



A.D.M. COLLEGE FOR WOMEN

(Autonomous)

Affiliated to Bharathidasan University

(Nationally Accredited with "A" Grade by NAAC – 4th Cycle)

NAGAPATTINAM 611 001.

LOCAL/NATIONAL/REGIONAL/GLOBAL RELEVANCE

DEPARTMENT OF B.VOC MARINE FOOD PROCESSING AND PRESERVATION TECHNOLOGY

Programme: B.Voc

Year: 2022-2023

Course Code	Title of the Course	Local/Regional/ National /Global	Rationale	Course Outcomes	PSOs Addressed
ZVA	Fundamentals of Marine Edible Animals	National	Living and non-living things in the sea - Marine flora and fauna - Basic characteristics of different sea species - The ocean zones	<ul style="list-style-type: none"> CO1: Living and non-living things in the sea - Marine flora and fauna - Basic characteristics of different sea species - The ocean zones 	PSO 2,3,4
				<ul style="list-style-type: none"> CO2: Memorise the names of some sea creatures - Distinguish between sea animals and plants - Understand the 	PSO 1,2,3,4

				relationship between species.	
				<ul style="list-style-type: none"> • CO3: To build a strong foundation in marine edible products. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • CO4: To prepare Students for career options in aquaculture centres, marine products, etc. 	PSO 1,2,4
				<ul style="list-style-type: none"> • CO5: Students acquired knowledge in fishery science, as well as crustaceans and Mollusks. 	PSO 1,2,3,4
ZVBY	Anatomy of Marine Edible Animals	National	Memorise the names of some sea creatures – Distinguish between sea animals and plants –understand the relationship between	<ul style="list-style-type: none"> • CO 1: Define sea animal 	PSO 2,3,4
				<ul style="list-style-type: none"> • CO2: Identify features of different types of sea animals. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • CO3: To build a strong foundation in marine 	PSO 1,2,3,4

			species.	edible products.	
				<ul style="list-style-type: none"> • CO4: Describe the various types of sea animal. 	PSO 1,2,4
				<ul style="list-style-type: none"> • CO5: Students acquired knowledge in fishery science, as well as crustaceans and Molluscs. 	PSO 1,2,3,4
ZVCY	Harvest and Post harvest handling of Fishes	National	To build a strong foundation in marine edible products.	<ul style="list-style-type: none"> • CO 1: Fishing craft in small-scale fisheries are generally small. They fish the area of the sea close to the shore 	PSO 2,3,4
				<ul style="list-style-type: none"> • CO2: Identify features of different types of sea animals. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • CO 3: The gear they use often determines the fishing methods used. As the craft are small, 	PSO 1,2,3,4

				<p>there is very limited space onboard, which makes proper handling and preservation of the catch difficult.</p>	
				<ul style="list-style-type: none"> • C04: Fishing communities confront severe problems in handling, distributing and marketing fish. 	PSO 1,2,4
				<ul style="list-style-type: none"> • C05: The lack of suitable infrastructure including transport and ice-making plants increases the problems of rapid spoilage 	PSO 1,2,3,4
ZVAIY	Instrumentation and Computer application in	National	A student has to complete the practical and calculations at the	<ul style="list-style-type: none"> • C01: After successful completion of this course students will 	PSO 1,2,4

	Fisheries		stipulated time give to them.	able handling of spectrophotometer.	
				<ul style="list-style-type: none"> • C02: Prepare presentation and report on computer system. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • C03: Identify the components of a computer system and demonstrate basic proficiency in commonly used applications 	PSO 1,2,4
				<ul style="list-style-type: none"> • C04: Create, design, and produce professional documents using word processing software (i.e., MS Word). 	PSO 1,2
				<ul style="list-style-type: none"> • C05: Process, manipulate, and 	PSO 1,4

