

Scheme & Syllabus of

Bachelor of Hotel Management & Catering Technology

(BHMCT)

Batch 2019 onwards



By

Board of Studies-Main Campus

IK Gujral Punjab Technical University

Bachelors of Hotel Management & Catering Technology (BHMCT) :

It is an Under Graduate (UG) Programme of 4 years duration (8 semesters)

Eligibility for Admission: 10+2 Pass in any Stream.

Courses & Examination Scheme:

First Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BHMCT101-18	Core Theory	Food Production Foundation-I	3	0	0	40	60	100	3
BHMCT102-18	Practical	Food Production Foundation-I	0	0	4	60	40	100	2
BHMCT103-18	Core Theory	Food & Beverage Service Foundation-I	3	0	0	40	60	100	3
BHMCT104-18	Practical	Food & Beverage Service Foundation-I	0	0	4	60	40	100	2
BHMCT105-18	Core Theory	Front Office Foundation-I	3	0	0	40	60	100	3
BHMCT106-18	Practical	Front Office Foundation-I	0	0	2	60	40	100	1
BHMCT107-18	Core Theory	Accommodation Operations-I	3	0	0	40	60	100	3
BHMCT108-18	Practical	Accommodation Operations-I	0	0	2	60	40	100	1
BTHU103-18	Ability Enhancement Compulsory Course (AECC)-I	English	1	0	0	40	60	100	1
BTHU104-18	Ability Enhancement Compulsory Course (AECC)	English Practical/Laboratory	0	0	2	30	20	50	1
HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules	3	0	0	40	60	100	3
HVPE-102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)	0	0	1	25	--*	25	1
BMPD102-18		Mentoring and Professional Development	0	0	1	25	--*	25	1
	TOTAL		16	0	16	560	540	1100	25

*The Human Values, De-addiction and Traffic Rules (Lab/ Seminar) and Mentoring and Professional Development course will have internal evaluation only.

Second Semester

Course Code	Course Type	Course Title	Load Allocations			Marks Distribution		Total Marks	Credits
			L	T	P	Internal	External		
BHMCT201-18	Core Theory	Food Production Foundation-II	3	0	0	40	60	100	3
BHMCT202-18	Practical	Food Production Foundation-II	0	0	4	60	40	100	2
BHMCT203-18	Core Theory	Food & Beverage Service Foundation-II	3	0	0	40	60	100	3
BHMCT204-18	Practical	Food & Beverage Service Foundation-II	0	0	4	60	40	100	2
BHMCT205-18	Core Theory	Front Office Foundation-II	3	0	0	40	60	100	3
BHMCT206-18	Practical	Front Office Foundation-II	0	0	2	60	40	100	1
BHMCT207-18	Core Theory	Accommodation Operations-II	3	0	0	40	60	100	3
BHMCT208-18	Practical	Accommodation Operations-II	0	0	2	60	40	100	1
EVS102-18	Ability Enhancement Compulsory Course (AECC) -III	Environmental Science	2	0	0	40	60	100	2
BMPD202-18		Mentoring and Professional Development	0	0	1	25	--	25	1
	TOTAL		14	0	13	465	460	925	21

*Mentoring and Professional Development course will have internal evaluation only.

COURSE CODE:	BHMCT-101
COURSE TITLE:	FOOD PRODUCTION FOUNDATION-I (THEORY)
COURSE OBJECTIVES:	This paper will give the basic knowledge of cooking to the beginners. They will get versed with meaning, aims, objectives, kitchen organisation structure, different kinds of ingredients, techniques of pre-preparation and cooking, knowledge of various stocks, sauces and soups, various cuts of vegetables.
COURSE OUTCOMES:	<p>CO1. Students will get familiarized with Kitchen Organization structure, culinary importance and objectives of cooking</p> <p>CO2. Students will get acquainted with the different types of fuels, fire prevention and methods of cooking.</p> <p>CO3. They will acquire the knowledge of basic preparation such as stocks, soups sauces along with various cuts of vegetables.</p> <p>CO4.Learner will able to understand the use of shortenings, raising agents, thickening agents and herbs and spices.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING:	<p>The paper will be divided in two parts</p> <p>Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks.</p> <p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each Unit will contain two questions and there may be short notes in these questions.</p>
UNIT-1	<p>INTRODUCTION TO COOKERY: Levels of skills and experiences, Attitudes and behaviour in the kitchen, Personal hygiene, Uniforms & protective clothing, Safety procedure in handling equipment</p> <p>CULINARY HISTORY: Origin of modern cookery Classical and New World Cuisine, Different styles cookery: oriental, European, Continental, Pan American</p>

	<p>HIERARCHY AREA OF DEPARTMENT AND KITCHEN: Classical Brigade, Modern staffing in various category hotels, Roles of executive chef, Duties and responsibilities of various chefs, Co-operation with other departments General Layout Of the kitchen in organisations, layout of receiving areas, layout of service & wash up</p> <p>CULINARY TERMS: List of culinary (common and basic) terms, Explanation with examples</p> <p>AIMS & OBJECTS OF COOKING FOOD: Aims and objectives of cooking food, Various textures, Various consistencies, Techniques used in pre-preparation, Techniques used in preparation</p> <p>HACCP - Practices in food handling & storage</p> <p>CONVERSION TABLES: American, British measures and its equivalents</p>
<p>UNIT-2</p>	<p>Fuels used in catering industry: Types of fuel used in catering industry; calorific value; comparative study of different fuels, Calculation of amount of fuel required and cost.</p> <p>Gas: method of transfer, LPG and its properties; principles of Bunsen burner, precautions to be taken while handling gas; low and high-pressure burners, Gas bank, location, different types of manifolds</p> <p>FIRE PREVENTION AND FIRE FIGHTING SYSTEM: Classes of fire, methods of extinguishing fires (Demonstration), Fire extinguishers, portable and stationery, Fire detectors and alarm, Automatic fire detectors cum extinguishing devices, Structural protection, Legal requirements</p> <p>METHODS OF COOKING FOOD: Roasting, Grilling, Frying, Baking, Broiling, Poaching, Boiling:-Principles of each of the above, Care and precautions to be taken, Selection of food for each type of cooking.</p>
<p>UNIT-3</p>	<p>BASIC PRINCIPLES OF FOOD PRODUCTION</p> <p>VEGETABLE AND FRUIT COOKERY: Introduction – classification of vegetables, Pigments and colour changes, Effects of heat on vegetables, Cuts of vegetables, Classification of fruits, Uses of fruit in cookery.</p> <p>STOCKS: Definition of stock, Types of stock, Preparation of stock, Recipes, Storage of stocks, Uses of stocks, Care and precautions</p> <p>SAUCES: Classification of sauces, Recipes for mother sauces, Storage & precautions</p> <p>SOUPS: Classification with examples, Basic recipes of Consommé with 10 Garnishes and other soups.</p>

	<p>EGG COOKERY: Introduction to egg cookery, Structure of an egg, Selection of egg, Uses of egg in cookery</p> <p>SALADS AND SANDWICHES: Salads & its compositions Types Of Lettuce , Types of Dressing, Emerging trends in salad making, Sandwiches History origin and its Different types</p>
<p>UNIT-4</p>	<p>COMMODITIES:</p> <p>i) SHORTENINGS (Fats & Oils): Role of Shortenings, Varieties of Shortenings, Advantages and Disadvantages of using various Shortenings, Fats & Oil – Types, varieties</p> <p>ii) RAISING AGENTS: Classification of Raising Agents, Role of Raising Agents, Actions and Reactions</p> <p>iii) THICKENING AGENTS: Classification of thickening agents, Role of Thickening agents</p> <p>iv) HERBS & SPICES : Uses its Importance & it's different types</p> <p>Kitchen Organsiation and Layout: General layout of Kitchen in various organisations, layout of receiving areas, layout of service and washup areas</p>
<p>REFERENCES:</p>	<ul style="list-style-type: none"> • The Professional Chef (4th Edition) By Le Rol A.Polsom • The Professional Pastry Chef, Fourth Edition By Bo Friberg Publisher: Wiley & Sons INC • Theory of Catering By Kinton & Cessarani • Theory of Cookery By K Arora, Publisher: Frank Brothers • Accompaniments & Garnishes from waiter; Communicate: Fuller J. Barrie & Jenkins • Bakery & Confectionery By S. C Dubey, Publisher: Socity of Indian Bakers • Modern Cookery (Vol-I) By Philip E. Thangam, Publisher: Orient Longman • Practical Cookery By Kinton & Cessarani

