



Dr. N.G.P. ARTS AND SCIENCE COLLEGE

(An Autonomous Institution, Affiliated to Bharathiar University, Coimbatore)
Approved by Government of Tamil Nadu & Accredited by NAAC with 'A++' Grade (3rd Cycle-3.64 CGPA)
Dr. N.G.P.-Kalapatti Road, Coimbatore-641 048, Tamil Nadu, India.
Website: www.drngpasc.ac.in | Email: info@drngpasc.ac.in. | Phone: +91-422-2369100

BoS

13th

MINUTES OF THE THIRTEENTH BOARD OF STUDIES MEETING

Faculty: Bio-Sciences

Board: Food Science and Nutrition

The Meeting of Board of Studies (BoS) was held as given below:

Name of the Body	BoS
Department	Food Science and Nutrition
Meeting No.	13
Date and Time	16/08/2022 at 10.00 am
Venue	IQAC Board room
Members Attended	The details are given in the ANNEXURE -I

AGENDA

1.	Discussion on UG Curriculum for AY 2022-23 and onwards adopting R4 guidelines
2.	Discussion on UG syllabi for Part III - Core Courses for first semester 2022-23 Batch
3.	Discussion on syllabus for Part III - Inter Disciplinary Course (IDC) offered by Department of Chemistry
4.	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for 2022-23 Batch
5.	Discussion on Part II (English) offered by English department for 2022-23 Batch
6.	Discussion on Part IV (AECC) Environmental Studies for 2022-23 Batch offered by Department of Microbiology
7.	Discussion on credits for Part V Extension Activity for 2022-23 Batch
8.	Discussion on PG Curriculum for AY 2022-23 and onwards adopting R4 guidelines
9.	Discussion on PG syllabi for first semester courses 2022-23 Batch
10.	Discussion on PG DSE syllabi for I semester courses 2022-23 Batch
11.	Discussion on Value Added Certificate Courses (VACC)
12.	Any other matter



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MINUTES OF THE THIRTEENTH BOARD OF STUDIES MEETING

Faculty: Bio-Sciences

Board: Food Science and Nutrition

The Chairman of BoS welcomed all the Panel members for the meeting. The items listed in the agenda were taken for discussion.

The following are the minutes of the meeting:

Item - 01	Discussion on UG Curriculum for AY 2022-23 and onwards adopting R4 guidelines
Discussion	Under regulation R4, UG Curriculum for AY 2022-23 have been designed and was presented for discussion.
Resolution	The Board unanimously approved the Curriculum.
Item - 02	Discussion on syllabus for the First Semester UG - 2022-23 Batch
Discussion	<p>The course content of I B.Sc. Food Science and Nutrition course were presented and discussed</p> <p>223FN1A1CA- FUNDAMENTALS OF FOOD SCIENCE (New Course) Dr. T. Poongodi Vijayakumar suggested to include the topics Solar cooking, Fermentation of Cereal and role of cereals in cookery, Dr. M. Sylvia Subapriya too suggested to include the topics Enzymatic browning and its prevention methods, Loss of nutrients during cooking, malted beverages, fat substitutes. Dr. A. J. Hemamalini suggested to include the topics Herbs – Basil, Wheat grass, Aloe Vera, Oregano – An overview. Physical properties of milk, Evaluation of egg quality. These are the topics framed based on the industrial needs</p> <p>223FN1A1CB- CHEMISTRY OF FOODS (New Course) Dr. M. Sylvia Subapriya suggested to include Sorption Phenomena, Factors affecting gel and gluten formation. Properties, sugar related products and stages of sugar cookery, Malting of Pulse Proteins Factors affecting gluten formation. Fat deterioration, smoking point of oil. These are the topics framed based to enhance the knowledge on constituents of food chemistry</p> <p>Under DBT star college scheme we have include some experiments in 223FN1A1CP- FOOD SCIENCE (New Practical Course) Estimate the gluten content of different types of four Meat Tenderization of Efficiency of Papain enzyme These are the practical framed for the better understand food processes and improve food products for the community.</p>
Resolution	The Board members approved the following changes in the course content.
Item - 03	Discussion on syllabus for Part III - Inter Disciplinary Course (IDC) offered by Department of Chemistry
Discussion	222CE1A1IA – Chemistry for Biologists (New Course) The syllabus approved by the Board of Studies in Chemistry was placed for endorsement.
Resolution	The Board unanimously approved the above syllabus

Cont.,



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Item - 04	Discussion on Part I (Tamil/Hindi/French/Malayalam) offered by Language department for 2022-23 Batch
Discussion	221TL1A1TA/ 221TL1A1HA /221TL1A1FA /221TL1A1MA: Part I: Tamil-I: Ikkala Illakiyam / Hindi-I: Modern literature /French-I : Grammar, Translation and civilization/ Malayalam – I : Modern literature respectively (New Course) The unified syllabi approved by the Board of Studies in Languages were placed for endorsement.
Resolution	The Board unanimously approved the syllabi.
Item -05	Discussion on Part II (English) offered by department of English for 2022-23 Batch
Discussion	221EL1A1EA : Part II: Professional English I (New Course) The unified syllabus approved by the Board of Studies in English was placed for endorsement.
Resolution	The Board unanimously approved the syllabus
Item -06	Discussion on Part IV (AECC) Environmental Studies offered by Department of Microbiology for 2022-23 Batch
Discussion	223MB1A1AA: Environmental Studies The unified syllabus approved by the Board of Studies in Microbiology was placed for endorsement.
Resolution	The Board unanimously approved the syllabus
Item-07	Discussion on credits for Part V Extension Activity for 2022-23 Batch
Discussion	One credit to be awarded for participation in Extension activity like YRC/NCC/NSS/RRC/Yoga/Sports/Clubs
Resolution	The Board members approved one credit for Extension activity
Item - 08	Discussion on PG Curriculum for AY 2022-23 and onwards adopting R4 guidelines
Discussion	Under regulation R4, PG Curriculum for AY 2022-23 has been designed and was presented for discussion.
Resolution	The Board unanimously approved the PG Curriculum
Item - 09	Discussion on syllabi for the First Semester PG - 2022-23 Batch
Discussion	The course content of I M.Sc. Foods and Nutrition course were presented and discussed Dr. T. Poongodi Vijayakumar suggested to include entitled on 223FN2A1CA -ADVANCED FOOD SCIENCE (New Course) The course is framed how to apply food science knowledge to improve the taste, nutrition, and safety of value-added food products 223FN2A1CC-NUTRITIONAL BIOCHEMISTRY Dr. M. Sylvia Subapriya suggested to include Fructosuria, Leucine, Molecular cloning. These are the topics framed to establish the basic principles of metabolism and its regulation. 223FN2A1CB- NUTRITION THROUGH LIFE CYCLE (New Course) Dr. A. J. Hemamalini and Dr. M. Sylvia Subapriya suggested to include the topics expansion





