

NEP- 2020

FY B.Sc.

Hospitality Studies



Savitribai Phule Pune University

(Formerly University of Pune)

Four Year Degree Program - B.Sc. Hospitality Studies

(Under Faculty of Science & Technology)

FY B.Sc. Hospitality Studies

National Education Policy (NEP) 2020 **Restructured Syllabus**

To be implemented from Academic Year 2024-25

Title of The Course : B.Sc. (Hospitality Studies)

Preamble:

The curriculum structure designed by the University in trajectory with National Education Policy 2020 guidelines aims to provide a framework for understanding the hospitality industry by sensitizing students to the conceptual, visual, and perceptual process. The framed syllabus and the course policy are learner-centric with varying levels of skills in each academic year. Program structure and selected courses give diverse choices of subjects in tune with the changing trends in hospitality and tourism industries under the Choice Based Credit System.

Subject experts under Syllabus Core Committee teaching under-graduate courses from various colleges have contributed to preparing the syllabus - were instrumental in framing this new syllabus and sustainable education with regional, national, and global competitive knowledge in addition to best employable skills. The program syllabus presented in the following pages conforms to the general guidelines of the NEP 2020 scheme, semester schedule, evaluation criteria and course credit structure of the BScHS Program.

The valuable support from the subject experts from SPPU has helped to draft and prepare the framework to implement the New Education Policy for the benefit of the students in the field of Hospitality Studies.

We take this opportunity to thank the authorities of Higher & Technical Education, Govt. of Maharashtra & Savitribai Phule Pune University for giving us this opportunity to be a part of framing and implementation of the

curriculum for B.Sc Hospitality Studies under National Education Policy 2020.

Preface:

The **B.Sc. HS** is a discipline of hospitality and tourism. Considering that the hospitality industry is dynamic in nature, with new trends in food, service and décor periodically becoming the norm, it is important to review and revise the syllabus at regular intervals. The choice-based credit system was introduced in 2019, providing choices to the students to select from the prescribed courses. The shift was from a conventional marking system to a grading system. The requirement for awarding a degree was prescribed in terms of the number of credits to be completed by the students. Attempt had been made to integrate skill sets that will add value to the curriculum and made it more effective.

Current Curriculum Orientation:

The curriculum is designed keeping in mind, the basic minimum requirement of this industry in terms of enhancing the student knowledge and skill sets. Curricula of similar programmes by various state and international universities have been reviewed, and incorporated wherever appropriate, further enhancing the syllabus.

Objectives and Framework of the Curriculum of B.Sc. HS Program:

I. The basic objective is to provide to the hospitality industry a steady stream of competent young men and women with the necessary knowledge, skills, values and attitudes to occupy key operational positions.

II. The Programme structure is designed keeping in view the basic objectives stated above. Consequently, certain essential features of the model are:

- To impart to the students latest and relevant knowledge from the field of Hospitality Operations.
- To ensure that students are equipped with necessary operational skills related to the hospitality industry.
- To develop the right kind of values and attitudes to function effectively in the hospitality trade.

III. The following considerations have been taken into account.

- The knowledge inputs and opportunities for skill development have been offered in an evenly distributed and logically sequenced manner with appropriate options.
- The design is simple and logical and offers the student a choice of subjects.

IV. The relative importance of skills and ability development and attitudinal orientation in hospitality education has been kept in mind. The courses have been designed and classified as core, ability enhancement, discipline specific, skills enhancement and general courses, with the freedom to choose courses from amongst discipline specific and general electives.

Programme Outcome (PO):

This four-year undergraduate programme is divided into VIII semesters with theory, practical components project and Internship. Students undergoing this programme would be equipped with sufficient knowledge in the field of hospitality studies. This programmes envisages the students to be well prepared for the job market with sufficient knowledge in the core areas.

PO1. Food Production of different cuisines of the world.

PO2. Food & Beverage Service techniques.

PO3. Front Office Management in the hospitality industry.

PO4. Accommodation Operation of the hotel.

PO5. Hygiene and Sanitation in and around the hotel.

PO6. Nutrition and food standards of the food prepared in the hotel.

PO7. Accounting of the hotel and of the different outlets of the hotel

PO8. Human Resource Management

PO9. Facilities Management

PO10. Law pertaining to the hotel and industries relating to hospitality industry

PO11. Tourism Management

PO12. Marketing of the products and services of the hospitality sector

PO13. Hospitality Information System of the hotel with the basic use of computers

PO14. Internship in the Hotel Industry

PROGRAMME SPECIFIC OUTCOME (PSO)

PSO1. Gain Knowledge of the different cuisines of the world.

PSO2. Learn to be professional in their outlook appearance.

PSO3. Learn time management and stress management.

PSO4. Learn to communicate with the people.

PSO5. Learn how to manage the hotels in times of crisis and disaster.

PSO6. Provides Employability skills in the hospitality industry and various related sectors.

PSO7. Understand detail about all the department of the hotel.

PSO8. Understanding the functions of non-core departments like accounts, human resource, marketing, etc.

Eligibility for Admission:

The minimum eligibility for the course would be **HSC (Std.12th)** or **its equivalent**, passing with the minimum of **45% marks** in aggregate. (**40% marks** in case of candidates of backward class categories (**SC,ST,NT, OBC & SBC**) belonging to Maharashtra State.)

For students with Non-Science background a **Bridge Course** in Science namely '**Basics Hospitality Applied Sciences**' will be conducted in the first year of the course. The duration of the bridge course will be of four weeks.

Savitribai Phule Pune University, Pune

Credit Framework for Under Graduate (UG) (2024 – 25) (3 Subject) for faculty of Science and Technology

Level / Difficulty	Sem	Subject-1		Subject-2	Subject-3	GE/OE	SEC	IKS	AEC	VE C	CC	Total	
4.5 / 100	I	2 (T) + 2 (P)		2(T)+2(P)	2(T)+2 (P)	2 (T)	2 (T/P)	2 (T) (Generic)	2 (T)	2	--	22	
	II	2 (T) + 2 (P)		2(T)+2(P)	2(T)+2 (P)	2 (P)	2 (T/P)	--	2 (T)	2	2	22	
Exit option: Award of UG Certificate in Major with 44 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor Continue option: Student will select one subject among the (subject 1, subject 2 and subject 3) as major and another as minor and third subject will be dropped.													
Level / Difficulty	Sem	Credits Related to Major				Minor	GE/OE	SEC	IKS	AEC	VE C	Total	
		Major Core	Major Elective	VSC	FP / OJT/ CEP								
5.0 / 200	III	4 (T) + 2 (P)	--	2 (T/P)	2 (FP)	2(T)+2(P)	2 (T)	--	2 (T) (Major Subject Specific)	2 (T)	--	22	
	IV	4 (T) + 2 (P)	--	2 (T/P)	2 (CEP)	2(T)+2(P)	2 (P)	2 (T/P)	--	2 (T)	--	22	
Exit option: Award of UG Diploma in Major and Minor with 88 credits and an additional 4 credits core NSQF course/ Internship OR Continue with Major and Minor													
5.5 /300	V	8(T) + 4(P)	2 (T) + 2 (P)	2 (T/P)	2 (FP/CEP)	2(T)	--	--	--	--	--	22	
	VI	8(T) + 4(P)	2 (T) + 2 (P)	2 (T/P)	4 (OJT)	--	--	--	--	--	--	22	
Total 3 Years		44	8	8	10	18	8	6	4	8	4	6	132
Exit option: Award of UG Degree in Major with 132 credits OR Continue with Major and Minor													
6.0 /400	VII	6 (T) + 4 (P)	2 (T) + 2 (T/P)	--	4 (RP)	4(RM)(T)	--	--	--	--	--	22	
	VIII	6 (T) + 4 (P)	2 (T) + 2 (T/P)	--	8 (RP)	0	0	0	0	0	0	22	
Total 4 Years		64	16	8	22	22	8	6	4	8	4	6	176
Four Year UG Honours with Research Degree in Major and Minor with 176 credits OR													
6.0 /400	VII	10(T) + 4(P)	2 (T) + 2 (T/P)	0	0	4 (RM) (T)	0	0	0	0	0	22	
	VIII	10(T) + 4(P)	2 (T) + 2 (T/P)	0	4 (OJT)	0	0	0	0	0	0	22	
Total 4 Years		72	16	8	14	22	8	6	4	8	4	6	176
Four Year UG Honours Degree in Major and Minor with 176 credits													

(Signature)

Added (15.11.24)

Notes:

Abbreviation: VSC: Vocational Skill Course, IKS: Indian Knowledge System, FP: Field Project, OJT: On Job Training, CEP: Community Engagement and Service, GE/OE: Generic Elective / Open Elective, SEC: Skill Enhancement Course, AEC: Ability Enhancement Course, VEC: Value Education Course, CC: Cocurricular Courses, T – Theory, P – Practical

1. VSC, FP/OJT/CEP should be related to the Major subject
2. OE is to be chosen compulsorily from faculty other than that of the Major.
3. SEC to be selected from the basket of Skill Courses approved by college.
4. Student has to choose three subjects from the same faculty in First Year and at the start of Second year he has to opt one subject as Major subject and one another subject as Minor subject and the last one subject will be dropped by the student. Therefore, the student after completion of three year will be awarded degree in Major and Minor subject.
5. Student cannot select a subject as major or minor other than the subjects taken in first year
6. Frame each course having even number of credits such as 2 or 4 credit.
7. This UG credit structure is applicable for all the programme across all faculties, except the programmes required approval from apex bodies like AICTE, PCI, BCI, COA, NCTE, etc.

