

SHRI DAVARA UNIVERSITY

NAYA RAIPUR (C.G.)



PROGRAMME CURRICULUM

FOR

BACHELOR IN SCIENCES

(DIET AND NUTRITION)

SEMESTER-IV

AS PER EDUCATION POLICY-2020

AND

NATIONAL EDUCATION POLICY-2025

FOUR YEAR UNDERGRADUATE PROGRAMME- 2024-25

(EFFECTIVE FROM THE SESSION-2024-2025)



SEMESTER IV											
S.NO	COURSE CODE	COURSE TITLE	TEACHING HOURS PER WEEK				EXAMINATION SCHEME				TOTAL MARKS
			L	T	P	C	THEORY		PRACTICAL		
DISCIPLINE SPECIFIC COURSE (DSC)							EX	IN	E X	IN	
1.	DUND401T	ADVANCED DIETETICS	3	1	0	4	70	30	-	-	100
2.	DUND402T	FOOD STANDARD AND QUALITY CONTROL	3	1	0	4	70	30	-	-	100
3.	DUND403T	PERSONNEL MANAGEMENT	3	1	0	4	70	30	-	-	100
DISCIPLINE GENERAL ELECTIVE COURSE (GE)/DISCIPLINE SPECIFIC ELECTIVE COURSE (DSE)											
4.	DUNDDSE-04	FUNDAMENTAL OF BAKERY	3	1	0	4	70	30	-	-	100
ABILITY ENHANCEMENT COURSE (AEC)											
5.	AEC-04	COMMUNICATIVE ENGLISH AND SOFT SKILLS	2	0	0	2	35	15	-	-	50
SKILLS ENHANCEMENT COURSE (SEC)											
6.	SEC-02T	GREEN TECHNOLOGY	1	1	0	2	35	15	-	-	50
PRACTICALS (LAB)											
7.	DUND401P	ADVANCED DIETETICS LAB	0	0	2	1	-	-	35	15	50
Total Contact hours Per Week:30			Total credit:			21	Total mark				550



FOUR YEAR UNDERGRADUATE PROGRAMME (2024-28)

DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-A: Introduction		
Programme: Bachelor in Sciences (Certificate/Diploma/Degree Honors)	Semester-IV	Session: 2024-2025
Course Code	DUND401T	
Course Title	ADVANCED DIETETICS	
Course Type	Discipline Specific course (DSC)	
Pre-requisite (if any)	As per program	
Course Learning. Outcomes (CLO)	<p>At the end of this course, the students will be able to</p> <ul style="list-style-type: none"> ➤ Apply principles of medical nutrition therapy in the management of various diseases and clinical conditions. ➤ Plan and modify therapeutic diets based on patient needs, disease conditions, and nutritional requirements. ➤ Interpret clinical data, laboratory reports, and patient history for effective dietetic assessment. ➤ Develop counselling skills for educating patients and caregivers on therapeutic nutrition. ➤ Evaluate and monitor nutritional care plans to improve patient health outcomes and recovery. 	
Credit Value	3 Credits	1 Credit =15 Hours-learning & Observation
Total Marks	Max. Marks: =100	Min Passing Marks: 40
PART -B: Content of the Course		
Total No. of Teaching-learning Periods (01 Hr. per period) -45 Periods (45 Hours)		
Unit	Topics (Course contents)	
I	<p>DIET IN RELATION TO DEFICIENCY DISEASES: Pathogenesis and dietary management in Nutritional Anemia, PEM, Vitamin A deficiency.</p> <p>DISEASES OF CARDIO VASCULAR SYSTEM: Aetiological factors, symptoms, diagnostic tests and dietary treatment for Atherosclerosis, Ischemic Heart Disease, Congestive Cardiac Failure, Hypertension, High fibre, low fat, Sodium restricted diet.</p>	12
II	<p>DISEASES OF THE KIDNEY: Aetiological factors, symptoms, diagnostic tests and dietary treatment for Acute and chronic Glomerulonephritis. - Low Sodium and low potassium diet. Nephrotic Syndrome. Acute and chronic Renal Failure- uraemia. Nephrolithiasis and urolithiasis. Kidney transplantation and Dialysis. Use of Sodium and Potassium exchange lists.</p>	11