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	<p>in blood volume in pregnancy, twin pregnancy, pregnancy in obese women, gestational diabetes, and pre-eclampsia, Intrauterine growth retardation. Nutrition and brain development, Human Milk bank, implications for feeding and management in Pre-term and Low Birth Weight infants. Micronutrient malnutrition among preschool children. Implications of childhood obesity and other nutritional concerns. Nutrient requirements that influence organ function with ageing. Pre-event meal, Nutrition for Soldiers. These are the topics framed based to reinforce specific nutrition-related practices or behaviors to change habits that contribute to poor health</p> <p>223FN2A1CD-FOOD CHEMISTRY (New Course) Dr. T. Poongodi Vijayakumar suggested to include Water absorbency, Common food emulsifiers, functions of emulsifying agents β-glucans, glucomannans. Changes in protein during denaturation, Complementary proteins. Milk substitutes, Effect of heat, acids & enzymes on milk component. These are the topics framed based the study of chemical processes and interactions of all biological and non-biological components of foods.</p> <p>223FN2A1CP-FOOD SCIENCE AND FOOD CHEMISTRY (New Practical Course) Identification of freezing point of water Estimation of pectin substance-Colorimetric methods These are the experiments framed based on industrial application</p>
Resolution	The Board unanimously approved the above said course content after detailed discussions.
Item – 10	Discussion on PG Discipline Specific Elective syllabi for I semester courses 2022-23 Batch
Discussion	<p>The course content of I M.Sc. Foods and Nutrition DSE course were presented and discussed</p> <p>223FN2A1DA- FUNCTIONAL FOODS AND NUTRACEUTICALS (New Course) Dr. A. J. Hemamalini suggested to include Functional foods and their benefits. Formulation of functional foods containing Nutraceuticals – stability, analytical and labeling issues. In vitro and in vivo methods for the assessment of antioxidant activity Gastrointestinal disorder, Cancer, CVD, Diabetic Mellitus, HIV. These topics were included to emphasize the active components present in foods that helps in protection against diseases.</p> <p>223FN2A1DB -FOOD PRODUCT DEVELOPMENT (New Course) Dr. M. Sylvia Subapriya and Dr. T. Poongodi Vijayakumar suggested to include Phases in Food Product Development, factors influencing in new product development. Maintaining suitable environmental conditions: laboratory setup and equipment's. Packing materials and its characteristics. The following topics are helps to formulate the innovative products to meet consumer needs.</p> <p>223FN2A1DC-HARVEST TECHNOLOGY AND AGRICULTURAL PRODUCE (New Course) Dr. M. Sylvia Subapriya suggested to include Conservation Agriculture- Scope and need. Extent of losses from field to market. Chemical agents, biological agents, insects- preventive measures. Improved methods of handling and transport of Food Commodities. FCI Godowns- warehousing scheme. National programs to save grains. These are the topics helps to maintain quality, protect food safety, and to reduce losses between harvest and consumption.</p>
Resolution	The Board unanimously approved the above said DSE course





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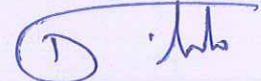
BoS

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Item – 11	Discussion on Value Added Course
Discussion	Sports Nutrition and Fitness Management Diploma in Food Safety and Quality Control Both the above courses designed to enhance the standard of the students beyond those levels specified in academic curriculum
Resolution	The board resolved and approved the syllabi for the above courses.
Item – 12	Any other matter
Discussion	The board members discussed and recommended a Panel of Examiners
Resolution	The Board unanimously approved the Panel of Examiners

The chairman of Board of Studies (BoS) thanked all the members for their active participation and cordially invited them for the next meeting.

Date: 16/8/22


(Dr.D.Sridevi)

BoS Chairman/HoD
Department of Food Science & Nutrition
Dr. N. G. P. Arts and Science College
Coimbatore – 641 048





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13th

Syllabus Revision

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 221TL1A1TA / PART - I - TAMIL - I: IKKALA ILAKKIYAM

Unit	Existing	Changes
I	1. உயிர்-பெற்று-தமிழர்-பாட்டு - பாரதியார் 2. படி - பாரதிதாசன் 3. போராட்ட-புறப்பட்டு - தமிழ்-ஒளி 4. தமிழக் கொலை புரியாதீர் - புலவர் குழந்தை 5. திரைத்தமிழ்: அ)கம்மா கிடந்த நிலத்தை - எனத் தொடங்கும் பாடல் - பட்டுக்கோட்டை கல்யாண சுந்தரனார். ஆ) சமரசம் உலாவும் இடமுமே - எனத் தொடங்கும் பாடல் - மருதகாசி. இ) உன்னை அறிந்தால் - எனத் தொடங்கும் பாடல் - கண்ணதாசன்.	இலக்கிய வரலாறு - மறுமலர்ச்சி கவிஞர்களின் தமிழ்ப்பணிகள் பாரதிதேசம் - பாரதியார் தமிழரின் பெருமை - நாமக்கல் கவிஞர் திரைத் தமிழ் : விஞ்ஞானத்த வளர்க்கப் போறண்டி - உடும்மை நாராயணகவி
II	1. கடமையைச் செய் - மீரா 2. அம்மாவின் பொய்கள் - ரூனாக் சுத்தன் 3. செருப்புடன் ஒரு பேட்டி - மு.மேத்தா 4. சிங்கவால்-சூசுகின் மரசனம் - சிற்பி 5. கூட்கோள்-2004 - முத்தமிழ்-வினாப்பி 6. கரிக்கிறது தாய்ப்பால் - ஆரூர் தமிழ்நாடன் 7. ஐந்தாம் வகுப்பு 'அ' பிரிவு - நா. முத்துக்குமார் 8. ஹைகூ. கவிதைகள் - 15 கவிதைகள்	இலக்கிய வரலாறு - புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும் ஒப்பிலாத சமுதாயம் - அப்துல் ரகுமான் கண்ணிமாமம் - மு.மேத்தா மலையாளக் காற்று - சிற்பி
III	1. ஒரு கதவும் கொஞ்சம்-கள்ளிப்பாலும் - தாமரை 2. நீரில் அலையும் முகம் - அ. வெண்ணிலா 3. தொட்டிச்-செடி - இளம்பிறை 4. எனிந்த வித்தியாசங்கள் - மல்லிகா	தொலைந்து போனேன் - தாமரை தற்காதல் - பொன்மணி வைரமுத்து புதையுண்ட வாழ்க்கை - சுகந்தி சுப்ரமணியன்
IV	1. சேப்பமரம் - ந.சிச்சமுர்த்தி 2. அகல்வை - புதுமைப்பித்தன் 3. ஒரேசீடி-சோறு - ஜெயகாந்தன் 4. காய்ச்சமரம் - கிராஜநாராயணன் 5. நிசாசை - பாமா 6. சூதிரை-மசால்-தாத்தா - ச-வேணுகோபால்	இலக்கிய வரலாறு - சிறுகதையின் தோற்றமும் வளர்ச்சியும் கனகாம்பலம் - கு.பா.ஜகோபால் ஆற்றங்கரைப் பிள்ளையார் - புதுமைப்பித்தன் பொம்மை - ஜெயகாந்தன் காட்டில் ஒரு மான் - அம்பை வேட்கை - சூர்யகாந்தன்
V	அ- இலக்கியவரலாறு 1. மறுமலர்ச்சி கவிஞர்களின் தமிழ்ப்பணிகள் 2. புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும் 3. சிறுகதையின் தோற்றமும் வளர்ச்சியும் ஆ.இலக்கணம்:1.வல்லினம் மிகும், மிகா இடங்கள் (ஒற்றுப்பிழை நீக்கி எழுதுதல்) 2. ர,ல,ழ, ள,ண, ந,ன வேறுபாடு (ஒலிப்பு நெறி, சொற்பொருள் வேறுபாடு அறிதல்) இ. படைப்பாக்கப் பயிற்சி 1. கவிதை, சிறுகதை எழுதுதல்	இலக்கிய வரலாற்றுப் பகுதி அந்தந்த அலகுகளுக்குத் தகுந்தார் போல் மாற்றி அமைக்கப்பட்டுள்ளது.