[Signature]
VSC/SEC

[Signature]
Dean (S&T)

SAVITRIBAI PHULE PUNE UNIVERSITY

B.Sc (Hospitality Studies) Program Structure (NEP- 2020)

(AY 2024-25)

FYBScHS (Sem- I)

Course CR (T/P)	Course Code	Course Title	Instruction Hrs. / Week	Scheme of Examination Evaluation			Credits
				Int	Ext	Total	
Subject - 1 2 (T) + 2 (P)	HS 101	Food Production - I (T)	2	15	35	50	02
		Food Production - I (P)	4	15	35	50	02
Subject - 2 2 (T) + 2 (P)	HS 102	Food & Beverage Service - I (T)	2	15	35	50	02
		Food & Beverage Service - I (P)	4	15	35	50	02
Subject - 3 2 (T) + 2 (P)	HS 103	Rooms Division - I (T)	2	15	35	50	02
		Rooms Division - I (P)	4	15	35	50	02
OE 2 (T)	OE-101-PHL	Professional and Administrative Ethics	2	15	35	50	02
SEC 2 (T)	SEC-101-HS	Personality Development	2	15	35	50	02
IKS 2 (T)	HIS- 101	Indian Knowledge System (IKS) (Generic)	2	15	35	50	02
AEC 2 (T)	AEC- 101	English: Professional Communication Skills	2	15	35	50	02
VEC 2 (T)	VEC- 101	Environment Education - I	2	15	35	50	02
CC (--)	-----	-----	-----	-----	-----	-----	-----
Total						550	22

FYBScHS (Sem- II)

Course CR (T/P)	Course Code	Course Title	Instruction Hrs. /Week	Scheme of Examination Evaluation			Credits
				Int	Ext	Total	
Subject - 1 2 (T) + 2 (P)	HS 201	Food Production - II (T)	2	15	35	50	02
		Food Production - II (P)	4	15	35	50	02
Subject - 2 2 (T) + 2 (P)	HS 202	Food & Beverage Service - II (T)	2	15	35	50	02
		Food & Beverage Service - II (P)	4	15	35	50	02
Subject - 3 2 (T) + 2 (P)	HS 203	Rooms Division - II (T)	2	15	35	50	02
		Rooms Division - II (P)	4	15	35	50	02
GE/OE 2 (T)	OE-151-PHL	Professional and Administrative Ethics	2	15	35	50	02
SEC 2 (T)	SEC-151-HS	Soft Skills for Hospitality Professionals	2	15	35	50	02
IKS (--)	-----	-----	-----	-----	-----	-----	-----
AEC 2 (T)	AEC- 151	English: Professional Communication Skills	2	15	35	50	02
VEC 2 (T)	VEC- 151	Environment Education - II	2	15	35	50	02
CC 2 (T/P)	CC- 151	Yoga Education	4	15	35	50	02
Total						550	22

Subject : FOOD PRODUCTION - I (Theory)

Subject Code : HS 101 (T)

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Knowledge about evolution of cookery & various textures, consistencies occurred in food preparations.
- C 2 : Relate & apply knowledge of kitchen equipment's, Fuel & cooking techniques.
- C 3 : Knowledge of Kitchen hierarchy, duties of various chefs & functioning of each section.
- C 4 : Identify and relate food commodities with its types & catering uses.
- C 5 : Develop knowledge on culinary terms pertaining to chapter topics.

							Hours	Marks
Chapter – 1		INTRODUCTION TO COOKERY					04	04
	1.1	Origin of Modern Cookery practices						
	1.2	Aims & objectives of cooking food						
	1.3	Textures & Consistencies occurred in food preparations						
	1.4	Convenience Food – Definition, Characteristics & uses						
Chapter – 2		METHODS OF COOKING					08	08
	2.1	Modes of heat transfer – Conduction, Convection, Radiation						
	2.2	Methods of Cooking – Definition, Classification, Rules to be considered A] Moist methods of cooking – Boiling, Poaching, Steaming, Stewing & Braising, B] Dry methods of cooking – Roasting, Baking, Grilling & Broiling C] Frying – Deep frying, Shallow Frying, Sauteing						
	2.3	Modern cooking Methods used in catering industry						
Chapter – 3		EQUIPMENTS AND FUEL USED IN KITCHEN					04	05
	3.1	Classification of Kitchen Equipment's - By size or Mode of use						
	3.2	Selection criteria for purchasing Kitchen Equipment						
	3.3	Modern Equipment used in kitchen						
	3.4	Fuel used in kitchen - Types, Advantages & Disadvantages						

Chapter-4		ORGANIZATION STRUCTURE OF FOOD PRODUCTION DEPARTMENT	04	06
	4.1	Classical kitchen brigade - 5 Star & 3 Star Hotel.		
	4.2	Modern staffing in various category hotels		
	4.3	Duties & Responsibilities of Kitchen staff		
	4.4	Responsibilities of allied section in kitchen		
	4.5	Co-operation of kitchen with another department		
	4.6	Attributes of kitchen personnel		
Chapter – 5		COMMODITIES	10	12
		Types, Market forms available, Catering Use, Storage		
	5.1	Cereals & Pulses		
	5.2	Fats and Oil		
	5.3	Sweeteners		
	5.4	Dairy products: Milk, Cream, Cheese, Curd		
	5.5	Egg – Parts/Structure of an Egg, selection criteria		
	5.6	Vegetable & Fruits		
	5.7	Spices, Herbs, Condiments & Seasonings		
Total			30	35

Assignments:

Minimum of **02 assignments** to be submitted by students by the end of the semester.

1. Culinary Terms related to above chapters –

Albumin, Avocado, Bain marie, Barbecue, Bean sprout, Bell peppers, Berries, Biogas, Blanching, Broiling, Braising, Combi ovens, Bran, Brat Pan, Castor sugar, Cereals, CDP, Chalazae, Chinois, Chipper, Commis, Cooking, Condiments, Conduction, Consistency, Convention, Convenience food, Cream, DCDP, Dumerara sugar, Food Processor, Golden syrup, Gravity slicer, Grilling, Herbs, Homogenized Milk, Icing sugar, Lard, LPG, Millet, Molasses, Margarine, Marination, Parboiling, Pasteurized milk, Poaching, Poeling, Pot roasting, Pulses, Pulverizer, Radiation, Rennet, Rhubarb, Roasting, Salamander, Shortening, Simmering, Single cream, Skimmed milk, Spices, Spit roasting, Sorbitol, Stewing, Suet, Tapioca, Tandoor, Tilting pan, Texture, Tournant cook, Treacle, Walk ins, Watercress, Whey

2. List & brief explanation of 10 Modern kitchen equipment
3. Cooking Methods (Chart presentation or file submission)
4. Presentation on kitchen brigade. (Chart presentation or file submission)
5. Chart presentation of Cuts of Vegetable with neat Diagram/picture.
6. List of commodities with its bi-products

Reference:

- Practical Cookery-Victor Ceserani & Ronald Kinton, ELBS
- Theory of Catering- Victor Ceserani & Ronald Kinton,ELBS
- Theory of Cookery- Mr.K. Arora, Franck Brothers
- Modern Cookery for Teaching & Trade VolII- Ms. Thangam Philip, Orient Longman
- Food Production Operations ByParvinder S. Bali
- Fundamentals of Food Production Principles – Shefali Joshi & Pralhad Botre
- Food Commodities- Bernard Davis

Subject : FOOD PRODUCTION – I (Practical)
Subject Code : HS 101 (P)
Subject Credits 02
Hours per week 04
Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome: At the end of the course, students will be able to

- C 1 : Apply knowledge of kitchen equipment & safety guidelines to be followed in kitchen.
- C 2 : Implement measurement knowledge of ingredients by weight, volume & calculate food costing
- C 3 : Familiarize with pre-preparation, mixing methods & apply knowledge in preparing food.
- C 4 : Develop knowledge in preparation of basic Indian food recipes & related culinary terms.

Minimum **15 Individual Practicals** to be conducted during the semester

List of Practical & Reference:

Demonstration classes to be conducted to make student familiar with

1] Kitchen equipment's & safety procedures to be followed in kitchen - 2 Practical

- a. Introduction to kitchen equipment (Large, Medium & small) & its usage
- b. Safety procedure followed to prevent kitchen accidents & precautions taken while handling kitchen equipment's
- c. Personal, kitchen Hygiene & importance of kitchen uniform.

2] Pre-preparation methods, Methods of mixing & Formulas & measurement - 4 Practical

- a. Pre-preparation Techniques** - Washing, blanching, Straining, Refreshing, Scraping, Peeling, Grating, Paring, , Griending, Mashing, Pureeing, Marinating, Gratinating, Sieving, Skimming, Steeping, Sprouting, Pounding, searing, stirring
- b. Cuts of Vegetable** – Chop, mince, Dice, cube, Juliennes, Jardiniere, Macedoine, Shredding, Chiffonade, Mirepoix, Paysanne, Roll cut etc.
- c. Methods of mixing Techniques** –
Preparation of Bread & cake to show various terms related to methods of mixing like Beating, Creaming, kneading, cutting in, folding, Whipping, Rubbing in, Blending etc
- d. Measurement of liquids & solids** - ingredients measurement by 1 cup, Quart, Pint, Pound, Ounce, Tbsp, Tsp etc. in gram & milliliter

3] **Basic Indian menu** consisting of Meat/Veg, Rice, Bread, Dal/Salad & Dessert (4-5 dishes)
- **09 Practical**

In practical menu, involve preparation of freshly made masalas (Garam, Sambhar, Vindaloo, Goda, Chat etc.) & various paste (Boiled & fried Onion Paste, Ginger Paste, Garlic Paste, Coconut, Kaju-maghaj paste, Poppy seed paste etc.) for preparing Indian food items.

Indian Snack Menu – 1 Practical

Assignment – To be written in journal at the beginning of semester

1. Draw diagram of kitchen equipment's with its usage.
2. Write assignment on volume & weights equivalent measures of some foodstuff.
3. Draw diagram of Food Pyramid showing various food groups & write down various ingredients in each food groups.
4. Visit to a vegetable & grocery market & list prices of each ingredient.
5. Write down nutritional values of various food commodities.

Practical Examination: (Internal & External)

Exams to be conducted on Indian menus consisting of a Meat, Vegetable, Rice, Dal / Raita, Bread and Sweet Preparation.

The internal exams to be assessed by the internal examiner and external exams by the external examiner.

Subject : FOOD & BEVERAGE SERVICE – I (Theory)
Subject Code : HS 102 (T)
Subject Credits 02
Hours per week 02
Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : The course would explore the scope and nature of F & B service operations.
- C 2 : It would enhance the knowledge of the essential attributes and elementary skills required in Food & Beverage industry.
- C 3 : Enrich and apply the knowledge of the Basics types of Food and Beverage Service methods used in the Food & Beverage industry.