III	DISEASE OF THE PANCREAS AND LIVER: Diabetes Mellitus - Classification, Aetiological factors, symptoms, diagnostic tests, metabolic changes in the body, Insulin and oral hypoglycaemic drugs. Dietary Modifications with and without insulin, Complications of Diabetes, Food Exchange List. Glycemic Index and its use. Pancreatitis Liver - Aetiological factors, symptoms, diagnostic tests and dietary treatment for Viral Hepatitis, Cirrhosis of the liver and liver encephalopathy – high carbohydrate diet. Cholelithiasis and cholecystitis – low fat diet.	11
IV	NUTRITION IN CANCER AND AIDS: Aetiological factors, Symptoms, Diagnostic tests and Dietary Management.	11
Keywords	To provide students with a firm understanding of the Microorganisms related to Food.	
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-C: Learning Resources		
Text Books, Reference Books and Others		
1. Shubangini A Joshi, (1998): Nutrition and Dietetics, Tata Mc Graw Hill Pub. Co. Ltd., New Delhi. 2. National Institute of Nutrition, (2005): Dietary Guidelines for Indians – A Manual, Hyderabad. 3. Srilakshmi. B, (2005): Dietetics, V Edition, New Age International (P) Ltd, Publishers, Chennai		
Text Books Recommended-		
1. Mahan, L.K. and Escott-Stump, S. (2000) Krause’s Food, Nutrition and Diet Therapy, 10th Ed.W.B.Saunders Company, London. 2. Williams S.R. (1993): Nutrition and Diet Therapy, 7th Ed. Times Mirror / Mosby College Publishing, St. Louis. 3. Antia F.P, Clinical Dietetics and Nutrition, Oxford University Press. 4. Shills, M.E, Oslon, J.A, Shike, M and Ross, A.C. (1999): Modern Nutrition in Health and Disease, 9th Edition.		
Online Resources- ➤ e-books and e-learning portals ➤ https://bit.ly/3AvV3mZ ➤ https://bit.ly/30V85z ➤ https://bit.ly/3C9PXPS ➤ https://bit.ly/301p9rZ ➤ https://bit.ly/BPnwqe		
Online Resources- e-sources/e-books and e-learning portals		
PART -D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment (CIA): 30 Marks End Semester Exam (ESE): 70 Marks		
Continuous Internal Assessment (CIA): 30 (By Course Teacher)	Internal Test/Quiz:20+20 Assignment/ Semenar-10 Total Marks-30	Better marks out of the two Tot Quiz + obtained marks in Assignment shall be considered against 15 Marks



End Semester Exam (ESE):70	Two section A&B Section A :Q1 Objective 10*1=10 Marks Q2 Short answer type-5*4=20 Section B : Descriptive answer type qts 1 out of 2frm each- 4*10=40 Marks	
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART- A: Introduction		
Programme: Bachelor In Sciences (Certificate/Diploma/Degree/Honors)	Semester-IV	Session: 2024-2025
Course Code	DUND401P	
Course Title	ADVANCED DIETETICS LAB	
Course Type	Laboratory course	
Pre-requisite(if any)	As per program	
Course Learning. Outcomes (CLO)	At the end of this course, the students will be able to- <ul style="list-style-type: none">➤ Demonstrate preparation and modification of therapeutic diets for different disease conditions.➤ Perform nutritional assessment using anthropometric measurements and clinical case studies.➤ Plan and calculate nutrient requirements and therapeutic meal plans for patients.➤ Practice diet counselling and patient education techniques through simulated case scenarios.➤ Evaluate and document dietetic interventions and monitor patient dietary progress.	
Credits Value	1 Credits	Credit =30 Hours Laboratory or Field learning/Training
Total Marks	Max. Marks:50	Min Passing Marks: 20
PART-B: Content of the Course		
Total No. of learning-Training/performance Periods: 30 Periods (30 Hours)		
Module	Topics (Course contents)	No. of Period
Lab/ field Training/ Experiment Content of Course	Planning, Preparation and displaying of Diet for <ol style="list-style-type: none">1. PEM and vitamin A deficiency.2. Anaemia during pregnancy and anaemia in a normal person.3. Hypertension and atherosclerosis.4. Nephritis, nephritic syndrome and nephrolithiasis.5. Diabetes Mellitus.6. Cirrhosis and viral hepatitis.7. Cancer and AIDS	30
Keywords	This course aims at enabling the students to know about the general microbiology.	
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COURSE CURRICULUM

