

**SRI VENKATESWARA UNIVERSITY : TIRUPATI**

**B. VOC. in DAIRYING AND ANIMAL HUSBANDRY**

Under CBCS W.E.F. 2020-21

**COURSE STRUCTURE**

**SEMESTER – II**

Sl. No	Skill/ Gen. Edu	Courses	Title of the Paper/Course and code	Credits per course	Hours/ week	Total Hours/ Course	Marks		
							Internal	External	Total
1	General Education component Gen.Edu	Language	General English	3	4	60	25	75	100
2		Life skills	Information and Communication Technology	2	2	30	-	50	50
3		Skill Dev. Course	Fundamentals of General Chemistry	2	2	30	-	50	50
4			Poultry Farming		2	2	30		50
5	Domain Skill component	<b>Core-I</b>	Bio Chemistry and Physical Chemistry of Milk	4	4	60	25	75	100
6		Practical-I	Bio Chemistry and Physical Chemistry of Milk	2	2	30	-	50	50
7		<b>Core-II</b>	Milk Production, Management, Dairy Plant Design and Dairy Development	4	4	60	25	75	100
8		Practical-II	Milk Production Management, Dairy Plant Design and Dairy Development	2	2	30	-	50	50
9		<b>Core-III</b>	Dairy Extension Entrepreneurship and Consultancy	4	4	60	25	75	100
		Practical III	Dairy Extension Entrepreneurship and Consultancy	2	2	30	-	50	50
10		Industrial Internship	Industrial Training for 30 days	3	36	144	-	50	50
<b>Total Credits</b>				<b>30</b>	<b>Total Marks</b>				<b>750</b>

*AB*  
23/2/21

*Chandru*  
19/3/2021

**SRI VENKATESWARA UNIVERSITY**

**B.A. / B.Com. / B.Sc. / B.Voc. DEGREE COURSE IN ENGLISH**

**FIRST YEAR - SECOND SEMESTER**

**(Revised Syllabus under CBCS w.e.f. 2020-21)**

**ENGLISH PRAXIS COURSE - II**

**A COURSE IN READING & WRITING SKILLS**

**I. UNIT**

- Prose** : 1. How to Avoid Foolish Opinions Bertrand Russell  
**Skills** : 2. Vocabulary: Conversion of Words  
: 3. One Word Substitutes  
: 4. Collocations

**II. UNIT**

- Prose** : 1. The Doll's House Katherine Mansfield  
**Poetry** : 2. Ode to the West Wind P B Shelley  
**Non-Detailed Text** : 3. Florence Nightingale Abrar Mohsin  
**Skills** : 4. Skimming and Scanning

**III. UNIT**

- Prose** : 1. The Night Train at Deoli Ruskin Bond  
**Poetry** : 2. Upagupta Rabindranath Tagore  
**Skills** : 3. Reading Comprehension  
: 4. Note Making/Taking

**IV. UNIT**

- Poetry** : 1. Coromandel Fishers Sarojini Naidu  
**Skills** : 2. Expansion of Ideas  
: 3. Notices, Agendas and Minutes

**V. UNIT**

- Non-Detailed Text** : 1. An Astrologer's Day R K Narayan  
**Skills** : 2. Curriculum Vitae and Resume  
: 3. Letters  
: 4. E-Correspondence

Approved by BOS (PASS)

w.e.f. 2020-2021

*Manabala*  
3/9/2020

Chairperson

BOS in ENGLISH  
(PASS)

**SRI VENKATESWARA UNIVERSITY**  
**B.A. / B.Com. / B.Sc. / B.Voc. DEGREE EXAMINATION IN ENGLISH**  
**FIRST YEAR - SECOND SEMESTER**  
**(Revised Syllabus under CBCS w.e.f. 2020-21)**

**ENGLISH PRAXIS COURSE-II**  
**A COURSE IN READING & WRITING SKILLS**

**Time: 3 hours**

**Max Marks: 75**

- I) Answer any THREE of the following questions (3X5=15)**
- a. Summarize Russell's, "How to Avoid Foolish Opinion"
  - b. Write Noun forms for the following words by adding a Suffix:  
i) Manage    ii) free    iii) pollute    iv) create    v) Maintain
  - c. Write one word substitutes for the following
    - i) A Government by one
    - ii) One who looks at the bright side of things
    - iii) A position for which no salary is paid
    - iv) One who eats too much
    - v) That which cannot be avoided.
  - d. Match the following into appropriate collocations:

A	B
i) Strong	i) Privacy
ii) Happy	ii) mistake
iii) some	iii) ending
iv) works	iv) coffee
v) Terrible	v) perfectly
  - e. Avoiding stupidity is easier than seeking brilliance. Explain
- II) Answer any THREE of the following questions; (3X5=15)**
- a. Compare Torvald's and Nora's attitudes toward money
  - b. How does Shelley describe the power of West Wind
  - c. Describe Florence Nightingale
  - d. Define Skimming
  - e. Define Scanning
- III) Answer any THREE of the following questions (3X5=15)**
- a. What's the theme of "The Night" Train at Deoli?
  - b. Critically appreciate the poem "Upagupta"
  - c. Why does the narrator say it is a game in the Night Train at Deoli
  - d. Read the following passage and answer the questions that follow.  
Slavery can broadly be described as the ownership, buying and selling of human beings for the purpose of forced labour. The institution of slavery is as old as civilization. Many nations and empires were built by the muscles of the slaves.

Overtime people have found many reasons to justify slavery. Slaves were usually considered somehow different than their owners. They may belong to different race, religion, nationality or ethnic background. By focussing on such differences, slave owners felt that they could deny basic human rights to their slaves.

- i) What is the purpose of the institution of slavery?
  - ii) What is a slavery?
  - iii) How were the empires built?
  - iv) How were the slaves different from their masters?
  - v) Give the meaning of 'deny'
- e. Make notes on the following passage.  
Early rising is the secret for a happy life. We all wish to live long but we cannot. We go against Nature. Nature likes us to work during day and to rest at night. But we do not obey this law of Nature. We do not go to bed early. We read or write late into night. Some of us keep playing, dancing and drinking whole night. So, we do not rise early. Our health breaks down and we fall ill. Nature takes revenge. We have to suffer for our disobedience. But birds and animals are healthy. They do not need a doctor every day. They sleep early and rise early. This simple habit will give everything. So, it is said: "Early to bed and early to rise makes a man healthy, wealthy and wise"

**IV) Answer any **THREE** of the following questions. (3X5=15)**

- a. Write a critical appreciation of the poem the Coromandel Fishers
- b. Make hay while the sun shines. Expand
- c. How does Sarojini Naidu a day in the lives of the fishermen?
- d. Imagine that you are the manager of a company. You want to inform your employees of an important meeting. Write a suitable notice.
- e. Explain minutes.

**V) Answer any **THREE** of the following questions (3X5=15)**

- a. Justify the title "An Astrologer's Day"
- b. Prepare a CV for the post of a Sales Executive
- c. Write a letter to your friend about Corona crisis at your native place
- d. Write a resume for your dream job
- e. Assume that you received the letter of appointment for the post of General Manager from Splendour Pvt Ltd. Send an email to the company thanking them for the offer.

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(05.12.2020)  
(Dr M.SREELATHA),  
Chairman,  
BOS English(PASS).

**SRI VENKATESWARA UNIVERSITY :: TIRUPATI**  
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**FIRST YEAR – SECOND SEMESTER**  
**Under CBCS W.E.F. 2020-21**

**GENERAL EDUCATION COMPONENT**  
**Life Skill Course: INFORMATION & COMMUNICATION TECHNOLOGY**

Total 30 hrs (02h/wk),

02 Credits & Max Marks: 50

**Objectives:**

This course aims at acquainting the students with basic ICT tools which help them in their day to day and life as well as in office and research.

**Course outcomes:** After completion of the course, student will be able to;

1. Understand the literature of social networks and their properties.
2. Explain which network is suitable for whom.
3. Develop skills to use various social networking sites like twitter, flickr, etc.
4. Learn few GOI digital initiatives in higher education.
5. Apply skills to use online forums, docs, spreadsheets, etc for communication, collaboration and research.
6. Get acquainted with internet threats and security mechanisms.

**SYLLABUS:**

**UNIT-I:** (08 hrs)

Fundamentals of Internet: What is Internet?, Internet applications, Internet Addressing – Entering a Web Site Address, URL–Components of URL, Searching the Internet, Browser –Types of Browsers, Introduction to Social Networking: Twitter, Tumblr, LinkedIn, Facebook, flickr, Skype, yahoo, YouTube, WhatsApp .

