

BHM First Year [2nd Semester]

FNB 174 Food Productions and Patisserie II (Theory) BHM, First Year, Second Semester

Course Objectives

The purpose of this course is to provide students with board knowledge of oriental cuisine, larder work, meat fabrication and patisserie. Students will also develop their skill and attitude to prepare oriental foods including Chinese, Thai and Malaysian etc.

Course Description

This course is design to acquire a thorough knowledge of Chinese, Thai, Japanese and Malaysian cuisine their features, flavorings, and ethnic dishes. It also covers meat and bakery fabrication including slaughtering process, disjointing, deboning of animal, poultry, fish, and preparation of breads and cakes.

Course Outcomes

By the end of this course, students should be able to:

- explain the features, flavorings and use of equipment of Chinese cuisine;
- Understand and explain the features, flavorings and use of equipment of Thai and Malaysian cuisine;
- describe the features, flavorings and use of equipment of Japanese cuisine;
- explain the functions of garde mangers and their preparations;
- discuss the slaughtering process of animal, poultry, and their disjointing;
- Understand and explain the selection of fish and their cuts; and
- explain the preparation breads, cakes and pastries.

Course Contents

Unit I: Chinese, Thai/ Malaysian and Japanese Cuisine

8 hours

Chinese Cuisine: Introduction, features, regional cuisine with special dishes, cooking methods, seasoning and flavorings used in Chinese cuisine, equipment used in Chinese cuisine.

Thai and Malaysian: Introduction, features, **seasoning** and flavorings used in Thai cuisine, equipment used in Thai cuisine, some special dishes.

Japanese Cuisine: Introduction, features, seasoning and flavorings used in Japanese cuisine, equipment used in Japanese cuisine, some special dishes.

Unit II: Garde Manger

10 hours

Introduction: Functions of garde manger, charcuterie (sausage, ham, bacon, pate, and terrine, and galantine, aspic making and curing), hors d'oeuvre, introduction, and classification with examples

Salad: Introduction, classification with examples, compositions, cuts of vegetables, some special salads (Cesar salad, Greek salad, Chefs salad, Florida salad, Nicoise salad, Cob salad, Nib salad), Guidelines of making salads

Dressings: Introduction, functions, oil based, fresh cream based, and mayonnaise based dressings, special dressings (Thousand Island, French, American, Honey Mustard, Ranch)

Sandwiches and canapés: Introduction, classification, guidelines while preparing, base, spreading, fillings, toppings, garnishes, accompaniments

Unit III: Meat Fabrication

10 hours

Introduction: Physical and chemical characteristics of meats, slaughtering process of animals (pre-slaughtering/post slaughtering), **grading** of meats, **categories** of meats

Meats: Introduction, figures, commercial cuts, descriptions, culinary uses, quality signs, storage of Mutton/Lamb, Pork/Suckling pig, Beef/Veal, offal.

Poultry: Introduction, types, processing, and cuts, culinary uses, quality signs, storage

Game: Introduction, types, aging, culinary uses

Unit IV: Fish and Sea Food

6 hours

Fish - Introduction of fish, classifications of fish with examples, storage, cuts of fish and culinary uses

Caviar: Introduction, types, uses

Sea food: Introduction, classification of sea food with examples and culinary uses

Unit V: Bread Fabrications

6 hours

Breads: Introduction, understanding baking, principles of bread making, types of dough, recipes of basic breads, faults in breads making, equipment used in breads making.

Unit VI: Pastries and Cakes

8 hours

Pastry: Introduction, techniques and principles, basic pastes: Short Crust, Sweet, Choux, Suet, making steps and uses, laminated pastes: Puff, Danish, and Croissant, role of ingredients in pastes, equipment used in making pastes

Creams: Pastry cream, whipped cream, butter cream, lemon cream

Marzipan: Introduction, making steps and uses

Sponge and Cakes: Introduction, principles of making sponges, basic sponges, cares while making sponges and cakes, types of cake, faults in making sponges and cakes, equipment used in making sponges and cakes, classical cakes and pastries, modern trends in cakes and pastries making, approach of cakes decoration.

Basic Texts

1. Foskett, D. & Ceserani, V. *Theory of Catering*. London: Book Power.
2. Bali, P. V. *Food Production Operations*. New Delhi: Oxford Press Publication.