PART-C: Learning Resources
Text Books, Reference Books and Others
Text Books Recommended-
<ol style="list-style-type: none">1. Shubangini A Joshi, (1998): Nutrition and Dietetics, Tata Mc Graw Hill Pub. Co. Ltd., New Delhi.2. National Institute of Nutrition, (2005): Dietary Guidelines for Indians – A Manual, Hyderabad.3. Srilakshmi. B, (2005): Dietetics, V Edition, New Age International (P) Ltd, Publishers, Chennai.
Reference Books Recommended-
<ol style="list-style-type: none">1. Mahan, L.K. and Escott-Stump, S. (2000) Krause’s Food, Nutrition and Diet Therapy, 10th Ed.W.B.Saunders Company, London.2. Williams S.R. (1993): Nutrition and Diet Therapy, 7th Ed. Times Mirror / Mosby College Publishing, St. Louis.3. Antia F.P, Clinical Dietetics and Nutrition, Oxford University Press.4. Shills, M.E, Oslon, J.A, Shike, M and Ross, A.C. (1999): Modern Nutrition in Health and Disease, 9th Edition.
Online Resources-
<ul style="list-style-type: none">➤ E-resources/e-books and e-learning portals➤ http://www.swayam.ac.in➤ http://www.ignou.ac.in➤ www.egyankosh.ac.in➤ www.litm.ac.in➤ www.eskillindia.org➤ www.eshiksha.mp.gov.in➤ www.vlab.co.in
Online Resources-
e-sources/e-books and e-learning portals
<ul style="list-style-type: none">➤ https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5871155/➤ https://cms.botany.org/home/careers-jobs/careers-in-botany/arcas-of-specialization-in-botany.html
PART -D: Assessment and Evaluation



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Suggested Continuous Evaluation Methods: Maximum Marks: 50 Marks Continuous Internal Assessment (CIA): 15 Marks End Semester Exam (ESE): 35 Marks		
Continuous Internal Assessment (CIA): 15 (By Course Teacher)	Internal Test/Quiz:10+10 Assignment/ Semenar-05 Total Marks-15	Better marks out of the two Tot Quiz + obtained marks in Assignment shall be considered against 15 Marks
End Semester Exam (ESE):3 5	Laboratory/Field Skill Performance: On spot Assessment Section A : Performed the Task based on lab, work 20*1=20 Marks B: Performed the Task based on lab, work (written) 10*1=10Marks Section B : Viva-voce (based on principle/technology) - 5*1=05 Marks	
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-A: Introduction		
Programme: Bachelor in Life Sciences (Certificate/Diploma/Degree Honors)		Semester-IV
		Session: 2024-2025
Course Code	DUND402T	
Course Title	FOOD STANDARD AND QUALITY CONTROL	
Course Type	Discipline Specific course (DSC)	
Pre-requisite (if any)	As per program	
Course Learning, Outcomes (CLO)	At the end of this course, the students will be able to <ul style="list-style-type: none"> ➤ Understand Food Safety Regulations ➤ Implement Quality Management Systems (HACCP) ➤ Apply Food Quality Control Techniques ➤ Execute Hygiene and Sanitation Practices ➤ Conduct Sensory Evaluation and Shelf-Life Testing 	
Credit Value	3 Credits	1 Credit =15 Hours-learning & Observation
Total Marks	Max. Marks: =100	Min Passing Marks: 40
PART -B: Content of the Course		
Total No. of Teaching-learning Periods (01 Hr. per period) -45 Periods (45 Hours)		
Unit	Topics (Course contents)	
I	FOOD QUALITY AND QUALITY CONTROL: Meaning, objectives, important considerations, principles of – quality control of food, raw material and inspection of finished products. Total Quality Management (TQM) - Parameters, evolution, elements TQM, need for TQM and of implementation of TQM in the food industries	
II	INDEX OF NUTRITIONAL QUALITY (INQ): Need for INQ, INQ as an evaluating tool in the food industry, nutrition labeling of foods. Methods of assessing food quality - Cereals and Pulses, fruits and vegetables, milk, meat and its products, egg, Oils, fats, nuts and oilseeds. STANDARD OF FOODS: Cereals and Pulses, fruits and fruits products, vegetable and vegetable products, coffee, tea, sugar and sugar products, milk and milk products, eggs and selected fleshy foods.	
III	MICROBIOLOGICAL QUALITY CONTROL OF FOODS: Fundamentals and Principles, factors influencing microbial association with foods, control of microflora at different stages of processing. Hazards Analysis and Critical Control Points (HACCP) - Meaning, Quality evaluation, steps involved in HACCP, Implementation and problems in HACCP	
IV	NUTRITIONAL CHANGES IN FOODS DURING PROCESSING: Nutritional losses, nutritional gains, changes in the physical, chemical properties and organoleptic qualities of foods due to processing	
Keywords		



