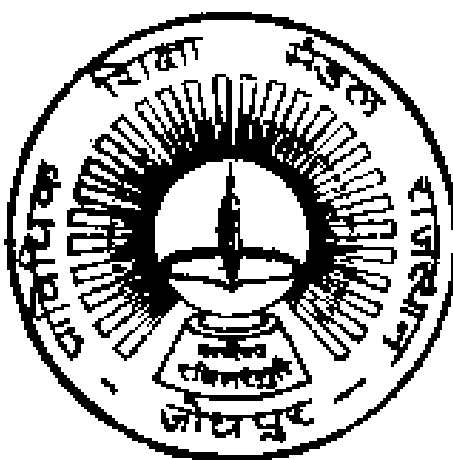


GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN
JODHPUR

SEMESTER SCHEME-2020-21

(SESSION 2021-2022 & ONWARDS)



**TEACHING AND EXAMINATION SCHEME
AND SYLLABUS**

**HOTEL MANAGEMENT AND CATERING
TECHNOLOGY**

(HM)

.....
Curriculum Development Cell
Board of Technical Education, Rajasthan
W-6 Residency Road,
Jodhpur

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
TEACHING AND EXAMINATION SCHEME
(SEMESTER SCHEME-2020-21)

FOR DIPLOMA III SEMESTER (Hotel Management and Catering Technology)(HM) (Engg. and Technology Course)
SESSION 2021-2022 & ONWARDS

| Subject Category | Subject Code | Subjects | Distribution of Time | | | | Distribution of Max. Marks/ Duration | | | | | | | Total Marks | Credits |
|----------------------|--------------|--|----------------------|----------|-----------|-----------|--------------------------------------|-----------|------------|---------------------|------------|------------|------------|-------------|-----------|
| | | | Hours per week | | | | End Semester Exam | | | Internal Assessment | | | | | |
| | | | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/Assi | PR(S) | | |
| PC | HM 3001 | House Keeping – I | 2 | 1 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 3002 | Front Office Operation - I | 2 | 1 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 3003 | Food Production - I | 1 | 2 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | - | 100 | 3 |
| PC | HM 3004 | Food & Beverages Service - I | 1 | 2 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 3005 | Food Science and Commodities-I | 1 | -- | -- | 1 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 1 |
| PC | HM 3006 | House Keeping - I Lab | -- | -- | 4 | 4 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 2 |
| PC | HM 3007 | Front Office Operation - I Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| PC | HM 3008 | Food Production – I Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| SI | HM 3009 | Summer Internship – I (4 weeks after II Sem) | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- | -- | 100 | 2 |
| VS | +HM 3333 | Anandam (Joy of Giving) | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2 |
| | | Students Centered Activities | 0 | 0 | 3 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | Total | 7 | 6 | 16 | 29 | 300 | -- | 220 | -- | 100 | 100 | 280 | 1000 | 23 |
| Grand Total : | | | | | | | | | | | | | | 1000 | 23 |

1. L : Lecture
2. T : Tutorial
3. P : Practical
4. TH : Marks for End Semester Exam for Theory

5. PR : Marks for End Semester Exam for Practical
6. CT : Marks for class tests (Internal Assessment)
7. TU/Assi : Marks for tutorials/Assignment (Internal Assessment)
8. PR(S) : Marks for practical and viva (Internal Assessment)

1. +HM 3333 is same in all branches of Engineering

Student Centered Activities will be graded as A, B, C & D on the basis of attendance and interest of the student in learning.

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
(SEMESTER SCHEME-2020-21)

TEACHING AND EXAMINATION SCHEME

FOR DIPLOMA IV SEMESTER ((Hotel Management and Catering Technology)(HM) (Engg. and Technology Course)

SESSION 2021-2022 & ONWARDS

| Subject Category | Subject Code | Subjects | Distribution of Time | | | | Distribution of Max. Marks/ Duration | | | | | | | Total Marks | Credits |
|----------------------|--------------|---|----------------------|-----------|-----------|-----------|--------------------------------------|-----------|------------|-----------|---------------------|------------|------------|-------------|-----------|
| | | | Hours per week | | | | End Semester Exam | | | | Internal Assessment | | | | |
| | | | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/Assign | PR(S) | | |
| PC | HM 4001 | House Keeping – II | 2 | - | -- | 2 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 2 |
| PC | HM 4002 | Front Office Operation - II | 2 | - | -- | 2 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 2 |
| PC | HM 4003 | Food Production - II | 2 | - | -- | 2 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 2 |
| PC | HM 4004 | Food Science and Commodities-II | 2 | - | -- | 2 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 2 |
| PE | HM 4005 | Programme Elective-I HM40051- Hygiene And Nutrition HM40052- Hotel Engineering and maintenance | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 4006 | House Keeping – II Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| PC | HM 4007 | Front Office Operation – II Lab | -- | -- | 4 | 4 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 2 |
| PC | HM 4008 | Food Production – II Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| PC | HM 4009 | Food Science and Commodities Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| AU | +HM 4222 | Essence of Indian Knowledge and Tradition | 2 | -- | -- | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| VS | +HM 4444 | Anandam (Joy of Giving) | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2 |
| | | Students Centered Activities | 0 | 0 | 3 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | Total | 13 | 00 | 20 | 33 | 300 | -- | 160 | -- | 100 | 100 | 340 | 1000 | 21 |
| Grand Total : | | | | | | | | | | | | | | 1000 | 21 |

1. L : Lecture
2. T : Tutorial
3. P : Practical
4. TH : Marks for End Semester Exam for Theory
9. Assi. : Assignment

5. PR : Marks for End Semester Exam for Practical
6. CT : Marks for class tests (Internal Assessment)
7. TU/Assi : Marks for tutorials/Assignment (Internal Assessment)
8. PR(S) : Marks for practical and viva (Internal Assessment)

1. +HM 4222 and +HM 4444 are same in all branches of Engineering

Student Centered Activities will be graded as A, B, C & D on the basis of attendance and interest of the student in learning.

Note: Students will go for 6 Weeks Summer Internship in the Summer Vacations after Fourth Semester. The assessment of the Summer Internship will be done in Fifth Semester

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
(SEMESTER SCHEME-2020-21)

TEACHING AND EXAMINATION SCHEME

FOR DIPLOMA V SEMESTER (Hotel Management and Catering Technology)(HM) (Engg. and Technology Course)

SESSION 2022-2023 & ONWARDS

| Subject Category | Subject Code | Subjects | Distribution of Time | | | | Distribution of Max. Marks/ Duration | | | | | | | Total Marks | Credits |
|------------------|--------------|---|----------------------|-----------|-----------|-----------|--------------------------------------|------|------------|------|---------------------|------------|------------|-------------|-----------|
| | | | Hours per week | | | | End Semester Exam | | | | Internal Assessment | | | | |
| | | | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/ Assi | PR(S) | | |
| PC | HM 5001 | House Keeping - III | 1 | 2 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 5002 | Food Safety & Quality | 2 | 1 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| OE | +HM 5100 | Open Elective-I +HM 51001- Economic Policies in India +HM 51002- Engineering Economics & Accountancy | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 5003 | Food & Beverages Management | 2 | 1 | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PE | HM5004 | Programme Elective-II HM50041- Hotel Accounts HM50042- Basic Financial Management | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PE | HM 5005 | Programme Elective-III HM50051 - Human Resources HM50052 - Marketing Management | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| PC | HM 5006 | House Keeping – III Lab | -- | -- | 6 | 6 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 3 |
| SI | HM 5007 | Summer Internship – II(6 weeks afterIVsem) | -- | -- | -- | -- | -- | -- | 100 | -- | -- | -- | -- | 100 | 3 |
| PR | HM 5008 | Major Project | -- | -- | 2 | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| VS | +HM 5555 | Anandam (Joy of Giving) | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2 |
| | | Students Centered Activities | 0 | 0 | 3 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | Total | 14 | 04 | 12 | 30 | 360 | | 140 | | 120 | 120 | 160 | 900 | 26 |
| Grand Total : | | | | | | | | | | | | | | 900 | 26 |

1. L : Lecture
2. T : Tutorial
3. P : Practical
4. TH : Marks for End Semester Exam for Theory

5. PR : Marks for End Semester Exam for Practical
6. CT : Marks for class tests (Internal Assessment)
7. TU/Assi : Marks for tutorials/Assignment (Internal Assessment)
8. PR(S) : Marks for practical and viva (Internal Assessment)

1. +HM 51001, +HM 51002 and +HM 5555 are same in all branches of Engineering

Student Centered Activities will be graded as A, B, C & D on the basis of attendance and interest of the student in learning.

Note:Major Project will be continued and Assesed in VI Semester

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN, JODHPUR
(SEMESTER SCHEME-2020-21)

TEACHING AND EXAMINATION SCHEME
FOR DIPLOMA VI SEMESTER (Hotel Management and Catering Technology)(HM) (Engg. and Technology Course)
SESSION 2022-2023 & ONWARDS

| Subject Category | Subject Code | Subjects | Distribution of Time | | | | Distribution of Max. Marks/ Duration | | | | | | | Total Marks | Credits |
|----------------------|--------------|---|----------------------|-----------|-----------|-----------|--------------------------------------|-----------|------------|-----------|---------------------|-----------|------------|-------------|-----------|
| | | | Hours per week | | | | End Semester Exam | | | | Internal Assessment | | | | |
| | | | L | T | P | Tot | TH | Hrs. | PR | Hrs. | CT | TU/Assi | PR(S) | | |
| HS | +HM 6111 | Entrepreneurship and Start-ups | 3 | 1 | -- | 4 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 4 |
| OE | +HM 6200 | Open Elective-II | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| | | +HM 62001- Project Management +HM 62002- Renewable Energy Technologies | | | | | | | | | | | | | |
| OE | +HM 6300 | Open Elective-III | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| | | +HM 63001- Product Design +HM 63002- Disaster Management | | | | | | | | | | | | | |
| AU | +HM 6333 | Indian Constitution | 2 | -- | -- | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| PE | HM 6001 | Programme Elective-IV | 3 | -- | -- | 3 | 60 | 3 | -- | -- | 20 | 20 | -- | 100 | 3 |
| | | HM60011- Tourism Management HM60012-- Strategic Management | | | | | | | | | | | | | |
| PE | HM 6002 | Programme Elective-IV Lab | -- | -- | 4 | 4 | -- | -- | 40 | 3 | -- | -- | 60 | 100 | 2 |
| | | HM60021- Front Office – III Lab HM60022-- Food Production – III Lab | | | | | | | | | | | | | |
| PC | HM 6003 | Confectionery lab | -- | -- | 4 | 4 | -- | -- | 40 | 6 | -- | -- | 60 | 100 | 2 |
| PR | HM 6004 | Major Project | -- | -- | 6 | 6 | -- | -- | 40 | -- | -- | -- | 60 | 100 | 4 |
| SE | HM 6005 | Seminar | 1 | -- | -- | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 1 |
| VS | +HM 6666 | Anandam (Joy of Giving) | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | 100 | 100 | 2 |
| | | Students Centered Activities | 0 | 0 | 3 | 3 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| | | Total | 15 | 01 | 18 | 34 | 240 | -- | 120 | -- | 80 | 80 | 380 | 900 | 24 |
| Grand Total : | | | | | | | | | | | | | | 900 | 24 |

1. L : Lecture

2. T : Tutorial

3. P : Practical

4. TH : Marks for End Semester Exam for Theory

5. PR : Marks for End Semester Exam for Practical

6. CT : Marks for class tests (Internal Assessment)

7. TU/Assi : Marks for tutorials/Assignment (Internal Assessment)

8. PR(S) : Marks for practical and viva (Internal Assessment)

1. +HM 6111, +HM 62001, +HM 62002, +HM 63001, +HM 63002, +HM 6333 and +HM 6666 are same in all branches of Engineering

Student Centered Activities will be graded as A, B, C & D on the basis of attendance and interest of the student in learning.