References

1. Arora, K. *Theory of Cookery*. New Delhi: Franks Bros. & Co. Ltd.
2. Bali, P. S. *International Cuisine and Food Production Management*. New Delhi: Oxford Press Publication.
3. Bali, P. S. *Quantity Food Production Operations*. New Delhi: Oxford Press Publication.
4. Pauli, E. *Classical Cooking the modern way*. New York: Van Nostrand Reinhold.
5. Philip, T. *Modern Cookery*: Chennai: Orient Blackwan Pvt.

FNB 194 Food Productions and Patisserie II (Practical)

BHM, First Year, Second Semester

Course Objectives

The purpose of this course is to provide students with basic skill to prepare oriental cuisine, larder preparations, and meat, fish, cakes and breads. The students will also develop their attitude to work in food production of any catering establishments.

Course Description

This course is design to cover Chinese, Thai, Japanese, Malaysian cuisine and their basic preparations. It also covers meat fabrication including disjointing, deboning of meat, poultry and fish.

Course Outcomes

By the end of this course, students should be able to:

- prepare basic Chinese dishes;
- prepare basic Thai dishes;
- prepare basic Japanese dishes;
- prepare basic Malaysian dishes; and
- demonstrate cuts of lamb, pork, and fish.

Course Contents

Practical: Oriental Cookery

24 hours

4 Courses Chinese Menus

4

(Including regional Chinese appetizers, soups, main course, accompaniment and few desserts)

- 4 Courses Thai Manus 2
 (Including Thai appetizers, soups, main course, accompaniment and few desserts)
- 4 Courses Japanese Menu 1
 (Including Japanese appetizer, soup, main course, accompaniment dessert)
- 4 Course Malaysian Menu 1
 (Including Malaysian appetizer, soup, main course, accompaniment and dessert)

References

1. Bali, P. S. *International Cuisine and Food Production Management*. New Delhi: Oxford University Press Publication
 2. Hongwiwat, N. *Spicy Thai Cuisine*. Bangkok: Sangdad Publishing, Co. LTD
 3. Hsiung, T. D. *Chinese Regional Cooking*. Beijing: Macdonald Educational Limited
- Or
 Any Chinese, Thai, Japanese or Malaysian cook books

FNB 175 Food and Beverage Service II (Theory) BHM, First Year, Second Semester

Course Objectives

The purpose of this course to give the knowledge of various restaurant concepts and types of food services along with the knowledge of banquet operation and management. It also aims to introduce the students to various specialized catering operations with balanced mix of theory and practice which will enable the students to gain a better understanding of the role of Food and Beverage service in the context of overall catering operations.

Course Description

This course is designed to acquire a thorough knowledge of various restaurant concepts from different parts of the world and their operation. It also deals with banquet operation and management, in room dining and its process, handling the guest situations in restaurants, operating the pantries and serving non alcoholic beverage and tobacco.

Course Outcomes

By the end of this course, students should be able to:

- understand consumer trends, consumption patterns in the various outlets;
- apply aesthetic and functional considerations to space allocation in various outlets;
- understand a guest –oriented approach to service;
- identify practical considerations involved in the set up of a restaurant facility;
- understand various types of non alcoholic beverage and their service with accompaniments;
- operate the pantry, provide room service and organize banquet and outdoor catering;
- take care of customer needs and handle the odd situations; and
- serve cigarette and cigar to the customers in restaurant.

Course Contents

Unit I: Non Alcoholic Beverage

6 hours

Introduction & Classification: Tea, Tea Production process, Various tea products, Coffee, Coffee production process, Various coffee products

Unit II: Tobacco

3 hours

Introduction:

Tobacco production process, Types of tobacco, Cigarette, Types of cigarettes, International cigarette brand, Cigar, Types of cigar, International cigar brand

Unit III: Food and Beverage Outlets

6 hours

Introduction:

Types , Formal, Informal, Casual, Different restaurant concepts from differ parts of the world, Café, Coffee shop, Bistro, Tratoria, Irish pub, Tavern, Modern food and beverage outlets, Smorgasbord, Drive away, Drive in, Pubs, Salad bar, Sushi bar, Snack bar Sandwich bar

Unit IV: Sale Control System**5 hours****Introduction:**

KOT/Bill Control System (Manual), Triplicate Checking System, Duplicate Checking System, Single Order Sheet, Quick Service Menu & Customer Bill, Making bill, Cash handling equipment, Record keeping

