

PROGRAM BOOK FOR
SEMESTER INTERNSHIP

Name of the Student: **Manda kalpana**

Name of the College: **GOVERNMENT DEGREE COLLEGE RAJAMPET**

Registration Number: **236030863005**

Period of Internship: **From 24-11-2025 To 31-03-2026.**

Yogi Vemana University
2026

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EDUCATION | HEALTH | AGRICULTURE | ENLIGHTENMENT

Regd No:- Bk-4, CSNo.4/2020

CERTIFICATE

This is to certify that Mr./Miss. Manda kalpana Reg. No 236030863005 of GOVERNMENT DEGREE COLLEGE RAJAMPET underwent internship on Universal Diet Planning Using Food Technology and Nutrition in Anjanaas's Foundation for 2025-26 AY LTI

The overall performance of the intern during his/her internship is found to be satisfactory.



Date:01-04-2026

Anjanaas Foundation

ISO9001:2015

www.anjanaasfoundation.org

G. Naveen

Naveen Batchu
Founder
Anjanaas Foundation



**An Internship Report on
Universal Diet Planning Using Food Technology and Nutrition**

Submitted in accordance with the requirement for the degree of 3rd B.sc botany

Under the Faculty Guideship of

S.Baskar Rao M.sc, M.phil

*Department of
Science*

GOVERNMENT DEGREE COLLEGE RAJAMPET

Submitted by:

Manda kalpana

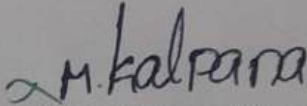
Reg.No: 236030863005

Department of Science

GOVERNMENT DEGREE COLLEGE RAJAMPET

Student's Declaration

I, Manda kalpana a student of 3 r d B . s c b o t a n y Program, Reg. No 236030863005 of the Department of Science College do hereby declare that I have completed the mandatory internship from 24-11-2025 to 31-03-2026 in Anjanaa's Foundation under the Faculty Guideship of S.Baskar Rao M.sc, M.phil Department of Science, GOVERNMENT DEGREE COLLEGE RAJAMPET

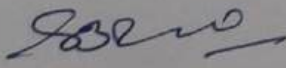

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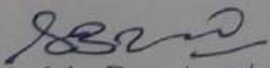
Official Certification

This is to certify that Manda kalpana Reg.No. 236030863005 has completed his/her Internship in Anjanaa's Foundation on Universal Diet Planning Using Food Technology and Nutrition under my supervision as a part of partial fulfillment of the requirement for the Degree of 3rd B.sc botany in the Department of Science, GOVERNMENT DEGREE COLLEGE RAJAMPET.

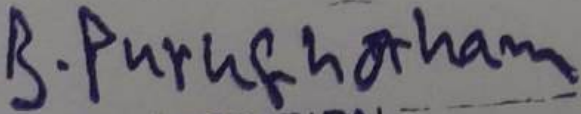
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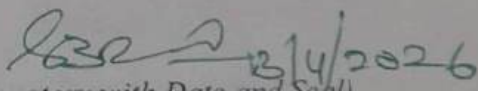
Endorsements


Faculty Guide


Head of the Department
Lecturer Incharge
Department of Botany
Government Degree College,
RAJAMPET (Kadapa Dt.)

Principal


PRINCIPAL
Govt. Degree College,
RAJAMPET-516115, Y.S.R (Dist.)


(Signatory with Date and Seal)
Lecturer Incharge
Department of Botany
Government Degree College,
RAJAMPET (Kadapa Dt.)

Certificate from Intern Organization

This is to certify that **Manda kalpana** Reg. No **236030863005** of **GOVERNMENT DEGREE COLLEGE RAJAMPET** underwent internship in Anjanaa's Foundation from **24-11-2025** to **31-03-2026**

The overall performance of the intern during his/her internship is found to be Satisfactory.


Authorized Signatory with Date and Seal

Acknowledgements

I wish to express my deep sense of gratitude to our Honorable Commissioner of Collegiate Education for giving me this opportunity and this encouragement to do this project. I would like to place my graceful thanks to UGC, APSCHE and 102 for placing Long Term Project in our UG Curriculum. I am very thankful to, **Dr B.Purushotam M.Sc,M.Ed,PhD** Principal, GOVERNMENT DEGREE COLLEGE RAJAMPET to take up this project.

I would like to express my deep sense of gratitude to my Project Mentor **S.Baskar Rao M.sc, M.phil** Lecturer in Science for his guidance and support given to me throughout the project work. I am very thankful for his constant encouragement, accessibility and valuable suggestions. I wish to express my thanks to other Staff Member in the department of Science for providing valuable suggestions regarding this work.