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR
SEMESTER SCHEME-2020-21



III SEMESTER
(SESSION 2021-2022 & ONWARDS)

HOUSE KEEPING – I

| | |
|-------------------|-------------------|
| Course Code | HM 3001 |
| Course Title | HOUSE KEEPING – I |
| Number of Credits | 3 (L-2,T-1, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment and material and enabling them to take up supervisory level assignment in house keeping operations & management

COURSE CONTENTS:**THEORY****1. Introduction and Scope**

- 1.1 Brief History of lodging industry
- 1.2 Role of house keeping & various Hospitality Operations.
- 1.3 Hotel Divisions and Departments
- 1.4 Housekeeping and the Front office
- 1.5 Hierarchy
- 1.6 Basic Terminology of House keeping

2. Planning and Organizing the house keeping department

- 2.1 Identifying House keeping responsibilities
- 2.2 Planning the work of Housekeeping department
- 2.3 Skill Training
- 2.4 Scheduling
- 2.5 Chamber made cart
- 2.6 Guest supply

3. Cleaning and Polishing

- 3.1 Vacuum cleaning
- 3.2 Daily & Weekly Cleaning

4. Preparing Guest Room

- 4.1 preparing to Clean
- 4.2 Cleaning guest room
- 4.3 Inspection
- 4.4 Deep Cleaning
- 4.5 Turn Down & special request
- 4.6 Toilet Cleaning & Procedure

REFERENCE

1. Hotel, Hostel and Hospital House keeping by John C Branson Margaret Lennox
2. Housekeeping Management by M O A Casado
3. Professional Management of House keeping Operation by Robert J Martin

FRONT OFFICE OPERATION – I

| | |
|-------------------|----------------------------|
| Course Code | HM 3002 |
| Course Title | FRONT OFFICE OPERATION – I |
| Number of Credits | 3 (L-2,T-1, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will provide the students with an understanding of the role of front office and reception in a hotel. They will understand customer care policies, communication with other department and role front office plays in setting the hotel and all its facilities.

COURSE CONTENTS**THEORY****1. Introduction**

- 1.1 Brief History of lodging industry
- 1.2 Types of Hotels
- 1.3 Classification
- 1.4 Types of room single, double, suite

2. Concept of front office

- 2.1 Front office
- 2.2 Front office Set up
- 2.3 Qualities of front office staff
- 2.4 Roles & responsibilities of FO Staff
- 2.5 General knowledge
- 2.6 Check in – Rooming list, informing, reconfirming Times of wake up
- 2.7 Calls, Breakfast, Lunch & Dinner
- 2.8 Bell desk – Greeting guests, Escorting & handling luggage, mail & message
- 2.9 Delivery, Lift luggage
- 2.10 Paging
- 2.11 Guest index

3. Telephone Handling

- 3.1 Importance
- 3.2 Types of calls
- 3.3 Telephone manners Do's & Don'ts
- 3.4 Phonetic Alphabets
- 3.5 Telephonic Message distribution

4. Reservations

- 4.1 Reservation and Sales
- 4.2 Tentative reservations forms
- 4.3 Cut-off date
- 4.4 Room Rates
- 4.5 Confirmed reservations
- 4.6 Mode of payment and billing
- 4.7 Arrival & departure time
- 4.8 Number of rooms – Availability, informing, types
- 4.9 Reservation – enquiry, availability, record, confirmation, maintenance, report, Consideration

REFERENCE

- 1. Front office manual by Sudhir Andrew
- 2. Principals of Hotel front office Operations by Baker, Bradely & Huyton
- 3. Front office procedure & yield management Peter Abboff & Sue Lenry

FOOD PRODUCTION – I

| | |
|-------------------|---------------------|
| Course Code | HM 3003 |
| Course Title | FOOD PRODUCTION – I |
| Number of Credits | 3 (L-1,T-2, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of food and food stuff which are commonly found within the hotel industry to acceptable standards

COURSE CONTENTS**THEORY****1. History and Aim of Cooking**

- 1.1 Attitude and behavior in kitchen
- 1.2 Origin of cuisine and concept of cooking
- 1.3 History and evolution
- 1.4 Introduction to major cuisine
- 1.5 Personal hygiene

2. Kitchen Hierarchy Chart

- 2.1 various levels of management and kitchen
- 2.2 Duties and responsibilities of different chefs

3. Methods of cooking foods

- 3.1 Boiling
- 3.2 Streaming
- 3.3 Roasting
- 3.4 Frying
- 3.5 Poaching
- 3.6 Stewing
- 3.7 Shallow frying
- 3.8 Baking
- 3.9 Grilling
- 3.10 Broiling
- 3.11 Braising
- 3.12 Deep frying

4. Introduction to vessel

- 4.1 Different types of vessels used in commercial kitchen
- 4.2 Safety procedures in handling equipments

5. Plan of Work, indenting and menu Planning

- 5.1 Importance of plan of work
- 5.2 Indenting
- 5.3 Points to be taken care while planning a menu
- 5.4 General layout of Kitchen in Various organizations

6. Classifications of Raw Material

- 6.1 Spices
- 6.2 Vegetables
- 6.3 Cereals & pluses
- 6.4 Milk & dairy products
- 6.5 Milk
- 6.6 Cheese
- 6.7 Butter

7. Kitchen Terminology

- 7.1 Culinary Items
 - 7.1.1 Vegetarian/Fruits
 - 7.1.2 Non Veg
 - 7.1.3 herbs & Species
- 7.2 French terms (basic)

REFERENCE

1. Modern Cookery Vol I & II by Thangam Phillip
1. Theory of Cookery by Krishna Arora (S Chand & Sons)
2. Professional Cheff Arvind Saraswat

Demester Scheme 2020-21

FOOD AND BEVARAGE SERVICE – I

| | |
|-------------------|-------------------------------|
| Course Code | HM 3004 |
| Course Title | FOOD AND BEVARAGE SERVICE – I |
| Number of Credits | 3 (L-1,T-2, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students with the importance of food and beverage service, covering basic technical skills, technical knowledge and social skills, that the food and beverages personal need to achieve.

COURSE CONTENTS**THEORY****1. Introduction to F & B Services**

- 1.1 Evaluation of hotel with brief history
- 1.2 Different type of Food and Beverage Outlets

2. Organization Chart of F & B, Restaurants Staff

- 2.1 Duties & Responsibilities
- 2.2 Co-operation & co-ordination

3. Types of Equipments

- 3.1 Classification and Size
- 3.2 Different Crockery, Glassware, Hollowware
- 3.3 Restaurant equipment & cleaning process
- 3.4 Service area, Pantry, still room, plate room and linen room

4. Attributes of a good waiter

- 4.1 Do's and Don't for waiting personnel
- 4.2 Food Handling
- 4.3 Hygiene

REFERENCE

- 1. F & B manual Sudhir Andrews
- 1. F & B Service Dennis Lillierap
- 2. The Bar and Beverages Book Costas Katsigris & Thomas
- 3. Food & Beverages Service operation Vijay Dhawan

FOOD SCIENCE AND COMMODITIES - I

| | |
|-------------------|----------------------------------|
| Course Code | HM 3005 |
| Course Title | FOOD SCIENCE AND COMMODITIES - I |
| Number of Credits | 1 (L-1,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course is designed for providing students basic knowledge of food science and commodities.

COURSE CONTENTS**THEORY****1. Basic Aspects**

- 1.1 Importance in relation to food handling
- 1.2 Micro Organism (Bacteria – size, shape, reproduction, beneficial and harmful)
- 1.3 Yeasts (size, shape, reproduction, beneficial effects)

2. Food Preservation

- 2.1 Methods
- 2.2 Food Poisoning
- 2.3 Symptoms, illness and prevention

3. Colloids

- 3.1 Type and factors affecting colloidal solution
- 3.2 Emulsion (Type, Theory)

4. Browning

- 4.1 Types of browning
- 4.2 Prevention of browning

5. Cereals: Types, Storage & Uses

- 5.1 Wheat
- 5.2 Rice
- 5.3 Oats and rye
- 5.4 Barley
- 5.5 Maize
- 5.6 Arrowroot
- 5.7 Sago
- 5.8 Tapioca
- 5.9 Sorghum
- 5.10 Ready to eat cereals

REFERENCE

- 1. Food Science and Nutrition
- 2. Food Facts and Principles
- 3. Food Science

Roday Sunetra
Many Shakuntala, Shadakshara Swami
Potter and Hotchkin

HOUSE KEEPING – I LAB

| | |
|-------------------|-----------------------|
| Course Code | HM 3006 |
| Course Title | HOUSE KEEPING – I LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment and material and enabling them to take up supervisory level assignment in house keeping operations & management

COURSE CONTENTS**PRACTICALS**

1. Cleaning (Glass, Floors, Public areas, walls, Fixtures, Wooden, Laminated surfaces)
2. Polishing (Metals, Silver, Brass, Copper, Raxin, Leather, Suede)
3. Identification of Equipments
4. Chamber Maids Craft
5. Vacuum Cleaning of carpets
6. Cleaning of bath room
7. Bed making
8. Guest Supply
9. VIP room
10. Daily/Weekly cleaning
11. Spring Cleaning
12. Baquets Halls
13. Cleaning of offices
14. Issuing Lines/uniforms

REFERENCE

1. Hotel, Hostel and Hospital House keeping by John C Branson Margaret Lennox
2. Housekeeping Management by M O A Casado
3. Professional Management of House keeping Operation by Robert J Martin

FRONT OFFICE OPERATION – I LAB

| | |
|-------------------|--------------------------------|
| Course Code | HM 3007 |
| Course Title | FRONT OFFICE OPERATION – I LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will provide the students with an understanding of the role of front office and reception in a hotel. They will understand customer care policies, communication with other department and role front office plays in setting the hotel and all its facilities.

COURSE CONTENTS**PRACTICALS**

1. Type of room
2. Key Terms
3. Phonetic Alphabetic reservation Course
4. Country/Capital/Currency and language
5. Uniform Service
6. Message slips
7. Reservation Room
8. Walk In/ Check In/ Check Out procedure
9. Registration
10. Showing guest their room
11. Using telephone
12. Handling messages
13. Guest History card
14. Flow Chart Front office
15. Telephone Operating Console

REFERENCE

1. Front office manual by Sudhir Andrew
4. Principals of Hotel front office Operations by Baker, Bradely & Huyton
5. Front office procedure & yield management Peter Abboff & Sue Lenry

FOOD PRODUCTION I –LAB

| | |
|-------------------|------------------------|
| Course Code | HM 3008 |
| Course Title | FOOD PRODUCTION I –LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of food and food stuff which are commonly found within the hotel industry to acceptable standards

COURSE CONTENTS**PRACTICALS**

1. Use of Food Cooking Methods (Boiling, Steaming, Roasting)
2. Familiarization of Kitchen Vessels and Equipments
3. Familiarization of Spices
4. Peeling & Cutting of Vegetables
5. Cuts of Meat, Chicken & Fish
6. Use of food cooking methods
7. Different types of Soups, Sauces
8. Egg Cookery

REFERENCE

1. Modern Cookery Vol I & II by Thangam Phillip
3. Theory of Cookery by Krishna Arora (S Chand & Sons)
4. Professional Cheff Arvind Saraswat

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR
SEMESTER SCHEME-2020-21



IV SEMESTER
(SESSION 2021-2022 & ONWARDS)

HOUSE KEEPING – II

| | |
|-------------------|--------------------|
| Course Code | HM 4001 |
| Course Title | HOUSE KEEPING – II |
| Number of Credits | 2 (L-2,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment and material and enabling them to take up supervisory level assignment in house keeping operations & management

COURSE CONTENTS:**THEORY****1. Beds Linen and Uniform**

- 1.1 Beds – Types of Beds, Maintenance
- 1.2 Linen – Types, Size and Core
- 1.3 Uniform – Identifying uniform needs and selection

2. Transferring Guests

- 2.1 Procedure
- 2.2 Co-ordination with front office

3. Dealing with Lost & Found Property

- 3.1 Procedure for Lost & Found
- 3.2 Thefts – Bomb, fire etc
- 3.3 Employee Theft

REFERENCE

- 1. Hotel, Hostel and Hospital House keeping by John C Branson Margaret Lennox
- 2. Housekeeping Management by M O A Casado
- 3. Professional Management of House keeping Operation by Robert J Martin

FRONT OFFICE OPERATION - II

| | |
|-------------------|-----------------------------|
| Course Code | HM 4002 |
| Course Title | FRONT OFFICE OPERATION - II |
| Number of Credits | 2 (L-2,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will provide the students with an understanding of the role of front office and reception in a hotel. They will understand customer care policies, communication with other department and role front office plays in setting the hotel and all its facilities.

