

UNIVERSITY OF MUMBAI

No.UG/ 297 of 2005

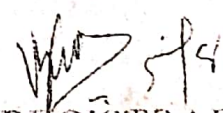
CIRCULAR :

A reference is invited to Ordinances, Regulations and syllabi relating to the two-year Post-graduate Diploma course in Perfumery and Cosmetics Management (PGDPCM) course and the Heads recognised institutions concerned and the Principals of the affiliated colleges in Science are hereby informed that the recommendation made by the proposal for introduction of two year Post-graduate Diploma course in Perfumery and Cosmetics Management (PGDPCM) has been accepted by the Academic Council at its meeting held on 14th June, 2005 vide item No.4.28 and subsequently approved by the Management Council at its meeting held on 18th June, 2005 vide item No.4 and that in accordance therewith two year Post-graduate Diploma course in Perfumery and Cosmetics Management will be introduced from the academic year 2005-2006.

Further, that in exercise of the powers conferred upon the Management Council under Section 54(1) and Section 55(1) of the Maharashtra Universities Act 1994, it has made Ordinances 5520 and 5521 and Regulations 5149, 5150, 5151, 5152, 5153 and 5154 relating to the Post-Graduate Diploma course in Perfumery and Cosmetics Management (PGDPCM) including scheme of examination and syllabus has been passed as per Appendix and that the same will be brought into force with effect from the academic year 2005-2006.

Mumbai 400 032

25th July, 2005


for REGISTRAR.

To,

The Heads recognised institutions concerned and the Principals of the affiliated colleges in Science.

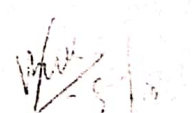
A.C.4.28.14.06.05

M.C.4.18.06.05

No.UG/ 297-A of 2005

25th July, 2005

Copy forwarded with compliments to the Dean, Faculty of Science, for information.


for REGISTRAR.

A.C. 4.28
14/6/05

UNIVERSITY OF MUMBAI

Ordinances, Regulations, Scheme of Examination and Syllabus

(With effect from the Academic Year 2005-06)

The Two-Year

Post Graduate Diploma in Perfumery and Cosmetics Management (PGDPCM)



Objectives

The main objective of the programme is development of directly employable manpower – middle level technical and managerial – for the fast growing cosmetic and perfumery industry in India and abroad.

The Perfumery and Cosmetology course, as proposed, will be the **first of its kind in India** where Perfumery and Cosmetic Science & Commerce will be taught under one roof. It is niche area where there is no integrated industry recognized training programmes or courses in the country. The skilled personnel are imported from other countries or the industry spends huge fund for training programmes.

On the curriculum side, the courses that will be introduced will give a dual competence to the students by imparting technical know-how as well as managerial training required by the perfumery and cosmetology.

The students will be thoroughly acquainted with the classical as well as applied approach to both the techniques. Every theoretical detail will be supplemented by on-hand practical training. On the other hand, the management training engineers the persons into proactive managers. Thus the result will be that the students who will emerge as excellent management executives with adequate knowledge of the product in hand and its industrial manufacturing process.

In addition to the flagship PGDPCM, the programme envisages short term Certificate Courses on topics like Herbal Cosmetics, Safety Testing, Efficacy testing, Clinical Trial Procedures, Fragrance Application, Soaps and Detergents, Toiletries, etc at a later stage.

Academic Advisory Committee comprising professionals from industry for cutting edge.

Support for product development and business start-up.

University Of Mumbai

Ordinances, Regulations, Scheme of Examination and Syllabus
(With effect from the Academic Year 2005-06)

Title of the course: -

0.5520

~~The~~ Two-Year Post Graduate Diploma in Perfumery and Cosmetics
Management
(PGDPCM)

R 5149 Duration: Two-year full time

R 5150 Teacher Qualifications

Minimum Qualification: Faculty would have Post Graduation (at least Second Class) in Chemistry, Cosmetics, Perfumery, Commerce, Accountancy, Finance, Economics, EFCM from ISIPCA and related areas.