PERCENTAGE OF SYLLABUS REVISED: 44 Per Cent

COURSE FOCUS ON:

- Skill Development Entrepreneurial Development
- Employability Innovation
- Intellectual Property Right (IPR)



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 221TL1A1HA/ PART - I - HINDI - I: MODERN LITERATURE

Unit	Existing	Changes
I	गद्य - नूतन गद्य संग्रह (जय प्रकाश) पाठ 1- रजिया पाठ 2- मक्रील पाठ 3- बहता पानी निर्मला पाठ 4- राष्ट्रपिता महात्मा गाँधी	-
II	कहानी कुंज- डॉ वी.पी. 'अमिताभ' (पाठ 1-4)	-
III	व्याकरण : शब्द विचार (संज्ञा, सर्वनाम,कास्क,विशेषण)	व्याकरण : शब्द विचार (संज्ञा, सर्वनाम,विशेषण)
IV	अनुच्छेद लेखन	-
V	अनुवाद अभ्यास-III (केवल अंग्रेजी से हिन्दी में) (पाठ 1 to 10)	-

PERCENTAGE OF SYLLABUS REVISED: 25 Per Cent

COURSE FOCUS ON:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Skill Development | <input checked="" type="checkbox"/> Entrepreneurial Development |
| <input checked="" type="checkbox"/> Employability | <input checked="" type="checkbox"/> Innovation |
| <input type="checkbox"/> Intellectual Property Right (IPR) | |



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Syllabus Revision

B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 221TL1A1FA / PART - I - FRENCH - I: Grammar, Translation and Civilization

Unit	Existing			Changes			
I	Objectifs de Communication <ul style="list-style-type: none"> • Saluer • Enter en contact avec quelqu'un. • Se presenter. • S'excuser 	Tâche En cours de cuisine, premiers contacts avec les membres d'un groupe	Activités de réception et de production orale <ul style="list-style-type: none"> • Comprendre des personnes qui se saluent. • Échanger pour entrer en contact, se présenter, saluer, s'excuser. • Communiquer avec <i>tu</i> ou <i>vous</i>. • Comprendre les consignes de classe • Épeler son nom et son prénom. Computer jusqu'à 10. 	-			
II	Objectifs de Communication <ul style="list-style-type: none"> • Demander de se presenter. • Présenter quelqu'un. 	Tâche Dans la classe de français, se presenter et remplir une fiche pour le professeur.	Activités de réception et de production orale <ul style="list-style-type: none"> • Comprendre les informations essentielles dans un échange en milieu professionnel. • Échanger pour se presenter et présenter quelqu'un. 	-			
III	Objectifs de Communication <ul style="list-style-type: none"> • Exprimer ses goûts. 	Tâche Dans un café, participer à une soirée de rencontres rapides et remplir de taches d'appréciation.	Activités de réception et de production orale <ul style="list-style-type: none"> • Dans une soirée de recontres rapid comprendre des personnes qui échantent sur elles et sur leurs goût • Comprendre une personne qui parler des goûts de quelqu'un d'autre. 	-			
IV	Objectifs de Communication <ul style="list-style-type: none"> • Présenter quelqu'un 	Tâche Dans un café, participer à une soirée de rencontres rapides et remplir de taches d'appréciation	Activités de réception et de production orale <ul style="list-style-type: none"> • Exprimer ses goûts. • Comprendre une demande laissée sur un répondeur téléphonique. • Parler de ses projets de week-end. 	<table border="1"> <tr> <td>Demander à quelqu'un de faire quelque chose. Demander poliment. Parler d'actions passées.</td> <td>Organiser un programme d'activités pour accueillir une personne importante.</td> <td>Comprendre une personne demande un service à quelqu'un. Demander à quelqu'un de faire quelque chose. Imaginer et raconter au passé à partir de situations dessinées.</td> </tr> </table> <p>Tu veux bien? Page 46</p>	Demander à quelqu'un de faire quelque chose. Demander poliment. Parler d'actions passées.	Organiser un programme d'activités pour accueillir une personne importante.	Comprendre une personne demande un service à quelqu'un. Demander à quelqu'un de faire quelque chose. Imaginer et raconter au passé à partir de situations dessinées.
Demander à quelqu'un de faire quelque chose. Demander poliment. Parler d'actions passées.	Organiser un programme d'activités pour accueillir une personne importante.	Comprendre une personne demande un service à quelqu'un. Demander à quelqu'un de faire quelque chose. Imaginer et raconter au passé à partir de situations dessinées.					
V	Demander à quelqu'un de faire quelque chose. Demander poliment. Parler d'actions passées.	Organiser un programme d'activités pour accueillir une personne importante.	Comprendre une personne demande un service à quelqu'un. Demander à quelqu'un de faire quelque chose. Imaginer et raconter au passé à partir de situations dessinées.	Make in Own Sentences			