COURSE CONTENTS:**THEORY**

1. **Registration**
 - 1.1 Registration of Activity – method, card
 - 1.2 Room & Rate Assignment
 - 1.3 Issuing room key
 - 1.4 Post registration activity
2. **Motivation**
 - 2.1 Self Esteem
 - 2.2 Steps to building a positive personality
 - 2.3 Subconscious Mind and habits
3. **Goal Setting**
 - 3.1 Values and vision
4. **Glossary**

REFERENCE

1. Front office manual by Sudhir Andrew
2. Principals of Hotel front office Operations by Baker, Bradely & Huyton
3. Front office procedure & yield management Peter Abboff & Sue Lenry

FOOD PRODUCTION - II

| | |
|-------------------|----------------------|
| Course Code | HM 4003 |
| Course Title | FOOD PRODUCTION - II |
| Number of Credits | 2 (L-2,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of food and food stuff which are commonly found within the hotel industry to acceptable standards

COURSE CONTENTS:**THEORY**

- 1. Fats & oil**
 - 1.1 Source
 - 1.2 Types
 - 1.3 Smoking point
 - 1.4 Use
 - 1.5 Storage
 - 1.6 Rancidity and Flavor reversion
- 2. Stocks**
 - 2.1 Definition
 - 2.2 Types
 - 2.3 Preparation
 - 2.4 Use & Storage (care and precautions)
- 3. Sauces and Derivatives**
 - 3.1 Six Mother Sauces
 - 3.2 Procedure for preparation
 - 3.3 derivatives of basic sauces
- 4. Soups and Classification**
 - 4.1 Aim
 - 4.2 Preparation
 - 4.3 Classification with example
 - 4.4 Garnishes and accompaniments
- 5. EGG Cookery**
 - 5.1 Types of Egg
 - 5.2 Various Egg Preparation
 - 5.3 Quality of Eggs
 - 5.4 Structure of egg
 - 5.5 Methods of cooking eggs and vegetables
 - 5.6 Points to be taken care while planning a menu
 - 5.7 General layout of Kitchen in Various organizations
- 6. Classifications of Raw Material**
 - 6.1 Spices
 - 6.2 Vegetables
 - 6.3 Cereals & pluses
 - 6.4 Milk & dairy products
 - 6.5 Milk
 - 6.6 Cheese

6.7 Butter

7. Kitchen Terminology

7.1 Culinary Items

7.1.1 Vegetarian/Fruits

7.1.2 Non Veg

7.1.3 herbs & Species

7.2 French terms (basic)

REFERENCE

1. Modern Cookery Vol I & II by Thangam Phillip
1. Theory of Cookery by Krishna Arora (S Chand & Sons)
2. Professional Cheff Arvind Saraswat

Semester Scheme 2020-21

FOOD SCIENCE AND COMMODITIES - II

| | |
|-------------------|-----------------------------------|
| Course Code | HM 4004 |
| Course Title | FOOD SCIENCE AND COMMODITIES - II |
| Number of Credits | 2 (L-2,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course is designed for providing students basic knowledge of food science and commodities.

COURSE CONTENTS:**THEORY**

1. **Pulses**
 - 1.1 Type
 - 1.2 Products and storage
 - 1.3 Uses
2. **Vegetables Fruits and Nuts**
 - 2.1 Classification
 - 2.2 Selection
 - 2.3 Storage and uses
3. **Herbs, Spices and Condiments**
 - 3.1 Description
4. **Colors and flavours**
5. **Fats & Oils**
 - 5.1 Types
 - 5.2 Sources
 - 5.3 Storage
 - 5.4 Uses
6. **Milk and Milk Products**
 - 6.1 Classification, Composition, Processing, Storage
 - 6.2 Milk, Milk Cream
 - 6.3 Curd and Yoghurt
 - 6.4 Khoa, Cheese and Paneer
7. **Meat, Meat Products and Egg**
 - 7.1 Sources
 - 7.1.1 Beef and Veal
 - 7.1.2 Lamb and Mutton
 - 7.1.3 Pork and pork products
 - 7.1.4 Fish and shell fish
 - 7.1.5 Poultry and game
 - 7.2 Structure of egg, Composition and types
8. **Non Alcoholic Beverages**
 - 8.1 Tea
 - 8.2 Coffee
 - 8.3 Cocoa
 - 8.4 Fruits (Fruit juice, drink, squash, punches and sherbets)

REFERENCE

- | | | |
|----|----------------------------|------------------------------------|
| 1. | Food Science and Nutrition | Roday Sunetra |
| 2. | Food Facts and Principles | Many Shakuntala, Shadakshara Swami |
| 3. | Food Science | Potter and Hotchkin |

Semester Scheme 2020-21

HYGIENE AND NUTRITION

| | |
|-------------------|-----------------------|
| Course Code | HM 40051 |
| Course Title | HYGIENE AND NUTRITION |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course is designed for providing students basic knowledge of food science hygiene and nutrition.

COURSE CONTENTS:**THEORY**

1. **Basic bacteriology**
 - 1.1 Factors affecting microbiological growth
 - 1.2 Bacterial food poisoning
 - 1.3 Food Preservation
2. **Food Adulteration**
 - 2.1 Most harmful adulterants
 - 2.2 other common adulterants
 - 2.3 Test to detect adulterants
3. **Hygiene and Sanitation**
 - 3.1 personal Hygiene
 - 3.2 Food hygiene
 - 3.3 Kitchen hygiene
 - 3.4 Pest Control
4. **Basic Food Chemistry**
 - 4.1 Colloidal Systems
 - 4.2 Effect of cooking on carbohydrates
 - 4.3 Effect of cooking on Protein
 - 4.4 Foaming function of egg proteins
5. **Nutrition**
 - 5.1 Basic knowledge
 - 5.2 Planning balanced diets
 - 5.3 New concept about nutrition

REFERENCE

1. Hand book of Food & Nutrition
2. Food Science, Nutrition and Health
3. Nutrition and Dietetics

M Swaminathan Bappco publications Bangaluru
Fax and Cameron, Edward Arnold
Joshi Tata McGraw Hill ND

HOTEL ENGINEERING AND MAINTENANCE

| | |
|-------------------|-----------------------------------|
| Course Code | HM 40052 |
| Course Title | HOTEL ENGINEERING AND MAINTENANCE |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course is designed to understand the function of the Engineering department and its integration in the overall operation and management of the hotel

COURSE CONTENTS:**THEORY****1. Maintenance**

- 1.1 Definition, objectives and scope
- 1.2 Types
- 1.3 role & importance
- 1.4 Organization chart
- 1.5 Duties and responsibilities

2. Fuels and heat transfer

- 2.1 Definition, Types (solid, liquid and gaseous)
- 2.2 Calorific Values
- 2.3 LPG
- 2.4 Calculation of amount of fuel required
- 2.5 Precaution to be taken in handling

3. Electricity and Lightning system

- 3.1 Fundamental
- 3.2 Insulators, Conductors, Resistance
- 3.3 Power and Energy (Concept, unit and their relationships)
- 3.4 AC and DC
- 3.5 Electric circuits (Open & Short)
- 3.6 Single Phase and three Phase
- 3.7 Symbols of electronic equipments
- 3.8 Basic Idea – Fuse, MCB, ELCB
- 3.9 Earthing
- 3.10 Wires and its types
- 3.11 Indoor and outdoor lighting
- 3.12 Types Lamps
- 3.13 Illumination and units of illumination

4. Water and wastewater System

- 4.1 Water distribution in Hotel
- 4.2 Cold and Hot water system
- 4.3 Hard & Soft water
- 4.4 Methods of water softening
- 4.5 Plumbing fixtures
- 4.6 Water taps
- 4.7 Traps and Closets
- 4.8 Flushing system

5. Refrigeration and Air Conditioning

- 5.1 Definition (Pressure, energy, latent heat, Specific Heat Boiling heat)
- 5.2 Defrosting

- 5.3 Refrigerants (Basic, Units and Working)
- 5.4 Relative humidity
- 5.5 Air Conditioning
 - 5.5.1 Central AC
 - 5.5.2 Window AC
 - 5.5.3 Split AC
- 6. **Communication Systems**
 - 6.1 Equipments, care and cleaning, Slide projector
 - 6.2 LCD, LED, PPT presentation
 - 6.3 Maintenance of Computers
 - 6.4 Sensors
 - 6.5 EPBAX, Mobile
 - 6.6 Elevators and Escalators
- 7. **Fire Prevention and Fire fighting System**
 - 7.1 Classification
 - 7.2 Causes of fire
 - 7.3 Types of fire extinguishers
 - 7.4 Fire detectors
 - 7.5 Fire Notification
 - 7.6 Automatic fire detectors

REFERENCE

1. The management of Maintenance and Engineering Frank D Borsewil, Alan T Sutts
2. AC Engineering W P Jones English Book of Society
3. Refrigeration and AC Domkundar
4. A text book on Hotel maintenance and Electrical Workshop Goyal & Arora

HOUSE KEEPING – II LAB

| | |
|-------------------|------------------------|
| Course Code | HM 4006 |
| Course Title | HOUSE KEEPING – II LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment, laundry and material and enabling them to take up supervisory level assignment in house keeping operations & management.

COURSE CONTENTS:**PRACTICALS**

1. Flower arrangement
2. Selection of uniform
3. Uses of chemical for cleaning.
4. Stain removing
5. Laundry Equipment
6. Mock laundry service.

REFERENCES

1. House Keeping Manual--Sudhir Andrew
2. Professional hotel management-
3. Professional Housekeeping
4. Hotel House Keeping Operaion-G. Raghubalan

FRONT OFFICE OPERATION – II LAB

| | |
|-------------------|---------------------------------|
| Course Code | HM 4007 |
| Course Title | FRONT OFFICE OPERATION – II LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will provide the students with an understanding of the role of front office and reception in a Hotel. They will understand customer care policies, communication with other department and role front office plays in selling the hotel and all its facilities.

