

## GOA UNIVERSITY

### B.SC. CULINARY ARTS

With effect from Academic year 2025-2026

#### Objectives of the Programme:

1. To provide students with an experiential learning opportunity in culinary arts at various levels.
2. To provide the hospitality industry with a steady stream of competent graduates with the necessary knowledge, skills, values and attitudes to occupy key operational positions in the hotel industry.
3. To apply culinary theory through execution of food preparation techniques, artistry, and creativity.

#### Programme Specific Outcome:

On successful completion of B.Sc. Culinary Arts programme, the students will be able to:

1. Appreciate the different cuisines of the world.
2. Display requisite skills in preparation of products related to the Functional areas of culinary operations.
3. Practice professional ethics, develop and follow standardized processes and procedures and demonstrate cost control measures as applied to kitchen operations.
4. Apply critical thinking process of identifying, analyzing and developing solutions related to food production departments

Programme Structure for Semester I to VIII Under Graduate Programme										
B.Sc. in Culinary Arts										
Semester	Major -Core	Minor	MC	AEC	SEC	I	D	VAC	Total Credits	Exit
I	CUL-101 Culinary Arts and Bakery -I (4)	MGT-100 Fundamentals of Tourism (4)	CUL-131 Introduction to Beverages (3)		CUL-143 Culinary Arts Practical-1 (3)				20	
II	COM-111 Principles and Practice of Management (4)	MGF-112 Fundamentals of Accounting (4)	CUL-132 Introduction to Wines (3)		CUL-144 Bakery and Pastry Practical-1 (3)				20	*CUL-161 Office Reception Skills (1T+3P)
III	CUL-206 Indian Cuisine -1 (4)  CUL-207 Bakery and Pastry Arts –2 (3T+1P)	CUL-211 Nutrition and Food Science (4)	CUL-231 Facility Management (3)		CUL-242 Indian Cuisine Practical- 1 (3)				20	

IV	<p><b>CUL-208</b> Advanced Culinary Arts (2)</p> <p><b>CUL-209</b> Advanced Culinary Arts – Practical (4)</p> <p><b>CUL-204</b> Bakery and Pastry Arts Practical (4)</p> <p><b>CUL-210</b> Fine Arts in Culinary (3T+1P)</p>	<p><b>CUL-221</b> Food and Beverage Service (3T+1P)</p>						
V	<p><b>CUL-308</b> Advanced Indian Cuisine-2 (2)</p>	<p><b>CUL-321</b> Internship-1 (4)</p>				<p><b>CUL-361</b> Internship - 2 (2)</p>		

	<b>CUL-309</b> <b>Advanced Indian Cuisine – 2 Practical (4)</b>  <b>CUL-310</b> <b>Mass Media in Gastronomy (3T+1P)</b>  <b>CUL-311</b> <b>Global Cuisine Practical (4)</b>								
VI	<b>CUL-312</b> <b>Kitchen Management (4)</b>  <b>CUL-313</b> <b>Gastronomic Science (3T+1P)</b>  <b>CUL-314</b> <b>Slow Food (3T+1P)</b>	<b>CUL-322</b> <b>Internship-3 (4)</b>							

	<b>CUL-307</b> <b>Project</b> <b>(4)</b>									
VII	<b>CUL-405</b> <b>Gastronomic</b> <b>Tourism</b> <b>(4)</b> <b>(3T+1P)</b>  <b>CUL-406</b> <b>Plant-Based</b> <b>Cookery and</b> <b>Bakery</b> <b>(4)</b> <b>(3T+1P)</b>  <b>CUL-407</b> <b>Waste</b> <b>Management</b> <b>(3T+1P)</b> <b>CUL-402</b> <b>Culinary</b> <b>Management</b> <b>(4)</b>	<b>CUL-411</b> <b>Entre-</b> <b>preneurship</b> <b>(4)</b>								

	<b>CUL-403</b> Airline and Cruise Catering Operations (4)								
VIII	<b>CUL-404</b> Event Management (3T+1P) (4)	<b>CUL-412</b> Modernist Cuisine Practical (4)  OR  <b>CUL-413</b> Advanced Bakery and Pastry Arts – Practical (4)		<b>CUL-461</b> Internship (12)					

## SEMESTER I

### Major Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-101
Title of the Course	: Culinary Arts and Bakery I
Number of Credits	: 04
Effective from AY	: 2025-2026

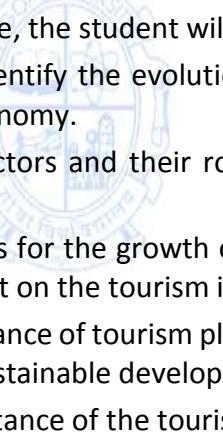
Pre-requisites for the Course:	NIL	
Course Objectives:	The aim is to introduce the student to the Food Production and Bakery sector, its basic functioning, planning and organisation.	
Content:	<p><b>UNIT I: Introduction to the Food Industry and Kitchen Organisation</b></p> <p>Historical changes in the food industry, evolution of food and food preparation, famous chefs in the evolution of gastronomy, commodities, external aspects of operations, Product flow: hierarchy, kitchen equipment and tools, safety, health, hygiene and uniform, ergonomics, production systems in the kitchen, culinary terminology and basic hygiene.</p>	15 hours
	<p><b>UNIT II: Preliminary Preparation Techniques</b></p> <p>Cooking methods, vegetables (varieties, characteristics, pre-preparation and cooking), meats and poultry (varieties, characteristics, pre-preparation and cooking), fish and shellfish (varieties, characteristics, pre-preparation and cooking), basic stocks, soups and their classifications.</p> <p>Cold sauces, hot sauces and mother sauces, preparation of salads, sandwiches and hors d'oeuvres.</p>	15 hours
	<p><b>UNIT III: Introduction to Bakery and Pastry</b></p> <p>Historical background, Careers in baking and pastry, Hygiene and food safety in bakery, Baking and pastry equipment, Basic Baking Principles and Baker's Math.</p> <p>Introduction to ingredients used in Bakery and Pastry like different grains and flours, raising agents, thickening agents, fats, sugars and chocolates</p>	15 hours
	<p><b>UNIT IV: Doughs and Breads</b></p> <p>Different dough formulas are used in the bakery and pastry, like bread dough, laminated dough, cooked dough, different aerated dough, sponges and mixed dough, dressed, rolled, and moulded.</p> <p>Hydration of bread dough, sourdough with different flours, pre-ferments, humidity and temperature control.</p>	15 hours

<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods of pedagogy, such as lectures, exercises, show cooking and baking, seminars, case studies, role plays, and problem-solving, to enable the students to learn in an interactive mode.
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Gisslen, W., Professional Cooking, 8th ed. New Jersey: Wiley, 2015.</li> <li>2. Phillip, T. E., Modern Cookery, Volume 1, 6th Edition. Orient BlackSwanPtl, 2010.</li> <li>3. Phillip, T. E., Modern Cookery, Volume 2, 6th Edition. Orient BlackSwanPtl, 2010.</li> <li>4. Caldon, H., The Cooks Book of Ingredients. UK Edition, DK, 2010.</li> <li>5. Larousse Gastronomique, 10th Edition. Hachette, 2009.</li> <li>6. Wayne Gisslen, Professional Baking, Wiley, 8th Edition, 2021.</li> <li>7. Parvinder S. Bali, Theory of Bakery and Patisserie, Oxford University Press, 1<sup>st</sup> Edition, 2018.</li> <li>8. Cauvain, S. &amp; Young, Technology of Bread making, Springer International publishing Switzerland, 3<sup>rd</sup> Edition, 2015.</li> <li>9. Baking and Pastry Art, The Culinary Institute of America, 3<sup>rd</sup> Edition, 2015.</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Name the changes in food products and their preparations.</li> <li>2. Explain culinary terminology and compare the use of different equipment and tools according to the requirements.</li> <li>3. Apply different preliminary preparation and cooking techniques of vegetables, meats and fish.</li> <li>4. Recall the historical background, hygiene regulations, baking and pastry equipment used in Bakery and Pastry.</li> <li>5. Summarise the basic ingredients and their properties used in bakery and pastry, and the basics of baker's maths.</li> <li>6. Identify different dough preparations used in the Bakery and Pastry.</li> </ol>

### Minor Courses

<b>Name of the Programme</b>	: B.Sc. in Culinary Arts
<b>Course Code</b>	: MGT-100
<b>Title of the Course</b>	: Fundamentals of Tourism
<b>Number of Credits</b>	: 04
<b>Effective from AY</b>	: 2023-24

<b>Prerequisites for the course</b>	NIL	
<b>Course Objectives:</b>	At the end of the subject, the student will be able to deal with tourism as a system rather than as a set of separate entities or processes.	
<b>Content:</b>	<p><b>Unit I: Overview of Tourism</b></p> <p>Tourism: Definition, Concept of Tourists/ Visitors / Travelers / Excursionist, Forms and Types of Tourism: Inter- regional and intra – regional tourism, inbound and outbound tourism, domestic, international tourism. Components of Tourism and Tourism Management, Basic Approach to the Study of Tourism, Economic Importance, Benefits and Costs of Tourism.</p> <p>Tourism through the Ages: Early Beginnings, Early tourist attractions, The first travel agents, Historic Transportations and accommodations.</p>	<b>15 hours</b>
	<p><b>Unit II: Organization of Tourism</b></p> <p>International Organizations (WTO, WTTC, IATA), Regional Organization (PATA). Passenger Transportation: Airline Industry, Rail Industry, Motor Coach Industry, Automobile, Cruise Industry, Other modes.</p> <p>Hospitality and Related Services: The Lodging Industry, The Food Service Industry, Meeting Planners, Organizations in the Distribution Process: Travel Agents, the Internet, Consolidators, The Tour Wholesaler, Specialty Channelers, Attractions, Entertainment, Recreation: Introduction Attractions, Gaming, Recreation, Entertainment, Festivals and Events, Shopping, Education, Publishing, Marketing and publicity organizations.</p>	<b>15 hours</b>
	<p><b>UNIT III: Tourism Supply and Demand</b></p> <p>Tourism Components and Supply: Supply Components, Natural Resources, Built Environment, Operating Sectors, Spirit of Hospitality and Cultural Resources, Matching Supply with Demand. Measuring and Forecasting Demand: Why Demand Is Important, Demand to a Destination, Measuring Demand, Projection Methodology Tourism's Economic Impact, Optimization, Economic Multipliers.</p>	<b>15 hours</b>

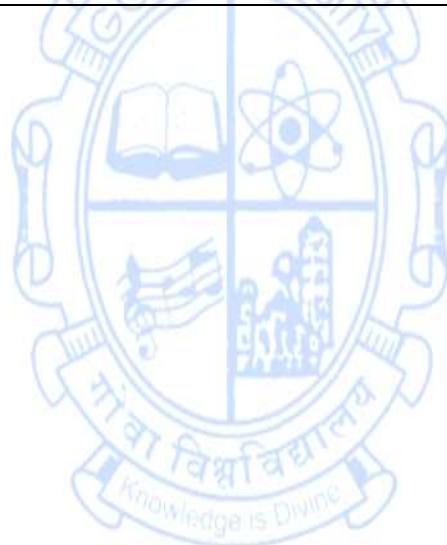
	<p><b>UNIT IV: Understanding Travel Behavior and Tourism Policy, Planning and Development</b></p> <p>Cultural and International Tourism for Life's Enrichment: Developmental and Promotional Measures, Types of Destinations as Travel Experiences, Other Tourist Appeals, Travel experiences 15 hours Sociology of Tourism: Effects on the Individual, Effects on the Family, Effects on Society, Life Characteristics and Travel, Emergence of Group Travel Patterns, Social (Subsidized) Tourism, Summary of the Principal Social Effects of Tourism, Barriers to Travel Tourism Policy: A Definition, The Focus of Tourism Policy: The Competitive/Sustainable Destination, The Major Parameters of Tourism Destination Management, Tourism Policy: Structure, Content, and Process, The Process of Tourism Policy Formulation Tourism Planning, Development, and Social Considerations: Planning for a Competitive/Sustainable Destination, The Nature of Tourism Planning, Relating Tourism Planning to Tourism Policy, Why Tourism Planning Is Necessary, The Planning Process, Goals of Tourism Development, Political Aspects of Tourism Development.</p>	<b>15 hours</b>
 <b>Pedagogy</b>	Lectures/ tutorials/laboratory work/ field work/ outreach activities/ project work/ vocational training/viva/ seminars/ term papers/assignments/ presentations/ self-study/ Case Studies etc. or a combination of some of these. Sessions shall be interactive in nature to enable peer group learning.	
 <b>Reference/Readings</b>	<ol style="list-style-type: none"> <li>1. B. I. Kastarlak, B. Barber, Fundamentals of planning and developing tourism, Pearson New International Edition, 2013.</li> <li>2. C. Cooper, Essentials of Tourism, SAGE Publication, 2020</li> <li>3. C. R. Goeldner, J. B. Ritchie, Tourism principles, practices, philosophies, John Wiley and Sons, 2017.</li> <li>4. P.N Acha-Anyi, Fundamentals of Tourism, Van Schaik Publishers, 2020</li> <li>5. S. K. Swain, J. M. Mishra, Tourism: Principles and Practices, Oxford University Press, 2011.</li> </ol>	
 <b>Course Outcome</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand and identify the evolution and importance of travel and tourism for the economy.</li> <li>2. Analyze various sectors and their role in the growth of the tourism industry.</li> <li>3. Identify the reasons for the growth of famous tourist attractions and analyze their impact on the tourism industry.</li> <li>4. Analyze the importance of tourism planning and policy formulation for competitive and sustainable development of destinations.</li> <li>5. Evaluate the importance of the tourism industry as a system.</li> </ol>	

## Multi-disciplinary Courses

<b>Name of the Programme</b>	: B.Sc. in Culinary Arts
<b>Course Code</b>	: CUL-131
<b>Title of the Course</b>	: Introduction to Beverages
<b>Number of Credits</b>	: 03
<b>Effective from AY</b>	: 2023-24

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to introduce the student to the different types of alcoholic and non- alcoholic beverages served in the Catering sector and understand their production, types and brands.	
<b>Content:</b>	<p><b>UNIT I: Introduction and Classification of Beverages</b>  Classification of beverages, non-alcoholic beverages: differentiation between nourishing, stimulating and refreshing beverages, tea, coffee, cocoa and malted beverages: origin, production, types, brands and service, water, aerated beverages and juices. Introduction to alcoholic beverages: definition, production of alcohol, fermentation process, distillation process, classification with examples, cocktails and mixed drinks.</p> <p><b>UNIT II: Spirits</b>  Introduction and definition, production of spirit, pot-still method patent still method, production of whisky, rum, gin, brandy, vodka, tequila, classification and brand names of each type. Different proof spirit: American proof, British proof (Sikes scale), Gay Lussac (OIML Scale).</p> <p><b>UNIT III: Alcoholic Beverages</b>  Beer: Introduction and definition, types of beer, production of beer, storage, brand names, Perry, Cider, Mead, Sake: introduction and definition, types of beer, production, storage, brand names and service. Aperitifs: introduction and definition, types of aperitifs, vermouth (definition, types and brand names), bitters (definition, Types and Brand names), Liqueurs: definition and history, production of liqueurs, broad categories of liqueurs (herb, citrus, fruit/egg, bean and kernel), popular liqueurs (name, colour, predominant flavour and country of origin).</p>	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods of pedagogy such as lectures, exercises, practicals, seminars, case studies, role plays, and problem-solving, to enable the students to learn in an interactive mode.	<b>15 hours</b>
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. H. Johnson, The World Atlas of Wine, MitchellBeazley, 2013</li> <li>2. A. Domine., H. F. Wine. Ullmann Publishing GmbH UK , 2017.</li> <li>3. R Cichy, Managing beverage operations.American Hotel And Lodging</li> </ol>	

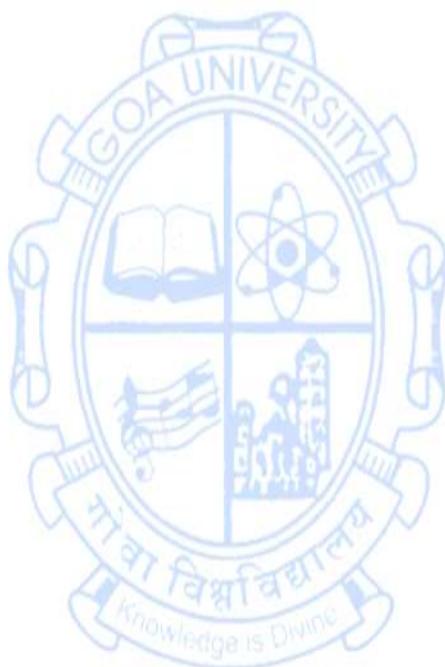
	<p>Educational Institute, 2010.</p> <p>4. R. Singaravelavan, Food and Beverage Service. Oxford, 2012.</p> <p>5. D. Lillicrap and J. Cousins, Food and Beverage Service. Book Power, 2014.</p> <p>6. A. Domine, The world of spirits and cocktails: the ultimate bar book. H. F. Ullmann Publishing GmbH Germany, 2013</p>
<b>Course Outcomes:</b>	<p>At the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Classify beverages and describe the types of teas, coffees, and other non-alcoholic beverages.</li> <li>2. Classify wines and identify the principal wine regions, wine laws, and grape varieties, describe the production process, and list brand names.</li> <li>3. Differentiate between various spirits, describe the production process, and list the brand names of spirits.</li> <li>4. Identify fermented beverages, aperitifs, and liqueurs and their categories.</li> </ol>