Unit V: Pantry and Operations**5 hours****Introduction:**

Layout & Planning of Pantry, Modern Pantry Equipments and their care, Products offered by pantry, Non-Alcoholic Beverages- Tea Coffee, Cocoa, malt, Juice, milk, Sandwiches / Canapés, Ice cream and cold sweets

Unit VI: Room Service/ In Room Dining and Operations**5 hours****Introduction:**

General principles, Types of room service, Layout of Department, Mis-en- place for each shift, Equipments used, Forms and Order Taking, Cycle of Service Time management- lead time from order taking to Clearance, Scheduling and staffing, Suggestive Selling, breakfast cards, Butler Service, Importance, Attributes, Duties & responsibilities, Multitasking

Unit VII: Buffets**2 hours**

Definition, Types of buffets, Buffet equipment and table set-up.

Unit VIII Banquets**8 hours**

Introduction: Organization structure, Duties & Responsibilities of banqueting staff, Features of banquet service, Banquet booking process, Administrative Procedures, Formats Maintained, Banquet Function Prospectus, Types of Function (Formal and Informal), Menu planning for banquet, Seating Arrangements, State banquet, Organizing state banquet, Protocol in seating , Off Premise/ Outdoor catering, Demand of outdoor catering, Special needs for outdoor catering, Special requirement and challenges for outdoor catering

Unit IX: Gueridon Service**4 hours**

Origin and definition: Types of Trolleys and layout, Special equipments, care and maintenance, Ingredients used, Misenplace for gueridon service, Service Procedures, Service of important classical dishes, Carving and jointing at the table, carving trolley, and dishes prepared on the gue'ridon, Flambéing, carving, salad making, Merchandising advantage of using trolley

Unit X: Customer Care and Handling Situations**4 hours**

Unavailability of Table/reservation, Wrong Order Taking, Handling Unavailability of Food items, Handling Special Requests, Order Delays, Spillages, Return Food, Lost and found properties, Drunken Guest, Dealing with children and Infants, Handling Handicaps, Old age guest, Customer with communication difficulties.

Basic Texts

1. Singaravelavan, R. *Food and Beverage Service*. New Delhi: Oxford University Press Publication.
2. Lillicrap, D. & Cousins, J. *Food & Beverage Service*. London: ELBS Publishers.

References

1. Andrews, S. *Food & Beverage Management*. New Delhi: Tata McGraw Hill.
2. Magris, M. & McCreery. *Introduction to Food & Beverage Services*. Cathy.
3. Cichy, R. & Hickey, P. *Managing Service In Food and Beverage Operations*. New York: AH&LA.
4. Ninemeier, J. D. *Management of Food and Beverage Operations*. New York: AH&LA.

FNB 195 Food and Beverage Service II (Practical)
BHM, First Year, Second Semester

Course Objectives

The purpose of this course is to give the knowledge of various restaurant concepts and types of food services along with the knowledge of banquet operation and management. It also aims to introduce the students to various specialized catering operations with a balanced mix of theory and practice which will enable the students to gain a better understanding of the role of Food and Beverage service in the context of overall catering operations.

Course Description

This course is designed to acquire a thorough knowledge of various restaurant concepts from different parts of the world and their operation. It also deals with banquet operation and management, in room dining and its process, handling the guest situations in restaurants, operating the pantries and serving non-alcoholic beverages and tobacco.

Course Outcomes

By the end of this course, students should be able to:

- understand consumer trends, consumption patterns in the various outlets;
- apply aesthetic and functional considerations to space allocation in various outlets;
- understand a guest-oriented approach to service;
- identify practical considerations involved in the set up of a restaurant facility;
- understand various types of non-alcoholic beverages and their service with accompaniments;
- operate the pantry, provide room service and organize banquet and outdoor catering;
- take care of customer needs and handle the odd situations; and
- serve cigarettes and cigars to the customers in a restaurant.