COURSE CONTENTS:**PRACTICALS**

1. Message & Mail handling.
2. Group arrival
3. Bill settlement.
4. Bell desk activities at time of arrival.
5. Night auditing
6. Pre arrival activities
7. Types of different cards and registers
8. Roll Play
9. Situation Handling
10. Creation and update guest Profile
11. Sending of confirmation letter
12. Cancellation of reservation
13. Chechin Guest
14. Taking reservation
15. Changing of room
16. Process Charges
17. Handling allowance and discounts
18. Foreign currency exchange
19. Check out
20. Credit Card Report

REFERENCES

1. Front Office Manual ----- Sudhir Andrew
2. Principals of Hotel Front office Operations----- Baker,Bradely & Huyton
3. 3.Front Office Procedure & yield Management -----Peter Abboff & Sue Lenry
4. Office Operations Pant, Anoop Rajat publications New Delhi
5. Accountancy for Hospitality Industry Pant, Anoop Rajat publications New Delhi

FOOD PRODCUTION – II LAB

| | |
|-------------------|--------------------------|
| Course Code | HM 4008 |
| Course Title | FOOD PRODCUTION – II LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of food stuff which are commonly found within the hotel industry to acceptable standards

COURSE CONTENTS:**PRACTICALS**

Under the Basic Cooking. Prepare following menus

Kolhapuri mutton, Masala Puri, Koshumbi masala bhat Yakhni Pulao, Mughlai Paratha. Mutton Dopyaza, Kulfi Mishti doi, Macher Jhol, Kala Jamun, Mutton Vindalo, Coconut Pulao, Fish Caldeen, Bibinca Rajma Masala. Pindi Chana, Macce ki Roti, Sarson ka saag, Poriyal Rasam, Malabari Parantha, Pysom Palak Chicken, channa dal Tadka, peas pulav, and Tawa paratha Gatte ke pulao, Lal Maas, Dal Halwa, ratalu ki sabzi Sarki, Brown Rice, Gujrati Dal, Methi Thepla, srikhand Sofiyan Biryani, Methi Murg, Tomato kut, hare payaz ka raita Preoaration of various chutney Curd rice , Tomato rasam, fish malabari, and Cabbage Sauté.

REFERENCES

1. Modern cookery Vol. I & II -- Thangam Phillip
2. Theory of cookery -- Krishna Arora (S Chand & Sons)
3. Professional Cheff -- Arvind Saraswat

FOOD SCIENCE AND COMMODITIES LAB

| | |
|-------------------|----------------------------------|
| Course Code | HM 4009 |
| Course Title | FOOD SCIENCE AND COMMODITIES LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course is designed for providing students basic knowledge of food science and commodities

COURSE CONTENTS:**PRACTICALS**

1. Preparing the Pulses
2. Cutting Vegetables Fruits and Nuts
3. Preparing Herbs, Spices and Condiments for use
4. Use of Colors and flavours in food
5. Use of Fats & Oils
6. Preparing products/dishes from Milk and Milk Products
7. Preparing products/dishes from Meat, Meat Products and Egg
8. Preparing Non Alcoholic Beverages
 - 8.1 Tea
 - 8.2 Coffee
 - 8.3 Cocoa
 - 8.4 Fruits (Fruit juice, drink, squash, punches and sherbets)

REFERENCE

1. Food Science and Nutrition Roday Sunetra
2. Food Facts and Principles Many Shakuntala, Shadakshara Swami
3. Food Science Potter and Hotchkin

ESSENCE OF INDIAN KNOWLEDGE AND TRADITION

| | |
|-------------------|--|
| Course Code | HM 4222(Same in all Branches of Engineering) |
| Course Title | Essence of Indian Knowledge and Tradition |
| Number of Credits | 0(L-2,T-0, P-0) |
| Prerequisites | None |
| Course Category | AU |

COURSE CONTENTS:

Basic Structure of Indian Knowledge System:

- (i) वेद,
- (ii) उन्नवेद (आयुर्वेद, धनुर्वेद, गन्धर्ववेद, स्थानत्यआदद)
- (iii) वेदशाखांग (शिक्षा, कलन, ननरुत, व्याकरण, ज्योनतषछथांद),
- (iv) उन्नथाङ्ग (धर्मशास्त्र, र्ीर्थासांसा, नुरथाण, तकशरथास्र)
 - Modern Science and Indian Knowledge System
 - Yoga and Holistic Health care
 - Case Studies.

REFERENCES /SUGGESTED LEARNING RESOURCES:

1. V. Sivarama Krishna, " Cultural Heritage of India- Course Material", Bhartiya Vidya Bhavan, Mumbai, fifth Edition, 2014.
2. Swami Jitatanand, " Modern Physics and Vedant", Bhartiya Vidya Bhavan.
3. Fritz of Capra, " The wave of Life".
4. Fritz of Capra, " Tao of Physics".
5. V N Jha, " Tarka sangraha of Annam Bhatta, International" Cinmay Foundation, Velliarnad, Amakuam.
6. R N Jha, " Science of Consciousness Psychotherapy and Yoga Practices" Vidya nidhi Prakasham, Delhi, 2016.

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR
SEMESTER SCHEME-2020-21



V SEMESTER
(SESSION 2021-2022 & ONWARDS)

HOUSE KEEPING III

| | |
|-------------------|-------------------|
| Course Code | HM 5001 |
| Course Title | HOUSE KEEPING III |
| Number of Credits | 3 (L-1,T-2, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment, laundry and material and enabling them to take up supervisory level assignment in house keeping operations & management.

COURSE CONTENTS:**THEORY****1. Planning and organising the house keeping department**

- 1.1 Area inventory list
- 1.2 Frequency schedules
- 1.3 Performance and Productivity standards
- 1.4 Time and Motion study in House Keeping operations
- 1.5 Standard Operating manuals – Job procedures
- 1.6 Job allocation and work schedules
- 1.7 Calculating staff strengths & Planning duty rosters, team work and leadership in House Keeping
- 1.8 Training in HKD, devising training programmers for HK staff
- 1.9 Inventory level for non recycled items
- 1.10 Budget and budgetary controls
- 1.11 The budget process
- 1.12 Planning capital budget
- 1.13 Planning operation budget
- 1.14 Operating budget – controlling expenses – income statement
- 1.15 Purchasing systems – methods of buying
- 1.16 Stock records – issuing and control
- 1.17 Inventory control procedures
- 1.18 Prepare operating budget

2. Safety and security

- 2.1 Safety awareness and accident prevention
- 2.2 Fire safety and fire fighting
- 2.3 Crime prevention and dealing with emergency situation

3. Interior decoration

- 3.1 Elements of design
- 3.2 Colour and its role in décor –types of colour schemes
- 3.3 Windows and window treatment
- 3.4 Lighting and lighting fixtures
- 3.5 Floor finishes
- 3.6 Carpets
- 3.7 Furniture and fittings
- 3.8 Accessories
- 3.9 Flower arrangement in following styles
 - 3.9.1 Japanese
 - 3.9.2 Western
 - 3.9.3 Traditional
- 3.10 Flower Theme Decorations for different area of a hotel

4. Layout of guest rooms

- 4.1 Sizes of rooms, sizes of furniture, furniture arrangement

- 4.2 Principles of design
- 4.3 Refurbishing and redecoration

5. Contract services

- 5.1 Types of contract services
- 5.2 Guidelines for hiring contract services
- 5.3 Advantages & disadvantages of contract services

REFERENCE BOOKS

1. House Keeping Manual--Sudhir Andrew
2. Professional hotel management
3. Professional Housekeeping
4. Hotel House Keeping Operaion-G. Raghubalan

Semester Scheme 020-21

FOOD SAFETY & QUALITY

| | |
|-------------------|-----------------------|
| Course Code | HM 5002 |
| Course Title | FOOD SAFETY & QUALITY |
| Number of Credits | 3 (L-2,T-1, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

The study of this subject will help the students to understand the behavior and activities contribute to the safety and quality of food and beverage

COURSE CONTENTS:**THEORY****1 INTRODUCTION**

- 1.1 Food Hygiene
- 1.2 Food Condiment
- 1.3 Food Safety
- 1.4 Food hazards

2. FOOD PRESERVATION AND SPOILAGE

- 2.1 Cause of Spoilage
- 2.2 Source Contamination
- 2.3 Principles of food preservation
- 2.4 Methods of preservation

3. MICROORGANISM

- 3.1 Common food born microorganism
- 3.2 Characteristics of microorganism
- 3.3 Roll of Microorganism
- 3.4 Food born diseases

4. HYGINE AND SANITATION

- 4.1 Principles of Hygiene
- 4.2 GHP for commodities, Equipments and personnel
- 4.3 Cleaning methods for Hospitality Industry
- 4.4 Safety Aspect of water

5. QUALITY ASSURANCE

- 5.1 TQM
- 5.2 GMP
- 5.3 Risk Assessment
- 5.4 Microbiological standards for food safety

6. FOOD LAW AND REGULATIONS**7. FOOD LABELLING****8. FOOD PACKING TECHNOLOGY****REFERENCE**

- 1. Modern food microbiology
- 2. Food Safety- Bhatt and Rao
- 3. Food Handling- Jacob M
- 4. Food Fact & principle-NS Manay
- 5. Food Science, Nutrition and safety- S Suri

ECONOMIC POLICIES IN INDIA

| | |
|-------------------|---|
| Course Code | HM 51001(Same in all Branches of Engineering) |
| Course Title | Economic Policies in India |
| Number of Credits | 3 (L:3,T:0,P:0) |
| Prerequisites | NIL |
| Course Category | OE |

COURSE LEARNING OBJECTIVES:

The objective of this course is to familiarize the students of different streams with the basic concepts, structure, problems and issues concerning Indian economy.

| | |
|-----|---|
| CO1 | Understand Indian economics policy, planning strategies |
| CO2 | It will enable to students to comprehend theoretical and empirical development across countries and region for policy purposes |
| CO3 | Development Economics as a discipline encompasses different approach to the problems of unemployment, poverty, income generation, industrialization from different perspectives |
| CO4 | Able to identify the problems and capable to decide the application for future development |
| CO5 | Analyze economic issues and find solutions to complex economic problems and take correct economic judgment |

COURSE CONTENTS:**1. BASIC FEATURES AND PROBLEMS OF INDIAN ECONOMY:**

- 1.1. Economic History of India;
- 1.2. Nature of Indian Economy
- 1.3. Demographic features and Human Development Index,
- 1.4. Problems of Poverty, Unemployment, Inflation, income inequality, Black money in India.

2. SECTORAL COMPOSITION OF INDIAN ECONOMY:

- 2.1. Issues in Agriculture sector in India,
- 2.2. land reforms
- 2.3. Green Revolution
- 2.4. agriculture policies of India,

3. INDUSTRIAL DEVELOPMENT,

- 3.1. Small scale and cottage industries,
- 3.2. Industrial Policy,
- 3.3. Public sector in India,
- 3.4. Service sector in India.

4. ECONOMIC POLICIES:

- 4.1. Economic Planning in India,
- 4.2. Planning commission v/s NITI Aayog,
- 4.3. Five Year Plans,
- 4.4. Monetary policy in India,
- 4.5. Fiscal Policy in India,
- 4.6. Centre state Finance Relations,
- 4.7. Finance commission in India
- 4.8. LPG policy in India

5. EXTERNAL SECTOR IN INDIA

- 5.1. India's foreign trade value composition and direction,
- 5.2. India Balance of payment since 1991,
- 5.3. FDI in India,
- 5.4. Impact of Globalization on Indian Economy,
- 5.5. WTO and India.

REFERENCE BOOKS:

- 1. Dutt Rudder and K.P.M Sunderam (2017). Indian Economy .S Chand & Co.Ltd. New Delhi.
- 2. Mishra S. K & V. K Puri (2017). Indian Economy and Its Development Experience. Himalaya Publishing House.
- 3. Singh, Ramesh, (2016): Indian Economy, Tata-McGraw Hill Publications, New Delhi.
- 4. Dhingra, I.C., (2017): March of the Indian Economy, Heed Publications Pvt. Ltd.
- 5. Karam Singh Gill, (1978): Evolution of the Indian Economy, NCERT, NewDelhi
- 6. Kaushik Basu (2007): The Oxford Companion to Economics of India ,Oxford University Press.