**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-143  
**Title of the Course** : Culinary Arts Practical-1  
**Number of Credits** : 03  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to familiarise the student with basic kitchen operations and skills required to work in a professional kitchen.	
<b>Content:</b>	<p><b>UNIT I: Kitchen Equipment, Tools and Preliminary Preparations</b>            Set up of work station and maintenance of a clean and hygienic station.            Knife skills: Types of knives and care.            Basic vegetable cuts: Brunoise, Julienne, Paysanne, Macedoine and Chiffonade. Vegetable preparation techniques: Cutting, turning, marinating, sautéing and quick pickling.</p> <p><b>UNIT II: Pre-Elaborations and Methods of Cooking</b>            Meats and poultry preparations: Different ways of deboning, Portioning, and preparing for stuffing.            Fish and Shellfish preparations: Cleaning and preparing for whole fish, special cuts of fish like filleting, paupiettes, gujonettes, darne and troncon.            Methods of cooking: Moist heat methods (steaming, boiling, blanching and braising), Dry heat methods (frying, roasting and confit).            Preparation of White stock, brown stock, fumet and veg stock.            Preparation of different soups, thick and thin soups.            Preparation of Classical mother sauces as per Escoffier: Béchamel, Velouté, Espagnole, Hollandaise, Mayonnaise, Tomato and their derivatives.</p> <p><b>UNIT IV: Breakfast and Appetiser Preparations</b>            Preparation of salads, sandwiches and hors d'oeuvres.            Egg preparations for breakfast: Soft-boiled, hard-boiled, scrambled, fried, omelettes and poached.            Breakfast preparations: International breakfast styles, Continental, American, English, French, Spanish and Portuguese.</p>	<b>20 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	<b>35 hours</b>
<b>References/Readings:</b>	1. John Campbell et al, Practical cookery, Hodder Education, 12 <sup>th</sup> Edition, 2012 2. Wayne Gisslen, Professional Cooking, Wiley, 2015, 3. Thangam E. Phillip, Modern Cookery, Volume 1, Orient BlackSwan, 6 <sup>th</sup>	

	<p>Edition, 2010</p> <p>4. Thangam E. Phillip, Modern Cookery, Volume 2, Orient BlackSwan, 6<sup>th</sup> Edition, 2010</p> <p>5. Bali, P., Food Production Operations. Oxford, 2012</p>
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate proper vegetable cuts, justify different cooking methods and produce cold and hot sauces and their derivatives.</li> <li>2. Analyse different methods of cooking.</li> <li>3. Prepare mother sauces, stocks, soups, salads, sandwiches, hors d'oeuvres and egg dishes.</li> <li>4. Classify different sandwiches and international breakfast dishes.</li> </ol>



## SEMESTER II

### Major Courses

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: COM-111</b>
<b>Title of the Course</b>	<b>: Principles and Practice of Management</b>
<b>Number of Credits</b>	<b>: 4</b>
<b>Effective from AY</b>	<b>: 2023-24</b>

<b>Prerequisites for the course:</b>	NIL	
<b>Course Objective:</b>	<ol style="list-style-type: none"> <li>1. To enable the learners to describe the competitive landscape of a company using Porter's five force model.</li> <li>2. To acquaint the learners with skills to interpret the relevance of delegation and decentralization of authority in an organization.</li> <li>3. To acquaint the learners to recognize the various needs of an individual using Maslow's Need-Hierarchy Theory.</li> <li>4. To elucidate the principles and major techniques of control and apply the principles and techniques of coordination.</li> </ol>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Management</b></p> <p>Management: Concept and Need, Managerial Functions - An overview; Coordination: Essence of Management. Evolution of Management Thought, Classical Approach - Taylor, Fayol, NeoClassical and Human Relations Approaches - Mayo, Hawthorne Experiments, Behavioural Approach, Systems Approach, Contingency Approach, MBO, Hammer and Champy- Business Process Reengineering, Porter's Five-forces' Model.</p>	<b>15 hours</b>
	<p><b>UNIT II: Planning and Organising</b></p> <p>Types of Plan; Strategic planning - Concept, process, Importance and limitations; Environmental Analysis and diagnosis (Internal and external environment) Definition, Importance and Techniques (SWOT/TOWS/WOTS-UP, BCG Matrix, and Competitor Analysis); Decision-making: Process and Techniques; Perfect rationality and bounded rationality. Concept and process of organizing - An overview, Span of management, Different types of authority (line, staff and functional), Decentralization, Delegation of authority; Formal and Informal Structure; Principles of Organizing; Network Organization Structure. Emerging types.</p>	<b>15 hours</b>
	<p><b>UNIT III: Staffing and Leading</b></p> <p>Staffing: Concept of staffing, staffing process. Motivation and Leadership: Concept, Importance, extrinsic and intrinsic motivation; Major Motivation theories: Maslow's Need Hierarchy Theory; Herzberg's Two-factor Theory, Vroom's Expectancy</p>	<b>15 hours</b>

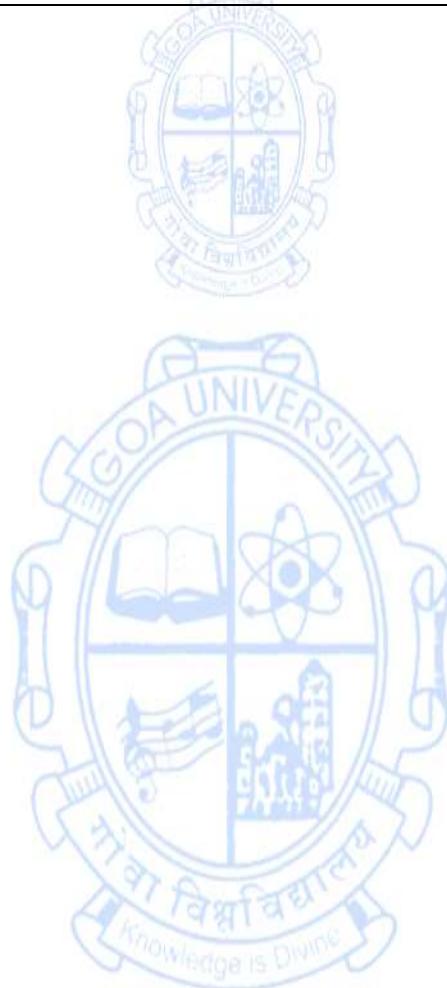
	Theory. Leadership: Concept and importance; Leadership styles. Communication: Concept, purpose, process; Oral and written communication; Formal and informal communication networks, Barriers to communication, Overcoming barriers to communication. Emerging trends in communication.	
	<b>UNIT IV: Control and Coordination</b> Concept, Process, Limitations, Principles of Effective Control, Major Techniques of control - Effective Control Systems. Coordination Concept, Importance, Principles and Techniques of Coordination, Concept of Managerial Effectiveness. Emerging issues in Management.	<b>15 hours</b>
<b>Pedagogy</b>	Lectures, Classroom discussions and Case study	
<b>Reference/Readings</b>	<ol style="list-style-type: none"> <li>Tripathi, P. C. &amp; Reddy, P.N. Principles of Management (Fourth ed.). Tata Mc Graw Hill Education Pvt. Ltd., New Delhi,2010</li> <li>Chandan, J. S. . Management, Theory &amp; Practice (Second ed.). Vikas Publishing House, New Delhi, 2004</li> <li>Prasad, L. M. Principles and Practice of Management (Fifth ed.). Soultan Chand &amp; Sons, 2000</li> <li>Jain, V. Management Theory &amp; Practice (First ed.). International Book House, New Delhi, 2010</li> <li>Prasad, M. Management Concepts &amp; Practices. (Fourth ed.). Himalaya Publishing House, Mumbai,2008</li> <li>Subba Rao, P., &amp; Venkatram T. K. Management Theory &amp; Practice (First ed.). Himalaya Publishing House, Mumbai,2010</li> <li>Moshal, B. S. Principles of Mangement (First ed.).Ane Books Pvt. Ltd., New Delhi,2009</li> </ol>	
<b>Course Outcome</b>	<p>After completion of this course, the student will be able to:</p> <ol style="list-style-type: none"> <li>Describe the competitive landscape of a company using Porter's five force model.</li> <li>Interpret the relevance of delegation and decentralization of authority in an organization.</li> <li>Recognize the various needs of an individual using Maslow's Need-Hierarchy Theory.</li> <li>Elucidate the principles and major techniques of control and apply the principles and techniques of coordination.</li> </ol>	

**Minor Courses**

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: MGF-112</b>
<b>Title of the Course</b>	<b>: Fundamentals of Accounting</b>
<b>Number of Credits</b>	<b>: 04</b>
<b>Effective from AY</b>	<b>: 2023-24</b>

<b>Prerequisites for the course:</b>	NIL	
<b>Course Objective:</b>	To enable students to understand and apply the principles and practices of accounting	
<b>Content:</b>	<b>UNIT I: Introduction to Accounting System, Concepts and Conventions</b>  Basic terms of accounting, Accounting Principles, Concepts, Conventions, IND-AS, Accounting Equation, System of accounting: Cash system and mercantile system, Accounting as information system, Users of accounting information.	<b>10 hours</b>
	<b>UNIT II: Accounting Process and Procedure</b>  Transaction/Event, Voucher: Meaning, Types of Vouchers, Receipt (Credit Voucher), Payment (Debit Voucher), Journal (Accrual) Voucher, Journal, Cash Book (double and triple column, journal proper), Ledger, Trial Balance.; Bank Reconciliation Statement Meaning and need; Causes of disagreement. Illustration.	<b>25 hours</b>
	<b>UNIT III: Financial Statements</b>  Forms of financial statements, Preparation of Income statement and Balance sheet. Illustration.	<b>10 hours</b>
	<b>UNIT IV: Introduction to Computerized Accounting</b>  Features, benefits, integration, practical application of any one accounting software.	<b>15 hours</b>
<b>Pedagogy</b>	The methodology used in the class will combine lectures, case studies, practical, group discussions and presentations.	
<b>Reference/Readings</b>	<ol style="list-style-type: none"> <li>1. Gupta, R. L. Problems and Solutions in Advanced Accounting. (8th ed.). Sultan Chand, 2015</li> <li>2. Hanif, M., and Mukherjee, A. Modern Accountancy (Volumes I and II). (2nd ed.). Tata McGraw, 2013</li> <li>3. Maheshwari, S. N. Advanced Accounting. (8th ed.). Vikas Publishing House, 2019.</li> <li>4. Shukla, M. C., Grewal, T. S., and Gupta, S. C. Advanced Accounting. (17th ed.). S. Chand Publishing, 2017</li> <li>5. R. K. Arora, Financial Accounting: Fundamentals, Analysis and Reporting, 2nd Ed., Wiley, 2018.</li> </ol>	

<b>Course Outcome</b>	<p>On completion of the course, students will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe accounting terminologies, nature and purpose of Indian Accounting Standard.</li> <li>2. Prepare accounting vouchers, cash book and ledgers.</li> <li>3. Prepare financial statements of a firm.</li> <li>4. Use the accounting software for Financial Statement Preparation</li> </ol>
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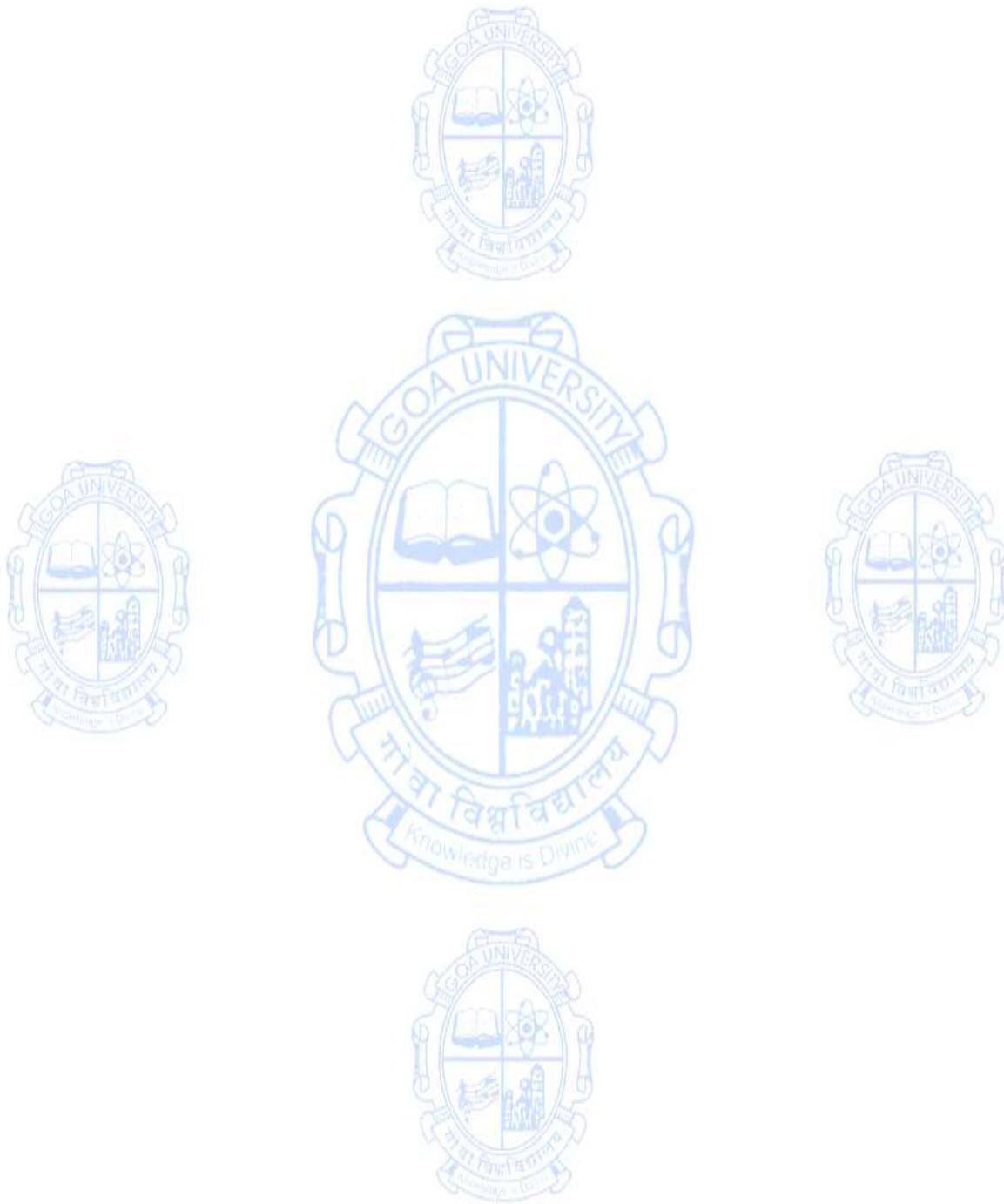


### Multi-disciplinary Courses

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-132</b>
<b>Title of the Course</b>	<b>: Introduction to Wines</b>
<b>Number of Credits</b>	<b>: 03</b>
<b>Effective from AY</b>	<b>: 2023-24</b>

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to introduce the student to the different types of wines and understand their production, types and brands.	
<b>Content:</b>	<b>UNIT I: Introduction</b> History and evolution of wine, Classification of wines, Viticulture: Types of grapes, vine varieties, factors affecting the quality of wine. Training of vine – pruning (single guyot, cordon de royat, double guyot, guyot curtain and pergola), ploughing (ground work), budding, spraying, weeding. Pests and diseases.	<b>15 hours</b>
	<b>UNIT II: Viticulture and Vinification</b> Art of making still wine, sparkling wine and fortified wines. Cellar - storage, temperature and humidity level.	<b>15 hours</b>
	<b>UNIT III: Wine Regions of the World</b> Major old and new wine producing regions, wine regulations and key aspects of wine label. Wine tasting: -Flavors and aroma characteristics (color, bouquet, body and taste). Serving temperatures of wines.	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods of pedagogy such as lectures, exercises, practical, seminars, case studies, role plays, and problem-solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	1. H. Johnson, The World Atlas of Wine, Mitchell Beazley, 2013 2. A. Domine., H. F. Wine. Ullmann Publishing GmbH UK , 2017. 3. R Cichy, Managing beverage operations. American Hotel And Lodging Educational Institute, 2010. 4. R. Singaravelavan, Food and Beverage Service. Oxford, 2012. 5. D. Lillicrap and J. Cousins, Food and Beverage Service. Book Power, 2014. 6. A. Domine, The world of spirits and cocktails: the ultimate bar book. H. F. Ullmann Publishing GmbH Germany, 2013	
<b>Course Outcomes:</b>	At the end of the course, the students will be able to: 1. Define viticulture and vinification process. 2. Classify wines and identify the principal wine regions.	