			Hours	Marks
CHAPTER – 1		INTRODUCTION TO FOOD & BEVERAGE SERVICE INDUSTRY	04	04
	1.1	Introduction to F & B industry in India		
	1.2	Classification of catering establishments based on -		
		General, Motive, Captive & Non Captive		
	1.3	Commercial Sector		
	1.4	Non- Commercial Sector		
	1.5	Employment opportunities in F & B Service department		
CHAPTER – 2		TYPES OF FOOD & BEVERAGE SERVICE OUTLETS	06	07
	2.1	Types of Restaurant		
	2.2	Types of Bar - Pub, Discotheque, Lounge		
	2.3	Concepts of F & B outlets:		
		- Banquet, Room service , Business center		
		- Kiosk , QSR , Bistro, Mobile Service		
	2.4	Latest trends in Restaurants and Bar- Ghost kitchen/ cloud kitchen, hanging restaurant, 360 degree revolving rest, wine bar, Themed bar		

CHAPTER – 3		FOOD & BEVERAGE SERVICE PERSONNEL	08	08
	3.1	Organization Chart : -5, 4 and 3 star hotels, Fine dine, - Quick Service Restaurant, Industrial Catering		
	3.2	Attributes of F & B personnel		
	3.3	Duties and Responsibilities: (Managers, Executives, Associates)		
CHAPTER – 4		ANCILLARY & OPERATIONAL AREAS OF F&B SERVICE DEPARTMENT	06	08
	4.1	Ancillary Areas : - Still room - Dispense Bar - Hot plate - Wash up 3 sink method, Dishwasher, - Silver polish (Burnishing/ silver dip) - Plate room - Spare linen cupboard		
	4.2	Interdepartmental Relationship: - Food Production/ kitchen - Housekeeping - Front office - Kitchen Stewarding - Human resource development - Engineering - IT department - Account - Purchase department - Security		
CHAPTER – 5		TYPES OF FOOD & BEVERAGE SERVICES METHODS	06	08
	5.1	Table service - English, French, American		
	5.2	Assisted service - Self Service , Buffet & Cafeteria		
	5.3	Single point service - Take away, Drive thru, QSR		
	5.4	In-situ Service - Tray trolley Home delivery, Room Service, Drive in		
	5.5	Latest trends - Drone, Robotic service		
Total			30	35

NOTE:

Students should be familiar with the glossary of terms pertaining to above mentioned topics.

ASSIGNMENTS:

Minimum 2 assignments to be submitted by students by the end of the semester:

1. F& B service equipment in form of Chart / PPT with size / capacity, uses and manufacturers / Brands
2. Collect information of mobile catering / Food Truck on type of vehicle used, menu, equipment and operational hours in your city.
3. Collect information on different brands of various types of F & B outlets (casual dining, fine dining and QSR) in your city.
4. Prepare a PPT of the organization chart of any F & B outlet.
5. Visit any one F & B outlet and make a report on Cover, Menu. Table set up, Type of service and ambience of the outlet.

REFERENCE:

- 1) Food & Beverage Service – Dennis Lillicrap and John Cousins
 - 2) Food & Beverage Service – R. Sinagaravelavan
 - 3) Food & Beverage Service Training Manual – Sudhir Andrews, Tata McGraw Hill
 - 4) Modern Restaurant Service – John Fuller
 - 5) The Restaurant (from Concept to Operation) – Lipinski
 - 6) Bar and Beverage Book – Chris Katsigris, Chris Thomas
 - 7) Textbook of Food & Beverage Service – Anita Sharma, S. N. Bagchi
 - 8) Textbook of Food & Beverage Service – Bobby George
-

Subject : FOOD & BEVERAGE SERVICE- I (Practical)
Subject Code : HS 102 (P)
Subject Credits 02
Hours per week 04
Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Gain the Basic knowledge of the Restaurant Orientation and identify the equipment Used in various F & B outlets.
C 2 : Able to practice the Basic skills of Handling F & B equipment.
C 3 : Able to rehearse laying of table and various cover set ups.
C4 : Able to perform Basic service operations like Welcoming& Receiving Procedure, Water Service, Crumbing down and bill presentation.

List of Practical:

1. Attributes, Etiquettes & Hygiene Practices in F & B service
2. Restaurant orientation
3. Identification of equipment (Furniture & Linen)
4. Identification of equipment (Serviceware, glassware and miscellaneous)
5. Identification of the equipment (Cutlery, Glassware)
6. Identification of the equipment (Specialized, Buffet)
7. Organization of Side Board
8. Carrying a Salver and Tray, Carrying glasses and plates ,holding service gears
9. Table Cloth - Lay & Re-lay, Serviette Folds.
10. Laying of a la carte cover & Table d'hôtel cover
11. Welcoming and Receiving Procedure:- Greeting, seating, self-introduction, opening serviette fold & Menu presentation
12. Service of water and changing ashtray
13. Placing and clearing plates
14. Service from platter to plate (Silver service), Pre-plated and Buffet
15. Crumbing Down service, Presentation of bill

Subject : ROOMS DIVISION – I (Theory)

Subject Code : HS 103 (T)

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

C 1 : Get insight of Hospitality Industry.

C 2 : Learn the Basic concept of Housekeeping Department.

C 3 : Role of Housekeeping and Front Office Department.

C 4 : Interpret Basic Knowledge of Housekeeping and Front Office operations.

			Hours	Marks
Chapter – 1		INTRODUCTION TO HOSPITALITY INDUSTRY	07	08
	1.1	Definition of the Hotel		
	1.2	Classification of hotels (based on various categories like size, location, clientele, length of stay)		
	1.3	Importance / Role of Rooms Division in Hotel Industry		
	1.4	Guest satisfaction and repeat business		
	1.5	Organizational chart of Hotels (Small, medium, large)		
	1.6	Types of Guest Rooms		
Chapter – 2		INTRODUCTION TO HOUSEKEEPING DEPARTMENT	06	07
	2.1	Organizational hierarchy of Housekeeping department		
	2.2	Define Job description and Job specification		
	2.3	Attributes of Housekeeping personnel		
	2.4	Rules of the floor		
	2.5	Layout, sections of Housekeeping department and functions of these sections		
	2.6	Different areas maintained by Housekeeping department - Front of the house, back of the house		
	2.7	Interdepartmental coordination and communication (Front office, Engineering, HR, Purchase, F & B Service, Security)		
Chapter – 3		HOUSEKEEPING OPERATIONS	07	08
	3.1	Cleaning routine of Housekeeping department – Principles of cleaning		
	3.2	Cleaning Agents – Classification, use, care and storage		
	3.3	Cleaning equipments - Classification, use, care and maintenance		

Chapter – 4		INTRODUCTION TO FRONT OFFICE DEPARTMENT	05	06
	4.1	Organizational hierarchy of Front Office department		
	4.2	Duties and responsibilities of Front Office personnel		
	4.3	Attributes of Front Office personnel		
	4.4	Rules of the house (For Guest and Staff)		
	4.5	Layout and sections of Front Office department and its interdepartmental coordination and communication (Housekeeping, Engineering, HR, Purchase, F & B Service, Security, Sales and Marketing, Accounts)		
Chapter – 5		FRONT OFFICE OPERATIONS	05	06
	5.1	Introduction to room tariffs.		
	5.2	Types of room rates and meal plans		
	5.3	Types of keys and key handling procedure		
	5.4	Introduction of equipments at front office – Manual and Automatic		
	5.5	Introduction to Guest Cycle		
Total			30	35

Note: Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments:

Minimum of **02 assignments** to be submitted by students by the end of the semester.

8. Prepare a power point presentation on Types of Rooms
9. Prepare / procure various guest room amenities.
10. Collect data of various National and International Chain of hotels
11. Collect the tariff cards of various hotels in different category.

Reference:

- Housekeeping Training Manual-Sudhir Andrews
- Hotel, Hostel & Hospital Housekeeping–Brenson & Lanox
- Hotel Housekeeping and operations – G Raghubalan, Smritee raghubalan
- Front office Management – S. K. Bhatnagar
- Professional Management of Housekeeping Operations (Thomas J A Jones)
- Rooms Division Techniques (Rasika Gumaste, Shefali Joshi)
- Hotel front Office Training Manual. (Sudhir Andrews)
- Principles of Hotel Front Office Operations (Sue Baker, P. Bradley, J. Huyton)
- Hotel Front Office Operations and Management (Jatashankar R. Tewari)
- Hotel Front Office Management (James A Bardi)
- Check in Check out: Managing Hotel Operations (Gary Vallen, Jerome Vallen)
- Managing Front Office Operations (Michael Kasavana)

Subject : ROOMS DIVISION – I (Practical)

Subject Code : HS 103 (P)

Subject Credits 02

Hours per week 04

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Knowledge of Basic cleaning procedures in Housekeeping.
C 2 : Understand the basic room layouts and amenities offered.
C 3 : Inculcate grooming standards and etiquettes required for front office personnel.
C 4 : Practice various basic skills of front office procedures.