Semester Scheme 020-21

ENGINEERING ECONOMICS & ACCOUNTANCY

| | |
|-------------------|---|
| Course Code | HM 51002(Same in all Branches of Engineering) |
| Course Title | Engineering Economics & Accountancy |
| Number of Credits | 3 (L:3,T:0,P:0) |
| Prerequisites | NIL |
| Course Category | OE |

COURSE OBJECTIVES

- To acquire knowledge of basic economicst of a cilitate the process of economic decision making.
- To acquire knowledge on basic financial management aspects.
- To develop the basic skills to analyze financial statements.

COURSE OUTCOMES:

At the end of the course, the student will be able to:

| | |
|-----|--|
| CO1 | Understand the macro-economic environment of the business and its impact on enterprise |
| CO2 | Understand cost elements of the product and its effect on decision making |
| CO3 | Prepare accounting records and summarize and interpret the accounting datafor managerial decisions |
| CO4 | Understand accounting systems and analyze financial statements using ratio analysis |
| CO5 | Understand the concepts of financial management and investment |

COURSE CONTENTS**1. INTRODUCTION:**

- 1.1. Managerial Economics;
- 1.2. Relationship with other disciplines;
- 1.3. Firms: Types, objectives and goals;
- 1.4. Managerial decisions;
- 1.5. Decision analysis.

2. DEMAND & SUPPLY ANALYSIS:

- 2.1. Demand;
 - 2.1.1. Types of demand;
 - 2.1.2. Determinants of demand;
 - 2.1.3. Demand function;
 - 2.1.4. Demand elasticity;
 - 2.1.5. Demand forecasting;
- 2.2. Supply;
 - 2.2.1. Determinants of supply;
 - 2.2.2. Supply function;
 - 2.2.3. Supply elasticity.

3. PRODUCTION AND COST ANALYSIS:

- 3.1. Production function;
- 3.2. Returns to scale;
- 3.3. Production optimization;
- 3.4. Least cost input; Iso quants;
- 3.5. Managerial uses of production function;

- 3.6. Cost Concepts;
 - 3.6.1. Cost function;
 - 3.6.2. Types of Cost;
 - 3.6.3. Determinants of cost;
 - 3.6.4. Short run and Long run cost curves;
 - 3.6.5. Cost Output Decision;
 - 3.6.6. Estimation of Cost.

4. PRICING:

- 4.1. Determinants of Price;
- 4.2. Pricing under different objectives and different market structures;
- 4.3. Price discrimination;
- 4.4. Pricing methods in practice;
- 4.5. Role of Government in pricing control.

5. FINANCIAL ACCOUNTING (ELEMENTARY TREATMENT):

- 5.1. Balance sheet and related concepts;
- 5.2. Profit & Loss Statement and related concepts;
- 5.3. Financial Ratio Analysis;
- 5.4. Cash flow analysis;
- 5.5. Funds flow analysis;
- 5.6. Comparative financial statements;
- 5.7. Analysis & Interpretation of financial statements;
- 5.8. Investments;
- 5.9. Risks and return evaluation of investment decision;
- 5.10. Average rate of return;
- 5.11. Payback Period;
- 5.12. Net Present Value;
- 5.13. Internal rate of return,

REFERENCE BOOKS:

- 1. Mc Guigan, Moyer and Harris, 'Managerial Economics; Applications, Strategy and Tactics', Thomson South Western, 10th Edition, 2005.
- 2. Prasanna Chandra. 'Fundamentals of Financial Management', Tata Mcgraw Hill Publishing Ltd., 4th edition, 2005.
- 3. Samuelson. Paul A and Nordhaus W. D., 'Economics', Tata Mcgraw Hill Publishing Company Limited, New Delhi, 2004.
- 4. Paresh Shah, 'Basic Financial Accounting for Management', Oxford University Press, New Delhi, 2007.
- 5. Salvatore Dominick, 'Managerial Economics in a global economy'. Thomson South Western, 4th Edition, 2001.

FOOD AND BEVERAGES MANAGEMENT

| | |
|-------------------|-------------------------------|
| Course Code | HM 5003 |
| Course Title | FOOD AND BEVERAGES MANAGEMENT |
| Number of Credits | 3 (L-2,T-1, P-0) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This subject will help to prepare the students to meet the challenges of food and beverage management. This improve the students ability of creation and invention towards food and beverage to develop the knowledge modern concept of sanitation, safety and health.

COURSE CONTENTS:**THEORY****1. FOOD & BEVERAGE CONTROL**

- 1.1 Introduction to F & B control
- 1.2 Principles of FIFO & LIFO.
- 1.3 Purchasing control
- 1.4 Receiving control
- 1.5 Store control
- 1.6 Preparing specifications
- 1.7 Selecting suppliers.
- 1.8 Ordering & Receiving goods & service.
- 1.9 Storing & Issuing.
- 1.10 Importance of maintaining books & bin cards
- 1.11 Balancing the inventory

2. STANDARD SPECIFICATIONS

- 2.1 Importance.
- 2.2 Standard Recipe
- 2.3 Standard food cost
- 2.4 Standard purchase specifications

3. STAFF & LABOR COST CONTROL

- 3.1 Job description & job analysis.
- 3.2 Staffing guides.
- 3.3 Staff scheduling.
- 3.4 Fix element of labor cost

4. EVALUATING FOOD COST RESULTS:

- 4.1 Pre – cost percent.
- 4.2 Gross profit analysis.

REFERENCE

1. Food Service Management Bhojwani, M.: Rajat publications New Delhi.
2. Hospitality Management: Theories and Practices Ratti, Manish
3. Basics of Catering Management: Its Inevitability Narayan, U.
4. Food Service Management Ratti, Manish. Rajat publications New Delhi
5. Food & Beverage service operation Vijay Dhavan.

HOTEL ACCOUNTS

| | |
|-------------------|------------------|
| Course Code | HM 50041 |
| Course Title | HOTEL ACCOUNTS |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of accounts department, the correct method of handle accounts, bill and others and enabling them to take up supervisory level assignment in accounts operations & management.

COURSE CONTENTS:**THEORY****1 Introduction to Accounting**

- 1.1 Meaning and Definition
- 1.2 Types and Classification
- 1.3 Principles of accounting
- 1.4 Systems of accounting
- 1.5 Generally Accepted Accounting Principles (GAAP)

2 Primary Books (Journal)

- 2.1 Meaning and Definition
- 2.2 Format of Journal
- 2.3 Rules of Debit and Credit
- 2.4 Opening entry, Simple and Compound entries
- 2.5 Practicals

3 Secondary Book (Ledger)

- 3.1 Meaning and Uses
- 3.2 Formats
- 3.3 Posting
- 3.4 Practicals

4 SUBSIDIARY BOOKS

- 4.1 Need and Use
- 4.2 Classification
 - 4.2.1 Purchase Book
 - 4.2.2 Sales Book
 - 4.2.3 Purchase Returns
 - 4.2.4 Sales Returns
- 4.2.5 Journal Proper

5 Cash Book

- 5.1 Meaning
- 5.2 Advantages
- 5.3 Simple, Double and Three Column
- 5.4 Petty Cash Book with Imprest System (simple and tabular forms)
- 5.5 Practicals

6 Bank Reconciliation Statement

- 6.1 Meaning
- 6.2 Reasons for difference in Pass Book and Cash Book Balances
- 6.3 Preparation of Bank Reconciliation Statement

7 Trial Balance

- 7.1 Meaning

- 7.2 Methods
- 7.3 Advantages
- 7.4 Limitations
- 7.5 Practicals

REFERENCE BOOKS

1. Hotel Accounting by Anil Khaturia
2. Cost accounting Principles and practices – Narang K L, Aggarwal Simmi Jain SP
3. Accounting and Financial Analysis in the Hospitality Industry by Johnathan Hales and Hubert B. Van Hoof
4. Hotel Accounting & Financial By Ozi A.D'Cunha & Gleson O. D'Cunha Publisher: Dicky,s Enterprize, Mumbai
5. Introduction to Accounts – T.S. Grewal
6. Hospitality Accounting- Publisher: Prentia Hall Upper Sadde, River New Jersey
7. Hospitality Financial Accounting By Jerry J Weygandt, Publisher Wiley & sons

Semester Scheme 020

BASIC FINANCIAL MANAGEMENT

| | |
|-------------------|----------------------------|
| Course Code | HM 50042 |
| Course Title | BASIC FINANCIAL MANAGEMENT |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of accounts department, the correct method of handle accounts, bill and others and enabling them to take up supervisory level assignment in accounts operations & management.

COURSE CONTENTS:**THEORY****1 Final Accounts**

- 1.1 Meaning
- 1.2 Procedure for preparation of Final Accounts
- 1.3 Difference between Trading Accounts, Profit & Loss Accounts and Balance Sheet
- 1.4 Adjustments (Only four)
 - 1.4.1 Closing Stock
 - 1.4.2 Pre-paid Expenses
 - 1.4.3 Outstanding Expenses
 - 1.4.4 Depreciation

2 Capital and Revenue Expenditure

- 2.1 Meaning
- 2.2 Definition of Capital and Revenue Expenditure

3. Uniform SYSTEM of Accounts for Hotels

- 3.1 Introduction to Uniform system of accounts
- 3.2 Contents of the Income Statement
- 3.3 Practical Problems
- 3.4 Contents of the Balance Sheet (under uniform system)
- 3.5 Practical problems
- 3.6 Departmental Income Statements and Expense statements
- 3.7 Practical problems

4. Internal Control

- 4.1 Definition and objectives of Internal Control
- 4.2 Characteristics of Internal Control
- 4.3 Implementation and Review of Internal Control

5. Internal Audit and Statutory Audit

- 5.1 An introduction to Internal and Statutory Audit
- 5.2 Distinction between Internal Audit and Statutory Audit
- 5.3 Implementation and Review of internal audit

6. Financial Statement Analysis and interpretation

- 6.1 Meaning and types of financial statements
- 6.2 Techniques of financial analysis
- 6.3 Limitations of financial analysis
- 6.4 Practical problems

7. Basics of Capital Budgeting

- 7.1 Importance of Capital Budgeting

- 7.2 Capital Budgeting appraising methods
- 7.3 Payback period
- 7.4 Average rate of return
- 7.5 Net Present Value
- 7.6 Profitability index
- 7.7 Internal rate of return
- 7.8 Practical problems

REFERENCE BOOKS

1. Hotel Accounting by Anil Khaturia
2. Cost accounting Principles and practices – Narang K L, Aggarwal Simmi Jain SP
3. Accounting and Financial Analysis in the Hospitality Industry by Johnathan Hales and Hubert B. Van Hoof
4. Hotel Accounting & Financial By Ozi A.D'Cunha & Gleson O. D'Cunha Publisher: Dicky,s Enterprize, Mumbai
5. Introduction to Accounts – T.S. Grewal
6. Hospitality Accounting- Publisher: Prentia Hall Upper Sadde, River New Jersey
7. Hospitality Financial Accounting By Jerry J Weygandt, Publisher Wiley & sons

HUMAN RESOURCES

| | |
|-------------------|------------------|
| Course Code | HM 50051 |
| Course Title | HUMAN RESOURCES |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of selection, development and training of staff for their Hotel.