	<ul style="list-style-type: none"><li>3. Describe the production process and list brand names.</li><li>4. Identify characteristics of wine tasting.</li></ul>
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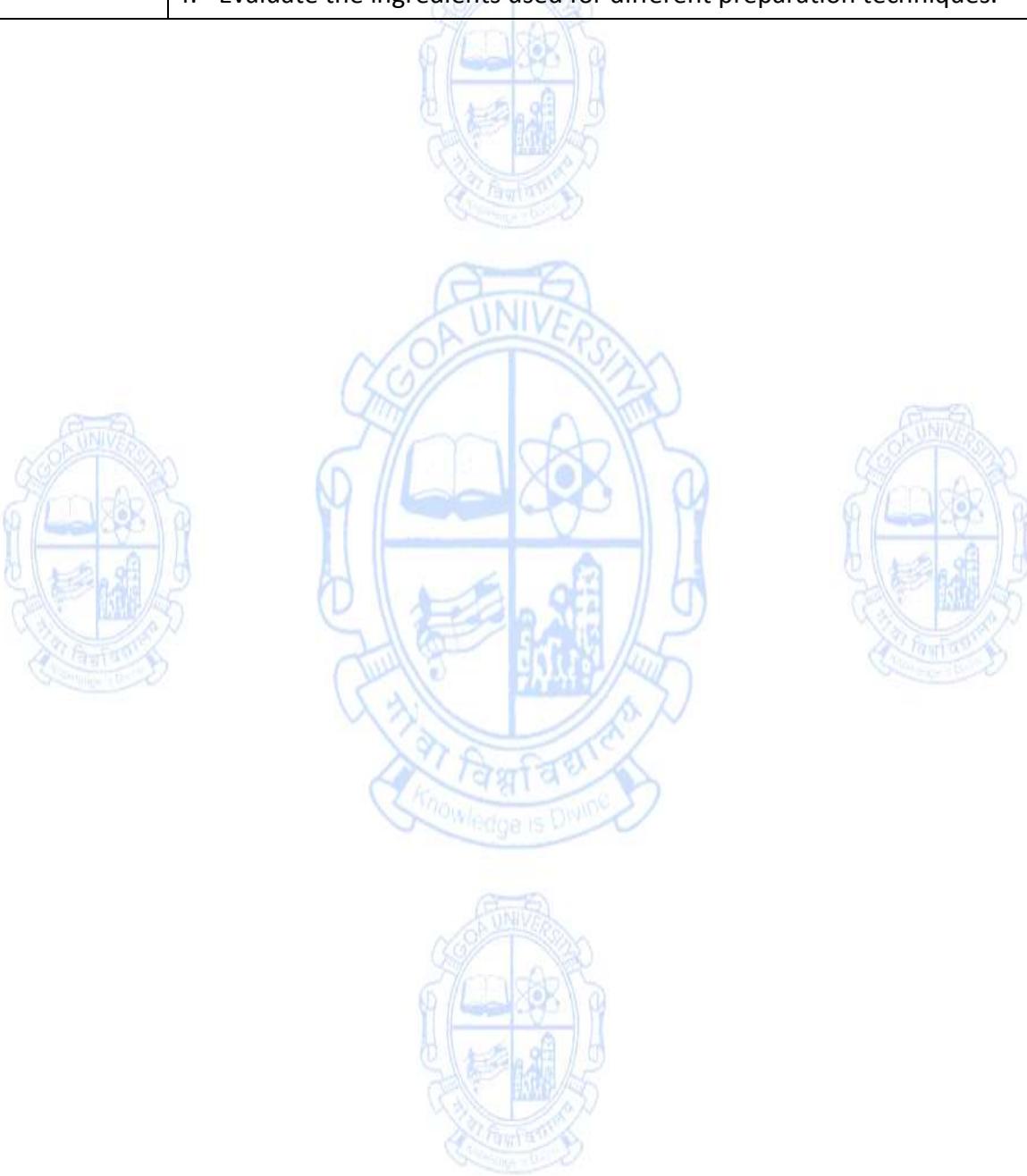


## Skill Enhancement Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-144
Title of the Course	: Bakery and Pastry Practical -1
Number of Credits	: 03
Effective from AY	: 2025-2026

Pre-requisites for the Course:	NIL		
Course Objectives:	The aim is to introduce the student to methods and techniques used in the preparation of bakery, pastry and confectionery.		
Content:	<p><b>UNIT I: Bread Doughs</b>            Preparation of different bread dough methods, hydration and sourdough, mixing, scaling, panning, and baking.            Selection of Local and International Breads: Poies, Catrepao and Pao. Focaccia, Bagels and Brezeln.            Rich Yeast Dough: Sponges like brioche and Stollen, Laminated dough formulas.</p> <p><b>UNIT II: Laminated and Aerated Doughs</b>            Preparation of laminated doughs and their products like Croissants, Puffs, Danish, Strudel and use of phyllo. Different aerated doughs, creaming methods, meringues, and cake mixing of different sponges.</p> <p><b>UNIT III: Other Doughs</b>            Preparation of different short pastries and cookies, made from different preparation techniques like dressed, rolled and moulded and use of different ingredients like whole grain and spices. Cooked doughs like profiteroles and éclair pastry. Preparation of Doughnuts, Fritters, Pancakes, Waffles.</p>	<b>30 hours</b>	
Pedagogy:	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	<b>30 hours</b>	
References/Readings:	<ol style="list-style-type: none"> <li>Wayne Gisslen, Professional Baking, Wiley, 8th Edition, 2021</li> <li>Parvinder S. Bali, Theory of Bakery And Patisserie, Oxford University Press, 1<sup>st</sup> Edition, 2018</li> <li>Cauvain, S. &amp; Young, Technology of Bread making, Springer International publishing Switzerland, 3<sup>rd</sup> Edition, 2015.</li> <li>Baking and Pastry Art, The Culinary Institute of America, 3<sup>rd</sup> Edition, 2015</li> <li>H. Caldon et al, The Cook's Book of Ingredients, DK, 2010.</li> <li>Larousse Gastronomique, Hachette, reviewed Edition, 2009</li> </ol>		
Course	At the end of the course, the student will be able to:		

<b>Outcomes:</b>	<ol style="list-style-type: none"> <li>1. Remember the raising agents and their properties and relate them to kneading of dough and resting periods, bread faults, different preparation techniques and hydration percentages.</li> <li>2. Classify different types of local, national and international breads, recommend ingredients and flavours for bread making and explain their influence on the bread quality and nutrition.</li> <li>3. Apply different methods of bread, sponge and other dough making.</li> <li>4. Evaluate the ingredients used for different preparation techniques.</li> </ol>
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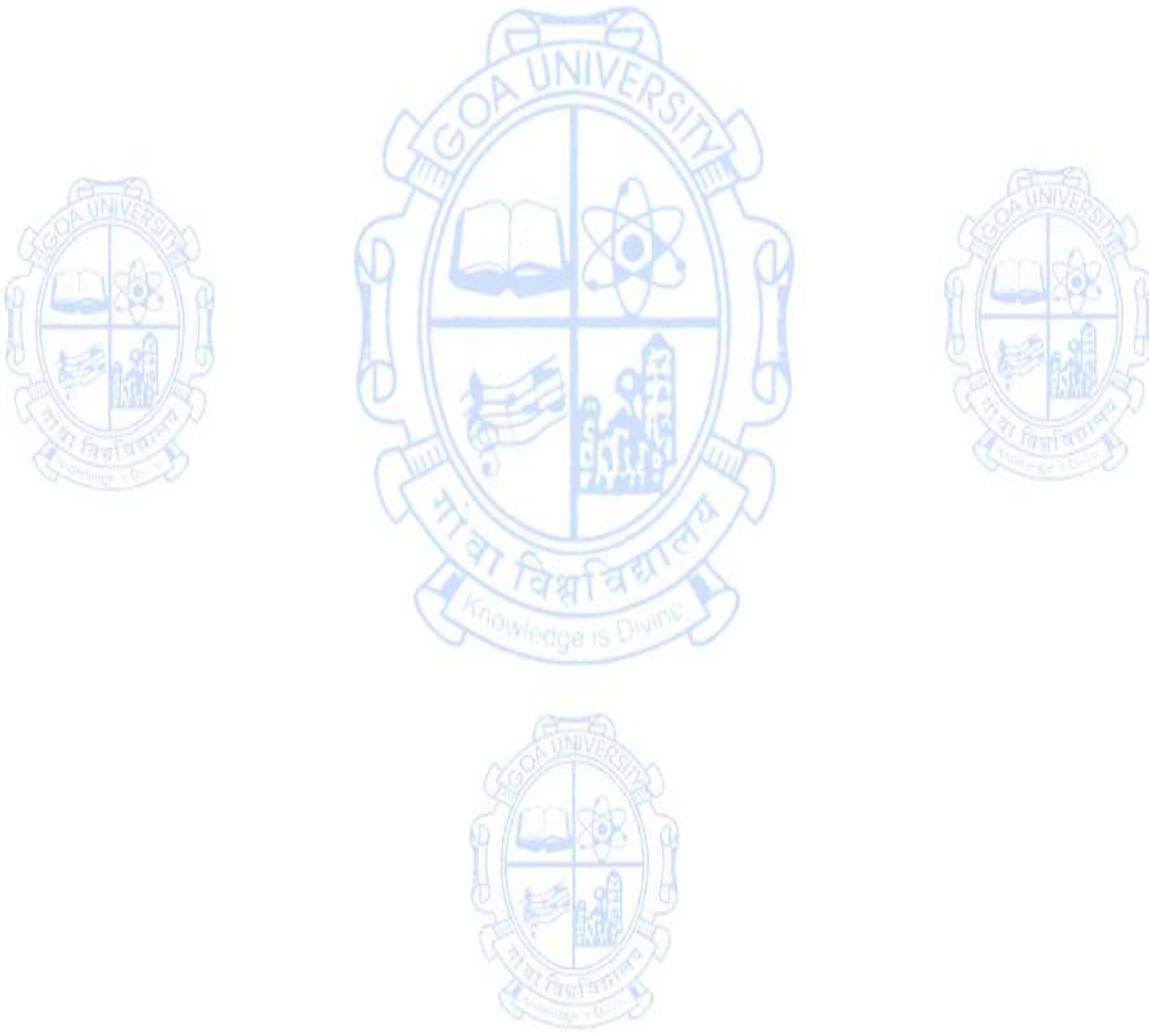


### Exit Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-161
Title of the Course	: Office Reception Skills
Number of Credits	: 04 (1T+ 3P)
Effective from AY	: 2023-24

Pre-requisites for the Course:	Nil	
Course Objectives:	The aim of the course is to familiarize the students with skills and knowledge required to excel in the role of a professional receptionist.	
Content:	<p><b>UNIT I:</b>  <b>Introduction to Reception skills and role of receptionist</b>  <b>Greetings, importance of first impression, handling inquiries efficiently</b>, managing phone calls, scheduling appointments, handling correspondence, and maintaining records, <b>ensuring a positive experience for all guests.</b></p> <p><b>UNIT II:</b>  <b>Communication Skills</b>  Verbal communication: clarity, tone, and articulation, Non-verbal communication: body language, eye contact, and facial expressions, Active listening and empathy in guest interactions, Role-play exercises for various guest scenarios</p> <p><b>UNIT III:</b>  <b>Customer Service Excellence</b>  Reception duties and responsibilities, <b>mastering customer service excellence, enhance guest satisfaction</b>, empathy, personalization and attention to detail.</p> <p><b>UNIT IV:</b>  <b>Multitasking and problem solving</b>  Coordination with other departments, maintaining organized records, generating report, conflict resolution, ensuring the safety of visitors and staff, assist in emergency situations.</p>	<b>15 hours</b> <b>30 hours</b> <b>30 hours</b> <b>30 hours</b>
Pedagogy:	The sessions will be conducted using all or any of the methods of pedagogy, such as lectures, exercises, practical's, seminars, case studies, role plays, and problem- solving, to enable the students to learn in an interactive mode.	
References/ Readings:	<ol style="list-style-type: none"> <li>1. J. Smith, The Receptionist: An Essential Guide to Professionalism, 1st Edition, 2020</li> <li>2. B. Pinder, Effective Communication for Receptionists and Secretaries, 3rd Edition, 2018</li> </ol>	

	<ol style="list-style-type: none"> <li>3. J. Perrine, Reception Skills for Office Professionals, 1st Edition, 2017</li> <li>4. M. Davis, The Art of Professionalism in Receptionist Services, 2nd Edition, 2019</li> <li>5. P. Robb, The Complete Receptionist: An Indispensable Guide to Professional Skills, 3rd Edition, 2021</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate effective communication skills.</li> <li>2. Exhibit cultural sensitivity and adaptability with guests.</li> <li>3. Maintain a professional image and uphold ethical standards while interacting with guests.</li> <li>4. Resolve guest issues and conflicts using appropriate strategies and problem-solving techniques.</li> <li>5. Perform the role of a receptionist.</li> </ol>



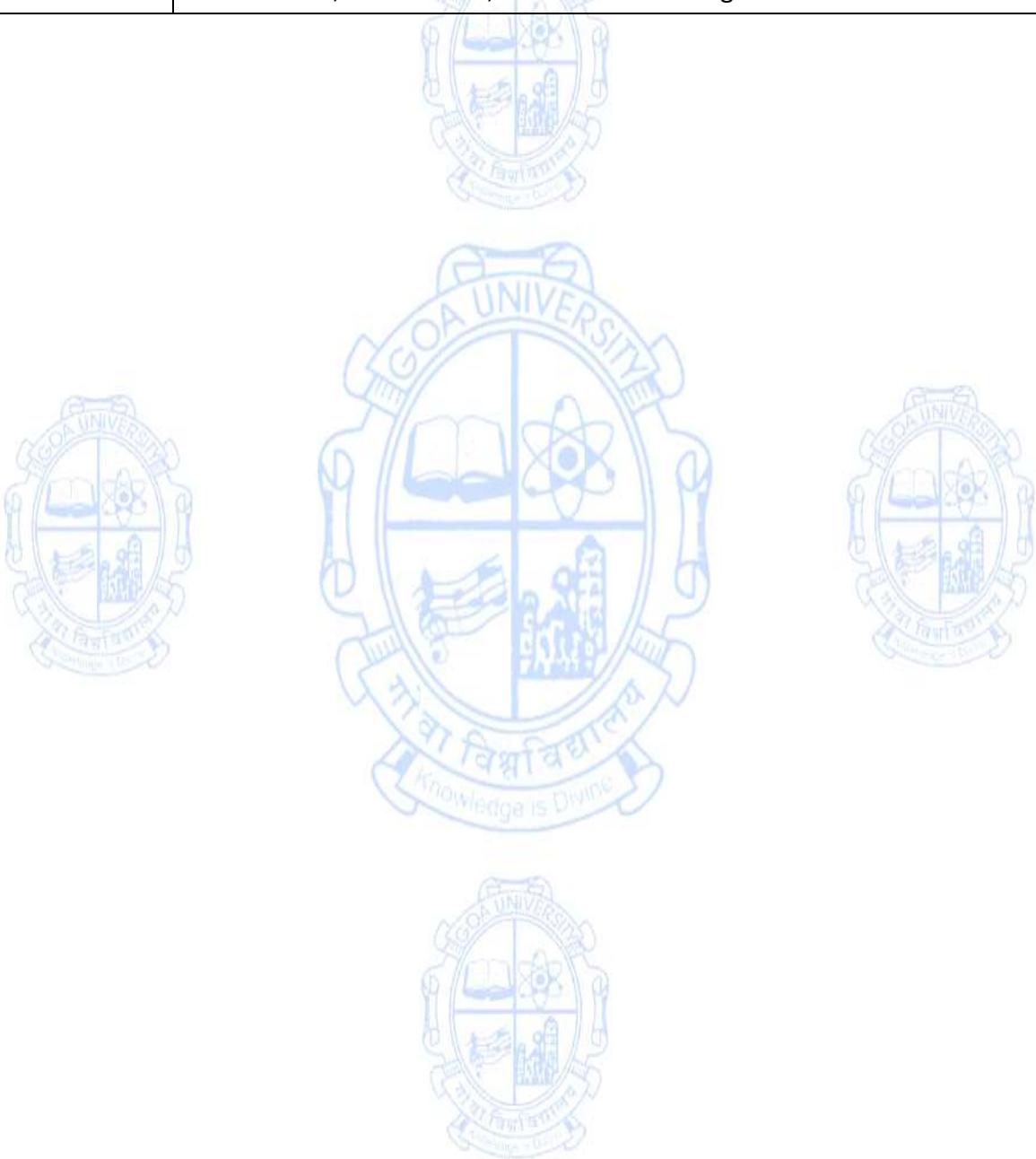
### SEMESTER III

#### Major Courses

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-206</b>
<b>Title of the Course</b>	<b>: Indian Cuisine -1</b>
<b>Number of Credits</b>	<b>: 04</b>
<b>Effective from AY</b>	<b>: 2025-2026</b>

<b>Pre-requisites for the Course:</b>	Nil	
<b>Course Objectives:</b>	The aim is to introduce the student to the basics of Indian cuisine and the functioning of a quantity kitchen.	
<b>Content:</b>	<b>UNIT I: Basics of Indian Cuisine</b> Introduction to Indian food, condiments and spices, Masalas: Composition, varieties and classical blends.	<b>15 hours</b>
	<b>UNIT II: Indian Kitchen Layout and Organisation</b> Layout of different Indian kitchens, duties and responsibilities of the kitchen brigade, equipment used in volume catering, purchasing, indenting and storage for volumes, nutrition factors in bulk cooking.	<b>15 hours</b>
	<b>UNIT III: Volume Catering</b> Institutional and industrial catering, menu planning for volume catering outlets, off-premise catering, mobile catering and hospital catering.	<b>15 hours</b>
	<b>UNIT IV: Regional Indian Cuisine</b> Introduction to regional Indian cuisine, cuisines of different states, regions and communities, speciality cuisine for festivals and special occasions, Indian breads, Indian sweets, Indian street food and snacks.	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>1. Parvinder S Bali, Quantity food production Operations, Oxford Higher education, 2015.</li> <li>2. Achaya, K. T., A Historical Dictionary of Indian Food, Oxford University Press, 2002</li> <li>3. Achaya, K. T., Indian food Historical Companion, Oxford University Press, 1998</li> <li>4. Thangam E. Philip, Modern Cookery For teaching and the trade, Orient BlackSwan, volume I and Volume II, 2013.</li> <li>5. Inder Singh Kalra, Prashad Cooking with Indian Masters, Allied Publishers Pvt Ltd, 2013.</li> </ol>	

<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. List and identify the various types of spices, masalas and pastes used in Indian cuisine.</li> <li>2. Plan for quantity food production with regard to space allocation, equipment selection and staffing.</li> <li>3. Discuss the speciality cuisines of different regions of India.</li> <li>4. Prepare menu and indents for various volume catering outlets such as industrial, institutional, and mobile catering units.</li> </ol>
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**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-207  
**Title of the Course** : Bakery and Pastry Arts -2  
**Number of Credits** : 04 (3T+1P)  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	CUL-144	
<b>Course Objectives:</b>	<p>The aim is to enhance the skills of the student in the methods and techniques used in the preparation of pastry and confectionery.</p>	
<b>Content:</b>	<p><b>UNIT I: Creams, Custards and Mousses</b>            Cooked creams, poached creams, like crème anglaise, crème patissier, custards, Bavarian creams, lemon cream, butter creams.            Puddings and soufflés.            Introduction to different bases for mousse preparations.</p> <p><b>UNIT II: Ice creams, Sauces, Jams</b>            Introduction of ice cream making, different techniques, products and freezing methods. Elaboration techniques of sauces and coulis, jams and marmalades, pate fruits, gelatins, fillings and glazes. Use of marzipan.</p> <p><b>UNIT III: Sugar and Chocolates</b>            Introduction to different types of sugar and sugar cooking, decorations of sugar, fondant, icings, isomalt, caramels and crocant.            Introduction to the history of chocolate, its varieties and the use in pastry like tempering, moulding, ganache, and bonbon.</p> <p><b>UNIT IV: Pastry Preparations</b>            Preparation of different creams and mousses, ice creams, sauces and jams.            Preparations of chocolate and sugar items.            Application of all the techniques in plated desserts, cakes and pastries.</p>	<b>15 hours</b>
<b>Pedagogy:</b>	<p>The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.</p>	<b>30 hours (P)</b>
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>Wayne Gisslen, Professional Baking, Wiley, 8<sup>th</sup> Edition, 2021.</li> <li>Parvinder S. Bali, Theory of Bakery And Patisserie, Oxford University Press, 1<sup>st</sup> Edition, 2018.</li> <li>Cauvain, S. &amp; Young, Technology of Bread making, Springer International publishing Switzerland, 3<sup>rd</sup> Edition, 2015.</li> <li>Baking and Pastry Art, The Culinary Institute of America, 3<sup>rd</sup> Edition, 2015.</li> <li>Bo Friberg, Amy Kemp Friberg, The advanced Professional Pastry Chef, Wiley, 4<sup>th</sup> edition.</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>Classify different creams, mousses, sugars, chocolates, sauces and ice creams.</li> </ol>	