List of Practical:

1. Attributes, Etiquettes & Hygiene Practices in House-keeping & Front Office
 2. Introduction, identification, uses and care of hand tools, cleaning equipment.
 3. Introduction, identification, uses of cleaning agents.
 4. Basic cleaning procedures for guest rooms and public area – Sweeping, Mopping - dry, wet, Dusting, Vacuum cleaning.
 5. Cleaning of various types of surfaces viz. hard, semi hard, soft and laminated.
 6. Cleaning of Glass surfaces.
 7. Polishing of metals viz. Brass, Silver, Copper
 8. Polishing of EPNS articles
 9. Basic room layouts – Single, double, suite. Placement of amenities and supplies in the guest room.
 10. Personal hygiene, grooming, etiquettes and manners.
 11. Telephone etiquettes and Telephone handling procedures.
 12. Handling room keys and key control procedures.
 13. Special request handling (Message).
 14. Paging and luggage handling.
 15. Standard phrases used at the Front Office.
-

F.Y.B.A. 4.5/ 100 (I)		
First Semester: Philosophy		
Subject : (General Elective / Open Elective) (Only for the students of the faculties other than Humanities)		
Title : Professional and Administrative Ethics Subject Code : OE-101-PHL Credits : 2 (Theory)		
Course Outcomes		
CO1	To introduce and acquaint students with Applied Ethical theories	
CO2	To acquire a basic understanding of the main Applied Ethical ideas and questions.	
CO3	To enhance students' ability to critically reflect, analyze and engage Applied Ethical arguments	
Unit No.	Title and Contents	Hours
Unit 1.	Introduction to Ethics a) Basic concepts and definition of ethics b) Difference between Morality and Ethics c) Ethical concepts: Duty and Virtues (Kant, Aristotle) d) Nishkamkarma	15
Unit 2.	Introduction to Professional Ethics a) Nature and scope of professional ethics b) Distinction between Profession and Business c) Profession and Morality	15
Prescribed Reading : <ol style="list-style-type: none"> 1. Patrick J. Sheeran: <i>Ethics in Public Administration A Philosophical Approach</i>, SBN 8131600211 2. Frankena, William K: <i>Ethics</i>, Prentice Hall Inc, Englewood Cliffs, New Jersey 3. Sirohi R.K.: <i>Administrative Ethics</i>, Prabhat Prakashan; First Edition (1 January 2019); Prabhat Prakashan Pvt. Ltd., 4/19, Asaf Ali Road, New Delhi-110002 4. Aristotle, Translated by W.D.Ross, <i>Nicomachean Ethics</i>. 5. Laura P. Hartman and Joe Desjardins, —Business Ethics: Decision Making for Personal Integrity and Social Responsibility Mc Graw Hill education, India Pvt. Ltd., New Delhi, 2013 6. R. Subramanian Professional Ethics:, Oxford University Press, 2001 7. Laura P. Hartman and Joe Desjardins, —Business Ethics: Decision Making for Personal Integrity and Social Responsibility Mc Graw Hill education, India Pvt. Ltd., New Delhi, 2013 8. पुणे विद्यापीठ तत्त्वज्ञान विभागाचे मासिक, नितीविमर्श विशेषांक, २००२ 		

Subject : PERSONALITY DEVELOPMENT

Subject Code : SEC-101-HS

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

C 1 : Understanding various aspects of Personality.

C 2 : Recognizing the Importance of Personality Enrichment along with add on factors.

C 3 : Developing positive Self-esteem.

							Hours	Marks
Chapter – 1		INTRODUCTION TO PERSONALITY DEVELOPMENT					08	09
	1.1	Concept and Significance of Personality.						
	1.2	Dimensions of Personality Five Factor Model.						
	1.3	Concept of Success & Failure (What is Success? - Hurdles in						
	1.4	Achieving Success - Overcoming Hurdles - Factors Responsible						
		for Success – What is Failure? - Causes of Failure)						
	1.5	Johari Window / Self SWOT.						
Chapter – 2		PERSONALITY ENRICHMENT					07	09
	2.1	Grooming.						
	2.2	Eye Contact and Physical Fitness.						
	2.3	Personal Hygiene.						
	2.4	Social and Business Etiquettes (Meeting Etiquettes Postures &						
		Gestures).						
	2.5	Personal Goal Setting and Action Plan.						
Chapter – 3		SELF-ESTEEM					07	08
	3.1	Concept of Self-Esteem.						
	3.2	Positive and Negative Self-Esteem.						
	3.3	Do's & Don'ts to Develop Positive Self-Esteem.						
	3.4	Essential Skills to Build Strong Inter-Personal Relationship.						
		Defining the Difference between Aggressive, Submissive and						
	3.5	Assertive Behaviors.						

I.K.S. (Generic)- Year-I, Sem- I Syllabus [Level 4.5]			
Course & Code	Indian Knowledge System (IKS) (Offline Mode Only)	Credits-2 (Theory)	Weeks-15 Hours-30
IKS HIS 101	History of Knowledge Production in India (Generic)	Int. Marks 15	Ext.Marks 35

Course Objectives:

1. To understand the nature of knowledge.
2. To understand the evolution of the scientific approach in the Indian subcontinent.
3. To study contributions made by different people to the various branches of knowledge before modernity evolved in India.

Course Outcomes:

1. The concept of the ancient intellectual knowledge tradition will be understood.
2. Developments in science from ancient times will be introduced.
3. Developments in humanities from ancient times will be understood.

Syllabus (from 2024-25)

Hrs.

Unit 1. Introduction to Indian Knowledge System

06

- a. Definition, Scope and importance of knowledge
- b. nature of Indian Knowledge System
- c. Evolution of scientific approach

Unit 2. Development of Sciences

12

- a. Astronomy- Aryabhatta, Varahamihira, Sawai Jaisingh
- b. Medicine- Ayurveda and Yunani
- c. Metallurgy- Copper, Iron, Bronze & alloys

Unit 3. Development of Humanities

12

- a. Language - Prakrit, Sanskrit, Farsee
- b. Philosophy- Vedic, Lokayat, Buddhist, Jaina
- c. Education system in ancient India – Takshashila, Nalanda, Valabhi University
- d. Architecture

References:

English:

1. Abdur Rahman, *Science and Technology in Medieval India: A Bibliography of Source Materials in Sanskrit, Arabic, and Persian*, Indian National Science Academy, New Delhi, 1982.
2. Bag A. K. (ed), *History of Technology in India(Vol I) (From Antiquity to C. 1200 A.D.)*, Indian National Science Academy, Delhi, 1997.
3. Chattopadhyaya, Debiprasad, *History of science and technology in ancient India: the beginnings*, Firma KLM Pvt. Ltd. 1986.
4. Dasgupta Surendranath, *A History of Indian Philosophy*, Cambridge University press, 1922.
5. Gopal L. and V. C. Shrivastava, *History of Agriculture in India (Upto 1200 A. D.)*, Concept Publishing, New Delhi, 2008.
6. Irfan Habib (ed.), *People's History of India – Vol 20 : Technology in Medieval India, c. 650–1750*, Aligarh Historians Society and Tulika Books, 2016.
7. Jan Gonda, *A History of Indian Literature*, Otto Harrassowitz, Wiesbaden, 1975.
8. PadmanabhaThanu (ed.), *Astronomy in India : A Historical Perspective*, Indian National Science Academy, Springer, New Delhi. 2014.
9. Sohoni Pushkar, *Introduction to the History of Architecture in India*, IISER, Pune, 2020.
10. Tripathi Radhavallabh, *Vāda in theory and practice : studies in debates, dialogues and discussions in Indian intellectual discourses*, IAS, Shimla, 2016.

मराठी:

१. अळतेकर सदाशिव अनंत, प्राचीन भारतीय शिक्षण पद्धती, नागपूर, १९३५.
 २. कोसंबी दा. ध., प्राचीन भारतीय संस्कृती आणि सभ्यता, डायमंड प्रकाशन, पुणे, २०१६.
 ३. कोसंबी दा. ध., संतापजनक निबंध, लोकवाङ्मय गृह, मुंबई, २०२१.
 ४. गायधनी र. न. व राहूरकर व. ग. प्राचीन भारताचा सांस्कृतिक इतिहास, कॉन्टिनेन्टल, पुणे, १९९४.
 ५. दिक्षित, राजा, मराठीतील विज्ञानविषयक लेखन, साफुपुवि प्रकाशन, २०१४.
 ६. मेहंदी, प्राचीन भारत समाज आणि संस्कृती, प्रज्ञा पाठशाला मंडळ, वाई, २००१.
 ७. शर्मा आर. एस., प्राचीन भारत, के सागर प्रकाशन, पुणे, १९९७.
 ८. सिंग उपेंद्र, प्राचीन भारत- विरोधाभासांची संस्कृती, सनय प्रकाशन, २०२४.
-

Subject : English: Professional Communication Skills

Subject Code : AEC- 101

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcomes:

- CO-1 Read and understand texts in English
- CO-2 Enrich and use vocabulary effectively
- CO-3 Understand and Develop Communicative Competence
- CO-4 Use body language in different situations
- CO-5 Acquaint with digital platforms and technology
- CO-6 Write letter, notice, agenda, minutes and blog

Unit No.	Topic	Allotted Lectures (L)
1.	Basic Language Skills: A) Grammar 1. Sentence Structures/Patterns 2. Subject - Verb agreement 3. Tenses	10

Unit No.	Topic	Allotted Lectures (L)
2.	B)Vocabulary : 1. Synonyms and Antonyms 2. Homonyms 3. One-word substitutes 4. Idioms 5. Suffixes and prefixes 6. Collocations.	10
3.	C) Speaking for Different Purpose: a) Meeting and Greeting People 1. Introducing your Self 2. Introducing People to One another 3. Apologies and Responses 4. Agreeing and Disagreeing 5. General Speaking Strategies b) Group Discussion, Interview and Interviewing Skills 1. Initiating a Group Discussion 2. Continuing a Group Discussion 3. Concluding Group Discussion 4. Preparing for an Interview 5. Facing an Interview 6. Interviewing Techniques c) Presentation Skills 1. Kinds of Presentation 2. Structuring Content 3. Visual Aids 4. The Language of Presentations 5. Making a Presentation	10

References:

- Ajmani, J. C. *Good English: Getting it Right*. New Delhi: Rupa Publications, 2012. Amos, Julie-Ann. *Handling Tough Job Interviews*. Mumbai: Jaico Publishing, 2004.
- Barret Grant. *Perfect English Grammar: The Indispensable Guide to Excellent Writing and Speaking*. FallRiver Press, 2016
- Monippally, Matthukutty, M. *Business Communication Strategies*. New Delhi: Tata McGraw-Hill Publishing Company Ltd., 2001.
- Neuliep, James W. *Intercultural Communication: A Contextual Approach*. Boston: Houghton Mifflin Co., 2003.
- Prasad, H. M. *How to Prepare for Group Discussion and Interview*. New Delhi: Tata McGraw-Hill Publishing Company Limited, 2001.
- Pease, Allan. *Body Language*. Delhi: Sudha Publications, 1998
- Raman, Meenakshi & Sangeeta Sharma. *Technical Communication: Principles and Practice*. Second Edition. New Delhi: Oxford University Press, 2011.
- Raymond Murphy. *Essential Grammar in Use with Answers: A Self-Study Reference and Practice Book for Elementary Learners of English*. Cambridge University Press, 2015
- Seely, John. *Writing Reports*. New York: Oxford University Press, 2002.
- Sharma, R. C. & Krishna Mohan. *Business Correspondence and Report Writing*: Third Edition. New Delhi: Tata McGraw-Hill Publishing company Limited, 2007.
- Thill, John V. & Courtland L. Bovée, *Excellence in Business Communication*, 10th edition. Boston : Pearson, 2013.
- Thorpe, Edgar & Showick Thorpe. *Winning at Interviews*. 2nd Edition. Delhi: Dorling Kindersley, 2006.
-

Subject : Environment Education - I

Subject Code : VEC- 101

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcomes

After the completion of this course, student will be able to-

- CO-1: describe how human activities impact the environment.
- CO-2: explain principles of sustainable development and resource management.
- CO-3: analyze local, regional, and global environmental issues and their effects.
- CO-4: evaluate different strategies for conserving biodiversity and ecosystems.
- CO-5: apply relevant environmental policies and ethical considerations to real-world scenarios.
- CO-6: design and implement action plans for community-based environmental projects.