COURSE CODE:	BHMCT-102	
COURSE TITLE:	FOOD PRODUCTION FOUNDATION I (PRACTICALS) (PART A)	
COURSE OBJECTIVES:	The course is designed to introduce the learner with the fundamentals of food production. It enhances the practical skills of the students.	
COURSE OUTCOMES:	<p>CO1.Students will be able to identify kitchen equipment's and their handling.</p> <p>CO2. Students will be able to classify different vegetables along with the cuts.</p> <p>CO3. Students will learn different methods of cooking.</p> <p>CO4. Students will be able to prepare different salads, Egg Preparation, Soups and Bakery preparation.</p>	
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours. The external practical examination will be of 40 Marks.	
INSTRUCTIONS FOR EXTERNAL EVALUATION	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.	
S.No	Topic	Method
1	i) Equipments - Identification, Description, Uses & handling ii) Hygiene - Kitchen etiquettes, Practices & knife handling iii) Safety and security in kitchen	Demonstrations & simple applications
2	i) Vegetables - classification ii) Cuts - julienne, jardinière, macedoines, brunoise, payssane, mignonnete, dices, cubes, shred, mirepoix iii) Preparation of salad dressings	Demonstrations & simple applications by students
3	Identification and Selection of Ingredients - Qualitative and quantitative measures.	Market survey/tour
4	i) Basic Cooking methods and pre-preparations ii) Blanching of Tomatoes and Capsicum	Demonstrations & simple applications by students

	<p>iii) Preparation of concasse</p> <p>iv) Boiling (potatoes, Beans, Cauliflower, etc)</p> <p>v) Frying - (deep frying, shallow frying, sautéing) Aubergines, Potatoes, etc.</p> <p>vi) Braising - Onions, Leeks, Cabbage</p> <p>vii) Starch cooking (Rice, Pasta, Potatoes)</p>	
5	<p>i) Stocks - Types of stocks (White and Brown stock)</p> <p>ii) Fish stock</p> <p>iii) Emergency stock</p> <p>iv) Fungi stock</p>	Demonstrations & simple applications by students
6	<p>Sauces - Basic mother sauces</p> <ul style="list-style-type: none"> • Béchamel • Espagnole • Veloute • Hollandaise • Mayonnaise • Tomato 	Demonstrations & simple applications
7	<p>Egg cookery - Preparation of variety of egg dishes</p> <ul style="list-style-type: none"> • Boiled (Soft & Hard) • Fried (Sunny side up, Single fried, Bull’s Eye, Double fried) • Poaches • Scrambled • Omelette (Plain, Stuffed, Spanish) • En cocotte (eggs Benedict) 	Demonstrations & simple applications by students
8	<p>Simple Salads:</p> <ul style="list-style-type: none"> • Cole slaw, • Potato salad, • Beet root salad, • Green salad, • Fruit salad, • Consommé <p>Simple Egg preparations:</p> <ul style="list-style-type: none"> • Scotch egg, • Assorted omelletes, • Oeuf Florentine • Oeuf Benedict • Oeuf Farci 	Demonstration by instructor and applications by students

	<ul style="list-style-type: none"> • Oeuf Portugese • Oeuf Deur Mayonnaise <p>Soups Preprations:</p> <ul style="list-style-type: none"> • Cream Soups • Puree Soups • Consomme <p>Simple potato preparations</p> <ul style="list-style-type: none"> • Baked potatoes • Mashed potatoes • French fries • Roasted potatoes • Boiled potatoes • Lyonnaise potatoes • Allumettes <p>Vegetable preparations</p> <ul style="list-style-type: none"> • Boiled vegetables • Glazed vegetables • Fried vegetables • Stewed vegetables. <p>Sandwiches</p> <ul style="list-style-type: none"> • Open • Club • Closed • Canapé • Zukuskis • Pin wheel • Checkers board 	
9	Demonstration & Preparation of simple menu	Demonstrations & simple applications by students
PART B -	BAKERY & PATISSERIE (PRACTICAL)	
10	<p>Equipments</p> <ul style="list-style-type: none"> • Identification • Uses and handling <p>Ingredients - Qualitative and quantitative measures</p>	Demonstration by instructor and applications by students
11	<p>BREAD MAKING</p> <ul style="list-style-type: none"> • Demonstration & Preparation of Simple and enriched bread recipes • Bread Loaf (White and Brown) • Bread Rolls (Various shapes) • French Bread 	Demonstration by instructor and applications by students

	<ul style="list-style-type: none"> • Brioche 	
12	<p>SIMPLE CAKES</p> <ul style="list-style-type: none"> • Demonstration & Preparation of Simple and enriched Cakes, recipes • Sponge, Genoise, Fatless, Swiss roll • Fruit Cake • Rich Cakes • Dundee • Madeira 	
13	<p>SIMPLE COOKIES</p> <ul style="list-style-type: none"> • Demonstration and Preparation of simple cookies like • Nan Khatai • Golden Goodies • Melting moments • Swiss tart • Tri colour biscuits • Chocolate chip • Cookies • Chocolate Cream Fingers • Bachelor Buttons. 	Demonstration by instructor and applications by students
14	<p>HOT / COLD DESSERTS</p> <ul style="list-style-type: none"> • Caramel Custard, • Bread and Butter Pudding • Queen of Pudding • Soufflé – Lemon / Pineapple • Mousse (Chocolate Coffee) • Bavaroise • Diplomat Pudding • Apricot Pudding • Steamed Pudding - Albert Pudding, Cabinet Pudding 	Demonstration by instructor and applications by students

COURSE CODE:	BHMCT-103
COURSE TITLE:	FOOD & BEVERAGE SERVICE FOUNDATION-I (THEORY)
COURSE OBJECTIVES:	The course aims to inculcate knowledge of food service principles, functions, procedures among trainees
COURSE OUTCOMES:	CO1. Course inculcates knowledge about various food outlets and their characteristics. CO2. Students will be able to understand various F&B equipment's and their usages. CO3. Students will be able to understand preparation of restaurant. CO4. Student will be able to learn classification of nonalcoholic beverages.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING:	The paper will be divided in two parts Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks. Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each Unit will contain two questions and there may be short notes in these questions.
UNIT-1	INTRODUCTION TO FOOD AND BEVERAGE INDUSTRY:- Introduction to Food & Beverage Service Industry, Types of catering operations–commercial, welfare, transport, others. Role of catering establishment in the hospitality industry
UNIT-2	FOOD SERVICE AREAS (F & B OUTLETS) Restaurants, Coffee Shop, Bar, Banquet, Cafeteria, Fast Food (Quick Service Restaurants), Grill Room, Vending Machines, Discothèque ANCILLIARY DEPARTMENTS:- Pantry, Food pick-up area, Store, Linen room, Kitchen stewarding
UNIT-3	DEPARTMENTAL ORGANISATION & STAFFING: Organization of F&B department of hotel, Principal staff of various types of F&B operations, Job

	Descriptions & Job Specifications of F& B Service Staff, French terms related to F&B staff, Attributes of F&B Personnel, Inter and Intra departmental relationship.
UNIT-4	<p>F & B SERVICE EQUIPMENT:-Familiarization & Selection factors of:- Cutlery, Crockery, Glassware, Flatware, Hollowware, All other equipment used in F&B Service, French terms related to the above</p> <p>PREPARATION FOR SERVICE: Organising Mise-en-scene, Organising Mise- en- place</p> <p>NON-ALCOHOLIC BEVERAGES: Classification (Nourishing, Stimulating and Refreshing), Tea- Origin, Manufacture, Types & Brands, Coffee- Origin, Manufacture, Types & Brands, Juices and Soft Drinks, Cocoa & Malted Beverages - Origin & Manufacture</p>
REFERENCES:	<ul style="list-style-type: none"> • Food & Beverage Service- Bobby George &Sandeep Chatterjee, Jaico Publishing House • Food & Beverage Service- R. Singaravelavan, Oxford University Press, New Delhi. • Food & Beverage Service - Dennis R. Lillicrap. & John .A. Cousins. Publisher: ELBS • Food & Beverage Service Training Manual - Sudhir Andrews, Tata McGrawHill. • The Waiter Handbook By Graham Brown, Publisher: Global Books &Subscription Services New Delhi.

COURSE CODE:	BHMCT-104
COURSE TITLE:	FOOD & BEVERAGE SERVICE FOUNDATION-I (PRACTICAL)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the fundamentals of food and beverage service. It enhances the practical skills of the students.
COURSE OUTCOMES:	CO1. Students will be able to identify various Restaurant equipment's. CO2. Students will practice basic service skills used in F&B Outlets. CO3. Students will be able to learn how to setup the restaurant before service. CO4. Student will be able to learn service of various non-alcoholic beverages.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S.No	Topic
1.	Familiarization of F&B Service equipment
2.	Basic Technical Skills Task-01: Holding Service Spoon & Fork Task-02: Carrying a Tray / Salver Task-03: Laying a Table Cloth Task-04: Changing a Table Cloth during service Task-05: Placing meal plates & Clearing soiled plates Task-06: Stocking Sideboard Task-07: Service of Water Task-08: Using Service Plate & Crumbing Down Task-09: Napkin Folds

	Task-10: Changing dirty ashtray Task-11: Wiping of Tableware, Chinaware, Glassware
3.	PREPARATION FOR SERVICE (RESTAURANT) A. Organizing Mise-en-scene B. Organizing Mise-en-Place C. Opening, Operating & Closing duties
4.	Briefing/debriefing
5.	Tea & Coffee Service
COURSE CODE	BHMCT – 105
COURSE TITLE	FRONT OFFICE FOUNDATION-I (THEORY)
COURSE OBJECTIVES	The course is aimed at familiarizing the students with various functions of front office and to develop work ethics towards customer care and satisfaction. Special efforts will be made to inculcate practical skills.
COURSE OUTCOMES:	CO1 Students will be able to develop work ethics towards customer care and satisfaction and its basic skill, knowledge of front office. CO2 Students will be able to outline and explain hospitality industry and its importance. CO3 Students will be able to endorse classification of hotels & describe the most distinctive feature of each. CO4 Student will be able to analyse, evaluate & discuss front office organization.
EVALUATION	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTION FOR PAPER SETTING	The paper will be divided into two parts Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks.