COURSE CONTENTS:**THEORY**

1. **Introduction**
 - 1.1 Meaning & definition of HR
 - 1.2 Objectives of HR
 - 1.3 Importance of HR
 - 1.4 HR policies
 - 1.5
2. **Job**
 - 2.1 Job analysis
 - 2.2 Job Description
 - 2.3 Job Specification
 - 2.4 Job Rotation
3. **Recruitment & Selection**
 - 3.1 Advertisement
 - 3.2 Application Bank
 - 3.3 Recruitment (basic)
 - 3.4 Selection
4. **Training & development**
 - 4.1 Meaning of training
 - 4.2 methods of training
5. **Performance Appraisal**
 - 5.1 Methods of Performance Appraisal

REFERENCE BOOKS

Human Resource Management
Human Resource Management

VSP Rao, Taxmann Publication
Dharmendra Sharma & Divya Gera Thakur
Publication

MARKETING MANAGEMENT

| | |
|-------------------|----------------------|
| Course Code | HM 50052 |
| Course Title | MARKETING MANAGEMENT |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

This course will acquaint the students for marketing concepts, environment and marketing mix for their hotel

COURSE CONTENTS:**THEORY****1. Introduction**

- 1.1 Meaning & definition of marketing
- 1.2 Objectives of marketing
- 1.3 Importance of marketing
- 1.4 Eras of Marketing

2. Product

- 2.1 Concept
- 2.2 Product Life cycle
- 2.3 New Product development

3. Brand

- 3.1 Meaning
- 3.2 Brand Equity, Awareness, Contribution

4. Price of products**5. Promotion**

- 5.1 Advertisement
- 5.2 Publicity
- 5.3 Personal Contacts
- 5.4 digital marketing
- 5.5 Display marketing

REFERENCE BOOKS

Marketing Management

Kumar Arun, Meenakshi N Ramesh
Book Depot Jaipur

Marketing Management

Dr Gaurav Khanna & Dr Surjeet Kumar Thakur
Publication

HOUSE KEEPING – III LAB

| | |
|-------------------|-------------------------|
| Course Code | HM 5006 |
| Course Title | HOUSE KEEPING – III LAB |
| Number of Credits | 3 (L-0, T-0, P-6) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students for planning, implementation and system of housekeeping department, the correct method of cleaning equipment, laundry and material and enabling them to take up supervisory level assignment in house keeping operations & management.

DETAILED CONTENTS**PRACTICAL**

- 1 Standard operating procedure
- 2 Skill oriented task (e.g. cleaning and polishing glass, brass etc)
- 3 First aid -first aid kit
- 4 Dealing with emergency situation
- 5 Maintaining records
- 6 Fire safety fire fighting -safety measures, fire drill (demo)
- 7 Special decoration (theme related to hospitality industry) indenting costing, planning with time split, executing
- 8 Layout of guest room to the scale, earmark pillars specification of colours, furniture, fixture, fitting, soft furnishing and accessories etc used
- 9 Team cleaning
 - 9.1 Planning
 - 92 Organizing
 - 93 Executing
 - 94 Evaluating
- 10 Inspection checklist
- 11 Time and motion study
 - 11.1 Steps of bed making
 - 11.2 Steps in servicing a guest room etc
- 12 Guest room designing (Model Presentation)
- 13 VIP drill – Functions group arrival
- 14 Situation handling – mock situations
- 15 Housekeeper role play
- 16 Guest Room Planning: Concept to Commissioning & operations.
- 17 Carpet Shampooing

REFERENCE BOOKS

1. House Keeping Manual--Sudhir Andrew
2. Professional hotel management
3. Professional Housekeeping
4. Hotel House Keeping Operaion-G. Raghubalan

GOVERNMENT OF RAJASTHAN
BOARD OF TECHNICAL EDUCATION RAJASTHAN JODHPUR
SEMESTER SCHEME-2020-21



VI SEMESTER
(SESSION 2021-2022 & ONWARDS)

ENTREPRENEURSHIP AND START-UPS

| | |
|-----------------------------|--|
| Course Code | HM 6111(Same in all Branches of Engineering) |
| Course Title | Entrepreneurship and Start-ups |
| Number of Credits | 4 (L-3 ,T-1, P-0) |
| Prerequisites (Course code) | None |
| Course Category | HS |

COURSE LEARNING OBJECTIVES:

1. Acquiring Entrepreneurial spirit and resourcefulness.
2. Familiarization with various uses of human resource for earning dignified means of living.
3. Understanding the concept and process of entrepreneurship-its contribution and role in the growth and development of individual and the nation.
4. Acquiring entrepreneurial quality, competency, and motivation.
5. Learning the process and skills of creation and management of entrepreneurial venture.

LEARNING OUTCOME:

Upon completion of the course, these student will be able to demonstrate knowledge of the following topics:

1. Understanding the dynamic role of entrepreneurship and small businesses
2. Organizing and Managing a Small Business
3. Financial Planning and Control
4. Forms of Ownership for Small Business
5. Strategic Marketing Planning
6. New Product or Service Development
7. Business Plan Creation

COURSE CONTENTS:**1. INTRODUCTION TO ENTREPRENEURSHIP AND START-UPS**

- 1.1. Definitions, Traits of an entrepreneur, Intrapreneurship, Motivation
- 1.2. Types of Business Structures,
- 1.3. Similarities / differences between entrepreneurs and managers.

2. BUSINESS IDEAS AND THEIR IMPLEMENTATION

- 2.1. Discovering ideas and visualizing the business
- 2.2. Activity map
- 2.3. Business Plan

3. IDEA TO START-UP

- 3.1. Market Analysis– Identifying the target market,
- 3.2. Competition evaluation and Strategy Development,
- 3.3. Marketing and accounting,
- 3.4. Risk analysis

4. MANAGEMENT

- 4.1. Company's Organization Structure,
- 4.2. Recruitment and management of talent.
- 4.3. Financial organization and management

5. FINANCING AND PROTECTION OF IDEAS

- 5.1. Financing methods available for start-ups in India
- 5.2. Communication of Ideas to potential investors– Investor Pitch
- 5.3. Patenting and Licenses

6. EXIT STRATEGIES FOR ENTREPRENEURS ,BANKRUPTCY, AND SUCCESSION AND HARVESTING STRATEGY**SUGGESTED LEARNING RESOURCES:**

| S.No. | Title of Book | Author | Publication |
|-------|---|-------------------------------------|---|
| 1. | The Startup Owner's Manual: The Step by-Step Guide for Building a Great Company | Steve Blank and Bob Dorf | K & S Ranch ISBN-978-0984999392 |
| 2. | The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses | Eric Ries | Penguin UK ISBN-978-0670921607 |
| 3. | Demand: Creating What People Love Before They Know They Want It | Adrian J. Slywotzky with Karl Weber | Headline Book Publishing ISBN-978-0755388974 |
| 4. | The Innovator's Dilemma: The Revolutionary Book That Will Change the Way You Do Business | Clayton M. Chris Tensen | Harvard business ISBN:978-142219602 |

SUGGESTED SOFTWARE/LEARNING WEBSITES:

- <https://www.fundable.com/learn/resources/guides/startup>
- <https://corporatefinanceinstitute.com/resources/knowledge/finance/corporatestructure/>
- <https://www.finder.com/small-business-finance-tips>
- <https://www.profitbooks.net/funding-options-to-raise-startup-capital-for-your-business/>

PROJECT MANAGEMENT

| | |
|-----------------|---|
| CourseCode | HM 62001(Same in all Branches of Engineering) |
| CourseTitle | Project Management |
| NumberofCredits | 3(L:3,T:0,P:0) |
| Prerequisites | NIL |
| CourseCategory | OE |

COURSE LEARNING OBJECTIVES

- To develop the idea of project plan, from defining and confirming the project goals and objectives, identifying tasks and how goals will be achieved.
- To develop an understanding of key project management skills and strategies.

COURSE OUTCOMES

At the end of the course, the student will be able to:

| | |
|-----|--|
| CO1 | Understand the importance of projects and its phases. |
| CO2 | Analyze projects from marketing, operational and financial perspectives. |
| CO3 | Evaluate projects based on discount and non-discount methods. |
| CO4 | Develop network diagrams for planning and execution of a given project. |
| CO5 | Apply crashing procedures for time and cost optimization. |

COURSE CONTENTS**1. CONCEPT OF A PROJECT:**

- 1.1. Classification of projects
- 1.2. Importance of project management
- 1.3. The project Life cycle
- 1.4. Establishing project priorities (scope-cost-time)
- 1.5. Project priority matrix
- 1.6. Work break down structure.

2. CAPITAL BUDGETING PROCESS:

- 2.1. Planning -Analysis-Selection-Financing-Implementation-Review.
- 2.2. Generation and screening of project ideas
- 2.3. Market and demand analysis
- 2.4. Demand forecasting techniques.
- 2.5. Market planning and marketing research process
- 2.6. Technical analysis

3. FINANCIAL ESTIMATES AND PROJECTIONS:

- 3.1. Cost of projects
- 3.2. Means of financing
- 3.3. Estimates of sales and production-cost of production
- 3.4. Working capital requirement and its financing
- 3.5. Profitability project , cash flow statement and balance sheet.
- 3.6. Breakeven analysis.

4. BASIC TECHNIQUES IN CAPITAL BUDGETING:

- 4.1. Non discounting and discounting methods
- 4.2. pay-back period
- 4.3. Accounting rate of return

- 4.4. Net present value
- 4.5. Benefit cost ratio
- 4.6. Internal rate of return.
- 4.7. Project risk.
- 4.8. Social cost benefit analysis and economic rate of return.
- 4.9. Non-financial justification of projects.

5. PROJECT ADMINISTRATION:

- 5.1. Progress payments,
- 5.2. Expenditure planning,
- 5.3. Project scheduling and network planning,
- 5.4. Use of Critical Path Method(CPM),
- 5.5. Schedule of payments and physical progress,
- 5.6. time-cost trade off.
- 5.7. Concepts and uses of PERT
- 5.8. Cost as a function of time,
- 5.9. Project Evaluation and Review Techniques
- 5.10. Cost mechanisms.
- 5.11. Determination of least cost duration.
- 5.12. Post project evaluation.
- 5.13. Introduction to various Project management softwares.

REFERENCE BOOKS

- 1.Project planning, analysis, selection, implementation and review –Prasannachandra–Tata McGraw Hill
- 2.Project Management – the Managerial Process– Clifford F. Gray & Erik W. Larson-McGrawHill
- 3.Project management- David I Cleland- Mcgraw Hill International Edition, 1999
- 4.Project Management– Gopala krishnan– Mcmillan India Ltd.
- 5.Project Management- Harry – Maylor – Pearson Publication

RENEWABLE ENERGY TECHNOLOGIES

| | |
|-----------------|---|
| CourseCode | HM 62002(Same in all Branches of Engineering) |
| CourseTitle | Renewable Energy Technologies |
| NumberofCredits | 3 (L:3,T:0,P:0) |
| Prerequisites | NIL |
| CourseCategory | OE |

COURSE LEARNING OBJECTIVES

- To understand present and future scenario of world energy use.
- To understand fundamentals of solar energy systems.
- To understand basics of wind energy.
- To understand bio energy and its usage in different ways.
- To identify different available non-conventional energy sources.

COURSE OUTCOMES

At the end of the course, the student will be able to:

| | |
|-----|--|
| CO1 | Understand present and future energy scenario of the world. |
| CO2 | Understand various methods of solar energy harvesting. |
| CO3 | Identify various wind energy systems. |
| CO4 | Evaluate appropriate methods for Bio energy generations from various Bio wastes. |
| CO5 | Identify suitable energy sources for a location. |

COURSE CONTENTS**1. INTRODUCTION:**

- 1.1. World Energy Use;
- 1.2. Reserves of Energy Resources;
- 1.3. Environmental Aspects OF Energy Utilisation;
- 1.4. Renewable Energy Scenario in India and around the World;
- 1.5. Potentials; Achievements/ Applications;
- 1.6. Economies of renewable energy systems.