				represent numeric data using the basic functions of spreadsheet software (i.e., MS Excel).	
ZVD	Biochemical and Microbial changes in Fishes	National	Significantly enhanced Knowledge of Methodologist in various laboratory techniques.	<ul style="list-style-type: none"> CO1: Keep track of food's quantitative importance in the production of farmed fish, which feed resources you use, and the ratios between the energizing nutrient (Protein, fat and carbohydrate) in commercial feeds. 	PSO 2,3,4
				<ul style="list-style-type: none"> CO2: Possess detailed knowledge of the fish digestive system, including a deeper focus on the development of 	PSO 1,2,3,4

				gastrointestinal tract of marine fish larvae.	
				<ul style="list-style-type: none"> • C03: Show detailed knowledge of various energizing and micro (vitamins and nutrients digestion, absorption, metabolism and biochemical function. 	PSO 1,2,4
				<ul style="list-style-type: none"> • C04: Explain the components of fish feed on fish product quality, both positive (nutrients) and negative (contaminants from food and environment). 	PSO 1,2,4
				<ul style="list-style-type: none"> • C05: Have knowledge of fish reproduction and how diet affects egg and fry quality. 	PSO 1,2,3,4

ZVG	Food safety in seafood industry	National	To understand the general anatomy and function of the male and female reproductive organs.	<ul style="list-style-type: none"> • C01: On completion of the course the students will be able 	PSO 1,2
				<ul style="list-style-type: none"> • C02: Understand the concept of food safety, types of hazards and their control measure. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • C03: Identify and prevent potential sources of food contamination Comprehend the need of hygiene and sanitation for ensuring food safety. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • C04: Students will be able to provide a theoretical explanation for observed extents 	PSO 2,3,4

				<p>and rates of reactions that are common to foods</p>	
				<ul style="list-style-type: none"> • CO5: Students will be able to predict how changes in overall composition are likely to change the reactivity of individual food components. 	PSO 1,4
ZVJ	Packing and labelling of fish and fishery products	National	Ensure the students to understand structure and function of plant and animal cellorganelles.	<ul style="list-style-type: none"> • CO1: Polyester polyethylene laminated pouches have been found to be highly suitable for hygienic retail packaging of cured fish products. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • CO2: Preservation, never the less, is still the prime objective of fish smoking in most parts of 	PSO 1,2,3,4

				the world.	
				<ul style="list-style-type: none"> • C03: Hard woods, such as oak, hickory, cherry, apple and beech, burn to give a smoke with the more phenols, which both preserve and give a characteristic, medicated' flavours to the product. Dried, Cured and Smoked Products 	PSO 2,3,4
				<ul style="list-style-type: none"> • C04: Colour impaired to the fish by the smoking process is due to carbonyl amino reactions of the Mail lard type. 	PSO 1,4
				<ul style="list-style-type: none"> • C05: These are splitting and cleaning, salting and hanging. 	PSO 1,2,3,4

ZVM	Entrepreneurshi Development	National	Perform library research on a specific enzyme topic	<ul style="list-style-type: none"> CO1: The amount of subsidies provided is much less with less than 8 per cent of the total value even though challenged internationally. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> CO2:"The marine fisheries sector in India is subsistence fishing and much different from the factory / commercial fishing of developed countries. 	PSO 1,2,4
				<ul style="list-style-type: none"> CO3: In addition the fuel subsidy provided contributes to less than 5 percent of the total value of landings. 	PSO 2,3,4
				<ul style="list-style-type: none"> CO4: But on the other side the welfare 	PSO 1,4

				<p>measures, saving cum relief, housing and other Physics .Physics transfer payment adds to the subsidy component in the Indian context. Evaluates the Marine fish landings in India (Qty)</p>	
				<ul style="list-style-type: none"> • CO5: Records in Value of marine landings at landing centre. Value of marine landings at retail level of the delivery system should be maintained. Total subsidy of Entrepreneurs. 	PSO 1,2,3,4
ZVN	Fisheries Economics	National	Describe the metabolism of carbohydrates, lipids,	<ul style="list-style-type: none"> • CO1: To control the potential threats to Micro Economics. 	PSO 1,2,3,4