	<p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks(10 marks each). Each unit will contain two questions and there may be short notes in these questions.</p>
<p>UNIT – 1</p>	<p>INTRODUCTION TO HOSPITALITY INDUSTRY</p> <p>Hospitality and its origin, Tourism and hotel Industry, its importance, and scope, Evolution of Tourism and Hotel Industry, Introduction of World’s leading Hotel Operators and their brands, Introduction to Indian leading and emerging Hotel Operators and their brands, Role of Tourism industry in Indian economy with a special emphasis on Hotel Industry.</p>
<p>UNIT – 2</p>	<p>CLASSIFICATION OF HOTELS</p> <p>A brief introduction to hotel core areas.</p> <p>Classification of Hotels on the basis of Size, Location, Type of guest, Length of stay of guest.</p> <p>Ownership basis :- Independent Hotels, Chain Hotels, Franchise and Management Contracts Hotels, Marketing/Retailing/Consumer’s Co-operatives/Referral Groups with examples, Vacation ownership/Time share and Condominium Hotels with examples of hotel groups involved in this business concept,</p> <p>STAR CLASSIFICATION OF HOTELS</p> <p>Government’s Classification Committee, Star ratings and Heritage Classifications adopted in India, Basis on which Star ratings are granted along with the Performa of Star Classification.</p> <p>OVERVIEW OF OTHER CONCEPTS</p> <p>Spa, Boutique hotels, All Suite, Budget Hotels, Green Hotels, Ecotels etc., Supplementary/Alternative Accommodations, examples of National and International Hotels with its type, category and classification.</p>
<p>UNIT – 3</p>	<p>FRONT OFFICE ORGANIZATION</p> <p>Introduction to Front Office in Hotels, Types of Rooms, Sub-sections/Function areas in Front Office Department and their functions in Front Office and hotel in details, Layout of Front Office Department.</p> <p>FRONT OFFICE PERSONNEL</p>

	<p>Personality traits, Duties and Responsibilities, Hierarchy/ Organizational chart of Front Office Department – Large, Medium and Small Hotels/Resorts/Spa.</p>
<p>UNIT – 4</p>	<p>VACATION OWNERSHIP AND CONDOMINIUMS</p> <p>Vacation Ownership/Timeshare, Condominium, How are they different from Hotel business? Deeded ownership and Right to use ownership Types of timeshares/Vacation ownerships, Examples with list of hotel operating companies offering vacation ownerships and Condominium concepts.</p> <p>Front Office Equipment:- automated, semi automated, non automated</p> <p>BELL DESK:- Functions Procedures and Formats.</p> <p>FRENCH</p> <p>To be taught by professional French language teacher, Understanding and uses of accents, orthographic signs and punctuation, knowledge of cardinaux and ordinaux (Ordinal and cardinal), Days, Dates, Time, Months and Seasons.</p>
<p>References</p>	<ul style="list-style-type: none"> • Front Office training manual- Sudhir Andrews • Front office operations and management – Jatashankar R. Tewari • Front Office Operations – Colin Dix, Chris Baird • Practical Aspects of Hotel Guest Cycle-Pre Arrival Stage- Hardaman Singh Bhinder(Prowess Publisher) • • Professional Hotel Front Office Management – Anutosh Bhakta • Hotel Front Office Management – James. A. Bardi • Front Office Operations and Management – Ahmed Ismail (Thompson Delmar) • Front Office Operation Management – S. K. Bhatnagar • Managing Front Office Operations – Micheal Kasavana and brooks • Principles of Front Office Operations – Sue Baker & Jermy Huyton

COURSE CODE:	BHMCT – 106
COURSE TITLE:	FRONT OFFICE FOUNDATION-I (PRACTICAL'S)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the fundamentals of front office. It enhances the practical skills of the students.
COURSE OUTCOMES:	CO1 Students will be able to acquire the knowledge of basic front office operations. CO2 Students will be able to analyse, evaluate & learn working of subsection of front office and function of various equipment's used in front office. CO3 Students will be able to demonstrate reservation practices and luggage handling.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S. No.	Topic
1	<ul style="list-style-type: none"> • Grooming and Hospitality etiquettes. • Personality traits of front office personnel
2	<ul style="list-style-type: none"> • Identification of equipments and furniture used in Front Office Department • Front Desk Counter and Bell Desk
3	<ul style="list-style-type: none"> • Countries, their capitals, currencies, airlines and their flags,
4	Role Play :- <ul style="list-style-type: none"> • Reservations: FIT, Corporate guest and group. • Luggage Handling: FIT, Walk-in, Scanty Baggage, regular, crew and group
5.	Great Personalities of Hotel Industry (min 3 personalities to be given as assignment)

COURSE CODE:	BHMCT-107
COURSE TITLE:	ACCOMODATION OPERATIONS-I (THEORY)
COURSE OBJECTIVES:	The course familiarizes students with the organization of housekeeping, its systems and functions. A blend of theory and practical will be used to develop sensitivity and high work ethics towards guest care and cleanliness.
COURSE OUTCOMES:	<p>CO1 Students will be able to acquire knowledge and learn about the significance of accommodation operation and its scope in the service industry.</p> <p>CO2 Students will be able to perform various housekeeping operational functions.</p> <p>CO3 Students will hone their professional skills, etiquettes and team work.</p> <p>CO4 Students will be able to handle various cleaning equipment's and cleaning agents in a scientific and efficient manner.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING:	<p>The paper will be divided in two parts</p> <p>Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks.</p> <p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each Unit will contain two questions and there may be short notes in these questions.</p>
UNIT-1	THE ROLE OF HOUSEKEEPING IN HOSPITALITY OPERATION: Role of Housekeeping in Guest Satisfaction and Repeat Business, Personality Traits of housekeeping Management Personnel, Layout of the Housekeeping Department overview of sub section of housekeeping department, Role of housekeeping in other institutes. (from 2 nd unit to 1 st)
UNIT-2	ORGANIZATION CHART OF THE HOUSEKEEPING DEPARTMENT: Hierarchy in small, medium, large and chain hotels, (from 1 st to 2 nd) Identifying Housekeeping Responsibilities, Duties and Responsibilities of Housekeeping

	<p>staff, Different types of room in a hotel along with their status, standard supplies & amenities of a guest room.(New)</p>
UNIT-3	<p>CLEANING ORGANISATION: Principles of cleaning, hygiene and safety factors in cleaning, Methods of organizing cleaning, Frequency of cleaning daily, periodic, special, Design features that simplify cleaning, Use and care of Equipment</p> <p>CLEANING OF GUEST ROOM :- type of soil, nature of soil, standard of cleaning, Cleaning of public area,</p> <p>HOUSEKEEPING INVENTORIES: equipments, agents, supplies, linen, uniform (new)</p>
UNIT-4	<p>PEST CONTROL: Areas of infestation, Preventive measures and Control measure (Sem. 2 to Sem. 1)</p> <p>WASTE DISPOSAL AND POLLUTION CONTROL: Solid and liquid waste, sullage and sewage, disposal of solid waste, Sewage treatment, Pollution related to hotel industry, Water pollution, sewage pollution, Air pollution, noise pollution, thermal pollution, Legal Requirements</p> <p>INTER DEPARTMENTAL RELATIONSHIP: With Front Office, With Maintenance, With Security, With Stores, With Accounts, With Personnel, Use of Computers in House Keeping department</p>
REFERENCES:	<ul style="list-style-type: none"> • Hotel Hostel and Hospital Housekeeping –by Joan C Branson & Margaret • Lennox, ELBS with Hodder & Stoughten Ltd. • Hotel House Keeping A Training Manual by Sudhir Andrews, Tata McGraw • Hill publishing company limited New Delhi. • Hotel Housekeeping Operations & Management by Raghubalan, Oxford • University Press. • Management of Hotel & Motel Security (Occupational Safety and Health) • by H. Burstein, CRC Punlisher. • Professional Management of Housekeeping Operations (II Edn.) by Robert • J. Martin & Thomas J.A. Jones, Wiley Publications • The Professional Housekeeper by Tucker Schneider, Wiley Publications • Professional management of Housekeeping by Manoj Madhukar, Rajat • Publications