Course Contents

24 hours

- 1 Revision of practical from the first semester
- 2 Points to be remembered while setting a cover and during service
- 3 Conducting Briefing/ De-Briefing for F & B outlets
- 4 Taking an Order for non-alcoholic beverages
- 5 Service of cigars and cigarettes
- 6 Table laying for different meals & Re-laying
- 7 Set up & Service of, juices, soft drinks, squashes, syrups.
- 8 Service of Tea & Coffee, with accompaniments.
- 9 Services of cigars & cigarettes
- 10 Changing of dirty ashtray
- 11 Room Service- Tray and trolley layout, breakfast hanger & service procedure.
- 12 Mini bar- format and operational procedures.
- 13 Filling of Banquet function prospectus, Menu Planning & Service
- 14 Banquet seating styles, formal banquet service
- 15 Mis-en-place for serving a dish from Gueridon Trolley & Service of dishes
- 16 Setting up of buffets and service procedures.
- 17 Guest Situation Handling
- 18 Butler service
- 19 Checklist for opening a restaurant
- 20 Checklist for closing a restaurant
- 21 Practice of standard operating procedures in restaurants

Basic Texts

1. Singaravelavan, R. *Food and Beverage Service*. New Delhi: Oxford University Press Publication.
2. Lillicrap, D. & Cousins, J. *Food & Beverage Service*. London: ELBS Publishers.

References

1. Andrews, S. *Food & Beverage Management*. New Delhi: Tata McGraw Hill.
2. Magris, M. & McCreery. *Introduction to Food & Beverage Services*. Cathy.
3. Cichy, R. & Hickey, P. *Managing Service in Food and Beverage Operations*. New York: AH&LA.
4. Nemeier, J. D. *Management of Food and Beverage Operations*. New York: AH&LA.

RDM 183 Accommodation Operations II (Theory)
BHM, First Year, Second Semester

Course objectives

The purpose of this course is to provide students with a broad and detail knowledge about the department and its management. The course attempts to enable students to understand the role, challenges and opportunities of management in contributing to the successful operations and performance of organizations.

Course Description

This course gives an advance and in-depth knowledge to students about managerial operation of accommodation operation related to those functional areas. Planning and organizing inventories, maintaining par stock level, flower arrangements, interior design, and gardening.

Course Out Comes

By the end of this course, students should be able to;

- understand and explain the linen and its sizes;
- understand and explain the linen room, its types and procedures;
- understand and explain uniform and its procedures;
- understand and explain fabric and its types;
- understand and explain the operating the house laundry;
- understand and explain the planning and organizing of housekeeping department;
- understand and explain the interior designing and decoration;
- understand and explain the carpet and its types;
- understand and explain the flower arrangement and its types;
- understand and explain the garden and gardening; and
- understand and explain the housekeeping budgeting.

Unit I: Hotel Linen

2 hours

Introduction to Hotel linen: classification of linen, standard linen sizes

Unit II: Linen Room

5 hours

Introduction to linen Room: Layout of Linen Room, Types of linen room, Function of linen Room, Location of Linen Room, Equipments used in Linen room, Linen Purchase, Par stock determination, Storage of linen room, Stock taking procedure, Handling discarded linen, Linen distribution.

Job description: Duties and responsibilities of linen supervisor and linen attendant.

Unit III: Uniform

3 hours

Purpose of uniform, par stock determination, Fundamentals of selection and designing uniforms, issuing procedure for uniform and linen, care and storage of uniform.

Unit IV: Fiber and Fabric

5 hours

Types and classification of fiber, characteristics of natural and man- made fiber, use of fabric, selection of fabric.

Unit V: Operating In House Laundry

5 hours

Introduction to laundry: Basic layout of laundry, Importance of laundry, laundry equipments, laundry process flow, Stain removal, Valet service and Guest laundry.

Unit VI: Planning and Organizing the HK Department

4 hours

Planning and organizing the inventory in different areas, Scheduling the frequency of cleaning, Setting up of performance and productivity standard, Equipments and supplies inventory level, Duty roster, contact cleaning service.

Unit VII: Interior designing

2 hours

Introduction to Interior design: Role of Interior design in Hotel, Factors affecting interior design, Principles of design.

Unit VIII: Interior Decoration

6 hours

Color: Color wheel, Types and characteristics of color, Psychological impact of color, Color as camouflage, Color the mood maker)

Lighting: Types of lights, Use of lights in different areas in a hotel.

Floor covering and finishes: Types of flooring

Curtain: Types of curtain, Blinds, Different ways of hanging curtains, Selection of curtain fabric.)