			<p>proteins and amino acids. Write chemical reactions for the individual steps in each pathway.</p>	<ul style="list-style-type: none"> • CO2: The marine fisheries sector in India is subsistence fishing and much different from the factory / commercial fishing of developed countries. 	<p>PSO 1,2,4</p>
				<ul style="list-style-type: none"> • CO3: In addition the fuel subsidy provided contributes to less than 5 per cent of the total value of landings. 	<p>PSO 2,3,4</p>
				<ul style="list-style-type: none"> • CO4: But on the other side the welfare measures, saving cum relief, housing and other transfer payment adds to the subsidy component in the Indian context. Evaluates the Marine fish landings in India 	<p>PSO 1,4</p>

				(Qty)	
				<ul style="list-style-type: none"> • CO5: The delivery system should be able to accommodate the externality social cost. 	PSO 1,2,3,4
ZVO	Quality control of fish and fishery products	National	Explain the factors which influence the design of pharmaceutical dosage forms.	<ul style="list-style-type: none"> • CO1: Possess knowledge of the fish quality and intrinsic quality. 	PSO 1,2,3,4
				<ul style="list-style-type: none"> • CO2: Fish preservation methods. 	PSO 1,2,4
				<ul style="list-style-type: none"> • CO 3: Modified Atmospheric packaging(MAP) 	PSO 2,3,4
				<ul style="list-style-type: none"> • CO4: Traditional method of fish preservation 	PSO 1,4
				<ul style="list-style-type: none"> • CO 5: Methods of fish drying: Natural, Solar, Artificial, Mechanical 	PSO 1,2,3,4

				dryer. Preparation of extruded products using single screw and twin screw extruder.	
ZVPY	Fisheries Administration and Legislation	National	After Successful completion of this course work students will able to Fisheries Administration's tasks have shifted from general authority in fisheries to technical support to decentralized institutions, but this is not generally reflected in the actual functioning of the administration	<ul style="list-style-type: none"> • CO1: Fisheries Administration's tasks have shifted from general authority in fisheries to technical support to decentralized institutions, but this is not generally reflected in the actual functioning of the administration. • CO2: The fisheries administration and decentralized authorities suffer from 	<p>PSO 1,2,3,4</p> <p>PSO 1,2,4</p>

				financial constraints and a lack of specialized personal at community level.	
				<ul style="list-style-type: none"> • C03: Views of fisheries staff on fisheries management differ between the national and the local level. 	PSO 2,3,4
				<ul style="list-style-type: none"> • C04: Continuous reorganization and decentralization processes have reduced transparency and complicated communication line (both horizontal and vertical) 	PSO 1,4
				<ul style="list-style-type: none"> • C05: A multitude of non-fisheries institutes 	PSO 1,2,3,4

				increasingly have key roles to play in fisheries management fisheries legislation, with as one result that procedures are becoming long and complicated and the outcomes unsure.	
ZVQY	Marine Biotechnology	National	After successful completion of this course students will able to the Marine Ecosystem has Rich Biodiversity, and the organism themselves contain vital biochemical compounds	<ul style="list-style-type: none"> • CO 1: After successful completion of this course students will able to the Marine Ecosystem has Rich Biodiversity, and the organism themselves contain vital biochemical compounds. • CO 2: Identify the components of a wide array of uses in medicine, environment, and other industries. 	<p>PSO 1,3,4</p> <p>PSO 1,2</p>

				<ul style="list-style-type: none"> CO 3: Collection of fish, molluscs and crustacean from adjacent fishing harbours to study identification, anatomy and record keeping of Relevant Data. 	PSO 2,3
				<ul style="list-style-type: none"> CO 4: Traditional method of fish preservation 	PSO 1
				<ul style="list-style-type: none"> CO 5: Methods of fish drying: Natural, Solar, Artificial, Mechanical dryer. Preparation of extruded products using single screw and twin screw extruder. 	PSO 2,3