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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-C: Learning Resources
Text Books, Reference Books and Others 1. Ranganna, S, Manual of analysis of fruits and vegetable products, Mc. Graw Hill International Publishers, New Delhi, 1986. 2. Gaurth Hansen, Bontia. W. Wyse and Ann. W, Sorrenson, Nutritional Quality Control, AVI Publishing and co, Connecticut,1979.
Text Books Recommended-
1. Manoranjan Kalia, Food Analysis and Quality, Kalyani Publishers, New Delhi, 2002. 2. Amihud Kramer and Bernard A – Twigg, Quality control for the Food Industry, AVI publishing and Co, Connecticut, 1973. 3. Eugene,L, Grant and Richard L, Leavenworth, Stastical quality control, Mc.Graw Hill International Publishers, 1979. 4. Herschdoerfer, S.M, Quality Control in the Food Industry,vol,1, Academic press,1984.
Online Resources- ➤ e-books and e-learning portals ➤ http://www.swayam.ac.in ➤ http://www.ignou.ac.in ➤ http://www.egvankosh.ac.in ➤ http://www.itm.sc.in ➤ http://www.eskillindia.org ➤ http://www.eshiksha.mp.gov.in ➤ http://www.viah.co.in ➤ http://www.internshala.com
Online Resources- e-sources/e-books and e-learning portals ➤ https://www.pbs.org/video/botany-basics-iuu2bl/ ➤ https://efaidohmannibpcapcalclefindorkaj/https://www2.ca.uky.edu/apcom/pubs/ho/ho96/ho96.pdf ➤ https://www.botanytoday.com/branches-of-botany
PART -D: Assessment and Evaluation
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment (CIA): 30 Marks End Semester Exam (ESE): 70 Marks



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Continuous Internal Assessment (CIA): 30 (By Course Teacher)	Internal Test/Quiz:20+20 Assignment/ Semenar-10 Total Marks-30	Better marks out of the two Tot Quiz + obtained marks in Assignment shall be considered against 15 Marks
End Semester Exam (ESE):70	Two section A&B Section A: Q1 Objective 10*1=10 Marks, Q2 Short answer type-5*4=20 Section B: Descriptive answer type qts 1 out of 2frm each- 4*10=40 Marks	
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-A: Introduction		
Programme: Bachelor in Sciences (Certificate/Diploma/Degree Honors)	Semester-IV	Session: 2024-2025
Course Code	DUND403T	
Course Title	PERSONNEL MANAGEMENT	
Course Type	Discipline Specific course (DSC)	
Pre-requisite (if any)	As per program	
Course Learning Outcomes (CLO)	<p>After successfully completing this course, the students will be able to –</p> <ul style="list-style-type: none"> ➤ Understand basic principles of personnel management. ➤ Apply effective communication and interpersonal skills while working with healthcare teams and food service staff. ➤ Demonstrate knowledge of staff recruitment, training, supervision, and performance evaluation in dietetic settings. ➤ Develop leadership and team-management skills for efficient functioning of nutrition departments and food service units. ➤ Identify workplace ethics, labour laws, and professional responsibilities relevant to nutrition and dietetics practice. 	
Credit Value	3 Credits	1 Credit =15 Hours-learning & Observation
Total Marks	Max. Marks: =100	Min Passing Marks: 40
PART -B: Content of the Course		
Total No. of Teaching-learning Periods (01 Hr. per period) -45 Periods (45 Hours)		
Unit	Topics (Course contents)	
I	<p>PERSONNEL MANAGEMENT: Definition, development and policies, recruitment, selection and induction. Employee benefits, training and development. Human relations. Approaches to Management – Traditional Management, systems approach, Management by Objectives. ADMINISTRATIVE LEADERSHIP: Definition of leader, leadership. Leadership styles. Role of a leader, qualities of a leader.</p>	12
II	<p>RECRUITMENT AND TRAINING: Selection & training of Personnel. Work standards, productivity, supervision, performance appraisal. Motivation for effective performance. Labour policies and legislature. Law effecting food service operations, union and contract negotiations</p>	11