PERCENTAGE OF SYLLABUS REVISED: 25 Per Cent

COURSE FOCUS ON:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Skill Development | <input checked="" type="checkbox"/> Entrepreneurial Development |
| <input checked="" type="checkbox"/> Employability | <input checked="" type="checkbox"/> Innovation |
| <input type="checkbox"/> Intellectual Property Right (IPR) | |



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13th

Syllabus Revision

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/Name: 221TL1A1MA / PART - I - MALAYALAM - I : MODERN LITERATURE

Unit	Existing	Changes
I	Novel : Alahayude penmakkaal	Novel : Pathummayude Adu
II	Novel : Alahayude penmakkaal	Novel : Pathummayude Adu
III	Short Story : Nalinakanthi	-
IV	Short Story : Nalinakanthi	-
V	Composition & Translation	Expansion of ideas, General Essay and Translation

PERCENTAGE OF SYLLABUS REVISED: 50%
COURSE FOCUS ON:

- | | |
|--|---|
| <input checked="" type="checkbox"/> Skill Development | <input checked="" type="checkbox"/> Entrepreneurial Development |
| <input checked="" type="checkbox"/> Employability | <input checked="" type="checkbox"/> Innovation |
| <input type="checkbox"/> Intellectual Property Right (IPR) | |





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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 221EL1A1EA- Core Course: Professional English I

PERCENTAGE OF SYLLABUS REVISED: 100%

COURSE FOCUS ON:



Skill Development



Entrepreneurial Development



Employability



Innovation



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN1A1CA/ FUNDAMENTALS OF FOOD SCIENCE

Unit	Existing	Changes
I	Introduction to Food Science Food groups- 4 (ICMR), 5 and 7, functional food groups-energy yielding, body building and protective foods (only sources), food pyramid. Methods of cooking: Objectives of cooking. Cooking methods – Dry heat and moist heat methods, microwave Cereals: Structure and composition of rice and wheat, parboiled rice, Cereal-cookery-- Gluten and gelatinization, factors affecting gluten formation and gelatinization. Millets: Nutritive value of Ragi, Jowar and Maize.	Solar cooking Fermentation of Cereal, role of cereals in cookery
II	Pulses and legumes Varieties of pulses, legumes and grams, composition, nutritive value, anti-nutritional factors, (Trypsin and Tannins), cooking quality of pulses. Fruits: Classification, composition and nutritive value, changes during ripening. Vegetables: Classification, composition and nutritive value, selection and preparation for cooking,	Enzymatic browning and its prevention methods. changes loss of nutrients during cooking
III	Beverages, Spices and Condiments Beverages- Classification, nutritive value, milk-based beverages – methods of preparing- tea and coffee, fruit-based beverages and preparation of carbonated non – alcoholic beverages. Sugar: Stages of sugar cookery. Fats and Oils: Types of oils, function of fats and oils, shortening effects of oil, smoking point of oil, effect of heat on oil absorption and factors affecting absorption of oil. Spices and Condiments: Functions of spices, medicinal values of Cardamom, Cinnamon, Cloves, Fenugreek, Pepper, Onion, Turmeric, Ginger and Garlic.	Malted beverages fat substitutes Cumin seeds. Difference test-paired comparison and duo – trio test, Rating test – ranking, hedonic, composite scoring test. Herbs – Basil, Wheat grass, Aloe vera, Oregano – An overview
IV	Milk & Egg Milk – Composition and nutritive value, kinds of milk, pasteurization and homogenization of milk, changes in milk during heat processing, preparation of fermented (cheese) and non-fermented (milk powder), role of milk and milk products Egg - Structure, composition, selection, nutritive value, uses of egg in cookery, foam formation and factors affecting foam formation	Physical properties of milk, Evaluation of egg quality
V	Meat & Poultry Meat -Structure, composition, nutritive value, selection of meat, post mortem changes in meat, aging, tenderness and curing. Methods of cooking meat and their effects. Poultry: Classification, composition, nutritive value, selection, methods of cooking. Fish - Structure, composition, nutritive value, selection of fish, methods of cooking and effects	-

PERCENTAGE OF SYLLABUS REVISED: 20 Per cent

COURSE FOCUS ON:



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN1A2CP/ CHEMISTRY OF FOODS

Unit	Existing	Changes
I	Physico-chemical properties of foods, Moisture in Foods, Hydrogen Bonding, Bound Water, Water Activity in Foods, Determination of Moisture Content in Foods, True Solutions, Dispersions, Sols, Gels, Foams, Colloids and Emulsions	Sorption Phenomena
II	Chemistry of Starch and Sugars Components of Starch, Swelling of Starch Granules, Gel Formation, Retrogradation, Syneresis .Effect of Sugar, Acid, Alkali, Fat and Surface Active Agents on Starch. Sugar: Types of Candies, Action of Acid, Alkali and Enzymes. Chemistry of Milk Sugar, Non Enzymatic Browning, Crystallization and factors affecting Crystallization of sugar	Factors affecting gel formation, Properties, sugar related products and stages of sugar cookery
III	Chemistry of Proteins Components of Wheat Proteins, Structure, Gluten, Formation Effect of Soaking, Fermentation and Germination on Pulse Proteins Properties of Egg Protein, Chemistry of Milk Protein Changes in Milk, Egg and Meat Proteins during heat, action of heat, Acid, Alkalis on Vegetables Proteins and Animal Proteins	Malting of Pulse Proteins Factors affecting gluten formation.
IV	Chemistry of Fats and Oils Physical and Chemical Properties of Fats and Oils Rancidity, Hydrogenation, Winterization, Decomposition of Triglycerides, Shortening Power of Fats, Changes in Fats and Oils during Heating , Factors Affecting Fat Absorption in Food	Fat Deterioration., smoking point of oil.
V	Chemistry of Pectic Substances, Plant Pigments Enzymes – definition, chemical classification, properties of enzymes, importance of enzymes, enzymes involved in food reactions – beneficial and deterioration and its prevention, Pigments – classification, properties and food sources	-

PERCENTAGE OF SYLLABUS REVISED: 20 Per cent

COURSE FOCUS ON:



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN1A1CP / FOOD SCIENCE

Unit	Existing	Changes
1	Food group- Grouping of foods, discussion on nutritive value Cereals -Methods of cooking fine and coarse cereals. Examination of starch	
2	Measuring ingredients - Methods of measuring different types of foods – grains, flours and liquids, Edible portion Determination of edible portion percentage	
3	Moist heat methods- Boiling, Simmering, Steaming and Pressure cooking	
4	Dry heat methods-baking, Fat as a medium for cooking- shallow and deep fat frying.	
5	Cereals -Methods of cooking fine and coarse cereals. Examination of starch	
6	Pulses - Cooking of soaked, unsoaked, germination and fermentation of pulses. Common preparation with pulses	
7	Vegetables Experimental cookery using vegetables of different colors and textures.	
8	Preparation of beverages soups and salads, Common preparation with vegetables	
9	Fruits - Prevention of darkening in fruits and vegetables. Fruit salad	
10	Experimental cookery – cream of tomato soup, cheese curry and cooking vegetables in milk, Coagulation of milk proteins, preparation of paneer, curd common preparation with milk	
11	Fleshy foods Fish, meat and poultry- preparations	
12	Experimental cookery of Egg - boiled egg, poached egg. Common preparations with egg.	
	DBT Experiments:	Estimate the gluten content of different types of four Meat Tenderization of Efficiency of Papain enzyme

Note: End Semester Practical Examination requires completion of 10 experiments out of 12.

PERCENTAGE OF SYLLABUS REVISED: 10 Per cent

COURSE FOCUS ON:



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/Name: 222CE1A1IA- IDC Chemistry for Biologists

Unit	Existing	Changes
I	Unit I Coordination Chemistry and Fertilizers- Coordination Chemistry: Nomenclature, Theories of Werner, Sidgwick-Pauling, Chelation examples, Haemoglobin, Chlorophyll. Applications in qualitative and quantitative analysis of EDTA. Fertilizers: Urea, ammonium sulphate, ammonium Nitrate, Potassium Nitrate, NPK, fertilizer, Triple Superphosphate, Pollution of air, Water and Soil sources, remedies.	Solutions Normality, molarity, molality, mole fraction, mole concept. Primary and secondary standards – preparation of standard solutions. Principle of Volumetric analysis (with simple problems). Indicators – Theory of indicators- Oswald and quinonoid theory.
II	Unit II Chemical Bonding- Molecular Orbital Theory- bonding, anti-bonding and non-bonding orbitals. MO-configuration of H ₂ , N ₂ , O ₂ , F ₂ - bond order- diamagnetism and paramagnetism. Ionic Bond: Nature of ionic bond, structure of NaCl and CsCl, factors influencing the formation of ionic bond. Covalent Bond: Nature of covalent bond, structure of CH ₄ , NH ₃ , H ₂ O, shapes of BeCl ₂ , BF ₃ , based on VSEPR theory and hybridization.	Acids and Bases Acid base theories – Strength of acids and bases – Equilibrium constant and Ionic constant of water- pH, pKa, pKb, Buffer solution, pH and pOH simple calculations.
III	Unit III Basic Organic Chemistry Electron displacement effect in organic compounds – Inductive effect – Electromeric effect – Resonance effect, Hyperconjugation and Steric effect. Isomerism, Symmetry of elements (Plane, Centre and Axis of symmetry), Molecules with one chiral carbon and two adjacent chiral carbons – Optical isomerism of lactic acid and tartaric acid, Enantiomers, Diastereomers – Separation of racemic mixture Geometrical isomerism (maleic and fumaric acid). R/S and E/Z configuration assignments for simple molecules.	Types of bonding - Ionic Bond: Nature of ionic bond, factors influencing the formation of ionic bond, Covalent and coordinate bond- Molecular Orbital Theory- MO- configuration of H ₂ , N ₂ , O ₂ - bond order- diamagnetism and paramagnetism.
IV	Unit IV Solutions Normality, molarity, molality, mole fraction, mole concept. Primary and secondary standards – preparation of standard solutions. Principle of Volumetric analysis (with simple problems). Indicators – Theory of indicators- Acid base and quinonoid. Strong and weak acids and bases – Ionic product of water- pH, pKa, pKb, Buffer solution, pH and pOH simple calculations.	Stereo Chemistry Isomerism, Structural isomerism- Symmetry of elements (Plane, Centre and Axis of symmetry), Optical isomerism of lactic acid and tartaric acid, Enantiomers, Diastereomers – Separation of racemic mixture, Geometrical isomerism (maleic and fumaric acid). R/S and E/Z configuration assignments for simple molecules.
V	Unit V Chemical Kinetics and Catalysis Rate of reaction, rate law, order, molecularity, first order rate law, half-life period of first order equation, pseudo first order reaction, zero and second order reactions. Derivation of rate expression for I and II order kinetics. Catalysis – homogenous, heterogeneous and enzyme catalysis (definition only), enzymes used in industry, characteristics of catalytic reactions	-

PERCENTAGE OF SYLLABUS REVISED: 50 Per cent

COURSE FOCUS ON:



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Syllabus Revision B.Sc Food Science and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223MB1A1AA –Environmental studies

Unit	Existing	Changes
I	Introduction to Environmental studies& Ecosystems: Multidisciplinary nature of environmental studies; components of environment – atmosphere, hydrosphere, lithosphere and biosphere. Scope and importance; Concept of sustainability and sustainable development. Ecosystem - Structure and function of ecosystem; Energy flow in an ecosystem: food chain, food web and ecological succession. Case-studies-of-the-following-ecosystems: Forest ecosystem, Grassland ecosystem, Desert ecosystem, Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries).	
II	Natural Resources: Renewable and Non-renewable Resources: Land Resources and land use change; Land degradation, soil erosion and desertification. Deforestation: Causes and impacts due to mining, dam building on environment, forests, biodiversity and tribal populations. Water: Use and overexploitation of surface and ground water, floods, droughts, conflicts over water (international & inter-state). Heating of earth and circulation of air, air mass formation and precipitation. Energy resources: Renewable and non-renewable energy sources, use of alternate energy sources, growing energy needs, case studies.	
III	Biodiversity and Conservation: Levels of biological diversity: genetic, species and ecosystem diversity; Biogeography zones of India; Biodiversity patterns and global biodiversity hot spots. India as a mega-biodiversity nation; Endangered and endemic species of India. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts, biological invasions; Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity. Ecosystem and biodiversity services: Ecological, economic, social, ethical, aesthetic and informational value.	
IV	Environmental Pollution, Environmental Policies & Practices: Environmental pollution: types, causes, effects and controls; Air, water, soil, chemical and noise pollution. Nuclear hazards and human health risks. Solid waste management: Control measures of urban and industrial waste. Pollution case studies. Climate change, global warming, ozone layer depletion, acid rain and impacts on human communities and agriculture. Environment Laws: Environment Protection Act; Prevention & Control of Pollution Act – Air & Water. Wildlife Protection Act; Forest Conservation Act; International agreements; Montreal and Kyoto protocols and conservation on Biological Diversity (CBD)-The Chemical Weapons Convention (CWC)-Nature reserves, tribal population and rights, and human-wildlife conflicts in Indian context.	
V	Human Communities and the Environment & Field Work : Human population and growth: Impacts on environment, human health and welfares. Carbon-foot-print. Resettlement and rehabilitation of project affected persons; case studies. Disaster management: floods, earthquakes, cyclones and landslides. Environmental movements: Chipko, Silent valley, Bishnios of Rajasthan. Environmental ethics: Role of Indian and other religions and cultures in environmental conservation. Environmental communication and public awareness case studies (e.g., ENG vehicles in Delhi). Visit to an area to document environmental assets; river/forest/flora/fauna, etc. Visit to a local polluted site—Urban/Rural/Industrial/Agricultural. Study of common plants, insects, birds and basic principles of identification. Study of simple ecosystems-pond, river, Delhi Ridge, etc.	Population explosion – Family Welfare Programmes Role of Information Technology in Environment and human health. Role of the Colleges. Teachers and Students in village adoption towards clean, green and make in villages in various aspects.