Course Content

Chapter 1: Humans and the Environment

[06 hours]

The man-environment interaction: Humans as hunter-gatherers; Mastery of fire; Origin of agriculture; Emergence of city-states; Great ancient civilizations and the environment; Middle Ages and Renaissance; Industrial revolution and its impact on the environment; Population growth and natural resource exploitation; Global environmental change.

The emergence of environmentalism: Anthropocentric and eco-centric perspectives (Major thinkers); The Club of Rome- Limits to Growth; UN Conference on Human Environment 1972; World Commission on Environment and Development and the concept of sustainable development; Rio Summit and subsequent international efforts.

Suggested Readings

1. Fisher, Michael H. (2018) An Environmental History of India- From Earliest Times to the Twenty-First Century, Cambridge University Press.
2. Headrick, Daniel R. (2020) Humans versus Nature- A Global Environmental History, Oxford University Press.
3. Hughes, J. Donald (2009) An Environmental History of the World- Humankind's Changing Role in the Community of Life, 2nd Edition. Routledge.

4. Perman, R., Ma, Y., McGilvray, J., and Common, M. (2003) Natural Resource and Environmental Economics. Pearson Education.
5. Simmons, I. G. (2008). Global Environmental History: 10,000 BC to AD 2000. Edinburgh University Press.

Chapter 2: Natural Resources and Sustainable Development

[08 hours]

Overview of natural resources: Definition of resource; Classification of natural resources- biotic and abiotic, renewable and non-renewable.

Biotic resources: Major type of biotic resources- forests, grasslands, wetlands, wildlife and aquatic (fresh water and marine); Microbes as a resource; Status and challenges.

Water resources: Types of water resources- fresh water and marine resources; Availability and use of water resources; Environmental impact of over-exploitation, issues and challenges; Water scarcity and stress; Conflicts over water.

Soil and mineral resources: Important minerals; Mineral exploitation; Environmental problems due to extraction of minerals and use; Soil as a resource and its degradation.

Energy resources: Sources of energy and their classification, renewable and non-renewable sources of energy; Conventional energy sources- coal, oil, natural gas, nuclear energy; Non-conventional energy sources- solar, wind, tidal, hydro, wave, ocean thermal, geothermal, biomass, hydrogen and fuel cells; Implications of energy use on the environment.

Introduction to sustainable development: Sustainable Development Goals (SDGs)- targets and indicators, challenges and strategies for SDGs.

Suggested Readings

1. Chiras, D. D and Reganold, J. P. (2010). Natural Resource Conservation: Management for a Sustainable Future. 10th edition, Upper Saddle River, N. J. Benjamin/ Cummins/ Pearson.
2. John W. Twidell and Anthony D. (2015). Renewable Energy Sources, 3rd Edition, Weir Publisher (ELBS)
3. William P. Cunningham and Mary A. (2015) Cunningham Environmental Science: A Global Concern, Publisher (Mc-Graw Hill, USA)
4. Gilbert M. Masters and W. P. (2008). An Introduction to Environmental Engineering and Science, Ela Publisher (Pearson)
5. Singh, J.S., Singh, S.P. & Gupta, S.R. 2006. Ecology, Environment and Resource Conservation. Anamaya Publications <https://sdgs.un.org/goals>

Chapter 3: Environmental Issues: Local, Regional and Global

[08 hours]

Environmental issues and scales: Concepts of micro-, meso-, synoptic and planetary scales; Temporal and spatial extents of local, regional, and global phenomena.

Pollution: Impact of sectoral processes on Environment, Types of Pollution- air, noise, water, soil, municipal solid waste, hazardous waste; Transboundary air pollution; Acid rain; Smog. **Land use and Land cover change:** land degradation, deforestation, desertification, urbanization. Biodiversity loss: past and current trends, impact.

Global change: Ozone layer depletion; Climate change.

Suggested Readings

1. Harper, Charles L. (2017) Environment and Society, Human Perspectives on Environmental Issues 6th Edition. Routledge.
2. Harris, Frances (2012) Global Environmental Issues, 2nd Edition. Wiley- Blackwell.
3. William P. Cunningham and Mary A. (2015). Cunningham Environmental Science: A global concern, Publisher (Mc-Graw Hill, USA)
4. Manahan, S.E. (2022). Environmental Chemistry (11th ed.). CRC Press. <https://doi.org/10.1201/9781003096238>
5. Rajagopalan, R. (2011). Environmental Studies: From Crisis to Cure. India: Oxford University Press.

Chapter 4: Conservation of Biodiversity and Ecosystems

[08 hours]

Biodiversity and its distribution: Biodiversity as a natural resource; Levels and types of biodiversity; Biodiversity in India and the world; Biodiversity hotspots; Species and ecosystem threat categories.

Ecosystems and ecosystem services: Major ecosystem types in India and their basic characteristics- forests, wetlands, grasslands, agriculture, coastal and marine; Ecosystem services- classification and their significance.

Threats to biodiversity and ecosystems: Land use and land cover change; Commercial exploitation of species; Invasive species; Fire, disasters and climate change.

Major conservation policies: in-situ and ex-situ conservation approaches; Major protected areas; National and International Instruments for biodiversity conservation; the role of traditional knowledge, community-based conservation; Gender and conservation.

Suggested Readings

1. Bawa, K.S., Oomen, M.A. and Primack, R. (2011) Conservation Biology: A Primer for South Asia. Universities Press.
 2. Sinha, N. (2020) Wild and Wilful. Harper Collins, India.
 3. Varghese, Anita, Oommen, Meera Anna, Paul, Mridula Mary, Nath, Snehlata (Editors) (2022) Conservation through Sustainable Use: Lessons from India. Routledge.
 4. Bhagwat, Shonil (Editor) (2018) Conservation and Development in India: Reimagining Wilderness, Earthscan Conservation and Development, Routledge.
 5. Krishnamurthy, K.V. (2003) Textbook of Biodiversity, Science Publishers, Plymouth, UK.
-

Subject : FOOD PRODUCTION - II (Theory)

Subject Code : HS 201 (T)

Subject Credits 02

Hours per week 02

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

C 1 : Identify & prepare various types of Stock, Soup & Sauces.

C 2 : Classify different types of Salads, Salad dressing, Appetizers & Types of Sandwiches.

C 3 : Design layout of Larder department & understand the functioning of Larder department.

C 4 : Develop knowledge on various glossary terms pertaining to Chapter Topics.

							Hours	Marks
Chapter – 1		Stocks					03	04
	1.1	Definition & uses of stocks						
	1.2	Classification - (White, brown, fish and vegetable)						
	1.3	Rules of stock making						
	1.4	Storage & care of stock						
	1.5	Uses of Glazes and Aspic						
Chapter – 2		Soups					03	05
	2.1	Classification of soups - Cream, Puree, Velouté, Chowder, Consommé, National soups						
	2.2	Classical accompaniments and garnishes						
	2.3	Modern way of serving Soup						
Chapter – 3		Sauces					06	06
	3.1	Classification & uses of sauces in cookery						
	3.2	Novel/ Modern Sauces used in food preparations						
	3.3	Thickening agents used in sauce making						
	3.4	Derivatives of basic mother sauces						
	3.5	Precautions & rectification while preparing Sauce						
	3.6	Storage of Sauces						
Chapter – 4		Salads & Salad Dressings					05	06
	4.1	Parts of salads – Base, body, Dressing & garnishes						
	4.2	Types of Salads - Green, Vegetable, Cooked, Main course, Fruit, Gelatin based						
	4.3	Principles/guidelines of salad making						
	4.4	Salad dressings – Types						
	4.5	International classical salads – with Country of origin, ingredients used, Type of dressing used						

Chapter – 5		Sandwiches	04	04
	5.1	Parts of sandwiches - Bread, Spread, Filling & garnishes		
	5.2	Types of sandwiches - Hot & Cold Sandwiches		
	5.3	Classical sandwiches with Country of origin & ingredients used.		
	5.4	Points considered while preparing and storing Sandwiches.		
Chapter – 6		Appetizers (Hot & Cold)	04	04
	6.1	Types of appetizers with examples		
	6.2	International classical appetizers		
	6.3	Precautions for preparing and presenting appetizers		
	6.4	Storage of appetizers		
Chapter-7		Larder /Garde Manger	05	06
	7.1	Duties & responsibilities of larder chef		
	7.2	Functions of larder department		
	7.3	Specific essential tools & equipment in the larder		
	7.4	Layout of Larder Section		
Total			30	35

Assignments:

A minimum of 2 assignments to be submitted on followings by the end of the semester

1. List 10 examples of Soups & Sauces made by using different types of stock.
2. Chart presentation on basic mother sauces & 3 derivatives of each with composition.
3. Chart presentation of 10 International classical salads with Country of origin, ingredients used, type of dressing used.
4. Recipe of 10 each Classical sandwiches & Classical Appetizers.
5. Culinary terms pertaining to above chapters.

Appetizers, Aioli, Aspic, Bagel, Barquettes, Beurre Manie, Bisque, Bearnaise, Bone marrow, Bound Salads, Bouquet garni, Broth, Baguette bread, Beignets, Bouchées, Brochettes, Butchery, Canapes, Caviar, Chaudfroid, Chowder, Club Sandwich, Cocktail, Cole slaw, Consommé, Corned beef, Coulis, Court Bouillon, Croquettes, Crudites, Degreasing, Demi-glaze, Dressing, Espagnole, Estuffande, Finger food, Focaccia, Fumet, Glaze, Gumbo, Hot dog, Jus-lie, Larder, Liaison, Mayonnaise, Mirepoix, Mornay, Mousse, Pan gravy, Panini, Pesto, Pita, Pullman, Remouillage, Rissole, Roast gravy, Roux, Sachet bag, Salami, Salad, Sauce, Sandwich, Sausage, Slurry, Soup, Scum, Spread, Stock, Tartlets, Tartare, Thousand island, Thickening agents, Velouté, Vinaigrette, Wraps.