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III	ORGANIZATION & MANAGEMENT: Organisation - Definition & types of organization. Management - Definition, functions and tools of management; Technique of effective management. Energy and Time Management & its application in food preparation and service	11
IV	FOOD MATERIAL MANAGEMENT: Meaning, definition, importance. Food selection, Purchasing, receiving and store - room management. Control in relation to the above operations (material planning, budgeting, material identification, codification and standardization, inventory control). Storekeeping, definition, objectives functions, factors underlying successful storekeeping, duties and responsibilities of a storekeeper. Purchasing – organization, principles, procedures, systems and quality control.	11
Keywords		
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-C: Learning Resources		
Text Books, Reference Books and Others		
Text Books Recommended:-		
1. Boella, M.J. (1983): Personnel Management in the Hotel & Catering Industry, 3rd Edition, Hutchinson, London.		
2. Drucker, P.F.(1975); Management, Allied published, New Delhi		
Reference Books Recommended-		
1. Fearn, D. (1969): Management System for the Hotel Catering & Allied Industries.		
2. Koontz, H.,O Donnel, C, Weihrish, H.(1983), Essentials of Management, Indian Edition.		
Online Resources-		
<ul style="list-style-type: none"> ➤ e-books and e-learning portals ➤ https://www.coursera.org/lecture/emergence-of-life/4-5-invertebrates-successes-of-life-http://www.ignou.ac.in ➤ https://www.shiksha.com/online-courses/introduction-to-biology-biodiversity-course-http://www.itm.sc.in ➤ https://www.youtube.com/watch?v=uK-XYhttp://www.eshiksha.mp.gov.in ➤ https://www.youtube.com/watch?v=WxMSckEcio4http://www.internshala.com 		
Online Resources-		
e-sources/e-books and e-learning portals		
<ul style="list-style-type: none"> ➤ https://www.pbs.org/video/botany-basics-iuu2bl/ ➤ https://efaidohmannibpcapcalcfindorkaj/https://www2.ca.uky.edu/apcom/pubs/ho/ho96/ho96.pdf ➤ https://www.botanytoday.com/branches-of-botany 		
PART -D: Assessment and Evaluation		
Suggested Continuous Evaluation Methods:		
Maximum Marks: 100 Marks		
Continuous Internal Assessment (CIA): 30 Marks		
End Semester Exam (ESE): 70 Marks		
Continuous Internal Assessment (CIA): 30 (By Course Teacher)	Internal Test/Quiz:20+20 Assignment/ Sememar-10 Total Marks-30	Better marks out of the two Tot Quiz + obtained marks in Assignment shall be considered against 15 Marks



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End Semester Exam (ESE):70	Two section A&B Section A :Q1 Objective 10*1=10 Marks Q2 Short answer type-5*4=20 Section B : Descriptive answer type qts 1 out of 2frm each- 4*10=40 Marks	
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-A: Introduction		
Programme: Bachelor in Life Sciences (Certificate/Diploma/Degree Honors)	Semester-IV	Session: 2024-2025
Course Code	FBSE-02T	
Course Title	FUNDAMENTAL OF BAKERY	
Course Type	DISCIPLINE SPECIFIC ELECTIVE COURSE (DSE)	
Pre-requisite (if any)	As per program	
Course Learning Outcomes (CLO)	After successfully completing this course, the students will be able to – <ul style="list-style-type: none"> ➤ Know about the bakery. ➤ Gain knowledge of baked product. ➤ Learn about the raw material. ➤ Clear the basic concept of bread. ➤ Understanding the bakery layout. 	
Credit Value	4Credits	Credit =60 Hours-learning & Observation
Total Marks	Max. Marks: =100	Min Passing Marks: 40
PART -B: Content of the Course		
Total No. of Teaching-learning Periods (01 Hr. per period) -45 Periods (45 Hours)		
Unit	Topics (Course contents)	
I	Introduction to baking science: Basic materials used in bakery and confectionery Selection, properties and functions. •Scope of Bakery & Confectionery, •Bakery terms. •Organization chart of Bakery. Bread faults and their remedies. Bakery layout: The required approvals for setting up of a Bakery – Government procedure and Bye-laws. •Selection of site • Selection of equipment. • Layout design • Electricity.	12
II	Wheat and Flour: • Different types of flours available, •Constituents of flours, •pH Value of flour, •Water absorption power of flour, •Gluten, diastatic capacity of flour, •Grade of flour. •Temperature/ Weight conversions 1 unit; °F/ °C /gms / lb serving size.	11