COURSE CODE:	BHMCT-108
COURSE TITLE:	ACCOMODATION OPERATIONS -I(PRACTICALS)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the fundamentals of housekeeping. It enhances the practical skills of the students.
COURSE OUTCOMES:	<p>CO1 Students will be able to identify different layout of room and amenities.</p> <p>CO2 Students will be able to identify the cleaning equipment and cleaning agents and will be able to use in an appropriate & professional manner.</p> <p>CO3 Students will be able to setup all necessary materials and equipment's required for cleaning.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S.No.	Topic
01	<p>Cleaning Equipment-(manual and mechanical)</p> <ul style="list-style-type: none"> • Familiarization • Different parts • Function • Care and maintenance
02	<p>Cleaning Agent</p> <ul style="list-style-type: none"> • Familiarization according to classification • Function

3	<p>Maid's trolley</p> <ul style="list-style-type: none"> • Contents • Trolley setup
04	<p>Sample Layouts of Guest Rooms</p> <ul style="list-style-type: none"> • Single room • Double room • Twin room • Suite
05	<p>Guest Room Supplies and Position</p> <ul style="list-style-type: none"> • Standard room • Suite • VIP room special amenities
06	<p>Public Area Cleaning Procedure</p> <p>A. SILVER/ EPNS</p> <ul style="list-style-type: none"> • Plate powder method • Polivit method • Proprietary solution (Silvo) <p>C. BRASS</p> <ul style="list-style-type: none"> • Traditional/ domestic 1 Method • Proprietary solution 1 (brasso) <p>D. GLASS</p> <ul style="list-style-type: none"> • Glass cleanser • Economical method(newspaper)

	<p>E. WALL - care and maintenance of different types and parts</p> <ul style="list-style-type: none">• Skirting• Dado• Different types of paints(distemper Emulsion, oil paint etc)
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AECC

BTHU103/18 English:

1L 0T 0P 1Credit

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to their personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions, office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Detailed Contents:

Unit1- 1 (Introduction)

- Theory of Communication
- Types and modes of Communication

Unit- 2 (Language of Communication)

- Verbal and Non-verbal
- (Spoken and Written)
- Personal, Social and Business
- Barriers and Strategies
- Intra-personal, Inter-personal and Group communication

Unit-3 (Reading and Understanding)

- Close Reading
- Comprehension
- Summary Paraphrasing
- Analysis and Interpretation
- Translation(from Hindi/Punjabi to English and vice-versa)
- Literary/Knowledge Texts

Unit-4 (Writing Skills)

- Documenting
- Report Writing
- Making notes
- Letter writing

Recommended Readings:

1. *Fluency in English* - Part II, Oxford University Press, 2006.

2. *Business English*, Pearson, 2008.

3. *Language, Literature and Creativity*, Orient Blackswan, 2013.

4. *Language through Literature* (forthcoming) ed. Dr. Gauri Mishra, DrRanjanaKaul,

DrBrati Biswas

5. *On Writing Well*. William Zinsser. Harper Resource Book. 2001

6. *Study Writing*. Liz Hamp-Lyons and Ben Heasley. Cambridge University Press. 2006.

AECC

BTHU104/18 English Practical/Laboratory

: 0L 0T 2P 1 Credit

Course Outcomes:

- The objective of this course is to introduce students to the theory, fundamentals and tools of communication.
- To help the students become the independent users of English language.
- To develop in them vital communication skills which are integral to personal, social and professional interactions.
- The syllabus shall address the issues relating to the Language of communication.
- Students will become proficient in professional communication such as interviews, group discussions and business office environments, important reading skills as well as writing skills such as report writing, note taking etc.

The recommended readings given at the end are only suggestive; the students and teachers have the freedom to consult other materials on various units/topics given below. Similarly, the questions in the examination will be aimed towards assessing the skills learnt by the students rather than the textual content of the recommended books.

Interactive practice sessions in Language Lab on Oral Communication

- Listening Comprehension
- Self Introduction, Group Discussion and Role Play
- Common Everyday Situations: Conversations and Dialogues
- Communication at Workplace
- Interviews
- Formal Presentations
- Monologue
- Effective Communication/ Mis- Communication
- Public Speaking

Recommended Readings:

1. *Fluency in English* - Part II, Oxford University Press, 2006.
2. *Business English*, Pearson, 2008.
3. *Practical English Usage*. Michael Swan. OUP. 1995.
4. *Communication Skills*. Sanjay Kumar and PushpLata. Oxford University Press. 2011.
5. *Exercises in Spoken English*. Parts. I-III. CIEFL, Hyderabad. Oxford University Press

HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules
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Course Objective

This introductory course input is intended

- a. To help the students appreciate the essential complementarity between 'VALUES' and 'SKILLS' to ensure sustained happiness and prosperity which are the core aspirations of all human beings.
- b. To facilitate the development of a Holistic perspective among students towards life, profession and happiness, based on a correct understanding of the Human reality and the rest of Existence. Such a holistic perspective forms the basis of Value based living in a natural way.
- c. To highlight plausible implications of such a Holistic understanding in terms of ethical human conduct, trustful and mutually satisfying human behavior and mutually enriching interaction with Nature.

Thus, this course is intended to provide a much needed orientational input in Value Education to the young enquiring minds.

Course Methodology

- The methodology of this course is universally adaptable, involving a systematic and rational study of the human being vis-à-vis the rest of existence.
- It is free from any dogma or value prescriptions.
- It is a process of self-investigation and self-exploration, and not of giving sermons. Whatever is found as truth or reality is stated as proposal and the students are facilitated to verify it in their own right based on their Natural Acceptance and Experiential Validation.
- This process of self-exploration takes the form of a dialogue between the teacher and the students to begin with, and within the student himself/herself finally.
- This self-exploration also enables them to evaluate their pre-conditionings and present beliefs.

HVPE101-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules
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Total no. of Lectures:

28

[L-T-P: 3-0-0]

Content for Lectures:

Module 1: Course Introduction - Need, Basic Guidelines, Content and Process for Value Education

[6]

1. Understanding the need, basic guidelines, content and process for Value Education
2. Self Exploration–what is it? - its content and process; ‘Natural Acceptance’ and Experiential Validation- as the mechanism for self exploration
3. Continuous Happiness and Prosperity- A look at basic Human Aspirations
4. Right understanding, Relationship and Physical Facilities- the basic requirements for fulfillment of aspirations of every human being with their correct priority
5. Understanding Happiness and Prosperity correctly- A critical appraisal of the current scenario
6. Method to fulfill the above human aspirations: understanding and living in harmony at various levels

Module 2: Understanding Harmony in the Human Being - Harmony in Myself!

[6]

7. Understanding human being as a co-existence of the sentient ‘I’ and the material ‘Body’
8. Understanding the needs of Self (‘I’) and ‘Body’ - *Sukh* and *Suvidha*
9. Understanding the Body as an instrument of ‘I’ (I being the doer, seer and enjoyer)
10. Understanding the characteristics and activities of ‘I’ and harmony in ‘I’
11. Understanding the harmony of I with the Body: *Sanyam* and *Swasthya*; correct appraisal of Physical needs, meaning of Prosperity in detail
12. Programs to ensure *Sanyam* and *Swasthya*
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 3: Understanding Harmony in the Family and Society- Harmony in Human-Human Relationship

[6]

13. Understanding harmony in the Family- the basic unit of human interaction
14. Understanding values in human-human relationship; meaning of *Nyaya* and program for its fulfillment to ensure *Ubhay-tripti*;
Trust (*Vishwas*) and Respect (*Samman*) as the foundational values of relationship
15. Understanding the meaning of *Vishwas*; Difference between intention and competence

16. Understanding the meaning of *Samman*, Difference between respect and differentiation; the other salient values in relationship
17. Understanding the harmony in the society (society being an extension of family): *Samadhan*, *Samridhi*, *Abhay*, *Sah-astitva* as comprehensive Human Goals
18. Visualizing a universal harmonious order in society- Undivided Society (*Akhand Samaj*), Universal Order (*Sarvabhaum Vyawastha*)- from family to world family!
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 4: Understanding Harmony in the Nature and Existence - Whole existence as Co-existence

[4]

19. Understanding the harmony in the Nature
20. Interconnectedness and mutual fulfillment among the four orders of nature- recyclability and self-regulation in nature
21. Understanding Existence as Co-existence (*Sah-astitva*) of mutually interacting units in all-pervasive space
22. Holistic perception of harmony at all levels of existence
- Practice Exercises and Case Studies will be taken up in Practice Sessions.