	<ol style="list-style-type: none"> <li>2. Prepare creams, mousses, sauces, gelatins using different methods and ingredients</li> <li>3. Develop sugar and chocolate items applying the right methods.</li> <li>4. Plan and create plated desserts and cakes using all different techniques and ingredients.</li> </ol>
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### Minor Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-211
Title of the Course	: Nutrition and Food Science
Number of Credits	: 04
Effective from AY	: 2023-24

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<p>The aim is to introduce the student to the role of nutrients in the maintenance of health, digestion, absorption, and its utilization in the body and learn the basic steps of meal planning.</p>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Nutrition</b>            Concept of nutrition, significance and functions of food, nutritional labelling, functional foods, antioxidants, probiotics, nutraceuticals, phytonutrients. Macronutrients and Micronutrients, Classification, functions, digestion and absorption, overview of metabolism, sources, requirements, deficiency and related diseases water, Role of water in the body, water and electrolyte balance.</p>	<b>15 hours</b>
	<p><b>UNIT II: Energy and Meal Planning</b>            Calculation of energy, energy balance, factors determining energy requirements, effect of cooking on the nutritive value of the food, menu planning and special diets: Allergens and intolerance, new trends in food industry, international organizations and groups for nutrition and food safety, nutritive values of food groups.</p>	<b>15 hours</b>
	<p><b>UNIT III: Introduction to Food Science</b>            Importance of food science in the context of processed food, food science concepts: Understand the importance of basic concepts in weights and measures and recipes, understand relevant terms that play an important role in food preparation, and application of these concepts in the food industry. Carbohydrates, Proteins, Fats and Oils.</p>	<b>15 hours</b>
	<p><b>UNIT IV: Food Processing and Evaluation of Food</b>            Need for processing food, methods of preservation, advantages and disadvantages and importance of evaluating food before it is launched in the market. Limitation of tests, significance of flavour in the food industry, definition of various flavouring agents and flavour enhancers permitted in food, effect of cooking and processing on flavour retention and development, different types of browning reactions. Food adulteration.</p>	<b>15 hours</b>

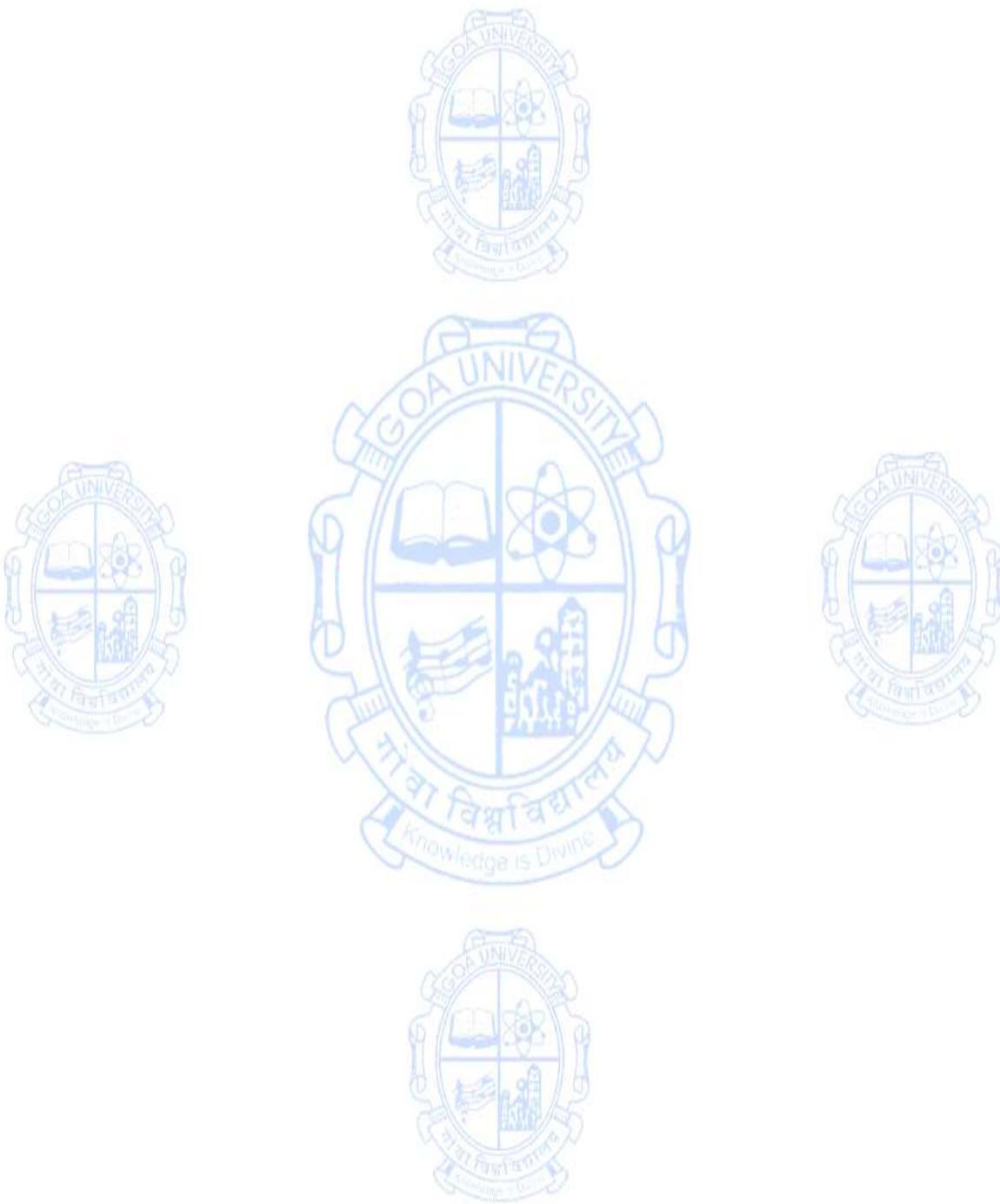
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Ravinder Chadha and Pulkit Mathur, Nutrition a lifecycle approach, Orient BlackSwan, 2015.</li> <li>2. B. Srilakshmi, Food Science, New Age International, 8th Edition, 2018.</li> <li>3. Sunetra Roday, Food Science &amp; Nutrition, Oxford University Press, 3rd Edition, 2018</li> <li>4. Rohini Diniz, Nutri Talk, Printer's Devil, 2017.</li> <li>5. Sivsankar B. (latest edition). Food Processing and Preservation, PHI learning Pvt. Ltd. 2002.</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain the significance of food in our daily life and define the food habits, in relation to energy, wellness and health.</li> <li>2. Identify the changes of nutrients before, during and after the cooking process.</li> <li>3. Recommend the significance of nutrition labelling and describe the different special diets and identify allergies and intolerance of food.</li> <li>4. Apply knowledge of various concepts of Food Science and the composition of food.</li> </ol>

### Multi-disciplinary Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-231
Title of the Course	: Facility Management
Number of Credits	: 03
Effective from AY	: <b>2023-24 (2025-2026)</b>

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to enable the student to design a well-planned kitchen and also to consider the environment in order to implement best practices towards a sustainable kitchen.	
<b>Content:</b>	<b>UNIT I: Kitchen Planning, Layout and Facility Design</b> Flow process and Flow layout, systematic layout planning (SLP) of kitchen, keys to unlock layout problems, equipment requirement and specification, manufacturers and selection, budgeting for kitchen equipment, durability and self-life, reparability, efficiency and accessibility, stores layout, planning, equipment and work flow.	<b>15 hours</b>
	<b>UNIT II: Environmental and Sustainability Management</b> Energy conservation, necessity for energy conservation, methods of conserving energy in different area of operation, the green revolution in India, concept, its impacts in India, introduction of hybrid varieties (HYV) and genetically modified crops, effects of modern agriculture technologies.	<b>15 hours</b>
	<b>UNIT III: Eco Friendly Practices in Culinary Operations</b> Sustainable purchasing policy, implementing sustainable food strategies (local, seasonal and organic food).	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	1. Tarun Bansal, Hotel facility planning. Oxford publication, 2013. 2. Chokkar K. B., Pandya M. and Raghunathan M., Understanding Environment Centre for Environment Education. Sage Publication, 2004. 3. Singh J.S., Singh S.P. and Gupta S.R, Ecology, Environment & Resource Conservation, Annamaya Publishers, 2014. 4. Tyler M.G , Environment Science, 14 ed. Wadsworth Publishing Co., 2019. 5. Erach Bharucha, Textbook of Environmental Studies for undergraduate courses, 2nd ed. Universities Press, 2017	

<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Plan and design a commercial kitchen to facilitate smooth workflow.</li> <li>2. Prepare budget for a kitchen.</li> <li>3. Demonstrate Conservation of energy.</li> <li>4. Plan for suitable kitchen equipment.</li> </ol>
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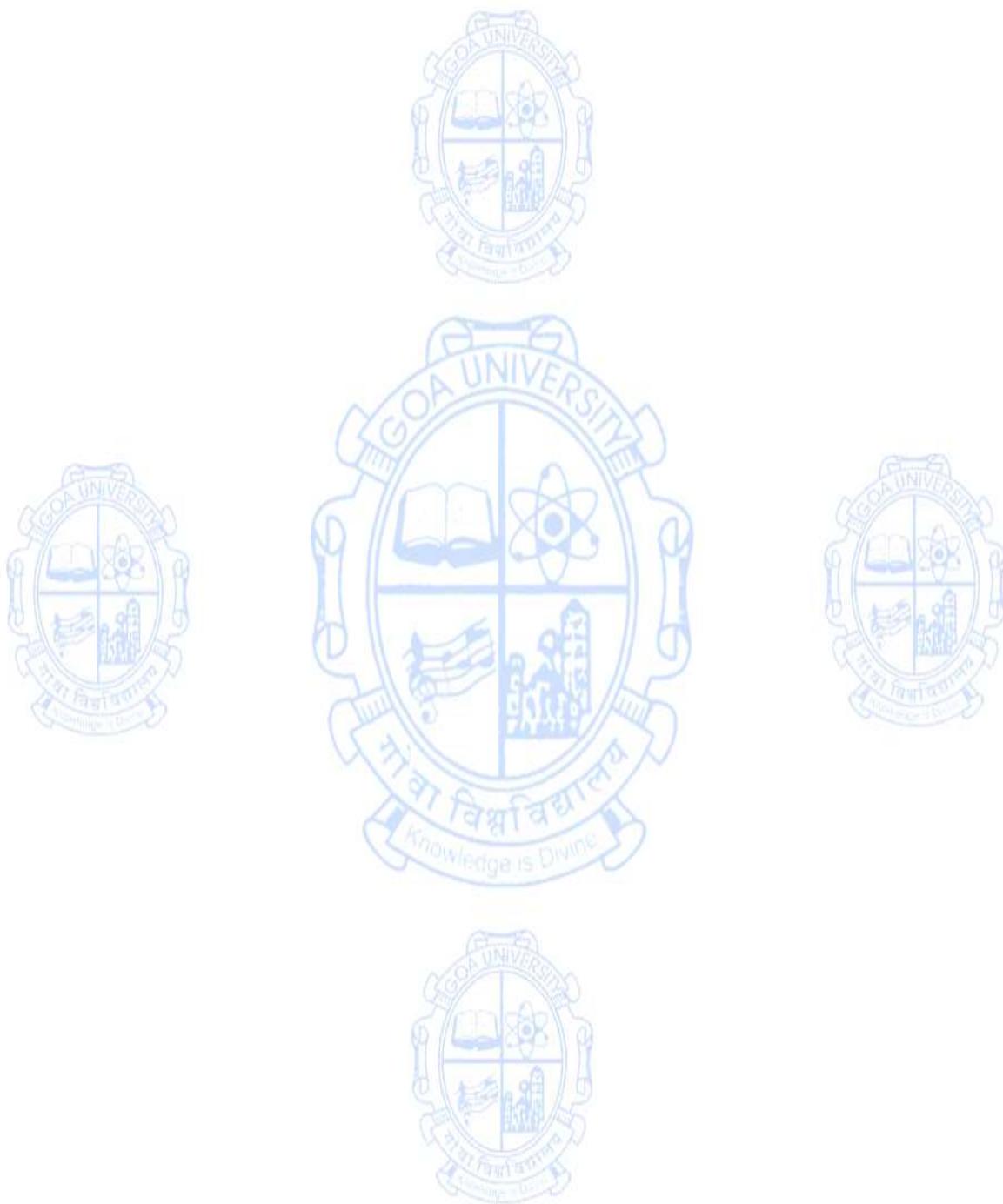


## Skill Enhancement Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-242 (241)
Title of the Course	: Indian Cuisine Practical -1
Number of Credits	: 03
Effective from AY	: 2025-2026

Pre-requisites for the Course:	NIL	
Course Objectives:	The aim is to familiarise the student with basic kitchen operations and skills required to work in a professional Indian kitchen.	
Content:	<b>UNIT I: Ingredient Knowledge</b> Product knowledge of typical Indian ingredients, gravies and their preparations, conservation of products and preparation of dairy derivatives.	<b>20 hours (P)</b>
	<b>UNIT II: Speciality Cuisine</b> Traditional wood fire cooking, tandoor, and street food in India Popular breakfast preparations across India, preparing Indian sweets and savouries, and preparing regional varieties of breads.	<b>30 hours (P)</b>
	<b>UNIT III: Cooking For Volumes</b> Introduction to large-scale/quantity food production, industrial, commercial and institutional (hospitals/schools). Preparation of traditional dishes from the most popular regions of India: Goan, Hyderabadi, Kashmiri, Kerala, Maharashtrian, Parsi, Punjabi, Rajasthani, Awadhi and Mughalai.	<b>40 hours (P)</b>
Pedagogy:	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
References/Readings:	<ol style="list-style-type: none"> <li>1. Parvinder S Bali, Quantity food production Operations, Oxford Higher education, 2015.</li> <li>2. Achaya, K. T., A Historical Dictionary of Indian Food, Oxford University Press, 2002.</li> <li>3. Achaya, K. T., Indian food Historical Companion, Oxford University Press, 1998.</li> <li>4. Thangam E. Philip, Modern Cookery For teaching and the trade, Orient BlackSwan, Volume I and Volume II, 2013.</li> <li>5. Inder Singh Kalra, Prashad Cooking with Indian Masters, Allied Publishers Pvt Ltd, 2013.</li> </ol>	
Course Outcomes:	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Classify Indian spices, pulses, and sweetening agents and compose different preparations using Indian gravies.</li> <li>2. Plan different traditional Indian street food and breakfast offers and apply them to bulk cooking.</li> </ol>	

	<p>3. Categorize traditional cooking methods and significant Indian dishes from different regions of India.</p> <p>4. Create Indian lunch or dinner experience from different regions of India and for different service styles like buffet, set menu, and banquets.</p>
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## SEMESTER IV

### Major Courses

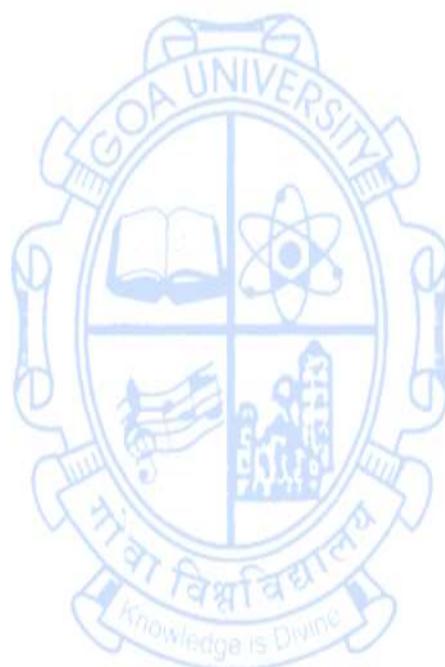
<b>Name of the Programme</b>	: B.Sc. in Culinary Arts
<b>Course Code</b>	: CUL-208 (202)
<b>Title of the Course</b>	: Advanced Culinary Arts
<b>Number of Credits</b>	: 02
<b>Effective from AY</b>	: 2025-2026

<b>Pre-requisites for the Course:</b>	CUL-101	
<b>Course Objectives:</b>	The aim is to enhance the basic culinary knowledge and equip the students to work in a professional kitchen.	
<b>Content:</b>	<b>UNIT I: Fundamentals Of Kitchen Planning / Introduction to Continental Cuisine</b> Planning and organising of work: Storage, forms and formats, Hazard Analysis Critical Control Points (HACCP) Format. Menu planning: Introduction, factors to be considered while planning a menu, functions and types of menus, menu balancing. European cuisines.	<b>15 hours</b>
	<b>UNIT II: Gardemanger / Larder</b> Introduction, layout, functions, duties and responsibilities, introduction to Charcuterie products and preparations, presentation of a cold buffet, ham, bacon and gammon.	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	1. Leto, M. J., & Bode, W. K. H., The Larder Chef food preparation and presentation, Butterworth Heinemann Ltd, 2012 2. Michael Ruhlman, Brian Polcyn, Charcuterie: The Craft of Salting, Smoking, and Curing, W.W.Norton, 2013 3. Taylor Boetticher, Toponia Miller, In the Charcuterie, Random House, 2013 4. Aguste Escoffier, The Escoffier Cookbook, Crown Publishers, 1989 5. Wayne Gisslen, Advanced Professional Cooking, John Wiley & Sons Inc., 1992	
<b>Course Outcomes:</b>	At the end of the course, the student will be able to: 1. List and identify the ingredients used in continental food preparation. 2. Apply the right method of cooking to create various delicacies. 3. Explain and apply the principles of HACCP. 4. Discuss the responsibilities and functions of the larder and the preparation techniques of Charcuterie.	