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III	<p>Raw material required for bread making: Role of flour, water, yeast, salt - Sugar, milk and fat.</p> <p>Yeast: • An elementary knowledge of Baker's yeast, the part it plays in the fermentation of dough and conditions influencing it's working.</p> <ul style="list-style-type: none">• Effect of over and under fermentation and under proofing of dough and other fermented goods.	11
IV	<p>Bread improvers-improving physical quality.</p> <p>Oven & Baking:• Knowledge and working of various types of oven</p> <ul style="list-style-type: none">• Baking temperatures for bread, confectionery goods. <p>Methods of bread making: • Straight dough method</p> <ul style="list-style-type: none">• Delayed salt method• No time dough method• Sponge and dough method. <p>Characteristics of good bread</p> <ul style="list-style-type: none">• External characteristics• Volume, symmetry of shape• Internal characteristics - colour, texture, aroma, clarity and elasticity.	11
Keywords		
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DEPARTMENT OF NUTRITION AND DIETETICS

COURSE CURRICULUM

PART-C: Learning Resources
Text Books, Reference Books and Others
Text Books Recommended:- <ul style="list-style-type: none">➤ Industrial Microbiology:Patel A.H.(1996).I edition,MacMillan India Limited publishing company Ltd New Delhi,India➤ A Text Book of Microbiology:R.C.Dubey &D.K.Maheshwari➤ Industrial Microbiology by Prescott &Dunns,AVI Publishing Company Inc Biotechnology;V.Kumaresan,Saras Publications
Reference Books Recommended- <ul style="list-style-type: none">➤ Modern Industrial Microbiology and Biotechnology:Okafor N.(2007).1st edition.Bios Scientific Publishers Limited.USA.➤ Industrial Microbiology:Casida LE,New age International (P)Ltd➤ Khetarpaul N, Grewal Rajbala and Jood S (2005): Bakery Science and Cereal Technology, Daya Publishing House.➤ Hui YH (2005): Bakery Products: Science and Technology, 1st Ed. Wiley India.
Online Resources- <ul style="list-style-type: none">➤ e-books and e-learning portals➤ https://www.coursera.org/lecture/emergence-of-life/4-5-invertebrates-successes-of-life-http://www.ignou.ac.in➤ https://www.shiksha.com/online-courses/introduction-to-biology-biodiversity-course-http://www.itm.sc.in➤ https://www.youtube.com/watch?v=uK-XYhttp://www.eshiksha.mp.gov.in➤ https://www.youtube.com/watch?v=WxMSckEcio4http://www.internshala.com
Online Resources- e-sources/e-books and e-learning portals <ul style="list-style-type: none">➤ https://www.pbs.org/video/botany-basics-iuu2bl/➤ https://efaidohmannibpcapcalcleftindorkaj/https://www2.ca.uky.edu/apcom/pubs/ho/ho96/ho96.pdf➤ https://www.botanytoday.com/branches-of-botany
PART -D: Assessment and Evaluation
Suggested Continuous Evaluation Methods: Maximum Marks: 100 Marks Continuous Internal Assessment (CIA): 30 Marks End Semester Exam (ESE): 70 Marks



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Continuous Internal Assessment (CIA): 30 (By Course Teacher)	Internal Test/Quiz:20+20 Assignment/ Semenar-10 Total Marks-30	Better marks out of the two Tot Quiz + obtained marks in Assignment shall be considered against 15 Marks
End Semester Exam (ESE):70	Two section A&B Section A :Q1 Objective 10*1=10 Marks Q2 Short answer type-5*4=20 Section B : Descriptive answer type qts 1 out of 2frm each- 4*10=40 Marks	
<i>Signature of Convener & Members (CBoS)</i>		



FOUR YEAR UNDERGRADUATE PROGRAMME (2024-28)