Visiting Faculty: Entrepreneurs in the field and Professionals working in the industry with at least two years relevant experience

O 5521 Eligibility

- Graduation with Chemistry as one of the Major/Subsidiary subject.
- Graduates in any subject will be considered provided they have acquired acknowledged professional experience of at least three years in the specific perfumer/cosmetics industry. Such candidates will be given admission only after personal interview to judge the scientific/technical knowledge.
- In case the number of applications for admission is more than the seats available, selection will be made on the basis of written entrance test followed by personal interview. The syllabus for the entrance examination will be declared with the Prospectus to be issued.

R 5151 No. Of Students

25

R 5152 Fee structure

Annual Fee	Rs.
1. Tuition Fee	36,000
2. Laboratory Fee	20,000
3. Library	2,000
4. Other fees	3,000
5. Gymkhana/Gymnasium	500
6. Extracurricular	200
7. Utility	300
8. Development fund	1,000
9. Computer/internet	3,000
10. Examination/Mark List	3,000
11. Industrial visit	3,000
12. On-the-job-training	5,000
13. Project/Product development	2,500
14. Miscellaneous	<u>500</u>
Total	<u>80,000</u>

R 5153 Scheme of Examinations

Name of paper	Annual Exam.	Internal/Practical	Project	Total Marks
First Year				800
Paper I Perfumery I	50	40	10	100
Paper II Cosmetics I	50	40	10	100
Paper III Cosmetics II	50	40	10	100
Paper IV Fundamental & Applied Chemistry	60	40	-	100
Paper V Operations And Project Analysis	60	40	-	100
Paper VI Human Resource Management	60	40	-	100
Paper VII Analysis and Management of Information	60	40	-	100
Paper VIII Basic Accounting And Finance	60	40	-	100
Second Year				800
Paper I Perfumery II	50	40	10	100
Paper II Cosmetics ,III	50	40	10	100
Paper III Cosmetics IV Perfumery	50	40	10	100
Paper IV Decorative Cosmetics	60	40	-	100
Paper V Management Accounting and costing	60	40	-	100
Paper VI Context of Business Enterprise	60	40	-	100
Paper VII Marketing Management	60	40	-	100
Paper VIII Entrepreneurship and Strategic Enterprise Development	60	40	-	100
Total Marks				1600

Note: Internal or Continuous Assessment will include Occasional Practical, Tutorials, fieldwork, industry visit, original product development, Project work, Assignments, GD, Viva, etc. The respective faculty members will announce the scheme in the beginning of the academic year.

First Year

Paper I “Perfumes I Perfumery Materials

Lec.64

32 Practicals of three hour duration

1. Raw materials in Perfumery Chemistry (Natural and synthetic)	10
2. History of perfumers, Discoveries and developments	10
Indian and Global perfumery trends	
The psychology of fragrance and aromatherapy	
Techniques for perfume evaluation	
3. Vision of Fragrance – Notes and interpretations	5
4. Basis of Aromatherapy	5
5. Formulation of perfumes	8
6. Quantitative Analysis	6
- Separation of volatile constituents (GC types)	
- To identify components relevant to sensory detection	
7. Quantitative Analysis	20
Extraction	
Head space	
Combined Method	
GC, HPLC, MS, GC-FTIR, GC-O	

Reference Books:

1. Essential Oils Vol. I ; Guenther
2. Chemistry Of Essential Oils; Flick
3. Poucher's " Perfumes, Cosmetics, And Soaps: Hilda Butler
4. Perfumes Of Yesterday: D.G. Williams
5. Indian Plant Perfumes: S. N. Malhotra
6. Essential Oil Analysis : Kubeczka
7. Aroma Science: Salvatore Gimelli
8. Identification of Essential oil Components by GC/MS: Adams, Robert P
9. Introduction to Perfumery- T.Artis, D.G. Williams

Paper II

Cosmetics I “Raw materials and Finished Product Packaging”

Lec.64

32 Practicals of three hour duration

1. Water, oils, fats, waxes, alcohols, Fatty Acids, surfactants, Antioxidants, hydrocolloids (Definition/ what are these, Importance in Cosmetics), powders, Humectants etc. 15
2. Classification 15
3. Their properties and significance in formulations 25
4. Preservatives in Cosmetics 9

Reference Books:

1. Indian Pharmacopoeia, British Pharmacopoeia, U. S. Pharmacopoeia
2. Remington's Pharmaceutical practices
3. Cooper And Gunn's- Dispensing for Pharmaceutical students
4. Beginning Cosmetic Chemistry by Randy Schuller and Romanovski;

Paper III

Cosmetics II “Physiology and Analytical techniques

Lec.64

32 Practicals of three hour duration

Physiology of Skin, Hair, Nail, Teeth”

1. Elementary tissues of the body Epithelial, Connective, Nervous, Muscular with proper knowledge of Epithelial tissue 10
2. Detailed structure and function of
Skin and its appendages (anatomy and physiology)
Functions of skin
Important skin glands sweat and sebaceous glands
What is keratinization
 - a. Colour of skin and theory of pigmentation (and Depigmentation), disorders of 10
3. Pigmentation, pigmentary and Depigmentary agents 10
4. Detailed structure and function of (also disorder and treatments of)
Eye
Hair (With brief introduction to Baldness patterns)
Nails (Different parts and growth)
Tooth (Types and importance) 9

Instrumental Methods of Analysis

- Chromatography : Principle, types (column, paper, thin layer, gas, high performance liquid (HPLC), High performance thin layer chromatography (HPTLC)
Introduction of GCMS 8
- UV and Visible Spectrophotometry : EM Spectra, Principle, Parts of Spectrophotometer, use of data, Relation between absorption in visible and UV region , Spectrophotometric titration (for determination of 2 or more constituents) 8
- IR Spectrophotometry : Origin, Determination of molecular structure, Quantitative analysis using IR Spectrophotometry 5
- PH measurement : Determination 2
Instrument and application
- Analytical chemistry and separation techniques related to cosmetics. 3

Reference Books:

1. Human Anatomy and Physiology- Kimber and Gray
2. Human Anatomy and Physiology -Ross and Wilson
3. Human Physiology and Anatomy : Marieb
4. Fundamentals of Human Hair Science: Swift
5. Harry's Cosmeticology

Paper IV: "Fundamental and Applied Chemistry"

Lec.64

Surface Active Agents

Classification based on (i) Chemical nature ii) HLB scale Determination of HLB

Surface Activity

Micelle and critical Micellar Concentration , factors affecting Micelle Structure and significant 5

- Emulsions
Type, Identification, Thermodynamic, considerations, stabilization of droplet, theories of Emulsification , properties of Emulsion
Instability of Emulsions (Reasons and Description) 5
- Suspensions
Introduction, formulation in suspension form , particle interaction and behavior, flocculation and deflocculation, sedimentation
Role of wetting (what is wetting)

Controlled flocculation	
Structured vehicle in formulations	
Evaluation of suspension stability	7
• Micromeritics (For powder formulation)	7
• Particle size, size distribution, shape and surface area determination in heterogenous system	7
• Porosity, Density and packing arrangements in flow properties and their influence on processing of solid preparation	8
• Thermochemistry : Laws , heat of reaction at concentrated volume and concentrated pressure	
Heat of Formation	
Combustion	
Neutralization	
Hydrogenation	5
“Legislation and Regulation for Perfumes and Cosmetics”	10
• Cosmetics Definition as per FDC 1940 details	
• Prevention of cruelty to animal act	
• The Excise duties Act and Rules (for toilet and medicinal preparations)	
• Code of Pharmaceutical Ethics	
• Schedule M (ii) of Dc Act (Good Manufacturing practices)	
• Factory Act	
• Contract Act	
• Shop and Establishment Act	
• Sales Promotion Employee Act	
• GLP- General provisions, organization and personnel facilities, equipments, testing facilities, operation and control articles, protocol for and conducting a non clinical lab study, Records and Reports	
• ISO series – Its significance, role and importance in cosmetic industry	
• Compliance of DC Act 1940 with reference to provisions for Packaging and labeling (Rule 150A, Schedule S), Permitted colours, Flavours	
“Safety Testing and Toxicology”	10
• Stability testing (also safety) of various cosmetic products * Accelerated stability study and determination of shelf life.	
• Evaluation of Raw materials and finished products as per BIS and IP/ USP/ BP etc.	
• Microbial Analysis as per BIS / IP/ USP/ BP etc.	
• Microbial control important in cosmetics, sterilization, Techniques, disinfections, Antiseptics, Antimicrobials and preservatives	
• Factors affecting/ influencing antimicrobial activity	
• Probable Toxicity in Humans to Cosmetic , Advance reaction to Cosmetics	
• Toxicity Testing (Types) and general techniques	