I am extending my heart full thanks to my internship organization and respondents of my project questionnaires for filling the questionnaires with a lot of patience. Without their cooperation support, it would have been impossible for me to complete this project work. I would like to take this opportunity to express my deepest appreciation and gratitude to my parents, friends and other people who have contributed to the completion of this work.

Manda kalpana

REGNO.236030863005

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Chapter 1:- Internship Organisation Profile

Introduction :-

Anjanas foundation is a non-profit organisation based in AP that focuses on education, skill development, health awareness and community development. The organisation aims to empower underprivileged students by providing them with internships that bridge the gap between academic learning and real world applications.

The foundation conducts structured internship programmes across multiple disciplines, including information technology, life sciences, agriculture and health sciences. These programmes provide students with practical exposure.

Vision

The vision of Anjanas foundation is to promote inclusive education and skill development that empowers individuals to contribute positively to society. The organization strives to create opportunities for learning, innovation and professional growth.

Mission :-

The mission of the foundation includes

- * providing skill-oriented training programs

Chapter 1:- Internship Organisation Profile

Introduction:-

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Vision

The vision of Anjanas foundation is to promote inclusive education and skill development that empowers individuals to contribute positively to society. The organization strives to create opportunities for learning, innovation and professional growth.

Mission:-

The mission of the foundation includes

- * providing skill-oriented training programs

that enhance Employability.

- * Encouraging practical learning experiences through structured internships.
- * Promoting interdisciplinary education that integrates scientific knowledge with real-world applications.
- * Supporting research and innovation in emerging fields.

Objectives :-

- * Providing structured internship programs for students from different academic backgrounds.
- * Facilitating Collaboration between educational institutions and training programs.
- * Promoting Experimental learning and practical skill development.
- * Enhancing students analytical, technical and professional competencies.
- * The above are the objectives of the organization.

Training Areas

The training programs offered by the organization include fields such as

- Information Technology
- Food Technology and Nutrition.
- Agriculture and Life Sciences
- Business and management

Learning Approach

The internship follows a structured learning approach that includes:

- * Conceptual lectures and theoretical understanding.
- * Practical tasks and project based learning
- * weekly assignments and activity reports
- * Final project development and documentation.

This approach enables student to develop both academic knowledge and practical skill relevant to the field of study.

Chapter 2:- Executive Summary

This internship focused on the study of Food Technology and Nutrition and the development of a Conceptual Project titled "Universal Diet planning using food technology and nutrition". The internship explored fundamental principles of food science, nutritional requirements, digestion and metabolism, food processing technologies and diet planning strategies.

The project aimed to develop a structured dietary framework capable of providing balanced nutritional guidance for individuals with different metabolic needs and lifestyle conditions. The study integrated qualitative knowledge of food composition and processing with quantitative nutritional calculations such as basal metabolic rate (BMR), total energy expenditure (TDEE) and Recommended Dietary Allowances (RDA).

Through systemic analysis of food groups, nutrient density, and dietary patterns, the project proposed a universal diet planning model that can be adapted for different age groups and activity levels.

Sector of Development

Food Technology and Nutritional Science focuses on the scientific study of food composition processing technologies and dietary health. The project specifically addresses the development of diet planning frameworks based on nutritional guidelines and food science principles.

The work combines concepts from

- Food Chemistry
- Nutritional Biochemistry
- Metabolic Physiology
- Food safety and quality management
- Public health nutrition.

Learning objectives

The major learning objectives of the Internship were:-

- * Developed a strong understanding of food composition and nutrient science
- * To study human digestion and metabolic processes related to nutrient utilization.
- * To analyze macronutrient and micronutrient requirements for balanced diets.
- * To understand food processing technologies and their effects on nutritional quality.

- * To study food safety standards and quality management practices.
- * To develop a universal Diet planning framework integrating nutritional science.

Outcomes Achieved

The Internship successfully achieved the following outcomes

- * Understood food Composition and nutrient functions.
- * Gained knowledge about digestion, metabolism and energy requirements in humans.
- * Learned quantitative methods of calculating dietary energy needs using BMR and TDEE.
- * Studied food processing technologies and their influence on food quality and safety.
- * Developed a conceptual universal Diet planning framework based on nutritional guidelines.

chapter 3:- Internship part

Description of Activities and Responsibilities

The Internship was Conducted in an online learning environment. The Internship provided structured learning sessions, focused on food technology and Nutrition science. Combined with project-based development of a universal Diet Planning frame work.