DEPARTMENT OF ENGLISH

COURSE CURRICULUM

PART-A:Introduction		
PROGRAMME: Bachelor in Computer Application (Certificate/Diploma/Degree/Honors)	Semester-IV	Session: 2024-2028
Course Code	AEC- 04	
Course Title	Communicative English and Soft Skills	
Course Type	Ability Enhancement Course (AEC)	
Prerequisite	As per PROGRAMME	
Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able</p> <ul style="list-style-type: none"> • Learn deviant use of English both in written and spoken forms. • Understand the importance of communication n English. • Apply the ability to improve competence in using English language. • Analyze the importance of reading skills, • Develop language for speaking with confidence 	
Credit Value	2 Credits	1 Credit-15 Hours - Learning & Observation
Total Marks	Max. Marks: 50	Min marks -20
PART -B: Content of the Course		
Total No. of Teaching-Learning Periods (45 min. per period)-30 Periods		
Unit	Topics(Course Content)	No. of Period
I	<p>What is communication?</p> <ul style="list-style-type: none"> • Purpose of Communication. • Types of Communication (Verbal and Non- Verbal), • The motivating factors (Intrinsic and Extrinsic) • Barriers of Communication (Internal and External). 	07
II	<p>Building Vocabulary</p> <ol style="list-style-type: none"> Use of Dictionary, Building vocabulary through synonyms and antonyms, Use of Phrasal Verbs, Idioms and Phrases Unseen passage 	07



III	<p>Conversation in English (Performance Based)</p> <p>A) Reading: Very short stories (Gif of Magi, Cinderella, The Selfish Giant, Stories from Panchatantra), Newspaper reports / Fact-based articles, Diction and tone, Identifying topic sentences, Reading aloud: Reading an article/report.</p> <p>B) Spoken English for the Real world and Situational Dialogues (any four)</p> <ul style="list-style-type: none"> • Call Center: Talking to service Providers, Professional Enquiries, Talking with peers/ seniors. • Bank: for opening an account (seeking information on loans/FDs/other schemes. • Office: (seeking information regarding job vacancy) • Market (asking for price of an object, discount etc), • Restaurant: (asking for the special dish, offerings in the menu and ordering for food) • At the Railway Station / Bus Station enquiry: (Arrival and departure of buses/ trains) • Hotel: Booking a room, asking tariff rate • Travel agency:-(Asking to book tickets fares, finding vacancies in hotels) <p>C) Greetings and Common Etiquettes: Introducing oneself Invitation; Making Requests; Expressing Gratitude; Complimenting and Congratulating; Expressing Sympathy; Apologizing; Complaining and Expressing Regret</p>	08
IV	<p>Applied Riding Practice and Ethics</p> <ol style="list-style-type: none"> i. Introduction to trail riding or arena riding ii. Group riding etiquette and communication iii. Intro to jumping and dressage (optional for advanced learners) iv. Ethical treatment and welfare of horses v. Assessment through practical demonstrations and logbook maintenance <p>Presentation skills (Performance Based): Effective oral presentation, Characteristics of good oral presentation. Use of quotations and anecdotes. Ways of Oral Presentation (Seminar, Viva -voce, Interview, Power Point etc.) Gestures/ Mannerism during oral presentation. Media methods used for effective oral presentation, Body Language, Attire.</p>	08
Keywords	Communication, Vocabulary, Conversation, Reading, Presentation.	
Name and Signature of Convener & Members of CBS		
PART-C: Learning Resources		
Text Books, Reference Books and Others		
Text Books Recommended:		



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- Fluency in English - Part II, Oxford University Press, 2006.
- Enrich Your English, OUP, SR Inthira and V. Saraswathi, CIEFL,1997
- Oxford A-Z of English Usage, ed. Jeremy Butterfield, OUP, 2007.
- Longman Dictionary of Common Errors, N.D. Turton and J.B. Heaton, Longman, 1998
- Contemporary Communicative English, S Chand
- Malhotra Prerna, Deb Dulal Halder,(2019) Communication Skills: Theory and Practice, Eighth Edition,
- BookAge Publications, New Delhi.