Reference Books:

1. Practical Cookery -Victor Ceserani& Ronald Kinton, ELBS
2. Theory of Catering- Victor Ceserani& Ronald Kinton, ELBS
3. Theory of Catering- Mrs. K. Arora, Franck Brothers
4. Modern Cookery for Teaching & Trade Vol I –MsThangam Philip, Orient Longman.
5. The Professional Chef (4th Edition)- Le Rol A. Polsom
6. The book of Ingredients- Jane Grigson
7. Success in Principles of Catering - Michael Colleer& Colin Saussams
8. Fundamentals of Food Production Principles – Shefali Joshi & Pralhad Botre

Subject : FOOD PRODUCTION – II (Practical)

Subject Code : HS 201 (P)

Subject Credits 02

Hours per week 04

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

C 1 : Apply knowledge for preparation of various Types of Stock, Soup and Sauces.

C 2 : Identify & relate knowledge in preparation of different types of Salads, Salad Dressings and Sandwiches & Appetizers.

C 3 : Develop knowledge in preparing Basic Continental Food Recipes & Related Culinary Terms.

Minimum **12 Individual Practical** to be conducted during the semester

List of Practical:

Demonstration classes to be conducted to make student familiarize with

1] Demonstration of Stock, Soups & Sauces

Prepare various types of Stocks – White, Brown, Fish, Veg

Prepare thin & thick soup types by using stock.

Show demonstration of various types of Basic mother Sauces, Butter sauces & dessert sauces with 2 bi-products of each.

2] Demonstration Practical on various types of Salads & Salad dressings

Demonstration of Salad Bar based on Green, Vegetable, Cooked, Combination, Fruit & gelatine-based Salads, Classical Salads with suitable accompanying dressing.

3] Demonstration practical on various types of Sandwiches

Demonstration of Cold Sandwiches, Hot Sandwiches & Classical Sandwiches with suitable accompanying dip.

4] Demonstration practical on Various types of Appetizers

Cold Appetizers, Hot Appetizers, Classical appetizers with suitable accompanying dip.

5] Continental Breakfast buffet – 1 Practical

6] Continental Menu to be conducted comprised of Appetizer/Soup, Main course with accompaniment & Dessert – 7 Practical

Practical Examination: (Internal & External)

Appetizer / Soup, Main course with accompaniment & Dessert the Internal exams to be assessed by the Internal Examiner and External Exams by the External Examiner.

Subject : FOOD & BEVERAGE SERVICE – II (Theory)

Subject Code : HS 202 (T)

Subject Credits 02

Hours per week 02

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C1 : Discuss the types of meals, Special foods, French Classical menu and planning of Menus.
- C 2 : Understand and apply control methods, billing methods and software used in Food Beverage Industry.
- C 3 : Develop essential knowledge of Non- Alcoholic Beverages.

		Hours	Marks
CHAPTER – 1	TYPES OF MEALS	04	05
	1.1 Breakfast (Continental, English, American, Indian)		
	1.2 Brunch		
	1.3 Lunch		
	1.4 Afternoon tea		
	1.5 High tea		
	1.6 Supper		
	1.7 Dinner		
	1.8 Mid night Snack		
CHAPTER – 2	MENU KNOWLEDGE	08	08
	2.1 History		
	2.2 Types of Menus A la carte, Table d’hote, Carte du jour , Plat du jour, cyclic menu		
	2.3 Special Menus : Kosher , Halal , Dietary, vegan, Organic, Gluten free, Fusion menu		
	2.4 Principles of menu planning		
	2.5 Constraints of menu planning		
	2.6 Menu Displays:- Traditional(Black board, Floor stands, Wall display, Tent Cards) and contemporary (Digital, QR code, virtual)		

CHAPTER – 3		FRENCH CLASSICAL MENU	08	08
	3.1	Introduction to 17 course French classical menu		
	3.2	Appetizer/ Starters		
	3.3	Main Course		
	3.4	After Course / Sweet		
	3.5	Beverage at the end of the meal		
CHAPTER – 4		CONTROL METHODS	06	08
	4.1	Importance of Control System		
	4.2	Tools of Order- taking : KOT / BOT , I Pad, MICROS, IDS		
	4.3	Flow chart of KOT and BOT		
	4.4	Reports generated by system for control measures - List and importance		
	4.5	Methods of payment : Cash, Credit / Debit card, Travellers cheque, Vouchers, Token, Digital payments		
CHAPTER – 5		NON ALCOHOLIC BEVERAGES	04	06
	5.1	Classification of Non- alcoholic beverages		
	5.2	Stimulating - Tea, Types/ styles, latest trends Coffee Types / styles , latest trends		
	5.3	Refreshing - Types of water, aerated , squashes,		
	5.4	Nourishing- Smoothie, milk shakes, Mocktail		
	5.5	Latest trends- Energy drinks (Malted beverages)		
Total			30	35

NOTE:

Students should be familiar with the glossary of terms pertaining to above mentioned topics.

ASSIGNMENTS:

Minimum 2 assignments to be submitted by students by the end of the semester.

1. Prepare a chart / PPT on French Classical Cover& Accompaniments
2. Prepare a chart / PPT on Non – Alcoholic beverages with brands and Picture
3. Prepare a chart / PPT on types of pasta and pasta sauces and types of cheese (new world cheese)
4. Prepare a chart / PPT on Salad and salad Dressing
5. Prepare cyclic menu, Brunch menu, Children menu, Diet menu

、

REFERENCE:

1. Food & Beverage Service – Dennis Lillicrap and John Cousins
 2. Food & Beverage Service – R. Sinagaravelavan
 3. Food & Beverage Service Training Manual – Sudhir Andrews, Tata McGraw Hill
 4. Modern Restaurant Service – John Fuller
 5. The Restaurant (from Concept to Operation) – Lipinski
 6. Bar and Beverage Book – Chris Katsigris, Chris Thomas
 7. Textbook of Food & Beverage Service – Anita Sharma, S. N. Bagchi
 8. Textbook of Food & Beverage Service – Bobby George
-

Subject : FOOD & BEVERAGE SERVICE – II (Practical)

Subject Code : HS 202 (P)

Subject Credits 02

Hours per week 04

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Able to conduct briefing and handing various restaurant situations.
- C 2 : Able to plan various meal menus, cover set up and service.
- C 3 : Able to plan 3 /4/ 5 course French and Indian menus with appropriate cover set up, service and clearance.
- C 4 : Able to perform all procedures starting from order taking to bill presentation.
- C 5 : Able to serve various Non- alcoholic beverages.

List of Practical:

1. Writing food and beverage checks
2. Conducting briefing
3. Planning American, Continental Breakfast Menu, Cover set up & Service
4. Planning English, Indian Breakfast Menu, Cover set up, Service & Clearance
5. Planning High tea Menu, Cover set up, Service & Clearance
6. Planning 3 course, 4 course French & Indian menu, Cover set up, Service & Clearance
7. Planning 5 course French menu, Cover set up, Service & Clearance
8. Alcoholic Beverage Storage & Temperature
9. Alcoholic Beverage Identification & Preparation
10. Food & Beverage Order taking procedure
11. Practice cover set up and service of Classical hors d'oeuvres, Salads, Soup
12. Practice cover set up and service of Pasta, Fish, Main course
13. Practice cover set up and service of Cheese, Savoury and Sweet
14. Service of Non-Alcoholic beverages - Refreshing, Stimulating, Nourishing
15. Situation Handling – any five situations

Subject : ROOMS DIVISION – II (Theory)
Subject Code : HS 203 (T)
Subject Credits 02
Hours per week 02
Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Routine cleaning procedures followed in Housekeeping Department.
 C 2 : Knowledge of daily operational aspects in Housekeeping Department.
 C 3 : Role of reservation in Front Office Department.
 C 4 : Guest arrival activities at Front Desk.

			Hours	Marks
Chapter – 1	HOUSEKEEPING OPERATIONS		08	09
	1.1	Duties and responsibilities of Housekeeping personnel		
	1.2	Work routine for floor supervisors and chambermaids		
	1.3	Cleaning routine of Guest Rooms <ul style="list-style-type: none"> Daily cleaning of Occupied, Departure, Vacant, Under repair and VIP rooms. Evening service and second service procedures Weekly/ periodic cleaning Spring cleaning procedures 		
	1.4	Cleaning routine of Public areas <ul style="list-style-type: none"> Areas to be maintained Daily, Weekly and Spring cleaning procedures for public areas. 		
Chapter – 2	KEY CONTROL		02	02
	2.1	Types of keys - Manual , Computerized/ magnetic		
	2.2	Importance of key control		
	2.3	Key control procedures		

Chapter – 3		CONTROL DESK	03	04
	3.1	Importance of control desk		
	3.2	Records maintained at control desk (Log book, departure register, Guest message register, Key control register, maintenance register, carpet shampoo register, baby-sitting register)		
	3.3	Functions performed by Control Desk		
Chapter – 4		LOST AND FOUND PROCEDURE	02	02
	4.1	Procedure for lost Guest articles		
	4.2	Procedure for Lost Hotel property		
	4.3	Procedure for unclaimed articles		
	4.4	Records maintained		
Chapter – 5		RESERVATIONS	05	06
	5.1	Modes and sources of reservation, CRS, GDS		
	5.2	Information required for taking reservation.		
	5.3	Procedure for reservation through PMS reservation modules (Opera, Micro Fidelio)		
	5.4	Types of reservation (guaranteed, confirmed, group, FIT)		
	5.5	Procedure for amendments, cancellation and overbooking		
Chapter – 6		PRE-ARRIVAL PROCEDURES	04	05
	6.1	Pre-arrival activities (Preparing an arrival notification etc.)		
	6.2	Procedure for VIP arrival		
	6.3	Procedure for group arrival (special arrangements, meal coupons etc.)		
Chapter – 7		GUEST ARRIVAL	06	07
	7.1	Types of Registers (Register, Loose Leaf, Registration Cards)		
	7.2	Arrival procedure for Guests. (Foreign Guest, FIT, VIP, Corporate, Walk In, Group, Scanty baggage)		
	7.3	Notification of guest arrival and advance payment procedure		
	7.4	Rooming a guest(information of Hotel Facilities & Room)		
			30	35

Note: Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments:

Any **02 assignments** from the following are to be submitted by students by the end of the semester.