Reference Books:

1. Harry's Cosmeticology
2. Surfactants- By Reiger and Reigh ; Surfactant Science Series

3. Physical Pharmacy- A. N. Martin and Swarbrick
4. Chemistry and Manufacturing Of cosmetics: M.G. DeNavarre
5. Chemistry and Manufacturing of Cosmetics Vol. By Mitchell L. Schlossman ; Allured
6. The Theory and Practises of Industrial Pharmacy: Lachmann
7. Bentley's Text Book Of Pharmaceutics: Rawlins
8. Drugs and Cosmetic Acts and Rules, Govt. of India Publication
9. Text Book Of Forensic Pharmacy: M. Mittal
10. IP, BP, USP
11. Cosmetic Regulations in Competitive Environment: Estrin and Akerson
12. GLP By Seiler
13. How to Practice GLP- P.P Sharma
14. How to Practice GMP- P.P Shanna
15. Text Book Of Toxicology: Dubois and Getting
16. Invitro Toxicology: Shayne C. Gad

COMMERCE / MANAGERIAL MODULES

Paper V: OPERATIONS & PROJECT ANALYSIS (60 Annual + 40 Internal)

	64 lecs
• Concepts & Theories of General Management	6
• Production Planning & Management	5
• Work Measurement	4
• Quality management & Assurance	8
• Capacity management	5
• Operations strategy	5
• Resource planning in service and manufacturing environments	4
• Inventory Control and Material Requirement Planning	6
• Project feasibility,	5
• Project report,	6
• Project appraisal	4
• Project management	6

Paper VI: HUMAN RESOURCE MANAGEMENT (60 Annual + 40 Continuous)

	Lecs. 64
• The motivation and behaviour of individuals and groups in organizations.	8
• The principles and models of HRM and personnel management.	8
• The effective recruitment, selection, appraisal and reward of employees.	8
• The issue of control and effective handling and management of employee grievances and discipline.	8

- The identification of training and developmental needs, continuous professional development, lifelong learning and personal development. 12
- Employee representation, participation, commitment and involvement. 10
- Labour laws as applicable to industries in India 10

Paper VII: ANALYSIS AND MANAGEMENT OF INFORMATION (60 Annual + 40 Continuous)

Lecs 64

- Information vs Data; their uses in underpinning the decision making process in business. 4
- Data collection methods; primary and secondary data; electronic sources. 6
- Questionnaire design and survey methodology, data storage. 4
- Methods of summarizing data using business graphics, statistics and tables. 4
- Hypothesis testing methods and its use in business, advanced analysis methods including correlation, regression, forecasting and simple multivariate techniques, use of computers. Use of these methods in providing information for the decision maker information systems. 10
- Basics of computing systems, terminology, downsizing. 7
- Impact of systems management. Networking and communication. 6
- The electronic office. Data base design – flat files and relational structures. Use of relational database tools. 4
- Systems development methodologies – SSADM, RAD. Outsourcing 4
- Identification of business problems and development of I.T. solutions. Budget control. Timing. Security. 5
- Electronic business and electronic commerce. Business models; electronic payment methods; security issues, SSL and encryption methods, legal and ethical issues. Managing CIT in organizations. Training and development issues. 10

Paper VIII: BASIC ACCOUNTING AND FINANCE (60 Annual + 40 Continuous)

lecs. 64

- Basic accounting concepts and conventions 12
- The Profit & Loss Account 10
- The Balance Sheet 6
- The Importance of Cash 6
- Cash & fund flow statements 8
- Accounting for Limited Companies 10
- Financing the Business & Source of Finance 12

Second Year

Paper I

Perfumery II: "General and Specialized Perfume formulations"

Lec.64

32 Practicals of three hour duration

Basic alcoholic perfumery	20
Functional perfumery	15
Manufacturing and Packaging process of perfumes	20
Market trends in perfumery	09