The training Covered several areas including

- Food Composition and classification.
- Nutritional science and dietary guidelines
- Digestion and metabolism
- macronutrients and micronutrients
- macronutrients and food chemistry and food processing technologies.
- food safety and quality management
- public health nutrition and life stage nutrition.
- Diet planning principles.

work Environment and Tools used.

In an online learning environment, allowing students to access training sessions and project activities remotely.

The learning environment included

online lectures

Training sessions

Nutritional analysis Exercises

Research-based assignments

Project development tasks

Project documentation.

Report Preparation.

Students used digital resources such as nutrition guidelines, research materials and food composition tables to analyze dietary requirements and design diet plans

weekly work schedule overview

The internship followed a structured 15 week learning plan covering both theoretical knowledge and project development.

The early weeks focused on foundations of food technology and nutrition, including food composition nutrient functions and digestion.

Intermediate week focused on macronutrients, micronutrients, food chemistry and food processing technologies.

Later weeks covered public health nutrition, life-stage nutrition and principles of diet planning, culminating in the development of the universal diet planning system project.

Tasks performed

During the internship, the following tasks were performed.

- studying classification and composition of foods.
- Analyzing macronutrient and micronutrient functions.
- studying digestion and metabolism processes.

→ Evaluating food (digestion) processing technologies and preservation methods.

→ studying food safety principles and quality management.

→ Developing a Conceptual universal Diet Planning model.

→ Designing diet tables for different age groups.

skills Acquired

The internship helped developing the following skills.

(1). Nutritional Analysis

(2). Scientific Research

(3). Diet Planning

(4). Analytical Thinking.

ACTIVITY LOG FOR THE FIRST WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction of food technology and its scope	Understanding the role of food technology in food production	for
Day - 2	classification of foods (raw, minimally processed, processed, ultra-processed).	Learning different categories of food processing	for
Day - 3	Basics of food composition	understanding Carbohydrates, proteins, fats, vitamins & mineral	for
Day - 4	Introduction to macro-nutrients and micro nutrients	Learning nutrient classification and functions.	for
Day - 5	Career opportunities in food science and nutrition.	understanding career pathways	for
Day - 6	Practical task: Identifying processing levels.	Applying knowledge to real foods.	for

WEEKLY REPORT

WEEK - 1 (From Dt. 24-11-25 to Dt. 31-11-25)

Objective of the Activity Done: Fundamentals of nutrition

Detailed Report:

The first week focused on the fundamentals of nutrition science. Students studied the principles of balanced diets and the importance of consuming appropriate quantities of nutrients for maintaining health. Dietary guidelines provided by organizations such as WHO and ICMR were discussed.

Students also learned about energy requirements in humans, including concepts such as Basal Metabolic Rate and Total Daily Energy Expenditure.

ACTIVITY LOG FOR THE SECOND WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Overview of the digestive system	Understanding structure and function of digestive organs	JSL
Day - 2	Digestion and absorption of nutrients	Learning how nutrients enter the blood stream	JSL
Day - 3	Metabolic processes and energy production	Understanding biochemical reactions in metabolism	JSL
Day - 4	Glycemic index and glycemic load	Learning the impact of carbohydrates on blood sugar	JSL
Day - 5	Thermic effect of food and metabolite state	Understanding energy expenditure during digestion	JSL
Day - 6	Practical analysis of metabolic parameters for diet planning	Applying metabolic concepts to nutrition planning	JSL

WEEKLY REPORT

WEEK - 2 (From Dt. 1-12-25 to Dt. 8-12-25)

Objective of the Activity Done: Human Digestion & Metabolism

Detailed Report:

The second week focused on the study of human digestion and metabolism. I learned about the structure and functions of the digestive system, including the role of organs such as the stomach, small intestine and liver in nutrient digestion and absorption.

The concept of metabolism was introduced, including the biochemical processes that convert nutrients into energy.

These concepts are important for designing diets that regulate energy intake and support metabolic health.

ACTIVITY LOG FOR THE THIRD WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Principles of nutrition and balanced diet	understanding the Concept of balanced nutrition.	for
Day - 2	Dietary guidelines by WHO and ICMR	Learning recommended dietary practices	for
Day - 3	Energy requirements introduction to BMR and TDEG	understanding metabolic energy calculations.	for
Day - 4	Nutrient density vs caloric density	Learning how food quality dietary patterns form calories	for
Day - 5	Food groups and plate models	understanding dietary patterns and meal	for
Day - 6	practical task : one dietary recall	Evaluating daily nutrient intake.	for

WEEKLY REPORT

WEEK - 3 (From Dt. 9-12-25 to Dt. 15-12-25)

Objective of the Activity Done: Human Digestion & Metabolism

Detailed Report:

The third week focused on the study of human digestion and metabolism. I learned about the structure and functions of the digestive system, including the role of organs such as the stomach, small intestine and liver in nutrient digestion and absorption.