**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-209 (203)  
**Title of the Course** : Advanced Culinary Arts - Practical  
**Number of Credits** : 04  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	CUL-208	
<b>Course Objectives:</b>	The aim is to enhance the basic culinary knowledge and equip the student to work in a professional kitchen.	
<b>Content:</b>	<p><b>UNIT I: Elementary Continental Cooking</b>            Vegetable preparations, garnishes and accompaniments, meat and poultry cookery, different cuts and preparations, fish and shellfish preparations with different cooking methods in relation to the type of seafood, preparation of a minimum of five continental menus with starter, soup, main course and simple dessert.</p> <p><b>UNIT II: Planning And Organising the Professional Kitchen</b>            Food control and selection of raw material, temperature controls for cooking and storing, reheating and cooling according to the standard hygiene norms, documentation and control of various food production processes according to HACCP.</p> <p><b>UNIT III: Garde manger/Larder</b>            Introduction to cold kitchen, preparation of various forcemeats, sausages, galantines, pates, terrines and mousses.            Uses of aspic and Gelées, basic brines and marinades, preparation of four different cold buffets of different styles.</p> <p><b>UNIT IV: European Cuisine</b>            Preparation of min. 6 European menus of different countries using the most original ingredients and recipes.</p>	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>1. Leto M. J., &amp; Bode, W. K. H., The Larder Chef food preparation and presentation, Butterworth Heinemann Ltd, 2012</li> <li>2. Michael Ruhlman, Brian Polcyn, Charcuterie: The Craft of Salting, Smoking, and Curing, W.W.Norton, 2013</li> <li>3. Taylor Boetticher, Toponia Miller, In the Charcuterie, Random House, 2013</li> <li>4. Aguste Escoffier, The Escoffier Cookbook, Crown Publishers, 1989</li> <li>5. Wayne Gisslen, Advanced Professional Cooking, John Wiley &amp; Sons Inc., 1992</li> </ol>	

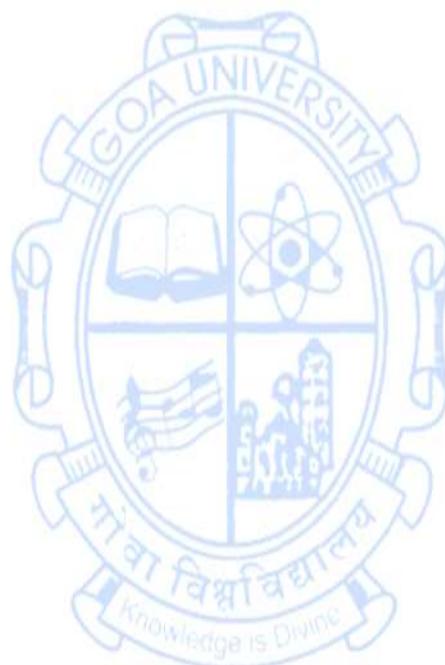
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Prepare continental menus and evaluate the cooking method used, the material involved and the cutting techniques presented.</li> <li>2. Apply correct hygiene and food safety practices to prepare food.</li> <li>3. Prepare meat, poultry and seafood for Force meat, Pates, and Galantines.</li> <li>4. Plan and execute a cold buffet setup and display of various cold cuts.</li> </ol>
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**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-204  
**Title of the Course** : Bakery and Pastry Arts Practical-2  
**Number of Credits** : 04  
**Effective from AY** : 2023-24

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to introduce the student to various methods and techniques used in the preparation of bakery, pastry and confectionary.	
<b>Content:</b>	<b>UNIT I: Advanced Decorations</b> Decorated sponge sheets, silk screen, fondant and royal icing, assembling and decorating specialty cakes, individual pastries, charlottes, custards, Bavarian creams, mousses, and soufflés.	<b>30 hours</b>
	<b>UNIT II: Preparation of Modernists Desserts</b> Fillings and presentation styles, holiday classics and favourites, plated desserts, light and low calorie desserts.	<b>30 hours</b>
	<b>UNIT III: Tarts and Special Pastries / Desserts</b> Tarts, tartlets and special pastries, assembling and decorating cakes, marzipan, pastillage, and nougatine. Minimum 6 individual practical to cover international desserts that should include: Frozen and fruit desserts, basic syrups, creams and sauces, sugar cooking, basic creams and desserts sauces, simple decoration items for plated dessert and buffets, buffet setup and planning.	<b>30 hours</b>
	<b>UNIT IV: Chocolate and Sugar</b> Tempering and handling methods, preparation of chocolate decorations, moulding and colouring of chocolate, preparation of chocolate truffles. Sugar techniques and sugar work.	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>Wayne Gisslen, Professional Baking, Wiley, 8<sup>th</sup> Edition, 2021</li> <li>Parvinder S. Bali, Theory of Bakery And Patisserie, Oxford University Press, 1<sup>st</sup> Edition, 2018</li> <li>Cauvain, S. &amp; Young, Technology of Bread making, Springer International publishing Switzerland, 3<sup>rd</sup> Edition, 2015.</li> <li>Baking and Pastry Art, The Culinary Institute of America, 3<sup>rd</sup> Edition, 2015</li> <li>Bo Friberg, Amy Kemp Friberg, The advanced Professional Pastry Chef, Wiley2003</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>Apply modern methods for dessert preparation</li> </ol>	

	<ol style="list-style-type: none"> <li>2. Prepare ice-cream, sorbet and variations of hot and cold plated desserts</li> <li>3. Prepare Indian traditional desserts with modern techniques</li> <li>4. Plan and prepare chocolate and sugar models applying the techniques learnt.</li> </ol>
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**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-210 (205)  
**Title of the Course** : Fine Arts in Culinary  
**Number of Credits** : 04 (3T+1P)  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<p>The aim is to introduce the artistic elements of culinary arts from plating, planning theme events, sculpturing and modelling, packaging, presentation and publishing.</p>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Arts</b>            History and appreciation of art in relation to culinary arts, Indian art, Western art, Far Eastern art, and monuments of historical significance in relation to themed events.            Elements of drawing and art for sculpturing, line, shape and form, shade and light, colour, texture.            Colour lettering- typography and calligraphy: History of writing, development of alphabets, different calligraphic schools, script styles, roman lettering, chocolate, glaze and coulis writing.</p> <p><b>UNIT II: Advertising Art and Ideas</b>            Computer graphics: Introduction, graphic software, Photoshop, CorelDraw and Illustrator, menu card and packaging design            Design 3-D: Study of basic 3-D shapes and forms, positive and negative spaces, food printing on cakes            Introduction, advertising in everyday life, history of advertising in general, social and economic aspects, advertising media.            Packaging design: Principles of packaging, knowledge of materials, methods of packaging, label and carton designing, costing and estimating.</p> <p><b>UNIT III: Sculpturing and Carving Techniques</b>            Product knowledge, selection, quality and use, supporting materials, tools and equipment used, chocolate and ice, butter and sugar, vegetable and fruit carving.</p> <p><b>UNIT IV: Creating Arts</b>            Elements of drawing and art for sculpturing, line, shape and form, shade and light, colour, texture.            Modelling: Art of shaping and modelling, chocolate and fondant modelling            Colour lettering – typography and calligraphy, chocolate, glaze and coulis writing, decoration techniques.            Plate decoration, buffet presentations, food styling.</p>	<b>15 hours</b> <b>15 hours</b> <b>15 hours</b> <b>30 hours (P)</b>

<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Thomas Powell, Prehistoric Art, NY: Praeger, latest available edition</li> <li>2. Anil Rao Sandhya Ketkar, The History of Indian Arts, Jyotsna Prakashan Girgaon Mumbai, latest available edition</li> <li>3. Paul Bahn, The Cambridge Illustrated History of Prehistoric Art, Cambridge UP, latest available edition</li> <li>4. Seton Lloyd, Art of the Ancient Near East NY: Praeger, latest available edition</li> <li>5. Henri Frankfort, Art and Architecture of the Ancient Orient, Harmondsworth: Penguin, latest available edition</li> <li>6. Rudolph Wittkower, Gian Lorenzo Bernini, Sculptor of the Roman Baroque, London: Phaidon, latest available edition</li> <li>7. Candace Ellicott, Sarah Roncarelli, Packaging Essentials, Rockport, latest available edition</li> <li>8. Barbara Purchin and E. Ashey Rooney, Contemporary Ice Sculpture, , Schriffer Publishing Ltd, latest available edition</li> <li>9. Marie Elsa Lobo, Fruit and Vegetable Carving, Brijbasi Art Press, latest available edition</li> <li>10. Hiroshi Nagashima, The Decorative Art of Japanese Food Carving – Elegant Garnishes for All Occasions, Kodansha International Ltd, latest available edition</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand various techniques of calligraphy on various food products, modelling and sculpturing techniques in food preparation.</li> <li>2. Develop, design, advertise and package a food product.</li> <li>3. Prepare different types of vegetables and ice carvings.</li> <li>4. Create and design chocolate, butter and sugar sculptures.</li> </ol>

**Minor VET Course**

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-221</b>
<b>Title of the Course</b>	<b>: Food and Beverage Service</b>
<b>Number of Credits</b>	<b>: 04 (3T+1P)</b>
<b>Effective from AY</b>	<b>: 2023-24 (2025-2026)</b>

<b>Pre-requisites for the Course:</b>	Nil	
<b>Course Objectives:</b>	The aim is to introduce the student to F&B sector, its organization, planning and execution and an overview of trends and the link to cuisine.	
<b>Content:</b>	<p><b>UNIT I: Hotel and Catering Industry</b>            Departmental organization and staffing, types of food service areas and F&amp;B outlets, ancillary departments. Familiarization and selection factors of F&amp;B service equipment. Identification of various F&amp;B equipment, classification, types of furniture, sizes, various kinds of linen and specification, types of cutlery, crockery, glassware, speciality equipment and their uses, purchase considerations, storage and maintenance.</p>	<b>15 hours</b>
	<p><b>UNIT II: F&amp;B Service Operations</b>            Styles of Food Service: Waiter service, self-service and assisted service. Features of each group and methods, advantages and limitations of each service, suggest suitable styles for an F&amp;B outlet, factors influencing the styles, menu knowledge and planning: Origin, types of menus, French classical menu, a la carte sequence, cover and accompaniments for selected dishes, different types of selling techniques, complaint handling, guest information system</p>	<b>15 hours</b>
	<p><b>UNIT III: Food Service</b>            Mise-en-place Napkin folding, points to be observed while laying and relaying of table cloth, activities involved in mise-en-place and mise-en-scene, setting up sideboard, table decorations, condiments, handling of cutlery, crockery, glassware, service gears and trays. Restaurant Service: Handling restaurant reservations, greeting and seating the guest, planning of a 4-5 course menu and preparing the table set up accordingly, service procedures of table d'hôte and al la carte orders. presenting and settling of bills and bid warm farewell, different styles of service and techniques.</p>	<b>15 hours</b>
	<p><b>UNIT IV: Bar Operation</b>            Service of non-alcoholic beverages such as tea, coffee, water, aerated beverages etc., service procedures of beer, whisky, brandy, gin, vodka, rum, tequila with mixers and service of</p>	<b>30 hours</b>

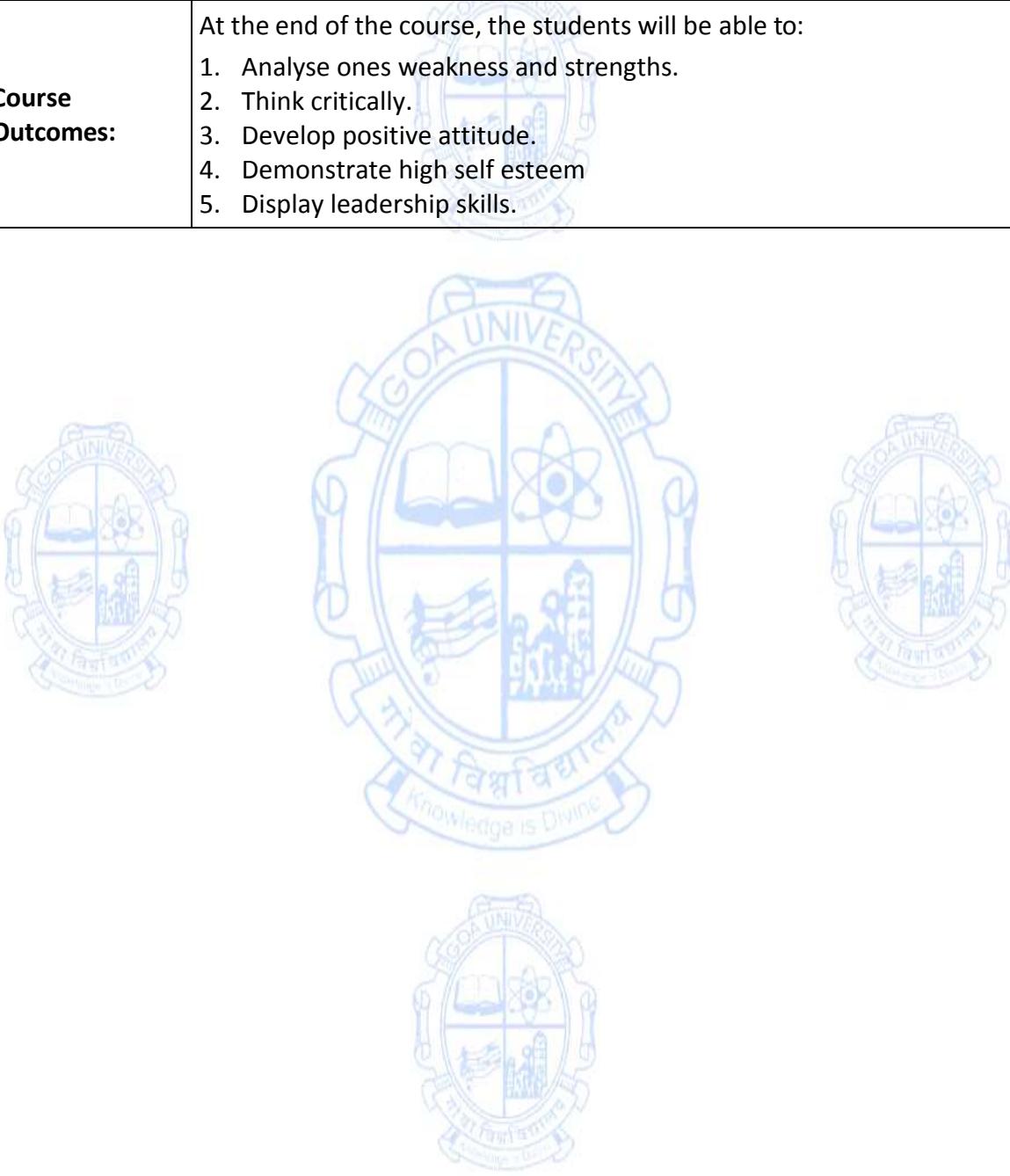
	liqueurs, order taking of alcoholic beverages and service on a table. Guest Service: Breakfast set up and service, room service, staff meal service.	
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Dennis Lillicrap and John Cousins, Food and Beverage Service, 8<sup>th</sup> Edition, Hodder Publishing, 2014</li> <li>2. Sudhir Andrews, Food and Beverage Service Training Manual, McGraw Hill Publishing Company Limited, 3<sup>rd</sup> edition 2013.</li> <li>3. Bobby George, Sandeep Chatterjee, Food and Beverage Service and Management, Jaico Publishing House, 2008</li> <li>4. Vijay Dhawan, Food and Beverage Service, Frank Bros. and Co., 2013</li> <li>5. Jack D. Ninemeier, Management of Food and Beverage Operation, 5<sup>th</sup> Edition, American Hotel and Lodging Educational Corp, 2010</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Identify different types of cutlery, crockery, glassware used in Food and Beverage sector.</li> <li>2. Summarize the duties and responsibilities of F&amp;B personnel.</li> <li>3. Demonstrate different types of non-alcoholic and alcoholic beverages.</li> <li>4. Demonstrate proper service flow from receiving the guest to bidding warm farewell.</li> </ol>	

**Exit Course**

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-261</b>
<b>Title of the Course</b>	<b>: Personality Development Skills</b>
<b>Number of Credits</b>	<b>: 04 (1T+ 3P)</b>
<b>Effective from AY</b>	<b>: 2023-24 (2025-2026)</b>

<b>Pre requisites for the Course:</b>	Nil	
<b>Course Objectives:</b>	The aim of the course is to cultivate interpersonal skills for a successful career.	
<b>Content:</b>	<p><b>UNIT I: Introduction to Personality Development:</b>  The concept of personality, dimensions of personality, significance of personality development.</p> <p>The concept of success and failure: hurdles in achieving success, overcoming hurdles, factors responsible for success, failures and causes, swot analysis.</p> <p><b>UNIT II: Attitude &amp; Motivation:</b>  Concept, significance factors affecting attitudes, positive attitude, advantages and disadvantages, differences between personalities having positive and negative attitude.</p> <p>concept of motivation, significance, internal and external motives, importance of self- motivation, factors leading to demotivation</p>	<b>15 hours</b>
	<p><b>UNIT III: Self-esteem</b>  Definition and importance, do's and don'ts to develop positive self-esteem, low self-esteem, symptoms, positive and negative self-esteem. Inter-personal relationships, difference between aggressive, submissive and assertive behaviours.</p>	<b>30 hours</b>
	<p><b>UNIT IV: Other aspects of Personality Development</b>  Body language, problem-solving, conflict and stress management, decision-making skills, leadership and qualities of a successful leader, character building, team-work , time management, work ethics, good manners and etiquette.</p>	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods of pedagogy, such as lectures, exercises, practical's, seminars, case studies, role plays, and problem- solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. R. Heller, "Effective leadership, "Essential Manager series, Dk Publishing, 2002</li> <li>2. T. Hindle, "Reducing Stress" Essential Manager series, Dk Publishing, 2003</li> </ol>	

	<ol style="list-style-type: none"> <li>3. L. Stephen, "Art of Public Speaking", New Delhi. Tata - Mc-Graw Hill. 2001</li> <li>4. D. J .Mile, Power of positive thinking, Delhi. Rohan Book Company, 2004.</li> <li>5. P. Kumar, All about Self- Motivation, New Delhi. Goodwill Publishing House. 2005.</li> <li>6. B. Smith, "Body Language", Rohan Book Company, Delhi, 2004</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course, the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Analyse ones weakness and strengths.</li> <li>2. Think critically.</li> <li>3. Develop positive attitude.</li> <li>4. Demonstrate high self esteem</li> <li>5. Display leadership skills.</li> </ol>