PERCENTAGE OF SYLLABUS REVISED: 33 Per cent

COURSE FOCUS ON:

Skill Development

Entrepreneurial Development

Employability

Innovation

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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1CA/ADVANCE FOOD SCIENCE (New Course)

PERCENTAGE OF SYLLABUS REVISED: 100 Per cent
COURSE FOCUS ON:

Skill Development

Entrepreneurial Development

Employability

Innovation

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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences
Semester: I

Board: Food Science and Nutrition

Course Code/ Name: 223FN2A1CB/NUTRITION THROUGH LIFE CYCLE

Unit	Existing	Changes
I	Nutrition in Preconception and pregnancy Nutrition in Preconception-Introduction, factors contributing infertility in female, premenstrual syndrome, obesity and fertility, eating disorder and fertility, polycystic ovary syndrome, nutrient intake for pre-conceptual women. Nutrition in pregnancy - Stages of gestation, maternal physiological adjustments, weight gain during pregnancy and nutritional requirements for pregnancy, miscarriage, preterm delivery, multi fetal pregnancies, eating disorders and complications of pregnancy	Expansion in blood volume in pregnancy, twin pregnancy, pregnancy in obese women, gestational diabetes, pre-eclampsia, Intrauterine growth retardation
II	Nutrition in Lactation an infants Nutrition in Lactation - Physiological adjustments during lactation, Physiology of milk Production - hormonal controls and reflex action, lactation in relation to growth and health of infants, Problems of breast feeding, nutritional components of colostrum and mature milk, special foods during lactation, nutritional requirements during lactation. Expressing and storing breast milk, Breast promotion network of India. Nutrition in infants - Rate of growth, weight as the indicator, premature infant, feeding premature infants, low birth weight, breast vs. bottle feeding, nutritional allowances, supplementary feeding, and weaning foods	Nutrition and brain development, Human Milk bank, implications for feeding and management in Pre-term and Low Birth Weight infants
III	Nutrition in Toddlers Nutrition in Toddlers-Physiological and cognitive development, feeding skill and behavior, common nutrition problems. Nutrition in Preschool Children - Growth and development of preschool children, food habits, nutritional requirements, supplementary foods. Nutrition in School Age Early and middle childhood, physiological development, food habits, nutritional needs and feeding, RDA, Feeds habits.	Micronutrient malnutrition among preschool children. Implications of childhood obesity and other nutritional concerns
IV	Nutrition During Adolescence, Adulthood and Old age Nutrition During Adolescence - Physical growth, physiological and psychological problems associated with pubertal changes, nutritional needs, eating disorders — anorexia nervosa, bulimia nervosa, nutrition and medical problems in adolescent pregnancy and its requirements and complications. Nutrition during Adulthood — Physiological changes of adulthood Nutrition and work efficiency for maintenance of health, RDA Nutrition for Old Age — theories of ageing, physiological changes, Socio economic and psychological factors — nutritional requirements, factors affecting food intake, institutionalized changes in old age. Advances in geriatric nutrition.	Nutrient requirements that influence organ function with ageing
V	Nutrition for sports and Special Condition Sports and Exercise Fitness - Physical fitness assessment — cardio respiratory fitness, assessment of body composition, muscular fitness assessment, flexibility assessment, Role of carbohydrate, fat and protein as a fuel for exercise, fluid and electrolyte balance during prolonged exercise, nutritional requirements in sports, dietary intake before, during and after exercise. Concept of aerobic exercises, Nutrition during higher altitudes, Nutrition during Space voyage soldiers, Nutrition for special children	Pre-event meal, Nutrition for Soldiers

PERCENTAGE OF SYLLABUS REVISED: 50 Per cent

COURSE FOCUS ON:

Skill Development

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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1CC/NUTRITIONAL BIOCHEMISTRY

Unit	Existing	Changes
I	Carbohydrates Carbohydrates – classification, functions. Glycolysis, TCA Cycle, HMP Shunt and Energy Production, Glycogenesis, Gluconeogenesis. Renal threshold for Glucose. Inborn Error of Carbohydrate Metabolism – Lactose Intolerance, Galactosemia,	Fructosuria
II	Fatty Acids Fatty Acids - Classification, Functions and Oxidation of Saturated and Unsaturated Fatty Acids, Biosynthesis of Cholesterol, Structure and Functions of Lecithin, Cephalin. Inborn errors of Fat Metabolism – Niemann-Pick Disease, Gouchers Disease	-
III	Protein Protein- Classification, Function & Metabolism of Protein, Denaturation, Transamination, Deamination, Decarboxylation, Urea Formation and Protein Synthesis. Amino acids – Classification, Function & Metabolism of Amino acids, phenylalanine, methionine and tryptophane. Inborn errors of Amino acids – maple syrup urine disease, phenyl ketonuria.	Leucine,
IV	Nucleic Acids Nucleic acids – structure, function and properties of DNA and RNA. Biosynthesis and breakdown of purine and pyrimidine nucleotides. Assay Techniques: Bioassay techniques, microbiological assay of vitamins. ELISA.	Molecular cloning
V	Techniques in Nutritional Biochemistry Techniques in nutritional biochemistry - Separation of sugars and amino acids by chromatography. Electrophoresis separation of proteins. Colorimetry and spectrophotometer - principle and procedures. pH meter – working and application. Principle and procedure of operation of GC, HPLC and HPTLC. Elemental analysis by atomic absorption spectroscopy and flame photometry	-