2. SOLAR ENERGY:

- 2.1. Solar Radiation;
- 2.2. Measurements of Solar Radiation;
- 2.3. Flat Plate and Concentrating Collectors;
- 2.4. Solar direct Thermal Applications;
- 2.5. Solar thermal Power Generation
- 2.6. Fundamentals of Solar Photo Voltaic Conversion;
- 2.7. Solar Cells;
- 2.8. Solar PV Power Generation;
- 2.9. Solar PV Applications.

3. WIND ENERGY:

- 3.1. Wind Data and Energy Estimation;
- 3.2. Types of Wind Energy Systems;
- 3.3. Performance; Site Selection;
- 3.4. Details of Wind Turbine Generator;
- 3.5. Safety and Environmental Aspects.

4. BIO-ENERGY:

- 4.1. Bio mass direct combustion;
- 4.2. Bio mass gasifiers;
- 4.3. Bio gas plants;
- 4.4. Digesters;
- 4.5. Ethanol production;
- 4.6. Bio diesel;
- 4.7. Cogeneration;
- 4.8. Bio mass Applications.

5. OTHER RENEWABLE ENERGY SOURCES:

- 5.1. Tidal energy;
- 5.2. Wave Energy;
- 5.3. Open and Closed OTEC Cycles;
- 5.4. Small Hydro Geothermal Energy;
- 5.5. Hydrogen and Storage;
- 5.6. Fuel Cell Systems;
- 5.7. Hybrid Systems.

REFERENCE BOOKS

- 1. Non-Conventional Energy Sources, Rai. G. D., Khanna Publishers, New Delhi, 2011.
- 2. Renewable Energy Sources, Twidell, J.W. & Weir, A., EFN SponLtd.,UK,2 006.
- 3. Solar Energy, Sukhatme. S. P., Tata Mc Graw Hill Publishing CompanyLtd. ,New Delhi, 1997.
- 4. Renewable Energy, Power for a Sustainable Future, Godfrey Boyle, Oxford University Press, U.K., 1996.
- 5. Fundamental of Renewable Energy Sources, G N Tiwari and M K Ghoshal, Narosa, New Delhi, 2007.
- 6. Renewable Energy and Environment A Policy Analysis for India ,NH Ravindranath, U K Rao, B Natarajan, P Monga, Tata McGraw Hill.
- 7. Energy and The Environment, R A Ristinen and J J Kraushaar, second edition, John Willey & Sons, New York, 2006.
- 8. Renewable Energy Resources, J W T widell and A D Weir, ELBS, 2006.

PRODUCT DESIGN

| | |
|-----------------|---|
| CourseCode | HM 63001(Same in all Branches of Engineering) |
| CourseTitle | Product Design |
| NumberOfCredits | 3 (L:3,T:0,P:0) |
| Prerequisites | NIL |
| CourseCategory | OE |

COURSE LEARNING OBJECTIVES

- To acquire the basic concepts of product design and development process
- To understand the engineering and scientific process in executing a design from concept to finished product
- To study the key reasons for design or redesign.

COURSE OUTCOMES

At the end of the course, the student will be able to:

| | |
|-----|---|
| CO1 | Understand the basic concepts of product design and development process. |
| CO2 | Illustrate the methods to define the customer needs. |
| CO3 | Describe an engineering design and development process. |
| CO4 | Understand the intuitive and advanced methods used to develop and evaluate a concept. |
| CO5 | Apply modelling and embodiment principles in product design and development process. |

COURSE CONTENTS**1. DEFINITION OF A PRODUCT**

- 1.1. Types of product;
- 1.2. Levels of product;
- 1.3. Product-market mix;
- 1.4. New product development (NPD) process;
- 1.5. Idea generation methods;
- 1.6. Creativity;
 - 1.6.1. Creative attitude;
 - 1.6.2. Creative design process;
- 1.7. Morphological analysis;
- 1.8. Analysis of inter-connected decision areas;
- 1.9. Brain storming.

2. PRODUCT LIFE CYCLE;

- 2.1. The challenges of Product development;
- 2.2. Product analysis;
- 2.3. Product characteristics;
- 2.4. Economic considerations;
- 2.5. Production and Marketing aspects;
- 2.6. Characteristics of successful Product development;
- 2.7. Phases of a generic product development process;
- 2.8. Customer need identification;
- 2.9. Product development practices and industry-product strategies.

3. PRODUCT DESIGN

- 3.1. Design by evolution;
- 3.2. Design by innovation;
- 3.3. Design by imitation;
- 3.4. Factors affecting product design;
- 3.5. Standards of performance and environmental factors;

- 3.6. Decision making and iteration;
- 3.7. Morphology of design (different phases);
- 3.8. Role of aesthetics in design.

4. INTRODUCTION TO OPTIMIZATION IN DESIGN

- 4.1. Economic factors in design;
- 4.2. Design for safety and reliability;
- 4.3. Role of computers in design;
- 4.4. Modeling and Simulation;
- 4.5. The role of models in engineering design;
- 4.6. Mathematical modeling;
- 4.7. Similitude and scale models;
- 4.8. Concurrent design;
- 4.9. Six sigma and design for six sigma;
- 4.10. Introduction to optimization in design;
- 4.11. Economic factors and financial feasibility in design;
- 4.12. Design for manufacturing;
- 4.13. Rapid Proto typing (RP);
- 4.14. Application of RP in product design;
- 4.15. Product Development versus Design.

5. DESIGN OF SIMPLE PRODUCTS DEALING WITH VARIOUS ASPECTS OF PRODUCT DEVELOPMENT;

- 5.1. Design Starting from need till the manufacture of the product

REFERENCE BOOKS

- 1.Product Design and Development, Karl T.Ulrich and Steven D.Eppinger, TataMc Graw–Hill edition.
- 2.Engineering Design– George E. Dieter.
- 3.An Introduction to Engineering Design methods Vijay Gupta.
- 4.Merie Crawford: New Product management, McGraw-Hill Irwin.
- 5.Chitale A K and Gupta R C,“ Product Design and Manufacturing”, Prentice Hall of India, 2005.
- 6.Kevin Otto and Kristin Wood, Product Design, Techniques in Reverse Engineering and New Product Development, Pears on education.

DISASTER MANAGEMENT

| | |
|-------------------|---|
| Course Code | HM 63002(Same in all Branches of Engineering) |
| Course Title | Disaster Management |
| Number of Credits | 3 (L: 3, T: 0 ,P :0) |
| Prerequisites | NIL |
| Course Category | OE |

COURSE LEARNING OBJECTIVES

Following are the objectives of this course:

- To learn about various types of natural and man-made disasters.
- To know pre and post-disaster management for some of the disasters.
- To know about various information and organizations in disaster management in India.
- To get exposed to technological tools and their role in disaster management.

COURSE OUTCOMES:

- 1.1. After completing this course, student will be:
- 1.2. Acquainted with basic information on various types of disasters
- 1.3. Knowing the precautions and awareness regarding various disasters
- 1.4. Decide first action to be taken under various disasters
- 1.5. Familiarised with organization in India which are dealing with disasters
- 1.6. Able to select IT tools to help in disaster management

COURSE CONTENTS**1. UNDERSTANDING DISASTER**

- 1.1. Understanding the Concepts and definitions of Disaster,
- 1.2. Hazard,
- 1.3. Vulnerability,
- 1.4. Risk,
- 1.5. Capacity–Disaster and Development,
- 1.6. Disaster management.

2. TYPES, TRENDS, CAUSES, CONSEQUENCES AND CONTROL OF DISASTERS

- 2.1. Geological Disasters (earth quakes, land slides,tsunami, mining);
- 2.2. Hydro-Meteorological Di-sasters (floods, cyclones, lightning, thunder-storms, hailstorms, avalanches, droughts, cold and heat waves)
- 2.3. Biological Disasters (epidemics, pestattacks, forestfire);
- 2.4. Technological Disasters (chemical, industrial, radiological, nuclear)
- 2.5. Manmade Disasters (building collapse, rural and urban fire, road and rail accidents, nuclear, radiological, chemicals and biological disasters)
- 2.6. Global Disaster Trends
- 2.7. Emerging Risks of Disasters
- 2.8. Climate Change and Urban Disasters.

3. DISASTER MANAGEMENT CYCLE AND FRAME WORK

- 3.1. Disaster Management Cycle
- 3.2. Paradigm Shift in Disaster Management.
- 3.3. Pre-Disaster
- 3.4. Risk Assessment and Analysis,
- 3.5. Risk Mapping,
- 3.6. Zonation and Microzonation,
- 3.7. Prevention and Mitigation of Disasters,
- 3.8. Early Warning System
 - 3.8.1. Preparedness,
 - 3.8.2. Capacity Development;
 - 3.8.3. Awareness.

- 3.9. During Disaster
 - 3.9.1. Evacuation
 - 3.9.2. Disaster Communication
 - 3.9.3. Search and Rescue
 - 3.9.4. Emergency Operation Centre
 - 3.9.5. Incident Comm and System
 - 3.9.6. Relief and Rehabilitation
- 3.10. Post-disaster
 - 3.10.1. Damage and Needs Assessment,
 - 3.10.2. Restoration of Critical Infra structure
 - 3.10.3. Early Recovery Reconstruction and Redevelopment;
 - 3.10.4. IDNDR, Yokohama Stretegy, Hyogo Frame-work of Action.

4. DISASTER MANAGEMENT IN INDIA

- 4.1. Disaster Profile of India
- 4.2. Mega Disasters of India and Lessons Learnt.
- 4.3. Disaster Management Act 2005
- 4.4. Institutional and Financial Mechanism,
- 4.5. National Policy on Disaster Management,
- 4.6. National Guidelines and Plans on Disaster Management;
- 4.7. Role of Government (local, state and national),
- 4.8. Non-Government and Inter Governmental Agencies

5. APPLICATIONS OF SCIENCE AND TECHNOLOGY FOR DISASTER MANAGEMENT

- 5.1. Geo informatics in Disaster Management (RS, GIS, GPS and RS).
- 5.2. Disaster Communication System (Early Warning and Its Dissemination).
- 5.3. Land Use Planning and Development Regulations,
- 5.4. Disaster Safe Designs and Constructions,
- 5.5. Structural and Non Structural Mitigation of Disasters
- 5.6. S & T Institutions for Disaster Management in India

REFERENCES

- 1.Publications of National Disaster Management Authority (NDMA) on Various Templates and Guide lines for Disaster Management
- 2.Bhandani, R. K., An over view on natural & man-made disasters and their reduction, CSIR, New Delhi
- 3.Srivastava, H. N., and Gupta G. D. , Management of Natural Disasters in developing countries, Daya Publishers, Delhi
- 4.Alexander, David, Natural Disasters, Kluwer Academic London
- 5.Ghosh, G .K. ,Disaster Management, APH Publishing Corporation
- 6.Murthy, D. B. N., Disaster Management: Text & Case Studies, Deep & Deep Pvt. Ltd.