- Unit IX: Carpet** **4 hours**
Introduction to carpet, Components, Carpet construction, Types of carpet, carpet problems, carpet maintenance, carpet cleaning equipments and methods of cleaning.
- Unit X: Flower Arrangement** **4 hours**
Basic principle and rule for flower arrangement, Types of flower arrangement, General guideline for flower arrangement, prolonging the life of flower.
- Unit XI: Garden and Hotel Gardening** **5 hours**
Garden design, greenhouse and its use, garden fertilizer
- Unit XII: Housekeeping Budgeting:** **3 hours**
Introduction, Types of budget, Budget planning process

Basic Texts

1. Andrews, S. *Hotel Housekeeping Management and Operations*. New Delhi: Tata McGraw-Hill.
2. Raghubalan, G., & Raghubalan, S. *Hotel Housekeeping Operations and Management*, New Delhi: Oxford University Press.

References

1. Branson, J. C., & Lennox, M. *Hotel Hostel and Hospital Housekeeping*. New Delhi: Book Power.
2. Kappa, M. M., Nitschke, A., & Schappert, P. B. *Housekeeping Management*. Educational Institute of the American Hotel and Lodging Association (AH&LA).

RDM 193 Accommodation Operations II (Practical)
BHM, First Year, Second Semester

Course Objectives

After completion of this course the students will be able to understand the detail knowledge about management and operation of the department. Student will also be able to supervise and manage the task.

Course Description

This course attempts to enable students to understand about the operation of different equipments used in laundry, Inspection in different areas, carpet shampooing, floral decorations and supervision.

Course Outcomes

By the end of this course, students should be able to;

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| <ul style="list-style-type: none"> • Shampooing the carpets; • Work in laundry; • Use stain removals; • Inspect the guest rooms; • Inspect the public areas; | <ul style="list-style-type: none"> • Understand the maintenance procedures; • Work in garden; • Arrange the flowers; and • Supervise the rooms. |
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Course Contents

24 hours

1. Carpet Shampooing (Definition, Components, Construction, Types Problems and Cleaning Process of Carpet)
2. Laundry
3. Stain Removals
4. Inspection of Room
5. Inspection of Public Area, Supervision Public Areas
6. Maintenance procedure
7. Basic gardening
8. Flower arrangement, Decorating special events
9. Supervision Rooms

Text Books

1. Andrews, S. *Hotel Housekeeping Management and Operations*. New Delhi: Tata McGraw-Hill.
2. Raghubalan, G. & Raghubalan, S. *Hotel Housekeeping Operations and Management*, New Delhi: Oxford University Press.

References

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1. Branson, J. C & Lennox, M. *Hotel Hostel and Hospital Housekeeping*. New Delhi: Book Power.
2. Kappa, M. M., Nitschke, A, & Schappert, P. B. *Housekeeping Management*. Educational Institute of the American Hotel and Lodging Association (AH&LA).

ENG 102 English II
BHM, First Year, Second Semester

Course Description

The second semester English course is built on the first semester course and aims at developing students' language proficiency along similar lines. This course comprises all aspects of the English language including speaking, pronunciation, listening, reading and writing. The focus is on improving the students to communicate clearly and effectively. The syllabus for the lessons is based on the course books, but the teacher will also use lots of other materials, including suggestions from students so the content of the class can be more useful and interesting. Students are expected to participate as much as possible, but they will work individually, in pairs and groups as well as the whole class. The teacher will correct their spoken and written errors so that they become more accurate and they will progress quickly.

General Course Objectives

The general objectives of the course will be to enable students to

- extend their vocabulary
- increase their fluency
- become more accurate
- communicate in English more easily
- understand more of the world around them

Specific Course Objectives

The specific objectives of the course will be to enable students to

- make themselves understood in short turns;
- respond to questions and take part in simple conversation;
- link ideas together in a simple way;
- read and enjoy longer texts and write about them;
- understand the main points of clear standard input on familiar matters;
- deal with most situations likely to arise while traveling;
- produce connected texts on familiar topics;
- describe experiences and events, plans, hopes and ambitions;
- give brief reasons and explanations for opinions and plans;
- have enough language to get by in everyday situations;
- express themselves reasonably accurately;
- initiate and deal with familiar everyday interactions;
- link ideas into connected linear sequences; and
- read and write on general topics on different themes.

Content Areas

The content will include a selection of rich interdisciplinary texts of general academic interest and business texts of various genres. The key areas are as follows: personal identification; house and home, environment; daily life; free time, entertainment; weather; travel; relations with other people; health and body care; education; shopping; food and drink; services; places; cultures; science; environment; language; and literature.