**UNIT-II:**(08 hrs)

E-mail: Definition of E-mail -Advantages and Disadvantages –User Ids, Passwords, Email Addresses, Domain Names, Mailers, Message Components, MessageComposition, Mail Management.

G-Suite: Google drive, Google documents, Google spread sheets, Google Slides and Google forms.

**UNIT-III:**(10 hrs)

Overview of Internet security, E-mail threats and secure E-mail, Viruses and antivirus software, Firewalls, Cryptography, Digital signatures, Copyright issues.

What are GOI digital initiatives in higher education? (SWAYAM, SwayamPrabha, National Academic Depository, National Digital Library of India, E-Sodh-Sindhu, Virtual labs, e-acharya, e-Yantra and NPTEL).

**RECOMMENDED CO-CURRICULAR ACTIVITIES: (04 hrs)**

(Co-curricular activities shall not promote copying from textbook or from others work and shall encourage self/independent and group learning)

1. Assignments (in writing and doing forms on the aspects of syllabus content and outside the syllabus content. Shall be individual and challenging)
2. Student seminars (on topics of the syllabus and related aspects (individual activity))
3. Quiz and Group Discussion
4. Slip Test
5. Try to solve MCQ's available Online.
6. Suggested student hands on activities :
  - a. Create your accounts for the above social networking sites and explore them, establish a video conference using Skype.
  - b. Create an Email account for yourself- Send an email with two attachments to another friend. Group the email addresses use address folder.
  - c. Register for one online course through any of the online learning platforms like NPTEL, SWAYAM, Alison, Codecademy, Coursera. Create a registration form for your college campus placement through Google forms.

**Reference Books:**

1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e – by Raymond Greenlaw and Ellen Hepp, Publishers : TMH
2. Internet technology and Web design, ISRD group, TMH.
3. Information Technology – The breaking wave, Dennis P.Curtin, Kim Foley, Kunai Sen and Cathleen Morin, TMH.

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**GENERAL EDUCATION COMPONENT**  
**Life Skill Course: INFORMATION & COMMUNICATION TECHNOLOGY**

**MODELQUESTIONPAPER**

Time: 1 ½ hours (90 Min.)

Marks: 50 marks

PART – A

Answer any **Four** of the following question.

**(4X5=20M)**

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

PART – B

Answer any **Three** The Questions. Each question carries 10 marks **(3X10=30M)**

9.	
10.	
11.	
12.	
13.	
14.	

① **Fundamentals of General Chemistry** **30 hrs (2h/w)**

**Course outcomes:**

At the end of the course, the student will be able to;

1. Understand the properties and stability of colloids.
  2. Correlate and describe the stereochemical properties of organic compounds.
  3. Understand and apply principles of Volumetric analysis.
- .....

**GENERAL CHEMISTRY** **30 h**

**UNIT-I**

**Surface chemistry** **8h**

Definition of colloids, Classification of colloids, Preparation, Purification, Kinetic properties, Optical properties, and Electrical properties of Sols. Stability of colloids, Hardy-Schulze law, Gold number

Liquids in liquids (emulsions): Preparation, properties and uses, Liquids in solids (gels): types, preparation and properties.

**UNIT-II**

**Stereochemistry of carbon compounds** **14h**

Molecular representations: Wedge, Fischer, Newman and Saw-Horse formulae.

Optical isomerism: Optical activity- wave nature of light, plane polarised light, optical rotation and specific rotation.

Chiral molecules: Definition and criteria (Symmetry elements), Definition of enantiomers and Diastereomers, Explanation of optical isomerism with examples- Glyceraldehyde, Lactic acid, Alanine, Tartaric acid, 2,3-dibromopentane.

D, L, R, S-configuration with examples.

**UNIT-III**

**Principles of Volumetric analysis:** **8h**

Requirements for Volumetric analysis, Acid-base titrations and the choice of indicators, Theory and principle of Redox titrations, Complexometric titration and metal ion indicators, Iodometric and precipitation titrations - choice of indicators for these titrations.

*ABM*  
23/2/21



**Co-curricular activities and Assessment Methods** Continuous Evaluation: Monitoring the progress of student's learning Class Tests, Worksheets and Quizzes Presentations, Projects and Assignments and Group Discussions: Enhances critical thinking skills and personality Semester-end Examination: critical indicator of student's learning and teaching methods adopted by teachers throughout the semester.