Module 5: Implications of the above Holistic Understanding of Harmony on Professional Ethics

[6]

23. Natural acceptance of human values
 24. Definitiveness of Ethical Human Conduct
 25. Basis for Humanistic Education, Humanistic Constitution and Humanistic Universal Order
 26. Competence in professional ethics:
 - a) Ability to utilize the professional competence for augmenting universal human order,
 - b) Ability to identify the scope and characteristics of people-friendly and eco-friendly production systems,
 - c) Ability to identify and develop appropriate technologies and management patterns for above production systems.
 27. Case studies of typical holistic technologies, management models and production systems
 28. Strategy for transition from the present state to Universal Human Order:
 - a) At the level of individual: as socially and ecologically responsible engineers, technologists and managers
 - b) At the level of society: as mutually enriching institutions and organizations
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Text Book

R R Gaur, R Sangal, G P Bagaria, 2009, *A Foundation Course in Value Education*.

Reference Books

1. Ivan Illich, 1974, *Energy & Equity*, The Trinity Press, Worcester, and HarperCollins, USA
2. E.F. Schumacher, 1973, *Small is Beautiful: a study of economics as if people mattered*, Blond & Briggs, Britain.
3. A Nagraj, 1998, *Jeevan Vidya ek Parichay*, Divya Path Sansthan, Amarkantak.
4. Sussan George, 1976, *How the Other Half Dies*, Penguin Press. Reprinted 1986, 1991
5. PL Dhar, RR Gaur, 1990, *Science and Humanism*, Commonwealth Purblishers.
6. A.N. Tripathy, 2003, *Human Values*, New Age International Publishers.
7. Subhas Palekar, 2000, *How to practice Natural Farming*, Pracheen(Vaidik) Krishi Tantra Shodh, Amravati.
8. Donella H. Meadows, Dennis L. Meadows, Jorgen Randers, William W. Behrens III, 1972, *Limits to Growth – Club of Rome’s report*, Universe Books.
9. E G Seebauer & Robert L. Berry, 2000, *Fundamentals of Ethics for Scientists & Engineers*, Oxford University Press
10. M Govindrajran, S Natrajan & V.S. Senthil Kumar, *Engineering Ethics (including Human Values)*, Eastern Economy Edition, Prentice Hall of India Ltd.
11. B P Banerjee, 2005, *Foundations of Ethics and Management*, Excel Books.
12. B L Bajpai, 2004, *Indian Ethos and Modern Management*, New Royal Book Co., Lucknow. Reprinted 2008.

Relevant CDs, Movies, Documentaries & Other Literature:

1. Value Education website, <http://uhv.ac.in>
2. Story of Stuff, <http://www.storyofstuff.com>
3. Al Gore, *An Inconvenient Truth*, Paramount Classics, USA
4. Charlie Chaplin, *Modern Times*, United Artists, USA
5. IIT Delhi, *Modern Technology – the Untold Story*

HVPE102-18	Ability Enhancement Compulsory Course (AECC)	Human Values, De-addiction and Traffic Rules (Lab/ Seminar)
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One each seminar will be organized on Drug De-addiction and Traffic Rules. Eminent scholar and experts of the subject will be called for the Seminar at least once during the semester. It will be binding for all the students to attend the seminar.

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

1. Sports/NSS/NCC
2. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.

COURSE CODE:	BHMCT-201
COURSE TITLE:	FOOD PRODUCTION FOUNDATION –II (THEORY)
COURSE OBJECTIVES:	This paper will give the basic knowledge of cooking to the beginners. They will get versed with different kinds of ingredients, techniques of pre-preparation and cooking, knowledge of various stocks, sauces and soups, cereals, pulses, various cuts of vegetables and meats with their cookery.
COURSE OUTCOMES:	CO1.Learners will be able to understand the usages of different spices, masalas, herbs and commodities used in Indian Cuisine. Co2. Students will be able to know about Menu Planning and its importance. CO3. Students will get familiarized with different meats & fish cuts used in cooking. CO4. Learners will be able to understand the usages of different types of flours in bakery preparations.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING:	The paper will be divided in two parts Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks. Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each Unit will contain two questions and there may be short notes in these questions.
UNIT-1	MENU PLANNING: Meaning Types and importance. Menu Engineering its need and Importance. INTRODUCTION TO INDIAN COOKERY BASICS. Introduction to Indian food, Spices used in Indian cookery, Role of spices in Indian cookery, Indian equivalent of spices (names) MASALAS: Blending of spices, Different masalas used in Indian cookery-Wet masalas, Dry masalas, Composition of different masalas, Varieties of masalas available in regional areas, Special masalas blends Gravies : Different types Haryali, Makhni, Shahi/white, Chopped Masala, karahai, Yellow Gravy Basic Tandoori Preparations Indian marinades and Pastes

	<p>Commodities in Indian cuisine:- Souring Agents, colouring agents, tenderizing agent, Flavouring & Aeromatic Agents, Spicing Agents</p> <p>RICE, CEREALS & PULSES: Introduction, Classification and identification, Cooking of rice, cereals and pulses, Varieties of rice and other cereals</p>
UNIT-2	<p>MEAT COOKERY: Introduction to meat cookery, Cuts of beef/veal, Cuts of lamb/mutton, Cuts of pork, Variety meats (offal's), Poultry, (With menu examples of each)</p> <p>FISH COOKERY: Introduction to fish cookery, classification of fish with examples, Cuts of fish with menu examples, Selection of fish and shell fish, Cooking of fish (Effects of heat)</p>
UNIT-3	<p>PASTRY: Short crust, Laminated, Choux, Hot water/Rough puff, Recipes and methods of preparation, Differences, Uses of each pastry, Care to be taken while preparing pastry, Role of each ingredient, Temperature of baking pastry</p> <p>Flour: Structure of wheat, Types of Wheat, Types of Flour, Processing of Wheat – Flour, Uses of Flour in Food Production, Cooking of Flour (Starch) SIMPLE BREADS: Principles of bread making, Simple yeast breads, Role of each ingredient in bread making, Baking temperature and its importance</p> <p>PASTRY CREAMS: Basic pastry creams, Uses in confectionery, Preparation and care in production</p>
UNIT-4	<p>BASIC COMMODITIES: Milk-Introduction, Processing of Milk, Pasteurisation – Homogenisation, Types of Milk – Skimmed and Condensed, Nutritive Value, Cream-Introduction, Processing of Cream, Types of Cream Cheese-Introduction, Processing of Cheese, Types of Cheese, Classification of Cheese, Curing of Cheese, Uses of Cheese Butter-Introduction, Processing of Butter, Types of Butter. Sugar: Its Importance, types of sugar, cooking Of Sugar- Various Temperature</p>
REFERENCES:	<ul style="list-style-type: none"> • The Professional Chef (4th Edition) By Le Rol A. Polson • The Professional Pastry Chef, Fourth Edition By Bo Friberg Publisher: Wiley & Sons INC • Theory of Catering By Kinton & Cessarani • Theory of Cookery By K Arora, Publisher: Frank Brothers • Accompaniments & Garnishes from waiter; Communicate: Fuller J. Barrie & Jenkins • Bakery & Confectionery By S. C Dubey, Publisher: Society of Indian Bakers • Modern Cookery (Vol-I) By Philip E. Thangam, Publisher: Orient Longman • Practical Cookery By Kinton & Cessarani

COURSE CODE:	BHMCT-202	
COURSE TITLE:	FOOD PRODUCTION FOUNDATION-II (PRACTICAL) (PART A)	
COURSE OBJECTIVES:	The course is designed to introduce the learner with the food production operations. It enhances the practical skills of the students.	
COURSE OUTCOMES:	<p>CO1. Students will be able to identify different cuts of poultry and meat and its preparation & uses.</p> <p>CO2. Students will be able to learn and prepare different salads & soups.</p> <p>CO3. Students will be able to prepare basic Indian dishes such as Rice, gravy dishes and hot & cold sweet dishes.</p> <p>CO4. Students will be able to prepare basic bakery & confectionary products such as breads, pastries & cakes.</p>	
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.	
INSTRUCTIONS FOR EXTERNAL EVALUATION	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.	
S.No	Topic	Method
1	<ul style="list-style-type: none"> • Meat – Identification of various cuts, Carcass demonstration • Preparation of basic cuts-Lamb and Pork Chops , Tornado, Fillet, Steaks and Escalope • Fish-Identification & Classification • Cuts and Folds of fish 	Demonstrations & simple application
2	<ul style="list-style-type: none"> • Identification, Selection and processing of Meat, Fish and poultry. • Slaughtering and dressing 	Demonstrations at the site in local Area/Slaughtering house/Market