Teaching Method

The suggested teaching method is an eclectic mix of lectures, demonstrations, presentations, activities, and seminars. The specific methods for specific units are as suggested for teachers in the course books and teacher manual. Question models will be developed during the teacher orientation program and made available to the campuses.

Basic Texts

1. Grant, D., & Hudson, J. *Business Result: Pre-intermediate Student's Book*. Oxford: OUP, 2009. (including Pre-intermediate Interactive Workbook with video)
2. Nisani, M., & Lohani, S. *Adventures in English Vol II*. (3rd ed.). Kathmandu: Ekta 2013. (Including Sounds of English and Stories and Poems cassettes)

References

1. Bartram, M. *Business Result: Pre-intermediate. Teacher's Book*. Oxford: OUP, 2009. (including Pre-intermediate Class DVD and Pre-intermediate Teacher training DVD)
2. *Oxford Advanced Learner's Dictionary of Current English*. Eighth Edition. Oxford: OUP, 2010.
3. Carter, R., & McCarthy, M. *Cambridge Grammar of English*. Cambridge: CUP, 2006

MTH 105 Basic Mathematics (BHM 2nd Semester)

Course Objectives

This course is designed to acquaint students with the various mathematical tools to handle various problems related to business and economics.

Course Description

This course introduces basic mathematical tools as they apply to management problems. Specifically, this course covers basic algebraic skills; sets and real numbers; polynomial, logarithmic and exponential equations and functions and their applications; derivatives of a function of single variable and several variables and their applications; integration and its applications; matrices & determinants.

Course Outcomes

By the end of this course, students should be able to:

- acquaint with algebraic skills and their applications;
- apply different set operations to solve the related problems;
- express and solve business related problems by using equations and inequalities;
- understand the concept of function and visualize the graphs of various types of functions;
- apply the derivative in finding the rate measures and solve optimization problems;
- solve the problems related to integration; and
- apply matrix operations to solve the problems related to business and economics.

Course Contents

Unit I: Basic Algebraic Skills

9 hours

Linear Equations and Inequalities in One Variable, Graphical Solution of 2×2 System, Solutions of Systems of Linear Equations (up to 3×3 System), Quadratic Equations (Factoring Methods, the Quadratic Formula), Quadratic Inequalities, Sets, Venn Diagram, Set Operations, Number of Elements in a Set, Real Numbers, Permutation and Combination

Unit II: Functions and Graphs

8 hours

Introduction, Domain and Range of Function, Graph of a Function, Linear Functions, Quadratic Functions, Polynomial Functions, Rational Functions, Piecewise Defined Functions, Exponential Functions, Logarithmic Functions and their Properties, Applications of Functions in Business and Economics (Total Cost, Total Revenue, and Profit, Break-Even Analysis, Supply, Demand, and Market Equilibrium)

Unit III: Derivatives

10 hours

Limit of a Function, Continuity and Discontinuity of a Function, Average Rates of Change, Instantaneous Rates of Change: The Derivative, Techniques of Differentiation, Derivative of: Algebraic, Exponential and Logarithmic Functions, Higher Order Derivatives, Applications Related to Rate Measures, Relative Maxima and Minima, Absolute Maxima and Minima, Elasticity, Applications in Business and Economics.

Unit IV: Functions of Several Variables

6 hours

Functions of Two or More Variables, Partial Differentiation (First-Order Partial Derivatives, Higher-Order Partial Derivatives), Maxima and Minima of Functions of Several Variables, Constrained Optimization: The Method of Lagrange Multipliers

Unit V: Integration

8 hours

Indefinite Integrals, Techniques of Integration, Definite Integrals, Consumer's Surplus and Producer's Surplus, Improper Integrals

Unit VI: Matrices and Determinant

7 hours

Matrices, Matrix Operations, Matrix Equations, Determinant, Inverse of a Matrix, Cramer's Rule

Basic Text

Budnick, F. S. *Applied Mathematics for Business, Economics and the Social Sciences*. New Delhi: Tata McGraw-Hill.

References

Haeussler, E. F., Paul, R. S., & Wood, R. J. *Introductory Mathematical Analysis for Business, Economics and the life and Social Sciences*. New Delhi: Prentice Hall.

Shrestha, K. K., & Thagurathi, R. K. *Applied Mathematics*. Kathmandu: Buddha Academic Enterprises.