Online Resources:

- Applying Communication Theory for Professional Life: A Practical Introduction. Dainton andZelley,
<http://tsime.uz.ac.zw/claroline/backends/download.php/url-L0ludHJvX3RvX2NvbWl1bmlhYXRpb2Sf>
- https://web.sol.du.ac.in/my_modules/type/cbcs-4l=2ldata/root/B.Com/Semester%20ABILITY-ENHANCEMENT%20COMPU_SORY%20COURSE-AECC/English%20Communication%20A-B-C/Unit%201-5.pdf
- <https://larchive.ore/details/personality-development-book/mode/1up>
- <https://www.coursera.org/articles/presentation-skills>
- <https://eniaminball.com/blogleood-body-lanzuage-best-visual-aid-falks/>
- <https://www.cbs.de/en/blog/15-effective-presentation-tips-to-improve-presentation-skills/>
- <https://blow.moderngeoy.com/importance-of-body-language-in-presentations-good-bad-examples>

PART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 marks
 Continuous Internal Assessment (CIA): 15 Marks.
 End Semester Exam (ESE): 35 marks

Continuous Internal Assessment (CIA): (By Course Teacher)	Internal test/Quiz:-10 & 10 Assignment /seminar-05 Total marks:-15	Better marks out of the two test/Quiz+ obtained marks in assignment shall be considered against 15 marks.
End Semester Exam (ESE):	Two section- A&B Section A: Q1. Objective-05 marks: Q2. Short answer type-5x2=10 marks Section B: Descriptive answer type question, 1 out of 2 from each unit- 4x5=20 marks Total = 35 marks	

Name and Signature of Convener & Members of CBoS.



EQUINE STUDIES & HORSEMANSHIP

COURSE CURRICULUM

PART-A: Introduction		
Programme: Common to All the UGs	Semester-IV	Session: 2024-2025
Course Code	SEC-04T	
Course Title	GREEN TECHNOLOGY	
Course Type	Skill Enhancement Course (SEC)	
Pre-requisite (if any)	As per Programme	
Course Learning Outcomes (CLO)	<p>At the end of this course, the students will be able:</p> <ul style="list-style-type: none"> ➤ Understand the fundamentals of Green Technology. ➤ Identify various green technologies. ➤ Analyze the impact of conventional technologies on the environment and evaluate eco-friendly alternatives. ➤ Apply principles of sustainable resource management 	
Credit Value	02 Credits	1 Credit =15 Hours-learning & Observation
Total Marks	Max. Marks:50	Min Passing Marks: 20
PART -B: Content of the Course		
Total No. of Teaching-learning Periods (45 min. per period) -30 Periods		
Unit	Topics (Course Contents)	
I	Foundations of Green Technology & Sustainability: Concepts of Green Chemistry, Green Engineering, and Process Intensification. Understanding Sustainable Development: Ecological, Economic, and Social dimensions. Systems perspective and intergenerational justice in sustainability.	07
II	Green Synthesis, Catalysis & Nanotechnology: Green oxidation, photochemical reactions, Microwave and Ultrasound-assisted reactions.	



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	Synthesis of Green Reagents and Solvents. Introduction to Green nanotechnology and the role of Ionic liquids.	07
III	Cleaner Production & Industrial Processes: Pollution statistics (Polymer, Textile, Pharma, Dyes). Cleaner Production (CP) methodology and benefits. Environmental Management Hierarchy (EMH) and the relationship between CP and EMS.	08
IV	Practical Implementation & Case Studies: Waste recovery (Nitrogen/Fluoride), reuse of industrial wastewater, and gas quenching processes. Green Productivity and emerging technologies. Compliance with Green Laws and practical case studies in industrial implementation.	08



PART-C: Learning Resources

- i. <https://www.coursera.org/learn/equine>
- ii. <https://www.coursera.org/learn/equine-welfare>
- iii. <https://www.edx.org/learn/animal-behavior>
- iv. <https://www.youtube.com/user/EquestrianCoach>
- v. <https://www.riding-instructor.com/>
- vi. <https://horseandrider.com/>
- vii. <https://equestrian.ca/>
- viii. <https://www.bhs.org.uk/>
- ix. <https://www.udemy.com/courses/search/?q=horse%20riding>
- x. <https://equineinstitute.org/>

PAPART -D: Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks: 50 Marks

- **Practical (riding techniques, horse care demonstration, logbook):15 marks**



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- End Sem. Exam. (Theory): 35

Signature of Convener & Members (CBoS)