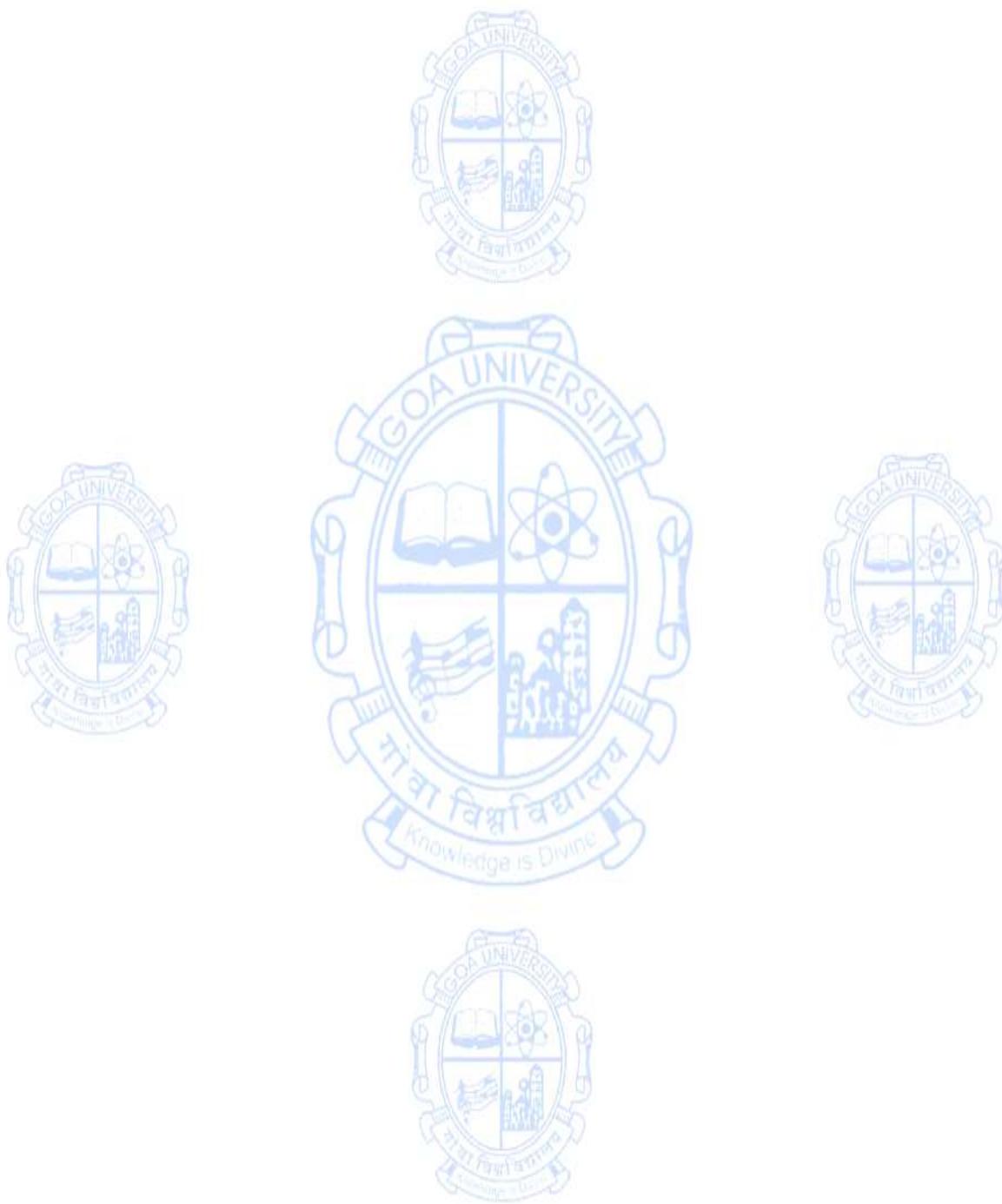
## SEMESTER V

### Major Courses

Name of the Programme	: B.Sc. Culinary Arts
Course Code	: CUL-308 (300)
Title of the Course	: Advanced Indian Cuisine-2
Number of Credits	: 02
Effective from AY	: 2025-2026

Pre-requisites for the Course:	CUL-206	
Course Objectives:	The aim is to equip the student with skills to operate and manage traditional and modern Indian kitchen operations	
Content:	<b>UNIT I: Cuisine of Indian Communities (North, East, West and South) and Traditional Indian Cooking Methods</b> Traditional cookware, indigenous and tribal cuisine, types of fuel used in cooking, and food rituals. Characteristics of the community, tradition and culture relating to food habits, food and festivals.	15 hours
	<b>UNIT II: Ayurveda and Indian Food</b> Concept of Ayurveda and food, incorporating Ayurveda in menus, and food as medicine. <b>Indian Haute Cuisine</b> Classical Indian cuisine v/s contemporary Indian cuisine, influence of rulers on Indian food, and modern plate presentation.	15 hours
Pedagogy:	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
References/Readings:	<ol style="list-style-type: none"> <li>1. Parvinder S Bali, Quantity food production Operations, Oxford Higher Education, 2014.</li> <li>2. Achaya, K. T., A Historical Dictionary of Indian Food, Oxford University Press, 2002.</li> <li>3. Atul Kochhar, Benares- Michelin Starred Cooking, Absolute Press, 2015</li> <li>4. Hermant Oberoi, The Masala Art, Indian Haute Cuisine, Rozi Books, 2<sup>nd</sup> Impression, 2015.</li> <li>5. Hari Nayak, Vikas Khanna, Modern Indian Cooking, Silverback Books Inc, 2007.</li> <li>6. Krish Ashot, Maslas Lab, Penguin Viking, 2003.</li> </ol>	
Course Outcomes:	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Describe Indian food culture and traditions, and explain about community cuisines of India, cooking utensils and festival cooking.</li> <li>2. Create menus according to Ayurveda and highlight its health benefits.</li> </ol>	

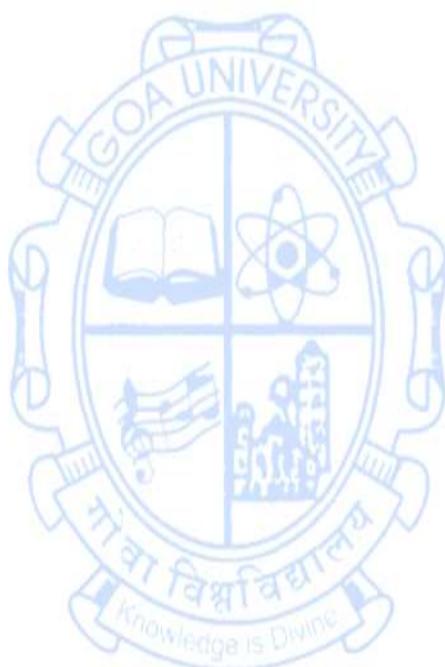
	<p>3. Apply contemporary cooking techniques and modern methods of food presentation.</p> <p>4. Plan and execute an event showcasing the traditional Indian food in a modern form.</p>
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**Name of the Programme** : B.Sc. Culinary Arts  
**Course Code** : CUL-309 (301)  
**Title of the Course** : Advanced Indian Cuisine-2 Practical  
**Number of Credits** : 04  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	CUL-308	
<b>Course Objectives:</b>	The aim is to equip the student with skills to operate and manage traditional and modern Indian kitchen operations.	
<b>Content:</b>	<b>UNIT I: Classical And Traditional Cooking</b> Prepare a minimum of five menus with traditional Indian dishes, cuisine of communities from each region of India, prepare food according to festivals in India, and prepare menus using the concept of Ayurveda.	<b>30 hours</b>
	<b>UNIT II: Transition To Modern Cuisine</b> Minimum 5 practical sessions with the following topics: from Thali to plate, pre-plated Indian food, modern presentation of classical Indian food, use of modern crockery and cutlery for presentation.	<b>30 hours</b>
	<b>UNIT III: Preparation of a 4-Course Menu for Fine Dining</b> Modern Regional Cuisine- advanced cooking techniques.	<b>30 hours</b>
	<b>UNIT IV: Preparation of a Degustation Menu for Food Trials</b> Modern preparation and presentation of classical Indian food from thali to plate.	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>1. Parvinder S Bali, Quantity food production Operations, Oxford Higher Education, 2014</li> <li>2. Achaya, K. T., A Historical Dictionary of Indian Food, Oxford University Press, 2002</li> <li>3. Atul Kochhar, Benares- Michelin Starred Cooking, Absolute Press, 2015</li> <li>4. Hermant Oberoi, The Masala Art, Indian Haute Cuisine, Rozi Books, 2<sup>nd</sup> Impression, 2015</li> <li>5. Hari Nayak, Vikas Khanna, Modern Indian Cooking, Silverback Books Inc, 2007</li> <li>6. Krish Ashot, Maslas Lab, Penguin Viking, 2003</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Prepare Indian dishes and present food preparations in traditional and modern ways.</li> <li>2. List and identify the role of ingredients used in traditional Indian food and the impact on health.</li> </ol>	

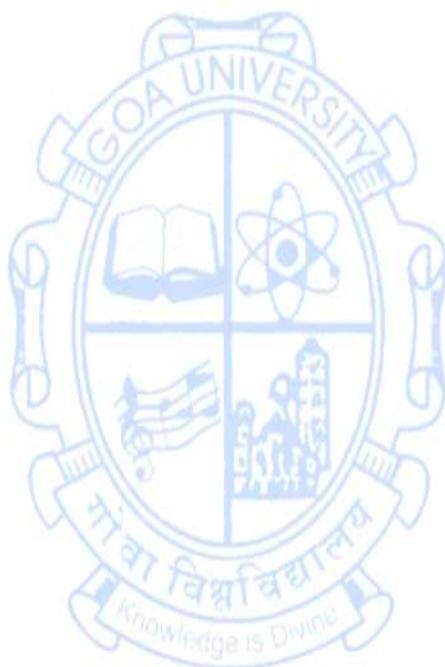
	<ul style="list-style-type: none"><li>3. Prepare and serve Indian food for a fine dining experience.</li><li>4. Plan and prepare a degustation menu for food trials and evaluation.</li></ul>
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<b>Name of the Programme</b>	<b>: B.Sc. Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-310 (302)</b>
<b>Title of the Course</b>	<b>: Mass Media in Gastronomy</b>
<b>Number of Credits</b>	<b>: 04 (3T+1P)</b>
<b>Effective from AY</b>	<b>: 2025-2026</b>

<b>Pre-requisites for the Course:</b>	Nil	
<b>Course Objectives:</b>	The aim is to provide the student with the knowledge of food photography and the possibility of promotion through mass media.	
<b>Content:</b>	<p><b>UNIT I: Food Photography and Food Styling</b>  Importance of photography in communication media, history of photography, camera and its accessories, lights and lighting, digital photography, introduction to photo editing software. Equipment and props (fabric, surfaces, cutlery), food styling for food media and best practices, equipment and handling, lighting, effects and composition, creative photography.</p> <p><b>UNIT II: Role of Social Media Marketing in the Gastronomy Industry</b>  Scope of social media, social media statistics, marketing strategy and impact. The differential role of newspapers, radio, magazines, the Internet, and television.</p> <p><b>UNIT III: Presentation Skills</b>  Colour schemes and audio-visual effects in food presentations. Definition, scope, dimensions, purpose of food advertising, trends in food advertising, sound and audio effects in food advertising.</p> <p><b>UNIT IV: Practical Introduction to Photography</b>  Basics of photography, different formats of digital images, use of a computer for digital photography, and editing digital photos with software like Photoshop.  Set up of the set for photography using all props and equipment.</p>	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	<b>15 hours</b>
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Marinescu, Valentina, Food, Nutrition and the Media, Palgrave Macmillan, 2020.</li> <li>2. Nicole Young, Food Photography: From Snapshots to Great Shots, Peachpit Press, 2015.</li> <li>3. Denise Vivaldo, Cindie Flannigan, The Food Stylist's Handbook, Skyhorse Publishing, 2017.</li> <li>4. Michelle Phillipov, Media and Food Industries- The New Politics of Food, Palgrave Macmillan, 2017.</li> <li>5. Bansal, R., Food Nutrition and Hygiene, SBPD Publishing House, 2024.</li> </ol>	<b>30 hours</b>

	6. Ferran Adria, <i>Modern Gastronomy A to Z</i> , CRC Press, 2009.
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate the photography in communication media, history of photography, camera and its accessories, lights and lighting, digital photography, introduction to photo editing software</li> <li>2. Choose different editing programs regarding the type of photography</li> <li>3. Evaluate the importance of food photography in today's life and the role of mass media in relation to food photography</li> <li>4. Create setups and arrange products in an appealing manner, and make use of a tabletop setup to photograph products</li> </ol>



**Name of the Programme** : B.Sc. Culinary Arts  
**Course Code** : CUL-311 (303)  
**Title of the Course** : Global Cuisine Practical  
**Number of Credits** : 04  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	Nil	
<b>Course Objectives:</b>	<p>The course aims to provide students with practical skills and knowledge related to global cuisines, focusing on techniques, ingredients, and cultural aspects. Students will explore and create dishes from various culinary traditions worldwide, developing their culinary creativity, adaptability, and appreciation for diverse food cultures.</p>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Global Cuisines</b>            Overview of major global culinary traditions.            Introduction to essential ingredients, spices, and cooking techniques.            Discussion on cultural significance and regional variations in global cuisines.            Preparing 5 sets of popular menus across the globe, signifying the relevance of these dishes in their respective cultures.</p> <p><b>UNIT II: European and Latin American Cuisine</b>            Focus on French, Italian, and Spanish cuisines. Hands-on practice with classical menus.            Preparing 3 sets of menus, emphasising flavour profiles and ingredients used in European cooking.            Examination of Mexican, Brazilian, and Peruvian cuisines. Cooking techniques for traditional dishes from Latin America. Cultural influences on Latin American food culture. Preparing 2 sets of menus.</p> <p><b>UNIT III: Asian, Middle Eastern and African Cuisine</b>            Exploration of Chinese, Japanese, and Thai cuisines.            Preparation of 2 menus, including traditional and modern dishes, with a set menu consisting of starters, meat, vegetables, starch and sweets.            Study of umami flavours, use of sauces, and culinary traditions in Asia.            Study of dishes from countries like Lebanon, Greece, and Turkey.            Cooking sessions featuring Mezze, Antipasti and Bush cooking in Africa.            Preparing 3 sets of menus with the inclusion of dishes from the Middle East and Africa. Discussion on Mediterranean diet and</p>	<b>30 hours</b>
		<b>30 hours</b>
		<b>30 hours</b>

	<p>health benefits.</p> <p><b>UNIT IV: Fusion Cuisine and Culinary Innovation</b></p> <p>Experimentation with fusion dishes combining elements from different global cuisines through any 4 sets of menus. Culinary creativity workshop and menu development. Presentation and critique of student-created fusion dishes.</p> <p>Culinary Showcase and Evaluation</p> <p>Students prepare a final showcase of dishes representing various global cuisines.</p>	<b>30 hours</b>
<b>Pedagogy:</b>	<p>The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.</p>	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Nik Sharma, The Flavour Equation, Harper Collins, 2020.</li> <li>2. David Inglis and Debra Gimlin, The Globalisation of Food, Bloomsbury Publishing, 1<sup>st</sup> edition, April 2023.</li> <li>3. Linda Civitello, Cuisine and Culture: A History of Food and People, John wiley and sons, Inc., 2<sup>nd</sup> Edition, 2008.</li> <li>4. Patricia A. Hayman. International Cooking – A Culinary Journey, Pearson, 3rd Edition, 2017.</li> <li>5. Hamlyn, New Larousse Gastronomique, Hamlyn, October 2009.</li> <li>6. Trang Corinne, Essentials of Asian Cuisine: Fundamentals and Favourite recipes, Simon and Schuster, June 2010.</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate proficiency in preparing and presenting dishes from different global cuisines.</li> <li>2. Appreciate unique ingredients, cooking methods, and flavour profiles of various culinary traditions.</li> <li>3. Apply principles of food safety, hygiene, and sustainability in culinary practices.</li> <li>4. Analyze and evaluate cultural influences on food preparation and consumption.</li> <li>5. Collaborate effectively in a kitchen environment, demonstrating teamwork and communication skills.</li> </ol>	

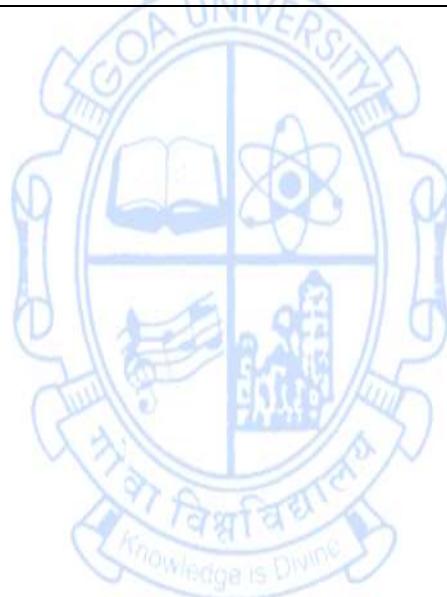
## SEMESTER VI

### Major Courses

<b>Name of the Programme</b>	: B.Sc. Culinary Arts
<b>Course Code</b>	: CUL-312 (304)
<b>Title of the Course</b>	: Kitchen Management
<b>Number of Credits</b>	: 04 (P)
<b>Effective from AY</b>	: 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to implement learnings in a real-life setting and enhance working skills in order to operate a fine dining restaurant.	
<b>Content:</b>	<b>UNIT I: Project-Oriented Kitchen Management</b>  All preparations are according to the weekly schedule of running the restaurant: Duty allocation and preparation timings, set up of mise-en-place for specific events and food trials, plating techniques and presentation skills, special equipment and cooking techniques, waste management.	<b>30 hours</b>
	<b>UNIT II: Kitchen Management of International Cuisines</b>  Students will run a restaurant kitchen with all related tasks. Menu planning according to different themes like European cuisine, American, Asian, Oceania, North, East, South, West Indian.  Menu planning, food trials, food costing and requisitions. Preparation of the food items and life experience service in the kitchen.	<b>30 hours</b>
	<b>UNIT III: Service Management of International Cuisines</b>  Students will run a restaurant service with all related tasks. Selection of different service styles like American service, French service, Buffet with or without life counter, A la carte, Gueridon service, Showmanship, Banquet and set Menu.  Wine and beverage menu creation, cocktail trials, restaurant theme decoration, and different restaurant and table setups.	<b>30 hours</b>
	<b>UNIT IV: Special Events and Marketing</b>  Special event setups like farm-to-table concepts, chefs and turntables, breakfast or brunch settings.  Marketing of all events, ticketing, costing, feedback forms, allergen information, dietary requirements, and children's menus. Photography and social media, reel creations and VIP treatments.	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, case studies, role plays and problem solving, to enable	