3	Preparation of menu Salads & soups- Waldrof salad, Fruit salad, Russian salad, salade nicoise, Soups prepration: Chowder, Bisque, Veloute, Broth International soups	Demonstration by instructor and applications by students
4	Chicken, Mutton and Fish Preparations- Fish orly, a la anglaise, colbert, meuniere, poached, baked Entrée-Lamb stew, hot pot, shepherd's pie, grilled steaks & lamb/Pork chops, Roast chicken, grilled chicken, Leg of Lamb, Beef	Demonstration by instructor and applications by students
5	Indian cookery- Rice dishes, Breads, Main course, Basic Vegetables, Paneer Preparations Marinades, Paste and Tandoori Preparation of Meat, fish Vegetables and Paneer	Demonstration by instructor and applications by students
PART B	BAKERY & PATISSERIE (PRACTICAL)	
S.No	Topic	Method
1	PASTRY: Demonstration and Preparation of dishes using varieties of Pastry <ul style="list-style-type: none">• Short Crust – Jam tarts, Turnovers• Laminated – Palmiers, Khara Biscuits, Danish Pastry, Cream Horns• Choux Paste – Eclairs, Profiteroles	Demonstration by instructor and applications by students
2	COLD SWEET <ul style="list-style-type: none">• Honeycomb mould• Butterscotch sponge• Coffee mousse• Lemon sponge• Trifle• Blancmange• Chocolate mousse• Lemon soufflé	Demonstration by instructor and applications by students
3	HOT SWEET	Demonstration by

	<ul style="list-style-type: none"> • Bread & butter pudding • Caramel custard • Albert pudding • Christmas pudding 	instructor and applications by students
4	<p>INDIAN SWEETS</p> <p>Simple ones such as chicoti, gajjar halwa, kheer</p>	Demonstration by instructor and applications by students

COURSE CODE:	BHMCT-203
COURSE TITLE:	FOOD & BEVERAGE SERVICE FOUNDATION –II (THEORY)
COURSE OBJECTIVES:	The course aims to inculcate knowledge of food service principles, functions, and procedures among trainees. The students will be well versed with menu planning and sale control system.
COURSE OUTCOMES:	CO1. Students will be able to learn various types of food service techniques. CO2. Students will be able to understand the fundamentals of Menu planning. CO3. Students will be able to understand Room Service procedures. CO4. Students will be able to understand the concept of tobacco and its features.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING:	<p>The paper will be divided in two parts</p> <p>Part A: There will be ten short answer questions covering whole syllabus of Course. This part will be of 20 marks.</p> <p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each Unit will contain two questions and there may be short notes in these questions.</p>

UNIT-1	TYPES OF FOOD SERVICE: Silver service, American service, French service, Russian service, Gueridon service, Assisted service, Self-service, Single point service, Specialised Service.
UNIT-2	<p>MENU PLANNING: Origin of Menu, Objectives of Menu Planning, Factors to be consider while planning a menu, Menu terminology, Types of Menu, Courses of French Classical Menu-Sequence, Examples from each course, Cover of each course, Accompaniments, French Names of dishes</p> <p>Types of Meals: Early Morning Tea, Breakfast (English, American Continental, Indian), Brunch, Lunch, Afternoon/High Tea, Dinner, Supper</p>
UNIT-3	<p>ROOM SERVICE: Introduction, personnel, taking the order, routing the order, preparing the order, delivering the order, providing amenities, Room service menu, sequence of service, Forms & formats.</p> <p>SALE CONTROL SYSTEM: KOT/Bill Control System (Manual)-Triplicate Checking System, Duplicate Checking System, Check and bill system, Service with order, computerized system, circumstantial KOT, Alcoholic Beverage order, Billing</p>
UNIT-4	<p>TOBACCO: History, Processing for cigarettes, pipe tobacco & cigars,</p> <p>Cigarettes – Types and Brand names, Pipe Tobacco – Types and Brand names ,Cigars – shapes, sizes, colours and Brand names, Care and Storage of cigarettes & cigars,</p>
REFERENCES:	<ul style="list-style-type: none"> • Food & Beverage Service- Bobby George &Sandeep Chatterjee, Jaico Publishing House • Food & Beverage Service- R. Singaravelavan, Oxford University Press, New Delhi. • Food & Beverage Service - Dennis R. Lillicrap. & John .A. Cousins. Publisher: ELBS • Food & Beverage Service Training Manual - Sudhir Andrews, Tata McGraw Hill. • The Waiter Handbook By Graham Brown, Publisher: Global Books & Subscription Services New Delhi • Food and Beverage Service – Vijay Dhawan

COURSE CODE:	BHMCT-204
COURSE TITLE:	FOOD & BEVERAGE SERVICE FOUNDATION-II (PRACTICAL)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the operations of food and beverage service. It enhances the practical skills of the students.
COURSE OUTCOMES:	CO1. Students will be able to lay tables for different meals CO2. Students will be able to serve various types of Meals. Co3. Students will be able to handle guest complaints. CO4. Students will be able to serve Cigars & Cigarettes.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S.No.	TOPIC
1.	REVIEW OF SEMESTER -1
2.	PROCEDURE FOR SERVICE OF A MEAL Task-01: Taking Guest Reservations Task-02: Receiving & Seating of Guests Task-03: Order taking & Recording Task-04: Order processing (passing orders to the kitchen) Task-05: Sequence of service Task-06: Presentation & Encashing the Bill Task-07: Presenting & collecting Guest comment cards Task-08: Seeing off the Guests

<p>3.</p>	<p>TABLE LAY-UP & SERVICE</p> <p>Task-01: A La Carte Cover</p> <p>Task-02: Table d' Hote Cover</p> <p>Task-03: English Breakfast Cover</p> <p>Task-04: American Breakfast Cover</p> <p>Task-05: Continental Breakfast Cover</p> <p>Task-06: Indian Breakfast Cover</p> <p>Task-07: Afternoon Tea Cover</p> <p>Task-08: High Tea Cover</p> <p>TRAY/TROLLEY SET-UP & SERVICE</p> <p>Task-01: Room Service Tray Setup</p> <p>Task-02: Room Service Trolley Setup</p>
<p>4.</p>	<p>Social Skills</p> <p>Task-01: Handling Guest Complaints</p> <p>Task-02: Telephone manners</p> <p>Task-03: Dining & Service etiquettes</p>
<p>5.</p>	<p>Special Food Service - (Cover, Accompaniments & Service)</p> <p>Task-01: Classical Hors d' oeuvre- Oysters, Caviar, Smoke Salmon, Pate de Foie Gras, Snails, Melon, Grapefruit, Asparagus</p> <p>Task-02: Cheese</p> <p>Task-03: Dessert (Fresh Fruit & Nuts)</p> <p>Service of Tobacco</p> <p>Cigarettes and Cigar</p>
<p>6.</p>	<p>Compiling of a menu in French, Service of Non-alcoholic beverages</p>

COURSE CODE:	BHMCT – 205
COURSE TITLE:	FRONT OFFICE FOUNDATION-II (THEORY)
COURSE OBJECTIVES:	The course is aimed at familiarizing the students with various functions of front office and to develop work ethics towards customer care and satisfaction. Special efforts will be made to inculcate practical skills.
COURSE OUTCOMES:	<p>CO1 Student will be able to understand room tariff structure, fixation and various types of plan.</p> <p>CO2 Student will be able to understand guest cycle and reservation procedure and systems.</p> <p>CO3 Student will be able to develop knowledge of registration process and guest handling.</p> <p>CO4 Student will be able to gain knowledge about different front desk function.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTION FOR PAPER SETTING:	<p>The paper will be divided into two parts</p> <p>Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks.</p> <p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each unit will contain two questions and there may be short notes in these questions.</p>
UNIT - 1	<p>TARIFF STRUCTURE</p> <p>Tariff Structure, Rack Rate, Discounted rates, Tariff card and its use, Hotel Day rate, Basis of Charging Room Rent, Various factors affecting Room rent, Fixing Room Tariffs through Cost based pricing & Market based pricing, Rule of Thumb, Hubbart formula</p> <p>Front Office Coordination, Meal Plans, and Type of Guests</p> <p>Role of Tour operators and Travel agents in hotel business, Meal Plans –Type, needs and use of such plans, Type of Guests – FIT, VIP, CIP, GIT, Business</p>