### **List of Reference Books**

#### **Theory:**

Morrison, R. N. & Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

Finar, I. L. Organic Chemistry (Volume 2: Stereochemistry and the Chemistry of Natural Products), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).

Eliel, E. L. & Wilen, S. H. Stereochemistry of Organic Compounds; Wiley: London, 1994. Kalsi, P. S. Stereochemistry Conformation and Mechanism; New Age International, 2005.

#### **Practical:**

Ahluwalia, V.K. & Aggarwal, R. Comprehensive Practical Organic Chemistry: Preparation and Quantitative Analysis, University Press (2000).

Ahluwalia, V.K. & Dhingra, S. Comprehensive Practical Organic Chemistry: Qualitative Analysis, University Press (2000).

Furniss, B.S.; Hannaford, A.J.; Smith, P.W.G.; Tatchell, A.R. Practical Organic Chemistry, 5th Ed., Pearson (2012).

#### **Additional Resources:**

Solomons, T. W. G.; Fryhle, C. B. & Snyder, S. A. Organic Chemistry, 12th Edition, Wiley.

Bruice, P. Y. Organic Chemistry, Eighth Edition, Pearson.

Clayden, J.; Greeves, N. & Warren, S. Organic Chemistry, Oxford.

Nasipuri, D. Stereochemistry of Organic Compounds: Principles and Applications, Third Edition, New Age International.

Gunstone, F. D. Guidebook to Stereochemistry, Prentice Hall Press, 1975.

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**GENERAL EDUCATION COMPONENT**

**Skill Development Course I – FUNDAMENTALS OF GENERAL CHEMISTRY**

**MODEL QUESTION PAPER**

**Time: 1 ½ hours (90 Min.)**

**Marks: 50**

**PART – A**

Answer any **Four** of the following question. Each Question carries 5 Marks (4X5=20M)

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	

**PART – B**

Answer any Three of the following Questions. Each Question carries 10 Marks (3X10= 30M)

9.	
10.	
11.	
12.	
13.	
14.	

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**GENERAL EDUCATION COMPONENT**

**Skill Development Course II - POULTRY FARMING**

Total 30 hrs (02h/wk), 02 Credits & Max 50 Marks

**Learning Outcomes:**

By successful completion of the course, students will be able to;

1. Understand the field level structure and functioning of insurance sector and its role in protecting the risks
2. Comprehend pertaining skills and their application for promoting insurance coverage
3. Prepare better for the Insurance Agent examination conducted by IRDA
4. Plan 'promoting insurance coverage practice' as one of the career options.

**SYLLABUS:**

**Section I (Introduction to Poultry Farming): 10Hrs**

General introduction to poultry farming -Definition of Poultry; Past and present scenario of poultry industry in India.

Principles of poultry housing. Poultry houses. Systems of poultry farming.

Management of chicks, growers and layers. Management of Broilers.

Preparation of project report for banking and insurance

**Section II (Feed and Livestock Health Management): 10 Hrs**

Poultry feed management – Principles of feeding, Nutrient requirements for different stages of layers and broilers. Feed formulation and Methods of feeding.

Poultry diseases – viral, bacterial, fungal and parasitic(two each); symptoms, control and management; Vaccination programme.

**Section III (Harvesting of Eggs and Sanitation): 10 Hrs**

Selection, care and handling of hatching eggs. Egg testing. Methods of hatching.

Brooding and rearing. Sexing of chicks.

Farm and Water Hygiene, Recycling of poultry waste.

**Co-curricular Activities Suggested: (4 hrs)**

1. Group discussion & SWOT analysis
2. Visit to a poultry farm
3. Invited Lectures by Concerned officers of government or private farms
4. Cheap and Healthy Feed preparation by students based on government standards
5. Market study and Survey (Monitoring of daily price hike in poultry market and analysis)
6. Online Swayam Moocs course on poultry farming (see reference 9 below)