Reference Books:

1. Poucher's "Perfumes, Cosmetics, And Soaps: Hilda Butler
2. Perfumes Of Yesterday: D.G. Williams
3. Current Topics In Flavours and Fragrances: Karl Swift
4. Cosmetics: Science And Technology: Sagarin
5. Manufacture of Perfumes, Cosmetics and Detergents: By Giriraj Prasad
6. Perfumes, Flowers and Essential Oil Industries: S.B. Shrivastava

Paper II

Cosmetics Paper III : "Formulations: Cosmetics and Herbal Cosmetics"

Lec.64

32 Practicals of three hour duration

- Emulsions (creams and Lotions)
Types of skin creams/ lotions eg. Cleaning , moisturizing etc. Importance of moisturizers, cleaners, night day creams etc.
Formulations (theoretical and practical) 7
- Moisturizers 5
- Skin products for Babies _ - Information, Common Skin Problems, Functions, Requirement of Baby products , safety, examples, formulations 5
- Skin lightening preparations 5
Formulation on aspects
- Antiperspirants and Deodorants :- Theory, formulation 6
- Face Packs and Masks :- introduction, types of systems for face packs and masks
Formulation aspects 4
- Manufacturing processes of Cosmetics 5
- Hair Care Products (Shampoos, Hair Setting lotion/ sprays/ hair tonic and conditioners, Hair colorants, Permanent waving and Hair straighteners
Introduction, Types, Raw materials , formulations aspects, Evaluation 4
- Shaving Preparations (Men's Toiletries)

Preshaving (Bread softners)

Shaving (Lathers creams/ stics/ Aerosols creams/ Bushless/ Non athering

Novel compositions

Precelectric, lotions, sticks etc.

5

- Foot preparations : Introduction, Foot ailments, care and Hygiene, , cosmetic products etc.

2

- Aerosols (Aerosol Technology)

2

“Bath Preparations”

7

- Foam Baths – Introduction, Types, Formulation aspects, assessment
- Bath salts – Formulation aspects and raw material
- Bath oils – introduction, Types (Floating and spreading oils, Dispensable or blooming soluble oils , Foaming oils
- After Bath products: Introduction, Need, Types available, formulation aspects

Oral Care

3

Mouth washes/ Tooth pastes/ fresheners

“Herbal cosmetics , Cosmeceuticals”

3

Medicinal Importance of Herbs (History)

Isolation of Active Principles

Extraction Techniques

Incorporation into formulations

Reference Books:

1. Harry's Cosmeticology
2. Chemistry and Manufacturing Of cosmetics: M.G. DeNavarre
3. Chemistry and Manufacturing of Cosmetics, Vol.II By Mitchell L. Schlossman ; Allured
4. Formulation and preparation of Cosmetics, Fragrances and Flavours: Louis Appell
5. Handbook of Cosmetic Science And Technology: A. Barel, M. Paye and H. Maibach
6. Cosmetic Formulations, Manufacturing and Quality Control: P.P. Sharma
7. A Short textbook of Cosmetology: K.F. DePolo

Paper III

Cosmetics IV: Quality control and Product Efficacy

Lec.64

32 Practicals of three hour duration

25

“Finished Product Analysis”

BIS

ISI guidelines for finished products

Market trends in cosmetics and Toiletteries

Efficacy Testing and clinical Trials

Market trends and Toiletries

22

Efficacy testing and clinical trials

17

Reference Books

1. Bureau of Indian standards: Indian Standards for Cosmetics
2. Indian Pharmacopoeia: Vol I and II
3. ICH guidelines for the structure and content of Clinical study Reports
4. Guidelines for evaluation of the efficacy of cosmetic products, II Edition 2001 The European Cosmetic Toiletry and perfumery association

Paper IV: Decorative Cosmetics

Lec.64

32 Practicals of three hour duration

22

- Colour Science :

Colours, Pigments, Dyes (Natural , Synthetic)

Classification

Uses and Preparation of Colour solutions / dispersions

Incorporation in formulations

Detection of Colours

- Colour Cosmetics Formulations

23

Different coloured preparations, Ingredients used, Introduction, Formulation aspects and techniques to formulate