INDIAN CONSTITUTION

| | |
|---------------------------|--|
| CourseCode | HM 6333(Same in all Branches of Engineering) |
| CourseTitle | Indian Constitution |
| NumberofCredits | 0 (L:2,T:0;P:0) |
| Prerequisites(Coursecode) | None |
| CourseCategory | AU |

COURSE CONTENT**1. THE CONSTITUTION –**

- 1.1. Introduction
- 1.2. The History of the Making of the Indian Constitution
- 1.3. Preamble and the Basic Structure, and its interpretation
- 1.4. Fundamental Rights and Duties and their interpretation
- 1.5. State Policy Principles

2. UNION GOVERNMENT

- 2.1. Structure of the Indian Union
- 2.2. President– Role and Power
- 2.3. Prime Minister and Council of Ministers
- 2.4. Lok Sabha and Rajya Sabha

3. STATE GOVERNMENT

- 3.1. Governor– Role and Power
- 3.2. Chief Minister and Council of Ministers
- 3.3. State Secretariat

4. LOCAL ADMINISTRATION

- 4.1. District Administration
- 4.2. Municipal Corporation
- 4.3. Zila Panchayat

5. ELECTION COMMISSION

- 5.1. Role and Functioning
- 5.2. Chief Election Commissioner
- 5.3. State Election Commission

SUGGESTED LEARNING RESOURCES:

| S.No. | Title of Book | Author | Publication |
|-------|--|-----------------|--|
| 1. | Ethics and Politics of the Indian Constitution | Rajeev Bhargava | Oxford University Press, New Delhi, 2008 |
| 2. | The Constitution of India | B.L.Fadia | Sahitya Bhawan; New edition(2017) |
| 3. | Introduction to the Constitution of India | D D Basu | Lexis Nexis; Twenty-Third 2018 edition |

SUGGESTED SOFTWARE / LEARNING WEBSITES:

1. <https://www.constitution.org/cons/india/const.html>
2. <http://www.legislative.gov.in/constitution-of-india>
3. <https://www.sci.gov.in/constitution>
4. <https://www.toppr.com/guides/civics/the-indian-constitution/the-constitution-of-india/>

TOURISM MANAGEMENT

| | |
|-------------------|--------------------|
| Course Code | HM 60011 |
| Course Title | TOURISM MANAGEMENT |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

The study of this subject will help the students to understand the Scope & importance of tourism management in India.

COURSE CONTENTS:**THEORY****1. INTRODUCTION TO TOURISM, HOSPITALITY & HOTEL INDUSTRY**

- 1.1 Tourism and its importance
- 1.2 Hospitality and its origin
- 1.3 Hotels, their evolution and growth
- 1.4 Brief introduction to hotel core areas with special reference to Front Office

2. CLASSIFICATION OF HOTELS

- 2.1 Size
- 2.2 Star
- 2.3 Location & clientele
- 2.4 Ownerships basis
- 2.5 Independent hotels
- 2.6 Management contracted hotel
- 2.7 Chains
- 2.8 Franchise / Affiliated
- 2.9 Supplementary accommodation
- 2.10 Times shares and condominium

3. RESERVATION

- 3.1 Importance of reservation
- 3.2 Modes
- 3.3 Channels and sources (F I T s, Travel Agents, Airline, G I T s)
- 3.4 Types of reservation (Tentative, confirmed, guaranteed etc.)
- 3.5 Systems (non automatic, semi automatic , fully automatic)
- 3.6 Cancellation, Amendments and overbooking

4. DURING THE STAY ACTIVITIES

- 4.1 Information services
- 4.2 Message and mail handling
- 4.3 Key Handling
- 4.4 Room selling technique
- 4.5 Hospitality desk
- 4.6 Complaints handling
- 4.7 Guest handling
- 4.8 Guest history

5. GUEST ACCOUNTING (MANUAL)

- 5.1 Guest Weekly Bill
- 5.2 Visitors tabular ledger

REFERENCE BOOKS

Tourism management
 Tourism concept, Theory & Practice
 Management in Tourism

Stephen J,
 M.R. Dileep Willey
 Neetu Sharma, Dinesh Verma

STRATEGIC MANAGEMENT

| | |
|-------------------|----------------------|
| Course Code | HM 60012 |
| Course Title | STRATEGIC MANAGEMENT |
| Number of Credits | 3 (L-3,T-0, P-0) |
| Prerequisites | NIL |
| Course Category | PE |

COURSE OBJECTIVES

The study of this subject will help the students to understand the Objectives, mission & Vision of Business and to formulate strategies for success of Business.

COURSE CONTENTS:**THEORY****1. Organizational Strategy**

- 1.1 Mission Statement Elements and its importance
- 1.2 Objectives- Necessity of formal objectives, Objective Vs Goal
- 1.3 Strategy

2. Developing Strategies

- 2.1 Adaptive Search
- 2.2 Intuition search
- 2.3 Strategic factors
- 2.4 Picking Niches
- 2.5 Entrepreneurial Approach

3. Environmental And Internal Resource Analysis

- 3.1 Need for Environmental Analysis
- 3.2 Key Environmental Variable Factors
- 3.3 Opportunities and Threats
 - * Internal resource analysis
- 3.4 Functional Areas Resource Development Matrix
- 3.5 Strengths and Weaknesses
 - * Marketing
 - * Finance
 - * Production
 - * Personnel
 - * Organization

4. Strategic analysis and choice (allocation of resources)

- 4.1 Factors Influencing Choice
- 4.2 Strategy formulation
- 4.3 Input Stage
 - Internal factor evaluation matrix
 - External factor evaluation matrix
 - Competitive profile matrix
- 4.4 Matching Stage
 - Threats opportunities - weaknesses - strengths matrix (TOWS)
 - Strategic position and action evaluation matrix (SPACE)
 - Boston consulting group matrix (BCGM)
 - Internal - External matrix
 - Grand Strategy matrix
- 4.5 Decision Stage
- 4.6 Quantitative Strategic Planning matrix (QSPM)

REFERENCE BOOKS

Strategic management
Strategic management
Strategic management

Azhar Kazmi & Adela Kazmi Mc Graw Hill
John Pierce & Richard Robinson Mc Graw Hill
Dr. S. Md .Ghouse, B. Ismail Zabiullah Thakur
Publications

FRONT OFFICE – III LAB

| | |
|-------------------|------------------------|
| Course Code | HM 60021 |
| Course Title | FRONT OFFICE – III LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will provide the students with an understanding of the role of front office and reception in a Hotel. They will understand customer care policies, communication with other department and role front office plays in selling the hotel and all its facilities.

COURSE CONTENTS:**PRACTICALS**

- 1 Computer Application
- 2 Role play- selling techniques
- 3 Practice on bills compilation, presentation ,settlement & night auditing procedures.
- 4 Maintenance of reports and registers
- 5 Viva-voice
- 6 Group discussions on topics of relevance/ current hotel operative practices
- 7 Tour itinerary – package tours, group tours
- 8 Inbound and outbound tour

REFERENCE BOOKS

1. Front Office Manual ---- Sudhir Andrew
2. Principals of Hotel Front office Operations ---- Baker,Bradely & Huyton
- 3.Front Office Procedure & yield Management ---- Peter Abboff & Sue Lenry
4. Office Operations Pant, Anoop Rajat publications New Delhi
5. Accountancy for Hospitality Industry Pant, Anoop Rajat publications New Delhi

FOOD PRODUCTION – III LAB

| | |
|-------------------|---------------------------|
| Course Code | HM 60022 |
| Course Title | FOOD PRODUCTION – III LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of food stuff which are commonly found within the hotel industry to acceptable standards.

COURSE CONTENTS:**PRACTICALS**

- 1 Bakery COLD SWEET (Mousse, sponge, trifle, soufflé)
- 2 Bakery Hot sweet (Pudding, custard)
- 3 Brioche, Baba au Rhum
- 4 Crêpe Suzette, Soft Rolls
- 5 Foccacia, Chocolate Cream Puffs
- 6 Bread Sticks, Doughnuts
- 7 Chocolate Brownie, Herb & Potato Loaf
- 8 MENU (Consommé Carmen, Poulet Sauté Chasseur, Pommes Loretta, Haricots Verts)
- 9 MENU (Cabbage Chowder, Poulet A La Rex, Pommes Marguises, Ratatouille)
- 10 Buffets Menu (Cold Buffet, Hot Continental, Hot Indian, Buffet Desserts, Bread Display)
- 11 Salads, cold preparations, pates, galantines, Ballontines, mousse, Aspic, chaudfroid, forcemeats platters and buffets.
- 12 Practice on Ice Carving, Tallow sculpture, Fruit & Vegetable display, Pastillage, Salt dough & Jelly logo
- 13 International cooking – various countries. International cuisine (French, Oriental (Chinese, Thai), Italy, Germany, Spain, Greece, Mexican, Mediterranean and Lebanese)
- 14 Western starters, snacks and hors'oeuvre's

REFERENCE BOOKS

1. Modern cookery Vol. I & II -- Thangam Phillip
2. Theory of cookery -- Krishna Arora (S.Chand & Sons)
- 3 Professional Cheff -- Arvind Saraswat

CONFECTIONERY LAB

| | |
|-------------------|-------------------|
| Course Code | HM 6003 |
| Course Title | CONFECTIONERY LAB |
| Number of Credits | 2 (L-0,T-0, P-4) |
| Prerequisites | NIL |
| Course Category | PC |

COURSE OBJECTIVES

This course will acquaint the students to prepare varieties of confectioneries which are commonly found within the hotel industry to acceptable standards.

DETAILED CONTENTS**PRACTICALS****1. Basic Cake Making**

- 1.1 Plain Sponge
- 1.2 Madeira Cake, Rock Cake, Fruit Cake
- 1.3 Fatless Sponge
- 1.4 Swiss Rolls
- 1.5 Genoise Sponge

2. Biscuits & Cookies:

Plain biscuits; piping biscuits; cherry knobs; langue –de – chats; (cats tongue) salted biscuits; nut biscuits; coconut biscuits; melting moment; macaroons; tricolour; chocolate biscuits; marble biscuits; nan-khatai; short bread biscuits.
Ginger biscuits; cheese biscuits; cream fingers

3. Basic Pastry & derivatives:

- 3.1 Short Crust Pastry
 - Jam tart, Lemon curd tart
 - Apple Pie, Banana Flan, Fruit Tartlets
- 3.2 Choux Pastry
 - Chocolate Éclairs, Profit role
 - Cream puff
- 3.3 Puff Pastry & flaky pastry
 - Khara Biscuits, veg patties, chicken patties
 - Mutton patties, Cheese Straws, patty case
 - Bouchee, vol-au-vents,
 - Mille Feuillet, Jalousie, Creams Horns
 - Apple Strudel Filo or phyllo pastries such as baklava

4. Pastry & Special Cakes

- 4.1 Queen cakes, Easter Egg
- 4.2 Chocolate dippings
- 4.3 Cheese cake, Baba-cum Rhum
- 4.4 Savarin Chantilly, meringues chantilly. Madeline cake
- 4.5 Pineapple pastry, chocolate pastry

5. Icing Cakes

- 5.1 Birthday cake
- 5.2 Wedding cakes

6. Puddings and Desserts

- 6.1 Hot dessert : Caramel Custard, soufflé chaud Bread and Butter pudding, Crème brûlée
- 6.2 Cold Desserts: Bavarois; ginger pudding; cold lemon soufflé; chocolate mousse; charlotte royale; charlotte russe; charlotte harlequin; bavarois urbane; soufflé praline; fruit trifle.

7. Ice Cream

Vanilla, strawberry, chocolate, pineapple, mango, Sorbets, Bombe, Sundaes, Parfaits

8. Indian Confectionery:

- 8.1 Chenna - Rasgulla, Chamcham, Pakiza, Chenna Toast, Rasmalai
- 8.2 Khoya - Gulab Jamun, Barfi
- 8.3 Sugar - Mysore Pak, Ghewar
- 8.4 Flour / Besan - Patisa, Shakarpare, Halwa, Laddoo, Pedas.
- 8.5 Milk - Kheer, Rabri
- 8.6 Nuts - Barfi, Chekki

REFERENCE BOOKS

A Professional Text to Bakery and Confectionary

John J. Kingslee New Age Publications

Textbook of Bakery and Confectionery

Ashok Kumar PHI

Theory of Bakery and Confectionary

Uttam K Singh

Complete Confectionary Industries

Krishan Kumar Agarwal

Semester Scheme