**Reference books:**

1. Sreenivasaiah., P. V., 2015. Textbook of Poultry Science. 1st Edition. Write & Print Publications, New Delhi
2. 2. Jull A. Morley, 2007. Successful Poultry Management. 2nd Edition. Biotech Books, New Delhi"
3. Hurd M. Louis, 2003. Modern Poultry Farming. 1st Edition. International Book Distributing Company, Lucknow."
4. Life and General Insurance Management, "
5. Financial services, Tata McGraw hill
6. <http://www.asci-india.com/BooksPDF/Small%20Poultry%20Farmer.pdf>
7. [https://nsdcindia.org/sites/default/files/MC\\_AGR-Q4306\\_Small-poultry-farmer-.pdf](https://nsdcindia.org/sites/default/files/MC_AGR-Q4306_Small-poultry-farmer-.pdf)
8. <http://ecoursesonline.iasri.res.in/course/view.php?id=335>
9. [https://swayam.gov.in/nd2\\_nou19\\_ag09/preview](https://swayam.gov.in/nd2_nou19_ag09/preview)

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**GENERAL EDUCATION COMPONENT**  
**Skill Development Course II - POULTRY FARMING**

**MODEL QUESTION PAPER & PATTERN**

**Max. Marks: 50**

**Time: 1 1/2 hrs (90 Minutes)**

**SECTION A**

(Total: 4x5=20 Marks)

(Answer any **four** questions. Each answer carries **5** marks (At least **1** question should be given from each Unit))

1.	Poultry house
2.	Broilers
3.	Any two viral diseases of poultry
4.	Any two bacterial diseases of poultry
5.	Any two fungal diseases of poultry
6.	Egg testing
7.	Brooding
8.	Sexing chicks

**SECTION B**

(Total: 3x10 = 30 Marks)

(Answer any **three** questions. Each answer carries **10** marks  
(At least **1** question should be given from each Unit))

1.	Discuss briefly the past, present and future scenario of poultry farming industry in India.
2.	Explain principles of poultry housing in detail, with examples.
3.	Write an essay on viral diseases of poultry.
4.	Give an account of fungal and bacterial diseases (any two each) of poultry
5.	Write an essay on selection, handling and hatching of eggs.

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Note: Please read the following in addition to the Guidelines sent.

1. In Unit-2 and Unit-3, Sub-titles highlighted in Yellow colour are Skills. Sub-titles not highlighted are of Theoretical base.
2. Skills, though separately shown, shall also have 'content' to be learnt and written in the examination by the students.
3. The field (hands on) skills are learnt through the Co-curricular Activities.
4. One or two books referred shall be related to 'learning of skills'

Topics and syllabus may be prepared keeping all (BA/BSc/BCom) urban as well as rural students in view.

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**SKILL COMPONENT**

**Core Paper-I: BIO CHEMISTRY AND PHYSICAL CHEMISTRY OF MILK**

**Learning outcomes:**

After completion the course student is able to

- Understand Biomolecules, Enzymes activity,
- Understand about composition of milk and learn about physical chemistry of milk, and also improve the theoretical and practical knowledge.

**Unit –I (10 Hours)**

General structure and classification of Proteins, Amino acids, carbohydrates, Fats, General properties and classification of enzymes , mechanism of enzyme action and factors affecting enzyme activity.

**Unit-II (12 Hours)**

Definition and Structure of Milk, composition of milk, Nomenclature and classification of milk protein and Isolation chemical composition physico- chemical properties of milk protein namely Casein ., Preparation and properties of whey protein., Estimation of milk proteins using different physical and chemical methods and significance of genetic polymorphism of milk protein.

**Unit-III (12 Hours)**

General composition , Nomenclature and classification of milk lipids., Milk phospholipids and their role in milk products., Importance and status of Milk carbohydrates, Fat soluble vitamins, Milk salts such as major minerals and trace elements, Milk Enzymes namely Proteases, lipases, Lactoperoxidase, Xanthine oxidase, Phosphatase., Milk contact surfaces and metallic contamination.

**Unit-IV (13 Hours)**

Gross Composition of milk of different species and breeds of milch animals., Colloidal, and liquid states: Definition and properties of colloidal system, Gels their formation and properties, milk as a colloidal system and its stability. , Definition of density and specific gravity, pycnometer method, hydrometer, lactometer, effect of various processing variables on the density and specific gravity of milk. Definition of surface tension and viscosity, and brief explanation of Newtonian and non-Newtonian liquids, stokes law, surface tension of milk and the factors affecting it, influence of temperature and concentration of solute on viscosity.