Lipsticks

Rouge

Mascara

Eye Shadow

Eye liners

Eyebrow Pencils

Concealers and Foundations

- Nail Care (Manicure Preparations)

19

Cuticle Removers/ Softers Introduction

Nail bleach cream Introduction

Strengtheners, Nail white - Introduction

Nail Polish/ Nail Lacquers – Introduction, Ingredients , formulation, manufacturing

Base and Top coats

Enamel Removers – Introduction

Nail Driers- Introduction

Artificial elongaters – Introduction

Nail Mending compositions - Introduction

II. COMMERCE / MANAGEMENT

Paper V: MANAGEMENT ACCOUNTING & COSTING (60 Annual + 40 Continuous)

	Lecs. 64
• Comparative & Common size statements	5
• Financial ratios	5
• Management of Working capital	8
• Budgeting	10
• Cost-Volume-Profit Analysis	10
• Relevant costs for decision making	10
• Full costing and marginal costing techniques	8
• Capital investment appraisal	8

Paper VI: CONTEXT OF BUSINESS ENTERPRISE (60 Annual + 40 Continuous)

	Lecs. 64
• Economic, demographic and labour market issues and developments	5
• Multi-national organizations	4
• National culture and cultural and social diversity	6
• Corporate Governance	8
• Legal context- Indian, English, EU legal system; international law and organizations-GATT, WTO.	15
• Regulatory and legal constraints on business-law of contract; company law, labour laws, liability civil and criminal	12
• Environmental and regulatory matters relating to aroma trade & industry	12

Paper VII: MARKETING MANAGEMENT (60 Annual + 40 Continuous)

	Lecs. 64
• What is marketing	3
• An examination of the ways in which environmental and competitive factors affect markets.	5
• The nature of market dynamics: customers, consumers and consumer decision-making.	8
• The market research process, methods and techniques used to understand and monitor markets.	8
• Identifying and satisfying market needs: segmentation, targeting and positioning	7
• The nature and uses of marketing information	5
• Marketing mix programmes: product policy, pricing, communications, distribution management, customer service	7
• Brand Management	6
• Marketing Strategies & Strategic Marketing Process	7

- Developing and implementing marketing planning decisions 4
- Customer Relations Management (CRM) 4

Paper VIII: ENTREPRENEURSHIP & STRATEGIC ENTERPRISE
DEVELOPMENT
(60 Annual + 40 Continuous)

	Lec.	64
• Definitions, characteristics of entrepreneur		4
• Leadership, product selection and pricing,		6
• Location decision, psychology of winning,		4
• Management of conflicts, stress and time,		6
• Successful person practices, positive thinking, management of resources,		6
• Business and personal taxation, role of government,		6
• Enterprise sickness and remedies		6
• Introduce to enterprise strategy: the nature and purpose of enterprise strategy; competitive advantage; value adding; the value chain; value constellation; economic concepts.		10
• Risk and innovation: the economic analysis of risk taking; introduction to the economics of innovation; risk management; technology; government policy concerning innovation and enterprise		8
• Enterprise and the environment: industry analysis frame-works; the game theory perspective; industry attractiveness analysis; the impact of government		6
• Strategic analysis: environmental audits; resources and capabilities; sources of competitive advantage; strategies and implementation; organizational economics and agency theory; choice of enterprise boundaries – horizontal, vertical and corporate.		8

R 51.54 Standard Of Passing

While the Annual Examination is treated as one head of passing, the Practical, Project and other forms of assignments taken together will be treated as one-head of passing.

A student will be declared Pass and eligible for the PGDPCM provided he/she secures 35 percent marks each in Internal / Continuous Assessment (including project taken together) and Annual Examinations separately and 40 percent marks in aggregate.

On-The-Job Training: At least two months Industrial exposure (on the job training etc) is a condition for the award of the Diploma either during the course or immediately after the course.

No	Division	Marks	Grade
I	I-II	65 or above	O
	I-II	60-64	A
II	II-I	55-59	B
	II-II	50-54	C
	II-III	45-49	D
III	III	40-44	E
IV	Fail	39 or below	F

The responsibility of conducting the examinations shall rest with the College.

—X—