PERCENTAGE OF SYLLABUS REVISED: 5 Per cent
COURSE FOCUS ON:



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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1CP/FOOD SCIENCE AND FOOD CHEMISTRY

Unit	Existing	Changes
1.	Gelatinization of Starch, Retrogradation and Syneresis	
2.	Microscopic examination of uncooked and gelatinized	
3.	Gluten Formation	
4.	Stages of Sugar Cookery, Preparation of Fondant, Fudge, Caramel and Toffee	
5.		Identification of freezing point of water
6.	Scum formation, Boiling over and scorching of milk	
7.	Effect of Soaking, germination and fermentation of Pulses	
8.	Coagulation of egg white and egg yolk, Boiled Egg, Poached Egg, Omlettes, Custards, Cake and Mayonnaise	
9.	Coagulation and precipitation of milk proteins	
10.	Changes observed in cooking meat, fish and poultry, testing the tenderness of meat	
11.	Smoking Temperature of different fats, Factors affecting absorption of fats	
12.	Effect of acids, alkali and heat on water soluble and fat soluble pigments	
13.	Enzymatic Browning and Methods of prevention	
14.		Estimation of pectic substance –Colorimetric methods

Note: End Semester Practical Examination requires completion of 12 experiments out of 14.

PERCENTAGE OF SYLLABUS REVISED: 5 Per cent

COURSE FOCUS ON:

<input type="checkbox"/>	Skill Development	<input checked="" type="checkbox"/>	Entrepreneurial Development		
<input checked="" type="checkbox"/>	Employability	<input checked="" type="checkbox"/>	Innovation	<input type="checkbox"/>	Intellectual Property Right (IPR)



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BoS

13th

Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1CD/FOOD CHEMISTRY

Unit	Existing	Changes
I	Physico-chemical properties of water and foods Structure and properties of water and ice, types of water, solutions—and colligative properties, Water activity and Food spoilage, Sorption phenomena, Gels: Structure, formation, strength, types and permanence Emulsions: formation, stability, surfactants and emulsifiers, Foams: Structure, formation and stabilization.	Water absorbency , Common food emulsifiers, functions of emulsifying agents
II	Chemistry of Starch and Sugars Reactions of mono and oligosaccharides, use of polysaccharides in foods: non-starch polysaccharides: cellulose, hemicelluloses, pectins, gums (gum arabic, guar gum, xanthan gum), agar, alginates, carrageenan Starch: structure, properties of amylose and amylopectin, effect of process in gelatinization, methods for following gelatinization. Characteristics of some food starches. Effects of ingredients and conditions on gelatinization- retro gradation, polysaccharide hydrolysis, sugars and sweeteners: sugars, syrups, sugar alcohols, sugar products, caramelization.	β -glucans, glucomannans, Sugar substitutes
III	Chemistry of Proteins Amino acids, peptides and proteins - structure, physicochemical properties, functional properties, chemical and enzymatic modifications - denaturation, non-enzymatic browning, and other chemical changes, processing induced physical, chemical and nutritional changes, texturized proteins, protein isolates, concentrates, protein hydrolyzate,	Changes in protein during denaturation , Complementary proteins Milk substitutes, Effect of heat, acids & enzymes on milk component
IV	Chemistry of Fats and Oils Classification, sources, composition, and properties, role of lipids in food flavor. Effect of processing on chemical structure and physical properties; functional properties of fat and uses in food preparations, inter-esterification of fats. Lipids exposed to frying conditions, hydrogenated fat and irradiated foods Lipid-protein complexes, emulsions. Fat deterioration and antioxidants and fat substitutes.	
V	Chemistry of Fruits, Vegetables, Spices and Condiments Pectic Substances, Plant Pigments, Spices and Condiments Pectins, phenolic components, enzymatic browning in fruits and vegetables, volatile compounds from vegetables during cooking, different types of plant pigments – water and fat soluble pigments, properties and active principles of spices and condiments.	-

PERCENTAGE OF SYLLABUS REVISED: 20 Per cent

COURSE FOCUS ON:

- Skill Development Entrepreneurial Development
 Employability Innovation Intellectual Property Right (IPR)



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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1DA/ FUNCTIONAL FOODS AND NUTRACEUTICALS

Unit	Existing	Changes
I	Introduction to Nutraceuticals as Science Nutraceutical- Definition, Classification - Dietary supplements, Functional foods, Historical perspective, scope and future prospects, applied aspects of the Nutraceutical Science, Sources of Nutraceuticals and	Functional foods and their benefits
II	Properties, structure and functions of various Nutraceuticals Glycosides, Isoprenoid derivaties, Glucosamine, Octacosanol, flavonoids, carotenoids, polyunsaturated fatty acids, lecithin, choline and spingolipids, Lycopene, Carnitine, Melatonin and Ornithine alpha ketoglutarate, Phytoestrogens, curcumin, organosulphur compounds as neutraceuticals	Formulation of Functional Foods Containing Nutraceuticals – Stability, Analytical and Labelling Issues
III	Nutraceuticals of plant and animal origin Plant secondary metabolites, classification and sub-classification - Alkaloids, phenols, Terpenoids, extraction and purification, applications, Concept of cosmoceuticals and aquaceuticals Animal metabolites - Sources and extraction of nutraceuticals of animal origin, Examples: chitin, chitosan, glucosamine, chondroitin sulphate and other polysaccharides of animal origin, uses and applications in preventive medicine and treatment	-
IV	Functional Foods Definition, Relation of functional foods and Nutraceutical (FFN) to foods and drugs, applications of herbs to functional foods, Concept of free radicals and antioxidants. Nutritive and Non-nutritive food components with potential health effects, Soy proteins and soy isoflavones in human health; Role of nuts in cardiovascular disease prevention .Functional foods from wheat and rice and their health effects. Role of Dietary fibers in disease prevention , Vegetables, Cereals, milk and dairy products as Functional foods, Health effects of prebiotics, probiotic and synbiotic foods and effects	In vitro and in vivo methods for the assessment of antioxidant activity.
V	Food as remedies Nutraceuticals in treatment for cognitive decline, Arthritis, Bronchitis, circulatory problems, hypoglycemia, Nephrological disorders, Liver disorders, Osteoporosis, Psoriasis and Ulcers. Nutraceutical rich supplements e.g. Bee pollen, Caffeine, Green tea, Lecithin, Mushroom extract, Chlorophyll, Kelp and Spirulinaetc. Nutrigenomics-concept of personalized medicine. Use of Nanotechnology in functional food industry	Gastrointestinal disorder, Cancer, CVD, Diabetic Mellitus, HIV etc,