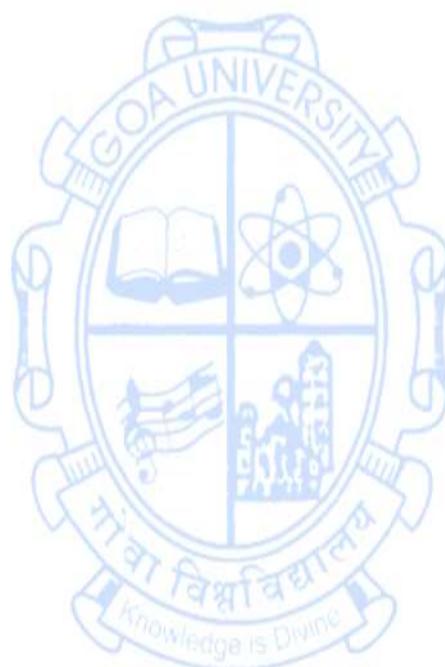
	the students to learn in an interactive mode.
<b>References/ Readings:</b>	Project-based Open Online Resources according to research done by students.
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Apply all kitchen management skills to plan the restaurant operations, different menu planning, staff duty rota, menu costing, and requisitions.</li> <li>2. Evaluate the service styles, restaurant and table settings, beverage menu creation and pricing.</li> <li>3. Develop a system to plan, manage and operate a full-fledged fine dining restaurant, which will be open to the public to put to test all the acquired skills.</li> <li>4. Create a marketing strategy to publish the operations of the restaurant, develop a guest database and a feedback form.</li> </ol>



**Name of the Programme** : B.Sc. Culinary Arts  
**Course Code** : CUL-313 (305)  
**Title of the Course** : Gastronomic Science  
**Number of Credits** : 04 (3T+1P)  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to conduct experimental cuisine using the principles of food science.	
<b>Content:</b>	<b>UNIT I: Introduction to Gastronomic Science</b> Organoleptic and sensory study, molecular gastronomy, experimental cuisine, the sense of taste, smell, sight and touch.	<b>15 hours</b>
	<b>UNIT II: Research and Experiments with Food</b> Ingredient behavior during preparation, experiments to observe the changes during cooking of carbohydrates, fats, proteins and flavors, chemical reactions	<b>15 hours</b>
	<b>UNIT III: Food Trials</b> Individual practical experimental classes, trial and error method, sensory evaluations, taste, smell, visual and sound experiences, temperature and textures.	<b>30 hours</b>
	<b>UNIT IV: Food Processing</b> Introduction to different methods of food processing.	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>1. Nathan Myhrvold, Chris Young, Maxime Billet, Modernist Cuisine: The Art and Science of Cooking, Volume I – Volume VI, The Cooking Lab, 2011.</li> <li>2. Srilakshmi, B., Food Science, New Age International, 8<sup>th</sup> Edition, 2024.</li> <li>3. Sunetra Roday, Food Science &amp; Nutrition, Oxford University Press, 3<sup>rd</sup> Edition, 2018.</li> <li>4. Creswell, J.W., Research Design: Qualitative, Quantitative, Sage Publications, 2022.</li> <li>5. Mark Saunders, Philip Lewis, Adrian Thornhill, Research Methods for Business Students, Pearson Education Ltd, 7<sup>th</sup> Edition, 2015.</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Compare the organoleptic qualities and relate them to food items.</li> <li>2. Apply sensory elements during food production and evaluate the results.</li> </ol>	

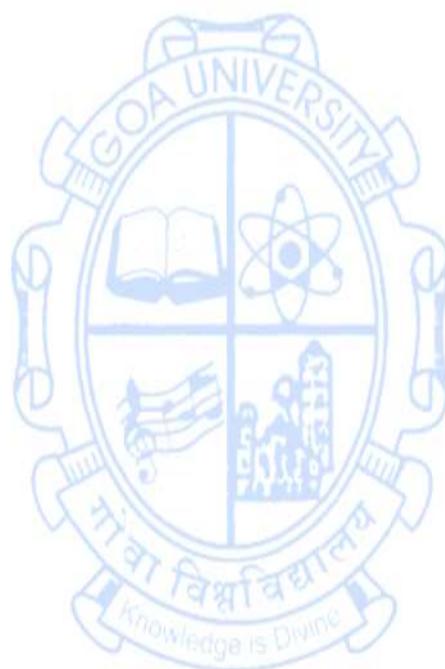
	<ul style="list-style-type: none"><li>3. Conduct food trials and evaluate the results through sensory testing.</li><li>4. Create a product and a recipe of a given theme or product.</li></ul>
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**Name of the Programme** : B.Sc. Culinary Arts  
**Course Code** : CUL-314 (306)  
**Title of the Course** : Slow Food  
**Number of Credits** : 04 (3T+1P)  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to prepare the student to understand the fundamentals of slow food and to be able to incorporate this into the menu planning.	
<b>Content:</b>	<b>UNIT I: Introduction to the Slow Food Movement</b> Concept of Slow Food, History and evolution of Slow Food. Crops and animals growing systems, problems and methods. Growing methods, intercropping, changing climate, pesticides, and organic food.	<b>15 hours</b>
	<b>UNIT II: Food's Journey</b> Food processing and transport, the ecological influence of long distance, turning towards sustainability, food safety, and cultural differences.	<b>15 hours</b>
	<b>UNIT III: Food Gap</b> Local traditional production in relation to worldwide production, food waste and overproduction.	<b>15 hours</b>
	<b>UNIT IV: Traditional Cooking Practice</b> From farm to fork, production of food in our own garden, local production of food, support of local farmers, seed to fruit, seasonal food, Km 0 concept, food trials of local ingredients, lost recipes, research of the lost recipes and cooking methods, visit to tribal folks and learning from the source.	<b>30 hours (P)</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	<ol style="list-style-type: none"> <li>Carlo Petrini, Slow Food Nation, Rizzoli International Publications Inc. 2013.</li> <li>Michael Pollan, The Omnivorous Dilemma -A Natural History of four meals, Penguin, 2006.</li> <li>Alice Waters, We Are What We Eat - A Slow Food Manifesto, Penguin, 2022.</li> <li>David S Shields, Giselle Kennedy Lord, The Ark of Taste, Little, Brown, 22 Aug 2023.</li> <li>Carlo Petrini, Ben Watson, Slow Food Editore, Slow Food: Collected Thoughts on Taste, Tradition and the Honest Pleasures of Food, Chelsea Green Publishing, 1 Oct 2001.</li> </ol>	

<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Explain the concept and history of slow food.</li> <li>2. Analyse the route from farmer to consumer and understand how the food journey influences the consumer.</li> <li>3. Plan and work with local farmers to execute the concepts learnt.</li> <li>4. Organise an event showcasing the slow food concept.</li> </ol>
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## SEMESTER VII

### Major Courses

<b>Name of the Programme</b>	<b>: B.Sc. Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-405 (400)</b>
<b>Title of the Course</b>	<b>: Gastronomic Tourism</b>
<b>Number of Credits</b>	<b>: 04 (3T+1P)</b>
<b>Effective from AY</b>	<b>: 2025-2026</b>

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<p>The aim is to introduce the student to the social, cultural and environmental gastronomic tourism in regards to people, places and celebrations.</p>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Gastronomic Tourism</b>            Definition, different types of gastronomic tourism, overview and features of gastronomic tourism, historical understanding of gastronomic tourism, identity of a destination as a gastronomic tourism destination.</p> <p>Gastronomic tourism as a contributor towards regional economic development: The growth and development of gastronomic travel, worldwide growth of gastronomic travel, gastronomic tourism in India – Regions and food history.</p>	<b>15 hours</b>
	<p><b>UNIT II: Designing a Gastronomic Tourism</b>            Gastronomic tourism product strategy, resources and venues, marketing and branding gastronomic tourism, travel experience sharing (blogs/vlogs), use of social media and other mass media platforms.</p> <p>Global gastronomic tourism trends: Trends in global gastronomic tourism, the food trends, regional food trail- a practical experience, gastronomic tourism festivals, events and markets, festivals that celebrate food, food festivals across the different regions.</p>	<b>15 hours</b>
	<p><b>UNIT III: Beverage Tourism</b>            Drinking to experience people and place, eno-tourism - visits to wineries, tasting wines, food and wine pairing, principles of wine pairing, wine science, flavour groups of wine, wine faults identification,</p> <p>Food Pairing, complementing and contrasting flavours, food side and wine side pairing.</p>	<b>15 hours</b>
	<p><b>UNIT IV: Preparation of Meals to Pair</b>            Preparation of a minimum of 5 menus with different themes to pair with wines from around the world.</p> <p>Planning and selection of ingredients, in relation to the wine to pair, season and availability, food trials to match certain wines,</p>	<b>30 hours (P)</b>

	product knowledge, sensorial experience and combinations, practical tasting and preparation of meals with wine, practice of wine tasting and sensorial evaluation, practice of food preparation to enhance flavors in relation to the wines Indian food pairing with regional wines.	
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods, such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Frost, W., Laing, J., Best, G., Williams, K., Strickland, P., &amp; Lade, C. Gastronomy, tourism and the media, Channel View Publications, July 2016</li> <li>2. Park, E., Kim, S., &amp; Yeoman, I., Food tourism in Asia. Singapore, Springer.</li> <li>3. Stanley, J., &amp; Stanley, L., Food tourism: A practical marketing guide, Cabi,</li> <li>4. Hall, C.M., &amp; Gössling, S., Food Tourism and Regional Development: Networks, products and trajectories, Routledge, April 2018</li> <li>5. Robert J. Harrington, Food &amp; Wine Pairing- A Sensory Experience, Wiley publication</li> <li>6. John Szabo, Food pairing and wine for dummies, Wiley Publications, March, 20027</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Discuss the history and importance of gastronomic tourism.</li> <li>2. Discuss new trends changing in the hotel industry and restaurants to promote and encourage gastronomic tourism.</li> <li>3. Appraise the principles of wine pairing and recall the flavor profiles of classic New World and Old-World wines.</li> <li>4. Plan and justify food menus with wine pairing.</li> </ol>	

**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-406 (402)  
**Title of the Course** : Plant-Based Cookery and Bakery  
**Number of Credits** : 04 (3T+1P)  
**Effective from AY** : 2025-2026

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<p>The aim is to develop an understanding of vegetarian and plant-based culinary principles, explore the nutritional, cultural, and ecological relevance of vegetarian diets and to acquire skills in preparing vegetarian, vegan, and eggless bakery products using innovative methods and ingredients.</p>	
	<p><b>UNIT I: Introduction to Vegetarian and Plant-Based Diets</b>  Definitions: Vegetarianism, Veganism, Plant-Based, Raw Foodism. Nutritional considerations and myth-busting, cultural, religious, and ethical dimensions in Indian and global contexts, contemporary trends such as Flexitarianism, Clean-label foods.</p>	<b>15 hours</b>
	<p><b>UNIT II: Ingredients in Vegetarian and Plant-Based Cooking</b>  Meat alternatives like Tofu, Tempeh, Seitan, Jackfruit, Soya nuggets, Mushrooms. Dairy substitutes like Plant-based milks, Vegan cheeses, Nut butters, Yogurts. Egg substitutes in cookery like Flaxseed, Chia, Aquafaba, Commercial egg replacers. Sweeteners and thickeners like Dates, Agave, Maple syrup, Coconut sugar, and Agar-agar.  Introduction to fermentation: Sauerkraut, Kimchi, Vegan curds.  Flavour building: Umami boosters, spice blends, nutritional yeast.</p>	<b>15 hours</b>
<b>Content:</b>	<p><b>UNIT III: Eggless and Vegan Bakery Science</b>  Role of eggs and dairy in traditional baking, understanding structure and texture in eggless baking.  Vegan alternatives for butter, milk, cream, chocolate, and gelatin. Challenges and solutions in vegan pastry, cakes, cookies, breads.</p>	<b>15 hours</b>
	<p><b>UNIT IV: Practical Preparation of Plant-Based Products</b>  Indian Vegetarian Cuisine, North Indian thali (Lacto-vegetarian), South Indian Brahmin meal, Street-style vegan chaats.  Global Plant-Based Cuisine, like Vegan Thai curry with tofu.  Middle Eastern falafel wraps with tahini, Italian eggless pasta and plant-based pesto.  Vegan and Eggless Bakery with Vegan banana walnut bread.  Eggless chocolate cake using aquafaba, Whole wheat vegan cookies, and dairy-free cheesecake using tofu.  Innovation &amp; Sustainable Practice with mock meat tikka using</p>	<b>30 hours (P)</b>

	soya/seitan, zero-waste vegan snack using peel and pulp.	
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practicals, seminars, case studies, role plays, and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Gabriel Miller, <i>The Plant-Based Diet for Beginners: 75 Delicious, Healthy Whole-Food Recipes</i>, Rockridge Press, 2019.</li> <li>2. America's Test Kitchen, <i>Vegan Cooking for Everyone</i>, America's Test Kitchen, 2021.</li> <li>3. Ken Bergeron, <i>Professional Vegetarian Cooking</i>, Wiley, 1999.</li> <li>4. Rosemarie Emro, <i>Bakin' Without Eggs: Delicious Egg-Free Dessert Recipes from the Heart and Kitchen of a Food-Allergic Family</i>, St. Martin's Griffin, 1999.</li> <li>5. Gretchen Price, <i>Modern Vegan Baking: The Ultimate Resource for Sweet and Savory Baked Goods</i>, Callisto Media, 2018.</li> <li>6. Karen Page, <i>The Vegetarian Flavor Bible: The Essential Guide to Culinary Creativity with Vegetables, Fruits, Grains, Legumes, Nuts, Seeds, and More</i>, Little, Brown and Company, 2014.</li> <li>7. Deborah Madison, <i>The New Vegetarian Cooking for Everyone</i>, Ten Speed Press, 2014.</li> <li>8. Thomas Keller, Sébastien Rouxel, <i>Bouchon Bakery</i>, Artisan Books.</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Differentiate between vegetarian, lacto-vegetarian, vegan, and plant-based dietary styles.</li> <li>2. Apply food science principles in plant-based substitutions for meat, dairy, and eggs in culinary and bakery applications.</li> <li>3. Demonstrate proficiency in preparing vegetarian and vegan dishes using regional and global culinary techniques.</li> <li>4. Prepare eggless and dairy-free bakery products with appropriate texture, flavour, and structure.</li> <li>5. Analyse the sustainability and health benefits of plant-based diets and their relevance in modern gastronomy.</li> </ol>	

**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-407  
**Title of the Course** : Waste Management  
**Number of Credits** : 4 (3T+1P)  
**Effective from AY** : 2023-24

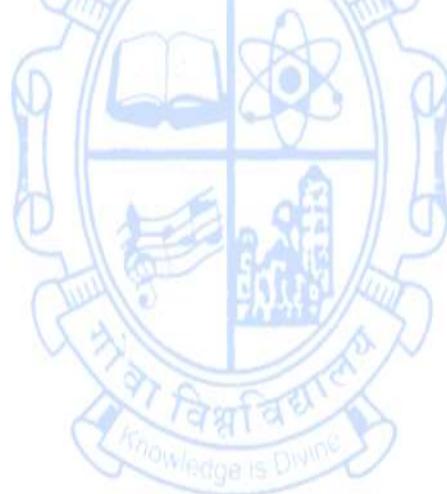
<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<ol style="list-style-type: none"> <li>1. To examine the various types of solid waste and methods to categorise it</li> <li>2. To find out methods to reduce solid waste at the source</li> <li>3. To carry out analysis and audit of waste</li> <li>4. To understand people's responsibility in reducing and managing waste</li> </ol>	
<b>Contents:</b>	<p><b>Unit I: Introduction to Waste</b>            Problem of Wastes, Types of Solid Waste, Categories of Solid Waste, Effects of Excess Waste Generation, Waste Characterisation</p> <p><b>Unit II: Source Reduction</b>            Solid Waste Reduction, Waste reduction strategies - How to Start a Waste Reduction Program Guideline, Economic benefits of Waste Reduction, Operation on a daily basis</p> <p><b>Unit III: Waste Analysis and Waste Audit</b>            Introduction to Terminology of Waste, Waste Analysis, Introduction to Waste Audit, Checklist for performance audit in Waste Collection, Segregation, Transport, Treatment.</p> <p><b>Unit IV: People's Responsibility of Waste Management and Waste Reduction- Towards Zero Waste</b>            Responsibility of Waste Management, Polluter Pays Principle (PPP), Assimilative Capacity and the Precautionary Principle, World Scenario in Scrap Trade Extended Producer Responsibility (EPR), Carrying Capacity, Precautionary Principle.            Sustainable Living, Waste Reduction at Business (Producer) Level, Waste Reduction at Individual Level: Zero Waste Living, Waste Reduction at Community Level.</p>	<b>15 hours (Theory)</b>
<b>Pedagogy:</b>	Lectures/ tutorials/laboratory work/ field work/on the job training/ project work/ vocational training/viva-voce/ seminars/ term papers/assignments/ presentations/ self-study/ case studies/ others suitable methods or a combination of some of these. Sessions shall be	<b>30 hours (Practical)</b>

	interactive in nature to enable peer group learning.
References/ Readings:	<ol style="list-style-type: none"> <li>1. Gitanjali Nain Gill, 2011, SAGE Publications's <i>Green Technology: An A-Z Guide</i> (2011) whose work for that encyclopedia formed the basis of her contributions to Britannica.</li> <li>2. Hester, R. E. and R. M. Harrison, (2002). Environmental and health impact of solid waste management activities. Cambridge: The Royal Society of Chemistry.</li> <li>3. Johnson, Michael R.; McCarthy, Ian P. (2014-10-01). "<a href="#">Product recovery decisions within the context of Extended Producer Responsibility</a>". <i>Journal of Engineering and Technology Management</i>. Engineering and Technology Management for Sustainable Business Development, 34 (9) <a href="https://doi.org/10.1016/j.iengtecmam.2013.11.002">doi:10.1016/j.iengtecmam.2013.11.002</a></li> <li>4. Misi, S. N and Forster, C.F (2002). "Semi-Continuous Anaerobic Co-Digestion of Agro-Waste," Environmental Technology, Vol. 23, No. 1, 2002,</li> <li>5. Srilatha,H.R., Krishna, N., Sudhakar Bada, K. and Madhukara, K. 1995. Fungal pretreatment of orange processing waste by solid state fermentation for improved production of methane. Process Biochem. 30: 327-331.</li> <li>6. Tchobanoglous, G, Theisen, H, and Eliassen, R (1977).Solid Waste Engineering. Principles and Management Issues McGraw Hill Book Company, New York.</li> </ol>
Course Outcomes:	<p>At the end of the course the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Understanding on the types of waste and methods of its categorisation</li> <li>2. Knowledge on the methods to reduce solid waste at source</li> <li>3. Skills to audit the solid waste</li> <li>4. Knowledge on the people's responsibility in waste management</li> </ol>