1. Prepare a presentation on various records maintained at control desk
2. Prepare a presentation on various equipments used for spring cleaning in the hotels
3. Prepare a file of formats associated with pre-arrival and arrival procedures.
4. Case studies on basic guest arrival activities.

Reference:

- Housekeeping Training Manual-Sudhir Andrews
 - Hotel, Hostel& Hospital Housekeeping–Brenscon & Lanox
 - Hotel Housekeeping and operations – G Raghubalan, Smritee raghubalan
 - Front office Management – S. K. Bhatnagar
 - Professional Management of Housekeeping Operations (Thomas J A Jones)
 - Rooms Division Techniques (Rasika Gumaste, Shefali Joshi)
 - Hotel front Office Training Manual. (Sudhir Andrews)
 - Principles of Hotel Front Office Operations (Sue Baker, P. Bradley, J. Huyton)
 - Hotel Front Office Operations and Management (Jatashankar R. Tiwari)
 - Hotel Front Office Management (James A Bardi)
 - Check in Check out :Managing Hotel Operations (Gary Vallen, Jerome Vallen)
 - Managing Front Office Operations (Michael Kasavana)
-

Subject : ROOMS DIVISION - II (Practical)
Subject Code : HS 203 (P)
Subject Credits 02
Hours per week 04
Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Perform different types of cleaning procedures.
C 2 : Handle the situations of basic guest enquiries and reservations.
C 3 : Develop skills for guest arrival procedures.

List of Practical:

1. Equipping Maids Carte / Trolley.
 2. Bed making Day /Evening - Traditional and Modern methods.
 3. Turn down service
 4. Daily Cleaning of Guest rooms – Departure, occupied and vacant.
 5. Cleaning routine Restaurants / Admin. Offices / Staircases & Elevators /Exterior areas.
 6. Understanding Inspection records - Checklist.
 7. Weekly / Spring- cleaning of Rooms and Public Areas.
 8. Deep Cleaning Procedure for various areas.
 9. Handling guest enquiries during the reservation and guest stay.
 10. Taking a reservation, amendments and cancellation.
 11. Guest arrival procedures.
 12. Guest departure procedures.
 13. Procedure for Rooming a guest.
 14. Bell desk activities and concierge.
 15. Role Plays for various procedures of reservation and guest arrival.
-

F.Y.B.A. 4.5/ 100 (II)		
Second Semester: Philosophy		
(General Elective / Open Elective) (Only for the students of the faculties other than Humanities)		
Title : Professional and Administrative Ethics Subject Code : OE-151-PHL Credits : 2 (Theory)		
Unit No.	Title and Contents	Hours
Unit 1.	Domains of professional ethics a) Ethics in Education b) Legal ethics c) Medical ethics	15
Unit 2.	Administrative ethics a) Integrity and honesty b) Non-partisan attitude and impartiality c) Loyalty to the organization and Nation	15
Prescribed Reading : <ol style="list-style-type: none"> 1. Patrick J. Sheeran: <i>Ethics in Public Administration A Philosophical Approach</i>, SBN 8131600211 2. Frankena, Wiliam K: <i>Ethics</i>, Prentice Hall Inc, Englewwod Cliffs, NewJersey 3. Sirohi R.K.: <i>Administrative Ethics</i>, Prabhat Prakashan; First Edition (1 January 2019); Prabhat Prakashan Pvt. Ltd., 4/19, Asaf Ali Raod, New Delhi-110002 4. Aristotle, Translated by W.D.Ross, <i>Nicomachean Ethics</i>. 5. Laura P. Hartman and Joe Desjardins, —Business Ethics: Decision Making for Personal Integrity and Social Responsibility Mc Graw Hill education, India Pvt. Ltd.,New Delhi, 2013 6. R. Subramanian Professional Ethics:, Oxford University Press, 2001 7. Laura P. Hartman and Joe Desjardins, —Business Ethics: Decision Making for Personal Integrity and Social Responsibility Mc Graw Hill education, India Pvt. Ltd., New Delhi, 2013 8. पुणे विद्यापीठ तत्त्वज्ञान विभागाचे मासिक, नितीविमर्श विशेषांक, २००२ 		

Subject : SOFT SKILLS FOR HOSPITALITY PROFESSIONALS

Subject Code : SEC-151-HS

Subject Credits 02

Hours per week 02

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

C 1 : Understanding the Importance of social image through various tools.

C 2 : Developing the skills of professional presentation.

C 3 : Comprehending recruiters' expectations towards lifelong learning.

C 4 : Applying of interpersonal skills in day to day activities.

							Hours	Marks	
Chapter – 1		IMPRESSION MANAGEMENT					08	09	
	1.1	Meaning of Social image							
	1.2	Importance of looking presentable & attractive							
	1.3	Right dressing & make-up							
	1.4	Hair care & inner-glow							
	1.5	Poise & Posture							
Chapter – 2		PROFESSIONAL COMMUNICATION					07	09	
	2.1	Types of presentations (Informative, Instructional, Arousing, Persuasive, Decision Making)							
	2.2	Making a Presentation.							
	2.3	Making Use of Audio-Visual Aids							
Chapter – 3		RECRUITERS EXPECTATIONS					07	08	
	3.1	Facing the Personal Interview (Personal & Technical)							
	3.2	Creating a Career Path (Identify, Prioritize, Comparison, Consider other Factors, Make a Choice, Smart Goals, Action Plan & Meet with Career Advisor).							
	3.3	Recruiters’ Expectations (Passion, Motivation, Communication, Problem Solver, Flexibility, Integrity & Reliability)							
	3.4	Team Work (Do’s & Don’ts of Team Work, How to be a Team Player)							
Chapter – 4		INTERPERSONAL SKILLS					08	09	
	4.1	Concept & Principles of Interpersonal Communication.							
	4.2	Developing Relationships (People Management)							
	4.3	Types and Sources of Conflicts							
	4.4	Conflict Resolutions							
	4.5	Value for Constructive Feedback and Positive Criticism							
Total								30	35

Note: Glossary: Students should be familiar with the glossary of terms pertaining to above mentioned topics.

Assignments:

Minimum of **02 assignments** to be submitted by students by the end of the semester.

1. Making a short presentation on current hospitality topics using trade magazines and journals as resources.
2. Designing and presenting a self-career plan.
3. Conduct a game for developing interpersonal skills.

References:

- You Can Win - Shiv Khera. MacMillan India Ltd.
 - The Perfect Presentation - Andrew Leigh and Michael Maynard. Rupa and co.
 - Personality Development and Soft Skills, Oxford University Press by Barun K. Mitra.
 - Soft Skills & Life Skills: The Dynamics of Success - Nishitesh and Dr. Bhaskara Reddi.
 - Soft Skills - Dr. Alex.
 - Soft skills and Professional Communication - Francis Peter S.J.
 - Managing Soft Skills – K. R. Lakshminarayan, T. Murugavel.
 - Personality Development and Soft Skills – Barun K. Mitra.
-

Subject : English: Professional Communication Skills

Subject Code : AEC- 151

Subject Credits 02

Hours per week 02

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 Marks	35 Marks	50

Unit No.	Topic	Allotted Lectures (L)
1.	Forms of Writing: 1.Letter Writing 2.Writing Resume 3.Report Writing 4.Notice/ Agenda and Minutes 5.Email 6. Blog Writing	10
2.	Soft Skills a) Introduction to Soft Skills 1. Definitions and Nature 2. Soft Skill vs Hard Skill 3. Importance of Soft Skill 4. Types of Soft Skill b) Soft Skills in Career Prospects 1. Role of Soft Skills in Professional Success 2. Time and Stress Management 3. Decision Making and Moral values 4. Leadership Skills and Team Building 5. Negotiation Skills and Etiquettes	10

3.	Business Communication: 1. Nature and Importance of Business Communication 2. Process of Communication 3. Types of Communication 4. Channels of Communication 5. Digital Communication	10
----	--	----

References:

- Ajmani, J. C. *Good English: Getting it Right*. New Delhi: Rupa Publications, 2012. Amos, Julie-Ann. *Handling Tough Job Interviews*. Mumbai: Jaico Publishing, 2004.
- Barret Grant. *Perfect English Grammar: The Indispensable Guide to Excellent Writing and Speaking*. FallRiver Press, 2016
- Monippally, Matthukutty, M. *Business Communication Strategies*. New Delhi: Tata McGraw-Hill Publishing Company Ltd., 2001.
- Neuliep, James W. *Intercultural Communication: A Contextual Approach*. Boston: Houghton Mifflin Co., 2003.
- Prasad, H. M. *How to Prepare for Group Discussion and Interview*. New Delhi: Tata McGraw-Hill Publishing Company Limited, 2001.
- Pease, Allan. *Body Language*. Delhi: Sudha Publications, 1998
- Raman, Meenakshi & Sangeeta Sharma. *Technical Communication: Principles and Practice*. Second Edition. New Delhi: Oxford University Press, 2011.
- Raymond Murphy. *Essential Grammar in Use with Answers: A Self-Study Reference and Practice Book for Elementary Learners of English*. Cambridge University Press, 2015
- Seely, John. *Writing Reports*. New York: Oxford University Press, 2002.
- Sharma, R. C. & Krishna Mohan. *Business Correspondence and Report Writing*: Third Edition. New Delhi: Tata McGraw-Hill Publishing company Limited, 2007.
- Thill, John V. & Courtland L. Bovée, *Excellence in Business Communication*, 10th edition. Boston : Pearson, 2013.
- Thorpe, Edgar & Showick Thorpe. *Winning at Interviews*. 2nd Edition. Delhi: Dorling Kindersley, 2006.

Subject : Environment Education - II

Subject Code : VEC- 151

Subject Credits 02

Hours per week 02

Semester I

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination	Total Marks
15 marks	35 marks	50 marks

After the completion of this course, student will be able to-

CO-1: identify various types of environmental pollution and their impacts on health.

CO-2: explain the basic concepts of climate change, including its causes and effects.

CO-3: analyze different strategies for adapting to and mitigating the effects of climate change.