PERCENTAGE OF SYLLABUS REVISED: 33 Per cent

COURSE FOCUS ON:

- Skill Development Entrepreneurial Development
 Employability Innovation Intellectual Property Right (IPR)



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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1DB /FOOD PRODUCT DEVELOPMENT

Unit	Existing	Changes
I	New product development Definition and classification, characterization and factors shaping new product development. Health concerns impact of technology and market place influence.	Phases in Food Product Development factors influencing in new product development
II	Formulation of new product development Formulation of new product development for infants, preschool, elderly and sports person. Selection of raw materials, portion size, standardization methods, calculation of nutritive values, cost production, shelf life.	-
III	Sensory evaluation Establishing sensory panels Designing testing facilities Analytical Test Conduct a sensory Evaluation Test Designing score card , objective evaluation, Instruments used for texture evaluation.	Evaluation of Food Quality Sensory evaluation, Sensory tests, Types of Tests, Maintaining suitable environmental conditions: laboratory setup and equipment's
IV	Packaging Packaging – Introduction, Types, New product development – patent, patent laws, international code for Intellectual property rights (IPR).	Packing materials and its characteristics.
V	Marketing Concept of market and marketing – Approaches to study marketing and marketing functions, market structure, market efficiency and market integration. Role of government in promoting agricultural marketing. GST for newly developed product	-

PERCENTAGE OF SYLLABUS REVISED: 25 Per cent

COURSE FOCUS ON:



Skill Development



Entrepreneurial Development



Employability



Innovation



Intellectual Property Right (IPR)



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Syllabus Revision M.Sc Foods and Nutrition

Faculty: Bio-Sciences

Board: Food Science and Nutrition

Semester: I

Course Code/ Name: 223FN2A1DC / POST HARVEST TECHNOLOGY

Unit	Existing	Changes
I	Introduction to Post Harvest Technology - Definition, importance and problem encountered. Governmental measures to augment food production need for food conservation. Food loss in the post-harvest period, extent of losses, loss in the field, threshing yard, storage, marketing loss Role of Post-Harvest Technology in combating malnutrition in India.	Conservation Agriculture- Scope and need. Extent of losses from field to market.
II	Agents Causing Food Losses - Physical agents (moisture, temperature), Chemical losses, biological losses- insects- insects attacking food grains - types and life cycle, damage caused to food grains and detection of insect infestation, rats and rodents, birds, animals- Nature of damage, identification.	Chemical agents, biological agents, insects- preventive measures
III	Control of Spoilage Agents - Importance and methods of sanitary handling, physical, chemical, biological and other means of control of insects, rats and rodents and birds Insect control methods- Physical methods and chemical methods including fumigation techniques Handling and Transport of Food Commodities - Traditional and improved methods, Nutrient losses in spoiled grains and National program to save grains	Improved methods of handling and transport of Food Commodities
IV	Storage of Grains - Importance of storage structures- requirements, traditional and modern and underground and above ground storage and their improvements, FCI Godowns, PDS.	FCI Godowns- warehousing scheme.
V	Food Processing of Selected Food Items – wheat, rice, breakfast cereals, pulses, oilseeds. Agencies Controlling Food Losses - Role of SGC, FCI, CWC, SWC, IGSI in controlling food losses.	National programs to save grains.

PERCENTAGE OF SYLLABUS REVISED: 20 Per cent

COURSE FOCUS ON:

- Skill Development Entrepreneurial Development
 Employability Innovation Intellectual Property Right (IPR)



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ATTENDANCE OF THIRTEENTH BOARD OF STUDIES MEETING

Faculty: Bio Sciences Board: Food Science and Nutrition

VENUE : IQAC Board Room

DATE : 16/08/2022

TIME : 10.00 am

The following members were present for the Board of Studies meeting

S.No.	Name	Designation	Signature*
1.	Dr. D. Sridevi Professor and Head Department of Food Science & Nutrition Dr. N.G.P. ASC	Chairman	
2.	Dr. T. Poongodi Vijayakumar Professor and Head Department of Food Science & Nutrition Periyar University Salem - 11	VC Nominee	
3.	Dr.M.Sylvia Subapriya , Professor and Head, Department of Food Science and Nutrition, Avinashilingam University For Women, Coimbatore-641043.	Subject Expert	
4.	Dr. A. J. Hemamalini Assistant Professor & Head Department of Clinical Nutrition and Dietetics Sri Ramachandra Institute for Higher Education and Research Chennai,	Subject Expert	
5.	Dr.P. Sathya moorthy, Chairman, Moon Foods & Dr. Yes Aar Team, Sangagiri Main Road, No.155/10, Kollapatti, Animoor PO, Tiruchengode-637214	Industrial Expert	ABSENT



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6.	Gautham Palaniswamy Chief Innovation Officer and Manager, Sathyabama TBI, Sathyabama Institute of Science and Technology, Chennai – 600119	Alumni	absent
7.	Dr. N. Kuppuchamy Associate Professor and Head Department of Tamil Dr. N.G.P. ASC	Co-opted Member	Dr. N. Kuppuchamy 16/8/22
8	Dr. R. Vithyaprabha Professor and Head Department of English Dr. N.G.P. ASC	Co-opted Member	R. Vithyaprabha 16/8/22
9	Dr. M. Suganthi Associate Professor and Head Department of Chemistry Dr. N.G.P. ASC	Co-opted Member	M. Suganthi 16.8.22
10	Dr. S. Gowri Professor and Head (i/c) Department of BioChemistry Dr. N.G.P. ASC	Co-opted Member	S. Gowri 16/8/22
11	Ms. Jayashree III B. Sc Department of Food Science & Nutrition Dr. N.G.P. ASC	UG-Student Representative	S. Jayashree





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12	Ms. Pavithra II M. Sc Department of Food Science & Nutrition Dr. N.G.P. ASC	PG-Student Representative	<i>Pavithra</i>
13	Dr. Mera Raman Dean – BioScience & Applied Science Dr. N.G.P. ASC	Member	<i>Mera Raman</i>
14	Mrs. P. Kanneshwari Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Kanneshwari</i>
15	Mrs. Kavya Jothi Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Kavya Jothi</i>
16	Ms. M. Anjali Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Anjali M</i>
17	Ms. D. Jancy Rani Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Jancy Rani</i>
18	Ms. P.P Abhirami Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Abhirami</i>
19	Ms. M. Rakeshwari Assistant Professor Department of Food Science & Nutrition Dr. N.G.P. ASC	Member	<i>Rakesh</i>

Date: 16/8/2021



D. Sridevi
16/8/22
(Dr. D SRIDEVI)

Dr. D. SRIDEVI
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