspects, T. V news, T.V programmes content analysis, satellite communication the question of autonomy for T.V.
Role of T.V in India's economic & Social development. ➤ Public Relation :
Definition, nature, role in modern organisation P.R. Media, House journal, press release, Annual report, exhibitions, Industrial advertistising audiovisual media. ➤ P. R. Publics :
Internal and external P. R. Policy P.R. and the management P. R. in public and private sector. | |
|--|--|

PAPER-VI :	AWARENESS OF COMPUTER APPLICATION	
	➤ Data Processing Concepts ➤ History of computer development ➤ Functions and the scope of computers ➤ Generation of computers ➤ Mainframe, Mini, Micro, Personal computers. ➤ Configuration of a computer system : Hardware CPU, I/O, ALU –Memory, Input/ output Devices, TAPE, Disk, printer, punch Cards. ➤ Data representation in computer memory : Binary System, Bits / Bytes, Octal, Hexadecimal system. ➤ Sorting process, ➤ On-line, Batch processing, Real – time system. ➤ Introduction to programming. ➤ Pagemaker + Word / Windows /DTP & other packages only practical.	

UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

CERTIFICATE COURSE IN IT SECURITY (INFORMATION
TECHNOLOGY) : PART TIME 4MONTHS

Preamble :

Information systems are penetrating every where and becoming integral part of all business processes and activities. Computerisation is creating valuable assets (like Data, Information, Technology, Application, Facility, Network, Systems & Procedures, Trained Human Resources) for user organisations. The user organisations include corporates, banks, financial institutions, government, defense, public service, education, health-care, NGOs or even individuals. These highly valuable information assets are (a) attracting criminals to perpetrate Information and Information Technology related crimes and (b) bringing more-and-more technological and business-processes risks, resulting in high risk of business disruption, financial losses and loss-of-credibility.

Thus, Security of Information Assets OR Information Technology Security is becoming important day-by-day, as the risk are increasing on daily basis.

There is acute shortage of trained and/or qualified people to take care of the required and acceptable level of security and security management in IT environment. In many cases, the awareness amongst the owners / users is also limited. The gap between the human-resources required and demand to address security risks, is increasing exponentially.

To take care of this shortage of trained and qualified human resources, GICED of Mumbai University has taken a lead to offer courses in Information Security.

Objective of the Programme :

To prepare certified and trained people in IT Security, who will operate at desired levels and will be suitable to industry requirements and productive on the job from day-one.

UNIVERSITY OF MUMBAI
GARWARE INSTITUTE OF CAREER EDUCATION AND DEVELOPMENT
ORDINANCES, REGULATIONS AND SYLLABUS
RELATING TO THE

CERTIFICATE COURSE IN IT SECURITY (INFORMATION
TECHNOLOGY) : PART TIME 4MONTHS

O. 5594 TITLE OF THE COURSE :
IT SECURITY (INFORMATION TECHNOLOGY SECURITY) :PART TIME

O. 5595 ELIGIBILITY : ANY GRADUATE. OR PASS IN XII OR
EQUIVALENT WITH EXPERIENCE IN INFORMATION
TECHNOLOGY

R. 5337 DURATION : 4 MONTHS PART TIME.

R. 5338 INTAKE CAPACITY: 50 PER BATCH
(FIFTY NUMBERS PER BATCH)

R. 5339 SELECTION PROCEDURE: ADMISSION ON THE BASIS
OF WRITTEN TEST FOLLOWED BY AN INTERVIEW.

CAREER SCOPE :

To prepare certified and trained people in IT Security, who will operate at desired levels and will be suitable to industry requirements and productive on the job from day-one. Job prospects will be IT departments in industry or govt, IT Companies, IT Security and Networking companies

EXAMINATION PATTERN

TOTAL MARKS : 500

- There will be 8-10 curriculum hours per week either in (a) evenings and/or on (b) Saturday/Sundays. There can be mix of two. This will be based upon the convenience of course-students and faculty.
- 40% of the marks for internal evaluation & 60% marks for paper / project / viva evaluation

PAPE R	SUBJECT	INSTRUCTION HOURS
1.	ENVIRONMENT FOR IT SECURITY Introduction to Information Security Need for Information Security IT Security and Crime Scenario The IS Security process Malware – (Virus / worm / Trojan / malicious code) IT Act – 2000 IS Security Standards – ISMS / ISO-27001 US / UK / European Acts and Laws	100
2.	IT SECURITY PLANNING IT Processes Operations Security Environmental Controls Network Security Controls Technology Security (O/S, DBMS, etc.) Application Security Planning of overall system	100
3.	SECURITY IMPLEMENTATION & OPERATION Implementation project and methodology Compliance & Certification Cryptography and Digital Signatures Manuals, Training Visit to / Lecture by an Organisation who has implemented IS/BS certification	100
4.	SECURITY PRODUCTS Items like Firewalls, Perimeter Protection, and VPNs, Intrusion Detection etc Vendor Products.	100
5.	CASE STUDIES, GUEST LECTURES, SITE VISITS	100

R. 5340 Standard of Passing

A candidate should secure 50% marks in each paper for passing.

A candidate will be placed in the First Class if He/She secures a minimum of 60% marks in aggregate. He will be placed in second class for marks between 50 to 60%