**Unit-V (13 Hours)**

Viscosity of milk, evaporated milk , condensed milk and Refractive index., colligative properties of dilute solution: vapour pressure, Raoult's law, depression of freezing point, elevation of boiling point, freezing point and boiling point milk, osmosis, osmotic pressure and interrelation of colligative properties., Definition of Electrolytes and non electrolytes, ionic mobility, electrical conductance Laws of Ostwald dilution and Kohlrausch., Electrical conductance of milk., Definition of redox system and redox system of milk ., buffer solution, and milk as a buffer system, importance of isotopes and occurrence of radio nuclide in milk and milk products.

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**SKILL COMPONENT**

**Practical Paper-I: BIO-CHEMISTRY AND PHYSICAL CHEMISTRY OF MILK**

Hours: 30

Marks:50

Credits: 02

1. Preparation of buffer solutions
2. Sampling of milk – principle – sampling methods from different sources – composite sample.
3. Determination of density and specific gravity of milk by using Pyknometer, hydrometer and lactometer
4. Determination of viscosity of milk using Ostwald's viscometer
5. Determination of surface tension of milk using Stalagmometer.
6. Determination of freezing point of milk
7. Electrometric method for determination of pH of buffers and milk
8. Coagulation of milk by using electrolytes.
9. Titration of amino acids in the presence and absence of formalin.
10. Verification of Beer-Lambert's law.

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**SKILL COMPONENT**

**Core Paper-II: MILK PRODUCTION MANAGEMENT, DAIRY PLANT DESIGN, AND DAIRY DEVELOPMENT**

**Learning outcomes:**

After completion the course student is able to

- Significance of milk production, known about nutrient requirements for growth and milk production.
- Improve the practical knowledge and understand and know about design and construction of dairy milk.

**Unit-I (12 Hours)**

Distinguishing characteristics of India and exotic breeds of dairy animals and their performance. Management of lactating and dry cows and buffaloes. Milk production in national and international level, Methods of milking, milking procedure and practices for quality and safety of milk production. Dairy farm records and their maintenance.

**Unit-II (12 Hours)**

Feed nutrients required by animal body. Feed resources for milk production and their nutritive values. Nutrients requirements for growth and milk production. Feeding standards, Structure and function of mammary system. Milk secretion and milk let-down., Price determination and pricing policy of milk products in organized and unorganized sectors of dairy industry.

**Unit-III (12 Hours)**

Importance of chemical quality control, Quality assurance and total quality management in dairy industry. Preparation and standardization of reagents required in the analysis of milk and milk products. Sampling procedures; labeling of samples for analysis; choice of analytical tests for milk and milk products for chemical analysis and instrumental methods of analysis.

**Unit-IV (12 Hours)**

Chemical quality of water in dairy industry, Prediction of shelf life behavior of milk and milk products, Calibration of dairy glassware- including butyrometer, pipettes, burettes, hydrometers, lactometers and thermometer .Testing methods for the detection of adulterants, preservatives and neutralizers in milk and milk products. Environmental contaminates such as pesticides, antibiotics, heavy metals in milk and milk products and their chemical testing methods.

**Unit- V (12 Hours)**

Brief explanation of Dairy Plant design and layout :- Types and Classification of dairy plants, location, Selection of site, Significance of Building planning, Principles of dairy layout. Space requirement for dairy plant and service requirement etc., Dairy plant design, Arrangement of equipment, Milk piping etc., Building construction materials: Floors, general requirement of dairy floor finishes, floors for different section of dairy. Foundations, walls doors and windows. Other design aspects: Drains and drain layout for small and large dairies. Ventilation, fly control, mold prevention, illumination in dairy plants.



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**SKILL COMPONENT**

**Practical Paper-II: MILK PRODUCTION MANAGEMENT, DAIRY PLANT DESIGN, AND DAIRY DEVELOPMENT**

Hours: 30

Marks: 50

Credits: 02

1. Calibration of dairy glass ware - hydrometers – butyrometer
2. Calibration of dairy glass ware – volumetric flasks, burettes and pipettes
3. Preparation and standardization of dairy reagents – alkalies and acids
4. Preparation and standardization of dairy reagents – sodium thio sulphate and silver nitrate
5. Preparation and standardization of dairy reagents – Fehlings and EDTA solution
6. Preparation and standardization of dairy reagents – Gerber's acid
7. Testing of amyl alcohol for fat estimation
8. Chemical analysis of permissible additive in milk
9. Chemical analysis of detergents and sanitizers
10. Analysis of market samples milk and milk products
11. Determination of temporary and permanent hardness of water
12. Estimation of available chlorine in bleaching powder.