	travellers, Special interest tours, domestic, foreigner etc, Front Office coordination with different departments in hotels.
UNIT – 2	<p>GUEST CYCLE AND RESERVATIONS</p> <p>Introduction to guest cycle – Pre arrival, Arrival, During guest stay, Departure and After departure,</p> <p>Reservation and its importance, Basic tools of reservation – Room Status Board, ALC, DCC with formats, Handling reservation and reservation form with formats, Modes of Payment while reservation - an introduction, Sources of Reservation, Systems of Reservation, Types of Reservations, Cancellations and Amendments, , Reservation reports and statistics</p> <p>Overbooking, Upselling, No show, Walk-in guest, scanty baggage, stay over, over stay, under stay, early arrival, turn away, time limit, overstay etc.</p>
UNIT – 3	<p>REGISTRATION</p> <p>Registration and its importance, Types of registration records – Bound book register, loose leaf register and Guest Registration Card (GRC) and their formats</p> <p>GUEST HANDLING , Pre registration activities, Procedure of Guest Handling – Pre arrival, On Arrival and Post Arrival procedures, Handling reserved guests, Procedure for Handling Free Individual Traveller (FIT),Chance guests, VIP, Group arrival, Foreigner guest (C-forms, Foreign currency exchange), Single Lady guest, Corporate guest, Layover passenger, Check-in for guest holding Discount voucher, Turn-away guest</p>
UNIT – 4	<p>FRONT DESK FUNCTIONS</p> <p>Procedure for Room Assignment, Room not clear, Wash and Change Room, Complimentary stay, Suite Check-in, Upgrading a guest, Downgrading a guest, Handling request for Late Check-out, Precautions for Scanty Baggage guest, Guest Stationery, Handling request for Rental Equipment, Up selling, Material Requisition, Shift Briefing, Morning and Afternoon Shift Handover, Night Shift Handover, Guest Relations, Courtesy Calls, Room amenities for Corporate/VVIP/CIP guest, Handling Awkward guests, Room Change Procedure, Handling Mails, Message and Paging, Key control procedures.</p>
References	<ul style="list-style-type: none"> • Check –In & During Stay Activities of Hotel Guest Cycle-Hardaman Singh Bhinder (Evincepub publisher) • Front Office training manual- Sudhir Andrews • Front office operations and management – Jatashankar R. Tewari • Front Office Operations – Colin Dix, Chris Baird • Professional Hotel Front Office Management – Anutosh Bhakta • Hotel Front Office Management – James. A. Bardi • Front Office Operations and Management – Ahmed Ismail (Thompson Delmar)

	<ul style="list-style-type: none">• Front Office Operation Management – S. K. Bhatnagar• Managing Front Office Operations – Micheal Kasavana and brooks• Principles of Front Office Operations – Sue Baker & Jermy Huyton• Check-in check-out – Jerome Valley• A Manual of Hotel Reception – J. R. S. Beavis, S. Medlik Heinemann Professional
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COURSE CODE:	BHMCT – 206
COURSE TITLE:	FRONT OFFICE FOUNDATION F -II (PRACTICALS)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the operation of front office. It enhances the practical skills of the students.
COURSE OUTCOMES:	<p>CO1 Students will be able to learn welcoming/ greetings of guest and tele phone handling procedures.</p> <p>CO2 Students will be able to understand and prepare various forms and formats used in front office.</p> <p>CO3 Students will be able to learn handling guest registration process.</p> <p>CO4 Students will be able to understand key handling process.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S.No.	Topic
1.	<ul style="list-style-type: none"> • Review of Semester one
2.	<ul style="list-style-type: none"> • Welcoming/Greeting of guest • Providing Information to the Guest • Telephone handling, How to handle enquiries • Suggestive selling
3.	<ul style="list-style-type: none"> • Filling up of various Forms and Formats
4.	<ul style="list-style-type: none"> • Registrations: FIT, VIP, Corporate, Groups/Crew • Security Deposit Box Handling • Credit Card Handling Procedure • Foreign Currency Exchange Procedure
5	<ul style="list-style-type: none"> • Introduction to PMS
	1 Hot function keys
	2 Create and update guest profiles

3 Make FIT reservation
4 Send confirmation letters
5 Printing registration cards
6 Make an Add-on reservation
7 Amend a reservation
8 Cancel a reservation-with deposit and without deposit
9 Log onto cashier code
10 Process a reservation deposit
11 Pre-register a guest
12 Put message and locator for a guest
13 Put trace for guest
14 Check in a reserved guest
15 Check in day use
16 Check –in a walk-in guest
17 Maintain guest history
18 Issue a new key
19 Verify a key
20 Cancel a key
21 Issue a duplicate key
22 Extend a key
23 Programme keys continuously
24 Re-programme keys
25 Programme one key for two rooms

COURSE CODE:	BHMCT-207
COURSE TITLE:	ACCOMODATION OPERATIONS-II (THEORY)
COURSE OBJECTIVES:	The course familiarizes students with the organization of housekeeping, its systems and functions. A blend of theory and practical will be used to develop sensitivity and high work ethics towards guest care and cleanliness and pest control.
COURSE OUTCOMES:	<p>CO1 Students will acquire knowledge about different cleaning agents their selection criteria and storage</p> <p>CO2 Students will be able to perform various surface cleaning procedures.</p> <p>CO3 Students will be able to learn how to fill various housekeeping forms and formats.</p> <p>CO4 Students will be able to understand the relation between housekeeping and maintenance department and its importance.</p>
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 40 Marks and rest through semester end examination of 3 hours duration. The End Semester Examination will be of 60 Marks.
INSTRUCTIONS FOR PAPER SETTING	<p>The paper will be divided into two parts</p> <p>Part A: There will be ten short answer questions covering whole syllabus of course. This part will be of 20 marks.</p> <p>Part B: Students will have to attempt four questions in total, one question from each unit with one internal choice. All questions will carry equal marks (10 marks each). Each unit will contain two questions and there may be short notes in these questions.</p>
UNIT-1	<p>CLEANING AGENTS: General Criteria for selection, Polishes, Floor seats, Use, care and Storage, Distribution and Controls,</p> <p>AREA CLEANING: Guest rooms, Front-of-the-house Areas, Back-of-the house Areas, Work routine and associated problems e.g. high traffic areas, Façade cleaning etc.</p> <p>WATER SYSTEMS IN HOTEL: Water distribution system in a hotel, Cold water systems in India, Hardness of water, water softening, base exchange method (Demonstration), Cold water cistern swimming pools, Hot water supply system in hotels, Flushing system, water taps, traps and closets Classification, Use of Eco-friendly products in Housekeeping. (HE)</p>

<p>UNIT-2</p>	<p>COMPOSTION, CARE AND CLEANING OF DIFFERENT SURFACES: Metals, Glass, Leather, Leatherites, Rexines, Plastic, Ceramics, Wood, Wall finishes, Floor Finishes,</p>
<p>UNIT-3</p>	<p>ROUTINE SYSTEMS AND RECORDS OF HOUSE KEEPING (3rd to 2nd)</p> <p>DEPARTMENT: Reporting Staff placement, Room Occupancy Report, Guest Room Inspection, Entering Checklists, Floor Register, Work Orders, Log Sheet., Lost and Found Register and Enquiry File, Maid’s Report and Housekeeper’s Report, Handover Records, Guest’s Special Requests Register, Record of Special Cleaning, Call Register, VIP Lists Guest room layout, type of bed & mattresses</p>
<p>UNIT-4</p>	<p>KEYS: Types of keys, Computerized key cards, Key control</p> <p>OVERVIEW OF MAINTENANCE DEPARTMENT: Roll, Responsibilites & Importance of maintenance department in the hotel industry with emphasis on its relation with other departments of the hotel. Preventive and breakdown maintenance, comparisons (HE)</p>
<p>REFERENCES:</p>	<ul style="list-style-type: none"> • Hotel Hostel and Hospital Housekeeping –by Joan C Branson & Margaret Lennox, ELBS with Holder & Stoughton Ltd. • Hotel House Keeping a Training Manual by Sudhir Andrews, Tata McGraw Hill publishing company limited New Delhi. • Hotel Housekeeping Operations & Management by Raghubalan, Oxford University Press. • Management of Hotel & Motel Security (Occupational Safety and Health) by H. Burstein, CRC Punlisher. • Professional Management of Housekeeping Operations (II Edn.) by Robert J. Martin & Thomas J.A. Jones, Wiley Publications • The Professional Housekeeper by Tucker Schneider, Wiley Publications • Professional management of Housekeeping by Manoj Madhukar, Rajat Publications

COURSE CODE:	BHMCT-208
COURSE TITLE:	ACCOMODATION OPERATIONS-II (PRACTICALS)
COURSE OBJECTIVES:	The course is designed to introduce the learner with the operation of Accommodation. It enhances the practical skills of the students.
COURSE OUTCOMES:	CO1 Students will be able to perform- room and bath room cleaning and replenishing of guest supplies. CO2 Students will be able to understand bed making procedure. CO3 Students will be able to know how to fill up various forms and formats. CO4 Students will be able to know how to inspect a room.
EVALUATION:	The performance of the students will be evaluated on the basis of class participation, house tests, regularity and assignments carrying 60 Marks and rest through semester end practical examination of 4 hours duration. The external practical examination will be of 40 Marks.
INSTRUCTIONS FOR EXTERNAL EXAMINER	The performance of the students will be evaluated on the basis of his performance during the practical examination out of 40 marks.
S.No.	Topic
01	Review of semester 1
02	Servicing guest room(checkout/ occupied and vacant) <i>ROOM</i> Task 1- open curtain and adjust lighting Task 2-clean ash and remove trays if any Task 3- strip and make bed Task 4- dust and clean drawers and replenish supplies Task 5-dust and clean furniture, clockwise or anticlockwise Task 6- clean mirror Task 7- replenish all supplies