FHN 191 Food Hygiene & Nutrition (BHM 2nd Semester)

Course Objectives

The purpose of this course is to provide the students with basic knowledge on nutrients and their role on human health, food sanitation and hygiene, food preservation, and internationally accepted food safety management system.

Course Description

This course presents a thorough and systematic coverage of theoretical and practical aspects of introduction of food, nutrients and nutrition, food microbiology, food contamination and spoilage, food hygiene, food safety and management system.

Course Outcomes

By the end of this course, students will be able to:

- understand and explain the foods;
- understand and explain the nutrients and nutrition;
- understand and explain the food microbiology;
- understand and explain the food contamination and spoilage;
- understand and explain the food hygiene;
- understand and explain food safety and management system.

Course Contents

Unit I: Introduction to Food

5 hours

Introduction: Definition of food, Functions of Food: Physiological, Psychological and Social functions, Classification of Food Groups: Cereals, Pulses, Nuts and Oilseeds, Vegetables, Fruits, Milk and Milk Products, Egg, Meat and Poultry, Fats and Oil, Sugar and Confectionary, Spices.

Unit II: Nutrients and Nutrition

10 hours

Introduction: Definition of Nutrients, Micronutrients and Macronutrients.

Introduction of Carbohydrates: Monosaccharide, Oligosaccharides, Polysaccharides, Dietary Fibers, functions of carbohydrates.

Introduction of Proteins: Amino Acids, Essential Amino Acids, Complete Protein, Partially, Complete Protein, Incomplete Protein, Sources of Protein, and Functions of Protein. **Introduction of Lipids:** Essential and Non-essential Fatty Acids, Functions of Lipid, Cholesterol.

Introduction of Vitamins: General Functions of Water Soluble and Fat Soluble Vitamins.

Introduction of Minerals: General Functions of Minerals.

Introduction of Water: General Functions of Water, Loss of Nutrients during Blanching, Heat processing and milling.

Introduction to Balanced diet: Recommended Dietary Allowances (RDA), Malnutrition

Unit III: Food Microbiology

6 hours

Introduction to Food Microbiology, Important Characteristics of Bacteria, Virus, Yeast and Molds, Usefulness, Factors Affecting the Growth of the Microorganisms in Food: Water Activity, pH, Nutrient content, Temperature, Presence of the oxygen.

Unit IV: Food Contamination and Spoilage

9 hours

Introduction: Definition of Food Contamination, Primary Sources of Food Contamination, Cross Contamination and its Preventive Measures. Causes of Food Spoilage, Growth and Activity of Microorganisms, Chemical Reactions, Natural Enzymes, Damage by Animal, Insects, and Rodents.

Introduction: Methods of food preservation, Pasteurization, Canning, Refrigeration, Freezing, Increasing the Acidity, Drying, Using Chemical Preservatives.

Unit V: Food Hygiene

6 hours

Introduction of Food Hygiene: Necessity of Personal Hygiene, General Personal Hygiene practices, Cleaning and Sanitizing the Food Contact Surfaces: Cleaning and Sanitizing Agents, The Methods of Dish Washing, The Three Bucket Method, The Sink Method, Mechanical Dish Washing, Food Cycle (receiving, storing, preparation and service).

Unit: VI Food Safety Management Systems

4 hours

Introduction: Definition of Food Safety, History of Hazard Analysis Critical Control Point (HACCP), HACCP principles, benefits of HACCP Implementation in Food Industry.

Unit VII: Environmental Hygiene

2 hours

Introduction: Garbage Disposal, Kitchen Design and Sanitation.

Unit VII: Demonstration

6 hours

- Demonstration of Bacteria, Yeast and Molds Under Microscope;
- Examination of Sanitary Condition of Utensils in Kitchen;
- Determination of the Effectiveness of Different Cleaning and Sanitizing Agents on Dish Washing;
- Assessment of Personal Hygiene of a Food Handler by Cotton Swab Plating Method.

Basic Texts

Swaminathan, M. *Advance Textbook on Food and Nutrition*, Vol. 1 and 2, The Bangalore Printing and publishing co. Ltd., India.

Fraizer, W.C., and Westhoff D.C. *Food Microbiology*: New Delhi: Tata McGraw-Hill.

References

Jay, J.M. *Modern Food Microbiology*: CBS publishers and Distributers.

Roday, S. *Food Hygiene and Sanitation*: New Delhi: Tata McGraw, Hill.