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**SKILL COMPONENT**

**Core Paper-III: DAIRY EXTENSION, ENTREPRENEURSHIP DEVELOPMENT AND CONSULTANCY**

**Learning outcomes:**

After completion the course student is able to

- Understand the significance of Extension education, improve the communication skill and share ideas with others, role of HACCP/ISO certificate
- Understand Entrepreneurship development and purpose of Process of Consultancy

**Unit-I (11hours)**

Fundamental Dairy Extension:-Definition, principles and objectives of Extension Education, Present status of dairy and animal husbandry development programme launched in pre and post-independence era, TLP (Teaching and Learning Process) Extension Teaching Methods, classification and selection of teaching methods. Importance of Audio-Visual-Aids.

**Unit-II (10 Hours)**

Identification, Characteristics and role of rural leaders and development and training to rural leaders, Principle of working with group and their mobilization , Evaluation of extension programmes, Principle of Diffusion of innovations and categories of farmers principle and step of programme planning and Conceptual orientation about different terms, like- RRA, PRA, IVLP/TAR, ATMA, ATIC,PTD, etc.,

**Unit-III (14 Hours)**

Concept of entrepreneurship, entrepreneurial and managerial characteristics, managing an enterprise, motivation and entrepreneurship development, importance of planning, monitoring, evaluation and follow up, managing competition, entrepreneurship development programs. Government schemes and incentives for promotion of entrepreneurship, Government Policies relevant to dairy sector. Venture capital, Contract farming and joint ventures, public-private partnerships. Overview of dairy inputs industry. Characteristics of Indian dairy processing and export industry. Social Responsibility of Business.

**Unit-IV (13 Hours)**

Dairy plant management system- milk procurement from the rural milk producer, Milk processing and products manufacturing. Marketing of milk and milk products. Survey on milk production potential and marketed surplus of milk for setting up of milk plants. Recruitment and training of manpower, Estimation of costs of product manufacture and energy utilization in food processing plants.

**Unit-V (12Hours)**

Sources of finance for setting up of dairy farms and processing plants/ units. Guidelines for obtaining ISO/HACCP certification for dairy plants. Assessment of entrepreneurial skills and characteristics for successful entrepreneur. Consumer opinion surveys. Pricing of milk and milk products. Preparation of feasibility reports for setting of dairy farms, composite milk plants, collection centers, chilling units and processing units.

**SRI VENKATESWARA UNIVERSITY :: TIRUPATI**  
**B.VOC. DEGREE COURSE IN DAIRYING AND ANIMAL HUSBANDRY**

**FIRST YEAR – SECOND SEMESTER**

**Under CBCS W.E.F. 2020-21**

**SKILL COMPONENT**

**Practical Paper-III: DAIRY EXTENSION, ENTREPRENEURSHIP DEVELOPMENT AND  
CONSULTANCY**

Hours: 30

Marks: 50

Credits: 02

1. Hands.-on training on use of LCD projector,
2. Hands-on training on use of PA system,
3. Hands-on training on use of camera.
4. Preparation and use of audio-visual aids
5. Animation for dairy stakeholders.
6. Group discussion technique.,
7. Hands on learning of field problems in dairy and animal husbandry.
8. Preparation of reports for setting of dairy farms.
9. Process of HACCP certification

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**INDUSTRIAL INTERNSHIP**  
**Industrial Training for 30 days**

<b>Total Credits</b>	<b>Total hours / week</b>	<b>Total hour / semester</b>
<b>03</b>	<b>36</b>	<b>144</b>

**1. Industrial Training for 30 days**

30 days of internship to provide industrial exposure to the students through internship with various food processing industries to develop good practical knowledge beyond the classroom experience.

**2. Report writing.**

**3. Seminar presentation**

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**CORE PAPERS - I, II & III**  
**MODEL QUESTION PAPER**

**Time: 3 hours**

**Marks: 75**

**SECTION – A**

Answer **ALL** of the following

**5X2=10Marks**

- 1.
- 2.
- 3.
- 4.
- 5.

**SECTION – B**

Answer any **THREE** of the following

**3X5=15Marks**

- 6.
- 7.
- 8.
- 9.
- 10.

**SECTION – C**

Answer **ALL** of the following

**5X10=50Marks**

11. A  
(or)  
B
12. A  
(or)  
B
13. A  
(or)  
B
14. A  
(or)  
B
15. A  
(or)  
B