CO-4: evaluate various environmental management practices and their effectiveness.

CO-5: apply the principles of key environmental treaties and legislation to case studies.

CO-6: create action plans that address specific environmental issues based on current policies and management practices.

Course Content

Chapter 1: Environmental Pollution and Health

[08 hours]

Understanding pollution: Production processes and generation of wastes; Assimilative capacity of the environment; Definition of pollution; Point sources and non-point sources of pollution.

Air pollution: Sources of air pollution; Primary and secondary pollutants; Criteria pollutants- carbon monoxide, lead, nitrogen oxides, ground-level ozone, particulate matter and sulphur dioxide; Other important air pollutants- Volatile Organic compounds (VOCs), Peroxyacetyl Nitrate (PAN), Polycyclic aromatic hydrocarbons (PAHs) and Persistent organic pollutants (POPs); Indoor air pollution; Adverse health impacts of air pollutants; National Ambient Air Quality Standards.

Water pollution: Sources of water pollution; River, lake and marine pollution, groundwater pollution; water quality Water quality parameters and standards; adverse health impacts of water pollution on human and aquatic life.

Soil pollution and solid waste: Soil pollutants and their sources; Solid and hazardous waste; Impact on human health.

Noise pollution: Definition of noise; Unit of measurement of noise pollution; Sources of noise pollution; Noise standards; adverse impacts of noise on human health.

Thermal and Radioactive pollution: Sources and impact on human health and ecosystems.

Suggested Readings

1. Jackson, A. R., & Jackson, J. M. (2000). Environmental Science: The Natural Environment and Human Impact. Pearson Education.
2. Masters, G. M., & Ela, W. P. (2008). Introduction to environmental engineering and science (No.60457). Englewood Cliffs, NJ: Prentice Hall.
3. Miller, G. T., & Spoolman, S. (2015) Environmental Science. Cengage Learning.
4. Central Pollution Control Board Web page for various pollution standards. <https://cpcb.nic.in/standards/>
5. Ahluwalia, V. K. (2015). Environmental Pollution, and Health. The Energy and Resources Institute (TERI).

Chapter 2: Climate Change: Impacts, Adaptation and Mitigation

[06 hours]

Understanding climate change: Natural variations in climate; Structure of atmosphere; Anthropogenic climate change from greenhouse gas emissions— past, present and future; Projections of global climate change with special reference to temperature, rainfall, climate variability and extreme events; Importance of 1.5 °C and 2.0 °C limits to global warming; Climate change projections for the Indian sub-continent.

Impacts, vulnerability and adaptation to climate change: Observed impacts of climate change on ocean and land systems; Sea level rise, changes in marine and coastal ecosystems; Impacts on forests and natural ecosystems; Impacts on animal species, agriculture, health, urban infrastructure; the concept of vulnerability and its assessment; Adaptation vs. resilience; Climate-resilient development; Indigenous knowledge for adaptation to climate change.

Mitigation of climate change: Synergies between adaptation and mitigation measures; Green House Gas (GHG) reduction vs. sink enhancement; Concept of carbon intensity, energy intensity and carbon neutrality; National and international policy instruments for mitigation, decarbonizing pathways and net zero targets for the future; Energy efficiency measures; Renewable energy sources; Carbon capture and storage, National climate action plan and Intended Nationally Determined Contributions (INDCs); Climate justice.

Suggested Readings

1. Pittock, Barrie (2009) Climate Change: The Science, Impacts and Solutions. 2nd Edition. Routledge.
2. www.ipcc.org; <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>.
3. Adenle A., Azadi H., Arbiol J. (2015). Global assessment of technological innovation for climate change adaptation and mitigation in developing world, Journal of Environmental Management, 161 (15): 261-275.
4. Barnett, J. & S. O'Neill (2010). Maladaptation. Global Environmental Change— Human and Policy Dimensions 20: 211–213.
5. Berrang-Ford, L., J.D. Ford & J. Paterson (2011). Are we adapting to climate change ? Global Environmental Change—Human and Policy Dimensions 21: 25-33.

Introduction to environmental laws and regulation: Constitutional provisions- Article 48A, Article 51A (g) and other derived environmental rights; Introduction to environmental legislations on the forest, wildlife and pollution control.

Environmental management system: ISO 14001 Life cycle analysis; Cost-benefit analysis Environmental audit and impact assessment; Environmental risk assessment, Pollution control and management; Waste Management- Concept of 3R (Reduce, Recycle and Reuse) and sustainability; Ecolabeling / Ecomark scheme

Suggested Readings

1. Jørgensen, Sven Marques, Erik João Carlos and Nielsen, Søren Nors (2016) Integrated Environmental Management, A transdisciplinary Approach. CRC Press.
2. Theodore, M. K. and Theodore, Louis (2021) Introduction to Environmental Management, 2nd Edition. CRC Press.
3. Barrow, C. J. (1999). Environmental management: Principles and practice. Routledge.
4. Tiefenbacher, J (ed.) (2022), Environmental Management - Pollution, Habitat, Ecology, and Sustainability, Intech Open, London. 10.5772/
5. Richard A. Marcantonio, Marc Lame (2022). Environmental Management: Concepts and Practical Skills. Cambridge University Press.

Chapter 4: Environmental Treaties and Legislation

[10 hours]

An overview of instruments of international cooperation; bilateral and multilateral agreements; conventions and protocols; adoption, signature, ratification and entry into force; binding and non-binding measures; Conference of the Parties (COP)

Major International Environmental Agreements: Convention on Biological Diversity (CBD); Cartagena Protocol on Biosafety; Nagoya Protocol on Access and Benefit-sharing; Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES); Ramsar Convention on Wetlands of International Importance; United Nations Convention to Combat Desertification (UNCCD); Vienna Convention for the Protection of the Ozone Layer; Montreal Protocol on Substances that Deplete the Ozone Layer and the Kigali Amendment; Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; Stockholm Convention on Persistent Organic Pollutants; Minamata Convention on Mercury; United Nations Framework Convention on Climate Change (UNFCCC); Kyoto Protocol; Paris Agreement; India's status as a party to major conventions

Major Indian Environmental Legislations: The Wild Life (Protection) Act, 1972; The Water (Prevention and Control of Pollution) Act, 1974; The Forest (Conservation) Act, 1980; The Air (Prevention and Control of Pollution) Act, 1981; The Environment (Protection) Act, 1986; The Biological Diversity Act, 2002; The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006; Noise Pollution (Regulation and Control) Rules, 2000; Industry-specific environmental standards; Waste management rules; Ramsar sites; Biosphere reserves; Protected Areas; Ecologically Sensitive Areas; Coastal Regulation Zone; Status phase-out of production and consumption of Ozone Depleting Substances by India; National Green Tribunal; Some landmark Supreme Court judgements

Major International organisations and initiatives: United Nations Environment Programme (UNEP), International Union for Conservation of Nature (IUCN), World Commission on Environment and Development (WCED), United Nations Educational, Scientific and Cultural Organization (UNESCO), Intergovernmental Panel on Climate Change (IPCC), and Man and the Biosphere (MAB) programme.

Suggested Readings

1. UNEP (2007) Multilateral Environmental Agreement Negotiator's Handbook, University of Joensuu, ISBN 978-952-458-992-5
2. Ministry of Environment, Forest and Climate Change (2019) A Handbook on International Environment Conventions & Programmes. <https://moef.gov.in/wp-content/uploads/2020/02/convention-V-16-CURVE-web.pdf>
3. Kanchi Kohli and Manju Menon (2021) Development of Environment Laws in India, Cambridge University Press.
4. India Code – Digital repository of all Central and State Acts: <https://www.indiacode.nic.in/>
5. Bohra, Saroj, Judicial Intervention and Evolution of Environmental Principles and Doctrines (January 7, 2019). Available at SSRN: <https://ssrn.com/abstract=3311406> or <http://dx.doi.org/10.2139/ssrn.3311406>

Note: Case Studies and Field Work is compulsory

The students are expected to be engaged in some of the following or similar identified activities:

1. Discussion on one national and one international case study related to the environment and sustainable development.
 2. Field visits to identify local/regional environmental issues, make observations including data collection and prepare a brief report.
 3. Documentation of campus biodiversity.
 4. Campus environmental management activities such as solid waste disposal, water management, and sewage treatment.
-

Subject : YOGA EDUCATION

Subject Code : CC- 151

Subject Credits 02

Hours per week 04

Semester II

Examination Evaluation Scheme		
Internal Examination (Concurrent)	External Examination (Performance in the Practical Exams)	Total Marks
15 marks	35 marks	50 marks

Course Outcome:

- C 1 : Enabling students to have Mental & Physical Health.
- C 2 : Improving Metabolism, Memory, Confidence Level, Posture.
- C 3 : Strengthening Endurance & Posture.
- C 4 : Exemplifying Mindfulness.

List of Practical: (Minimum 6 practical to be conducted)

- 1)
 - A) Introduction to Yoga, Dhyan, Pranayama
 - B) Rules and Regulations to be followed by Yoga Practitioner / Myths and Misconceptions about Yoga Practices
- 2) Concept and Recitation of Pranava, Hymns, Various Sitting Postures
Dandasana, Sukhasana, Padmasana, Vajrasana, Bhadrasana
- 3) Warm up Exercises, Sun Salutation/Suryanamaskar
Pranayama –Bhastrika, Bhramari
- 4) Yogasana (Standing)
Tadasana, Vrukshasana, Trikonasana, ArdhaChakrasana
- 5) Aasanas (Lying flat on back)
Pawanmuktasana, Halasana, Shawasana
- 6) Pranayama – Kapalabhati, Anulom vilom
- 7) Yogasanas (Sitting)
Shashakasan, Vakrasana , Poorvapachchimotanasana, Gomukhasana
- 8) Yogasana (Lying flat on stomach)
Bhujangasan, Shalabhasana, Makarasan

- 9) Understanding Bandhas:
A) Jalandhar Bandh
B) Udiyanbandha
C) Mulbandha

- 10) Understanding Mudras:
A) Chin Mudra
B) Gyan Mudra
C) Brahma Mudra
D) Dhyan Mudra
E) Adi Mudra

- 11) Introduction, Importance, Practice of Meditation.

- 12) Simha Garjana, Basic Acupressure (claps), Shantipath.
-