	<p>Task 8-clean and replenish minibar</p> <p>Task 9-vaccum clean carpet</p> <p>Task 10- check for stains and spot cleaning</p> <p><i>BATHROOM</i></p> <p>Task 1-disposed soiled linen</p> <p>Task 2-clean ashtray</p> <p>Task 3-clean WC</p> <p>Task 4-clean bath and bath area</p> <p>Task 5-wipe and clean shower curtain</p> <p>Task 6- clean mirror</p> <p>Task 7-clean tooth glass</p> <p>Task 8-clean vanitory unit</p> <p>Task 9- replenish bath supplies</p> <p>Task 10- mop the floor</p>
03	<p>Bed making supplies (day bed/ night bed)</p> <p>Step 1-spread the first sheet(from one side)</p> <p>Step 2-make miter corner (on both corner of your side)</p> <p>Step 3- spread second sheet (upside down)</p> <p>Step 4-spread blanket</p> <p>Step 5- Spread crinkle sheet</p> <p>Step 6- make two folds on head side with all three (second sheet, blanket and crinkle sheet)</p> <p>Step 7- tuck the folds on your side</p> <p>Step 8- make miter corner with all three on your side</p> <p>Step 9- change side and finish the bed in the same way</p> <p>Step 10- spread the bed spread and place pillow</p>
04	<p>Records</p> <ul style="list-style-type: none"> • Room occupancy report • Checklist

	<ul style="list-style-type: none"> • Floor register • Work/ maintenance order] • Lost and found • Maid's report • Housekeeper's report • Log book • Guest special request register • Record of special cleaning • Call register • VIP list • Floor linen book/ register
05	Guest room inspection
06	<p>Minibar management</p> <ul style="list-style-type: none"> • Issue • stock taking • checking expiry date
07	<p>Handling room linen/ guest supplies</p> <ul style="list-style-type: none"> • maintaining register/ record • replenishing floor pantry • stock taking
08	<p>Guest handling</p> <ul style="list-style-type: none"> • Guest request • Guest complaints

Ability Enhancement Compulsory Course

(EVS102-18 Environment Studies)

Course Code	Course Type	Course Title	Load Allocations			Mark Distribution		Total Marks	Credits
						Internal	External		
EVS 102-18	Ability Enhancement Compulsory Course (AECC)-III	Environmental Studies	2	0	0	40	60	100	2

Course Outcomes:

1. Students will enable to understand environmental problems at local and national level through literature and general awareness.
2. The students will gain practical knowledge by visiting wildlife areas, environmental institutes and various personalities who have done practical work on various environmental Issues.
3. The students will apply interdisciplinary approach to understand key environmental issues and critically analyze them to explore the possibilities to mitigate these problems.
4. Reflect critically about their roles and identities as citizens, consumers and environmental actors in a complex, interconnected world

Unit 1 : Introduction to environmental studies

- * Multidisciplinary nature of environmental studies;
- * Scope and importance; Concept of sustainability and sustainable development.

(2 lectures)

Unit 2 : Ecosystems

- What is an ecosystem? Structure and function of ecosystem; Energy flow in an ecosystem: food chains, food webs and ecological succession. Case studies of the following ecosystems :
 - a) Forest ecosystem
 - b) Grassland ecosystem
 - c) Desert ecosystem
 - d) Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

(6 lectures)

Unit 3 : Natural Resources : Renewable and Non---renewable Resources

- Land resources and landuse change; Land degradation, soil erosion and desertification.
- Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations.

- Water : Use and over-exploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state).
- Energy resources : Renewable and non renewable energy sources, use of alternate energy sources, growing energy needs, case studies.

(8 lectures)

Unit 4 : Biodiversity and Conservation

- Levels of biological diversity : genetic, species and ecosystem diversity; Biogeographic zones of India; Biodiversity patterns and global biodiversity hot spots
- India as a mega-biodiversity nation; Endangered and endemic species of India
- Threats to biodiversity : Habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.
- Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and Informational value.

(8 lectures)

Unit 5 : Environmental Pollution

- Environmental pollution : types, causes, effects and controls; Air, water, soil and noise pollution
- Nuclear hazards and human health risks
- Solid waste management : Control measures of urban and industrial waste.
- Pollution case studies.

(8 lectures)

Unit 6 : Environmental Policies & Practices

- Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture

IK Gujral Punjab Technical University

- Environment Laws: Environment Protection Act; Air (Prevention & Control of Pollution) Act; Water (Prevention and control of Pollution) Act; Wildlife Protection Act; Forest Conservation Act. International agreements: Montreal and Kyoto protocols and Convention on Biological Diversity (CBD).
- Nature reserves, tribal populations and rights, and human wildlife conflicts in Indian context.

(7 lectures)

Unit 7 : Human Communities and the Environment

- Human population growth: Impacts on environment, human health and welfare.
- Resettlement and rehabilitation of project affected persons; case studies.
- Disaster management : floods, earthquake, cyclones and landslides.
- Environmental movements : Chipko, Silent valley, Bishnois of Rajasthan.
- Environmental ethics: Role of Indian and other religions and cultures in environmental conservation.
- Environmental communication and public awareness, case studies (e.g., CNG vehicles in Delhi).

(6 lectures)

Unit 8 : Field work

- Visit to an area to document environmental assets: river/ forest/ flora/fauna, etc.
- Visit to a local polluted site---Urban/Rural/Industrial/Agricultural.
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems---pond, river, Delhi Ridge, etc.

(Equal to 5 lectures)

Suggested Readings:

1. Carson, R. 2002. *Silent Spring*. Houghton Mifflin Harcourt.
2. Gadgil, M., & Guha, R.1993. *This Fissured Land: An Ecological History of India*. Univ. of California Press.
3. Gleeson, B. and Low, N. (eds.) 1999.*Global Ethics and Environment*, London, Routledge.
4. Gleick, P. H. 1993. *Water in Crisis*. Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute, Oxford Univ. Press.
5. Groom, Martha J., Gary K. Meffe, and Carl Ronald Carroll.*Principles of Conservation Biology*. Sunderland: Sinauer Associates, 2006.
6. Grumbine, R. Edward, and Pandit, M.K. 2013. Threats from India's Himalaya dams. *Science*, 339: 36---37.
7. McCully, P. 1996. *Rivers no more: the environmental effects of dams*(pp. 29---64). Zed Books.

8. McNeill, John R. 2000. *Something New Under the Sun: An Environmental History of the Twentieth Century*.
9. Odum, E.P., Odum, H.T. & Andrews, J. 1971. *Fundamentals of Ecology*. Philadelphia: Saunders.
10. Pepper, I.L., Gerba, C.P. & Brusseau, M.L. 2011. *Environmental and Pollution Science*. Academic Press.
11. Rao, M.N. & Datta, A.K. 1987. *Waste Water Treatment*. Oxford and IBH Publishing Co. Pvt. Ltd.
12. Raven, P.H., Hassenzahl, D.M. & Berg, L.R. 2012. *Environment*. 8th edition. John Wiley & Sons.
13. Rosencranz, A., Divan, S., & Noble, M. L. 2001. *Environmental law and policy in India*. Tripathi 1992.
14. Sengupta, R. 2003. *Ecology and economics: An approach to sustainable development*. OUP.
15. Singh, J.S., Singh, S.P. and Gupta, S.R. 2014. *Ecology, Environmental Science and Conservation*. S. Chand Publishing, New Delhi.
16. Sodhi, N.S., Gibson, L. & Raven, P.H. (eds). 2013. *Conservation Biology: Voices from the Tropics*. John Wiley & Sons.
17. Thapar, V. 1998. *Land of the Tiger: A Natural History of the Indian Subcontinent*.
18. Warren, C. E. 1971. *Biology and Water Pollution Control*. WB Saunders.
19. Wilson, E. O. 2006. *The Creation: An appeal to save life on earth*. New York: Norton.
20. World Commission on Environment and Development. 1987. *Our Common Future*. Oxford University Press.

Guidelines regarding Mentoring and Professional Development

The objective of mentoring will be development of:

- Overall Personality
- Aptitude (Technical and General)
- General Awareness (Current Affairs and GK)
- Communication Skills
- Presentation Skills

The course shall be split in two sections i.e. outdoor activities and class activities.

For achieving the above, suggestive list of activities to be conducted are:

Part – A

(Class Activities)

1. Expert and video lectures
2. Aptitude Test
3. Group Discussion
4. Quiz (General/Technical)
5. Presentations by the students
6. Team building Exercises

Part – B

(Outdoor Activities)

3. Sports/NSS/NCC
4. Society Activities of various students chapter i.e. ISTE, SCIE, SAE, CSI, Cultural Club, etc.

Evaluation shall be based on rubrics for Part – A & B

Mentors/Faculty incharges shall maintain proper record student wise of each activity conducted and the same shall be submitted to the department.