**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-403  
**Title of the Course** : Airline and Cruise Catering Operations  
**Number of Credits** : 04  
**Effective from AY** : 2023-24

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	The aim is to introduce the student to galley operations in Airline and Cruise catering.	
<b>Content:</b>	<b>UNIT I: Introduction</b> Work environment, Adaptation on board, Other support departments.	<b>15 hours</b>
	<b>UNIT II: Organization and Operations of a Cruise Line</b> Hierarchy of a galley, layout of galley, organization of the cruise line production department, galley administration, management and supervision, procurement, purchasing, storing and issuing of food and beverages, essential food production operations and menu planning, professional development and awareness of cultural aspects.	<b>15 hours</b>
	<b>UNIT III: Organization and Operations of an Airline Catering</b> Hierarchy of the kitchen, layout of airline kitchen, organization of the airline production department, administration, management and supervision, procurement, purchasing, storing and issuing of food and beverages, essential food production operations and menu planning, professional development and awareness of cultural aspects.	<b>15 hours</b>
	<b>UNIT IV: Food Safety Operation</b> Personal hygiene, maritime food safety regulations, international regulations for cruise and airlines, food waste management on board. Safety on Board: Firefighting and first aid, emergencies, safety and security of guests.	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical's, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/Readings:</b>	1. Joy Smith, Kitchen Afloat: Galley Management and Meal Preparation, JS Books publication, Second Edition, 2017 2. Giora Israel, Laurence Miller, Jerry Hoare, Dictionary of the Cruise Industry: Terms Used in Cruise Industry Management, Operations, Law, Finance, Management, Ship Design & Construction, Sea trade Cruise academy production, 1999 3. Marc Mancini, A Guide to the Cruise Line Industry, August 2003	

	<p>4. Philip Gibson, Richard Parkman, <i>Cruise Operations Management: Hospitality Perspectives</i>, Routledge, Third edition, 2019</p> <p>5. Peter Jones, <i>Flight Catering</i>, Routledge, Second edition, January 2004</p>
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Demonstrate proficiency in menu planning, preparation, and presentation of dishes suitable for airline and cruise ship environments.</li> <li>2. Apply food safety and hygiene standards specific to airline and cruise catering operations.</li> <li>3. Analyse the impact of transportation on food quality, packaging, and storage techniques.</li> <li>4. Collaborate effectively with other departments such as hospitality, logistics, and customer service to ensure a seamless catering experience for passengers.</li> <li>5. Evaluate and adapt catering strategies based on feedback, market trends, and regulatory requirements in the airline and cruise industries.</li> <li>6. Use firefighting equipment and administer first aid service.</li> </ol>

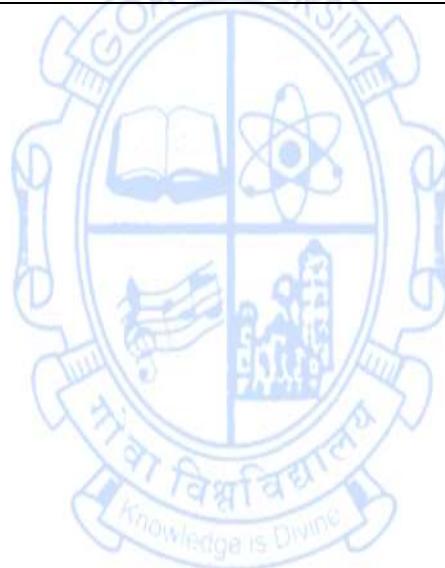


### Minor Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-411
Title of the Course	: Entrepreneurship
Number of Credits	: 04
Effective from AY	: 2023-24

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	This course familiarizes students with the challenges of entrepreneurship, encompassing the process of generating ideas for new business enterprises and then overseeing their development and operation.	
<b>Content:</b>	<p><b>UNIT I: Introduction to Entrepreneurship</b> Meaning and concept of entrepreneurship, the history of entrepreneurship development, role of entrepreneurship in economic development, Myths about entrepreneurs, agencies in entrepreneurship management and future of entrepreneurship types of entrepreneurs.</p> <p><b>UNIT II: The Entrepreneur</b> Why to become entrepreneur, the skills/ traits required to be an entrepreneur, Creative and Design Thinking, the entrepreneurial decision process, skill gap analysis, and role models, mentors and support system, entrepreneurial success stories.</p> <p><b>UNIT III: Legal Aspects and Feasibility</b> Introduction to various form of business organization (sole proprietorship, partnership, corporations, Limited Liability company), mission, vision and strategy formulation. Describe the new venture creation process — including the activities, challenges, and opportunities involved.</p> <p><b>UNIT IV: Finance and Business Plan</b> Sources of capital and entrepreneurial process and strategies. Defining the business concept. Business Plan.</p>	<b>15 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods of pedagogy, such as lectures, exercises, seminars, case studies, videos, role plays, and problem- solving, to enable the students to learn in an interactive mode.	<b>15 hours</b>
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Soota, A.&amp; Gopalan, S. R. <i>Entrepreneurship Simplified: From Idea to IPO</i>. Penguin UK, 2016</li> <li>2. Press, Harvard Business, ed. <i>Harvard Business Review Entrepreneur's Handbook: Everything You Need to Launch and Grow Your New Business</i>. Harvard Business Review Press, 2018.</li> </ol>	

	<ol style="list-style-type: none"> <li>3. Desai, V. <i>The dynamics of entrepreneurial development &amp; Management</i>: 6th edition Himalaya publish house,2009.</li> <li>4. Rard,B., Lockett, N. Wang, C. <i>Exploring entrepreneurship</i>. Sage, 2017.</li> <li>5. Bjerke, Bjorn. <i>About entrepreneurship</i>. Edward Elgar Publishing, 2013.</li> <li>6. Sangram Keshari Mohanty. <i>Fundamentals of Entrepreneurship</i>. PHI Learning Pvt. Ltd. 2005</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Undertake challenges associated with initiating new business ventures.</li> <li>2. Foster knowledge and understanding of entrepreneurship and accomplished entrepreneurs.</li> <li>3. Acquire an entrepreneurial mind set by acquiring essential skills such as design, personal selling, and communication.</li> <li>4. Gain a comprehensive understanding of the genetic makeup of an entrepreneur and evaluate their aptitudes and limitations from an entrepreneurial standpoint.</li> </ol>



## SEMESTER VIII

### Major Courses

Name of the Programme	: B.Sc. in Culinary Arts
Course Code	: CUL-404
Title of the Course	: Event Management
Number of Credits	: 04 (3T+1P)
Effective from AY	: 2023-24

Pre-requisites for the Course:	NIL	
Course Objectives:	The course will enable the students to plan, organize, and execute successful events especially focused on culinary domain.	
Content:	<b>UNIT I: Event Planning</b>  Introduction to event management, nature, scope, significance, types of events, responsibility and qualities of an event planner, identifying suitable venue, layout, role of event planner, event planning tools, statutory permissions from government agencies, managing events, event coordination.  Financial management: budget preparation, pricing strategies, estimating fixed and variable costs, cash flow, sponsorships and subsidies.	15 hours
	<b>UNIT II: Event Logistics</b>  Selection, site management, selection, planning and development, infrastructure management, logistics, crowd management, attendee care and comfort, control, participants, and risk preparedness.	15 hours
	<b>UNIT III: Human Resources</b>  Man power planning, training needs identification, training of employees team building and leadership skills, training methods and evaluation, promotions, performance and potential appraisal, career development, time management and conflict resolution.  Marketing: Introduction to event marketing: nature, need and importance, marketing for event marketing mix, sponsorship, promotion: image/ branding, advertising, publicity, public relations.	15 hours
	<b>UNIT IV: Planning and Execution of an Event</b>  Marketing, logistics, budgeting, vendor coordination, post event follow up and financial reconciliation.	30 hours
Pedagogy:	The sessions will be conducted using all or any of the methods of pedagogy such as lectures, exercises, practicals, seminars, case studies,	

	role plays, and problem solving, to enable the students to learn in an interactive mode.
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. G. G. Fenich, Meetings, Expositions, Events and Conventions, An Introduction to the industry. Pearson Education, 2018.</li> <li>2. J. Allen, Event management. Wiley, 2021.</li> <li>3. J. Allen, R. Harris, L. Jago, A. Tantrai, P. Jonson, and E. D'Arcy, Festival and special event management. John Wiley and Sons, 2022.</li> <li>4. R. Dowson and D. Bassett, Event planning and management: Principles, planning and practice. Kogan Page Publishers, 2018.</li> <li>5. C. Preston, Event marketing: how to successfully promote events, festivals, conventions, and expositions. Wiley, 2012.</li> <li>6. L. Van der Wagen, Event management. Pearson Higher Education AU, 2010.</li> </ol>
<b>Course Outcomes:</b>	<p>At the end of the course the students will be able to:</p> <ol style="list-style-type: none"> <li>1. Develop skills in planning, organizing and executing an event.</li> <li>2. Apply logistic operations in event management.</li> <li>3. Demonstrate proficiency in event marketing and human resource management.</li> <li>4. Plan and execute an Event.</li> </ol>

### Minor Courses

<b>Name of the Programme</b>	<b>: B.Sc. in Culinary Arts</b>
<b>Course Code</b>	<b>: CUL-412</b>
<b>Title of the Course</b>	<b>: Modernist Cuisine Practical</b>
<b>Number of Credits</b>	<b>: 04</b>
<b>Effective from AY</b>	<b>: 2023-24</b>

<b>Pre-requisites for the Course:</b>	NIL	
<b>Course Objectives:</b>	<p>This course aims to introduce students to advanced techniques and concepts in modernist cuisine. Through hands-on experience and experimentation, students will develop a deep understanding of the principles behind modernist cooking methods and their application in culinary practice.</p>	
<b>Content:</b>	<p><b>UNIT I: Introduction to Modernist Cuisine</b>            Overview of modernist culinary movement. Understanding the science behind modernist cooking techniques. Safety protocols in using modernist equipment.            Sous Vide Cooking: Principles and benefits of sous vide cooking. Equipment setup and operation. Sous vide cooking demonstrations and practice sessions, cooking sous vide using meat, poultry, seafood, vegetables and starches incorporated in 4 set menus.</p> <p><b>UNIT II: Molecular Gastronomy Techniques</b>            Spherification: theory and practice. Emulsification and foams: creating stable emulsions and foams. Gelification: using gelling agents to create textures. Preparing any 3 menus using molecular gastronomy techniques.            Culinary Gases and Texturizers: Introduction to culinary gases (nitrous oxide, carbon dioxide), Using texturizers (agar agar, xanthan gum) in modernist cuisine, Practical applications of culinary gases and texturizers in recipe development, preparing any 3 set menus.</p>	<b>30 hours</b>
	<b>UNIT III: Deconstruction and Reconstruction</b> Deconstructing classic dishes and reconstructing them using modernist techniques. Analysing flavour profiles and textures in deconstructed dishes. Presenting 3 sets of deconstructed dishes creatively. Modern Plating Techniques: Plating aesthetics and principles in modernist cuisine. Creative use of edible garnishes and decorations. Plating demonstrations and hands-on practice by curating any 3 sets of modernist menus.	<b>30 hours</b>

	<b>UNIT IV: Culinary Innovation and Final Project</b> Exploring cutting-edge trends in modernist cuisine, Collaborative group project: designing and executing a modernist- inspired menu. Presentation of final project.	<b>30 hours</b>
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures, exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Nathan Myhrvold, Modernist Cuisine – The Art and Science of Cooking, Volume 1 History and Fundamentals, The cooking Lab, 2011</li> <li>2. Nathan Myhrvold, Modernist Cuisine – The Art and Science of Cooking, Volume 2 Techniques and Equipments, The cooking Lab, 2011</li> <li>3. Nathan Myhrvold, Modernist Cuisine – The Art and Science of Cooking, Volume 3 Animals and Plants, The cooking Lab, 2011</li> <li>4. Nathan Myhrvold, Modernist Cuisine – The Art and Science of Cooking, Volume 4 Ingredients and preparations, The cooking Lab, 2011</li> <li>5. Nathan Myhrvold, Modernist Cuisine – The Art and Science of Cooking, Volume 5 Plated Dish Recipes, The cooking Lab, 2011</li> </ol>	
<b>Course Outcomes:</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Apply modernist culinary techniques, such as sous vide, spherification, and foams, to create innovative dishes.</li> <li>2. Analyse the scientific principles underlying modernist cooking methods and their impact on food texture, flavour, and presentation.</li> <li>3. Demonstrate proficiency in using specialized equipment and ingredients commonly used in modernist cuisine.</li> <li>4. Evaluate the role of modernist cuisine in contemporary culinary trends and its influence on culinary creativity and innovation.</li> </ol>	

**Name of the Programme** : B.Sc. in Culinary Arts  
**Course Code** : CUL-413  
**Title of the Course** : Advanced Bakery and Pastry Arts - Practical  
**Number of Credits** : 04  
**Effective from AY** : 2023-24

<b>Pre-requisites for the Course:</b>	The student must have completed CUL – 204	
<b>Course Objectives:</b>	The aim is to introduce the student to various methods and techniques used in the preparation of bakery, pastry and confectionary.	
<b>Content:</b>	<p><b>UNIT I: Artisan Breads</b>            Traditional European bread, advanced European bread, bake artisan bread , millet breads / healthy breads. Tea/travel cakes and gourmet cookies, vegan, sugar free, lactose-free and gluten free products, international / middle-eastern sweet delicacies, traditional classic pies. Elements of modern plated desserts: cakes and sponges, creams and mousses, crunch and, textures, gels and jams, foams, air and spherification, high tea and buffet presentation, principles of nutrition and alternative baking methods.</p>	<b>30 hours</b>
	<p><b>UNIT II: French Style Modern Entremets</b>            Classic opera , charlotte - layers inserts , French biscuits , mousse, assembly, different textures glazing , velvet spray, chocolate garnishes, sculpted and glazed entremets and bite-sized petit gateaux, jars and verrines. Cake engineering: theme cake , wedding tier cake , realistic wafer paper and sugar flowers , airbrush techniques, hand painting, topsy turvy cakes, sculpted realistic cakes, Packaging, cutting and serving cakes.</p>	<b>30 hours</b>
	<p><b>UNIT III: Desserts</b>            International / Middle-eastern sweet delicacies, Traditional Classic Pies            Frozen and fruit desserts - varieties of ice creams, sorbets, parfaits, and bombe basic syrups. Dessert for dietary requirements-Vegan desserts, cookies, puddings and flourless desserts ( sugar-free or low calorie desserts), eggless.            Designing your Own Plated Dessert: Key Elements for a Plated Dessert, Serving Temperature, Portion Sizing, Plate Costing and Buffet setup and planning, Production and presentation of petit four.</p>	<b>30 hours</b>
	<p><b>UNIT IV: Chocolate and Sugar</b>            Artisan chocolates, Chocolate Fudge , Chocolate Ganache Chocolate Bars, Chocolate BonBons, Nougat, Candies, Sugar Candies and Confectionaries. Caramel and Nougatine, Candy decorations and presentations. Advanced Sugar paste</p>	<b>30 hours</b>

	decorations and gum paste decorations.	
<b>Pedagogy:</b>	The sessions will be conducted using all or any of the methods such as lectures exercises, practical, seminars, case studies, role plays and problem solving, to enable the students to learn in an interactive mode.	
<b>References/ Readings:</b>	<ol style="list-style-type: none"> <li>1. Wayne Gisslen, Professional Baking, Wiley, 8th Edition, 2021</li> <li>2. Parvinder S. Bali, Theory of Bakery And Patisserie, Oxford University Press, 1<sup>st</sup> Edition, 2018</li> <li>3. Cauvain, S. &amp; Young, Technology of Bread making, Springer International publishing Switzerland, rd. Edition, 2015.</li> <li>4. Baking and Pastry Art, The Culinary Institute of America, 3rd Edition, 2015</li> <li>5. Bo Friberg, Amy Kemp Friberg, Chef Wiley, The advanced Professional Pastry, 4th edition, 2003</li> <li>6. Yogambal Sivalingam, Bakery and confectionery, 2023</li> </ol>	
<b>Course Outcomes</b>	<p>At the end of the course, the student will be able to:</p> <ol style="list-style-type: none"> <li>1. Identify and prepare complex layered modernist desserts along with contemporary plating.</li> <li>2. Describe the theory of working with yeast dough such as fermentation, dough hydration and temperature control.</li> <li>3. Apply the secrets behind crafting advanced chocolate pralines and exploring the art of designing petit fours and petit gateaux.</li> <li>4. Use tools and resources to innovate and transform the confectionery and baking industry, including restaurant desserts, pastries and chocolates.</li> </ol>	

## Internship

**Name of the Programme: B.Sc. in Culinary Arts**

**Course Code: CUL-321 (04 Credits)- Internship-1**

**CUL-361 (02 Credits)- Internship-2**

**CUL-322 (04 Credits)- Internship-3**

**CUL-461 (12 Credits)- Internship-4**

**Title of the Course: Internship**

**Number of Credits: 04 or 02 or 12 as the case may be.**

**Effective from AY: 2023-24**

<b>Course Objectives:</b>	This internship course is designed to provide students with hands-on experience in the hospitality, tourism or any other allied industry. Through a combination of practical training and reflective learning, students will gain insights into various aspects of hospitality management, customer service, and operational dynamics within the industry.
<b>Evaluation pattern:</b>	<ol style="list-style-type: none"><li>1. There shall be an ISA component of 20% marks and SEA component of 80% marks.</li><li>2. SEA marks shall be based on Internship Report and Presentation, and shall be decided by the department/discipline faculty members. The internship report shall be prepared in line with the dissertation report for the purpose of evaluation.</li><li>3. The faculty mentoring the students shall assign ISA marks based on the feedback obtained from the company/organization and the domain knowledge, skill set (log book), best practices learned by the student (viva voce) at the company/organization and such others.</li><li>4. Internship report will be governed by the guidelines issued by the Goa University via the following link: <a href="https://www.unigoa.ac.in/uploads/config_docs/20231229.044857~Form at Dissert Intern Field Work.pdf">https://www.unigoa.ac.in/uploads/config_docs/20231229.044857~Form at Dissert Intern Field Work.pdf</a></li></ol>