The concept of metabolism was introduced, including the biochemical processes that convert nutrients into energy.

These concepts are important for designing diets that regulate energy intake and support metabolic health.

ACTIVITY LOG FOR THE FORTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Types and Functions of carbohydrates	understanding energy metabolism -sm form Carbohydrates	for
Day - 2	proteins and amino acids	Learning prote in structure and biological value.	for
Day - 3	Lipids and fatty acids	unders tanding different types of fats and their functions	for
Day - 4	omega fatty acids and fat balance	Learning imp -ortance of healthy fats.	for
Day - 5	Comparison of macronutrient profiles of diet patterns	Evaluating nutrient dist -ribution in diets	for
Day - 6	Macronutrient Comparison analysis	Applying nutritional Calculations	for

WEEKLY REPORT

WEEK - 4 (From Dt. 16-12-25 to Dt. 22-12-25)

Objective of the Activity Done: Macronutrients in Depth

Detailed Report:

During the fourth week, students macronutrients in detail, including carbohydrates, proteins and fats. The functions of each nutrient in energy production, tissue repair and metabolic regulation were discussed.

I learned about essential amino acids, biological value of proteins and different types of dietary fats including saturated, unsaturated and trans fats. Practical exercises were conducted to compare macronutrient distribution in different dietary patterns.

ACTIVITY LOG FOR THE FIFTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	classification of vitamins	Understanding fat-soluble & water-soluble vitamins	JS
Day - 2	Functions and source of vitamins	Learning dietary sources of vitamins	JS
Day - 3	minerals and trace elements	Understanding mineral requirements in nutrition.	JS
Day - 4	phytonutrients and antioxidants	Learning protective roles of plant compounds	JS
Day - 5	Nutrient deficiency Conditions	Understanding diseases caused by nutrient deficiencies	JS
Day - 6	Practical task: micro-nutrient requirement matrix for age group - 5	Applying micro-nutrient analysis.	JS

WEEKLY REPORT

WEEK - 5 (From Dt. 23-12-25 to Dt. 31-12-25)

Objective of the Activity Done:

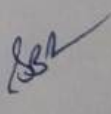
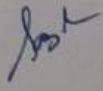
Micronutrients in depth

Detailed Report:

The fifth week focused on micro-nutrients including vitamins and minerals. Studied their classification, dietary sources and physiological roles in the body.

The importance of micronutrients in maintaining immunity, bone health and metabolic function was discussed. I also learned about deficiency diseases caused by inadequate intake of vitamins and minerals.

ACTIVITY LOG FOR THE SIXTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to food chemistry	Understanding chemical components present in food	
Day - 2	chemical properties of carbohydrates, proteins and fats	Learning chemical behaviour of macronutrients.	
Day - 3	water activity and its role in food stability	Learning how enzymes influence food quality.	
Day - 4	Enzymatic reactions in food processing	Understanding moisture control in food preservation.	
Day - 5	Maillard reactions and browning in food products.	understanding chemical reactions	
Day - 6	Practical task: observing chemical changes in food process.	Applying food chemistry concepts.	

WEEKLY REPORT

WEEK - 6 (From Dt. 1-01-26 to Dt. 9-1-26)

Objective of the Activity Done:

Food chemistry Basics

Detailed Report:

The sixth week focused on food chemistry and the molecular properties of food component substances. I studied the chemical structure of carbohydrates, proteins and lipids and their reactions during food processing.

The concept of water activity was introduced to explain how moisture content affects microbial growth and food stability. Students also studied enzymatic reactions and chemical processes such as the Maillard reaction that influence food color, aroma and taste.

ACTIVITY LOG FOR THE SEVEN WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to food processing technologies	Understanding the purpose of food processing	<i>[Signature]</i>
Day - 2	Thermal processing methods: Pasteurization & sterilization.	Learning heat based preservation techniques	<i>[Signature]</i>
Day - 3	Non-thermal food processing techniques	Understanding modern food preservation methods	<i>[Signature]</i>
Day - 4	Fermentation technology and microbial food production.	Learning beneficial microbial process in food	<i>[Signature]</i>
Day - 5	Drying and dehydration technologies	Understanding moisture removal for food preservation.	<i>[Signature]</i>
Day - 6	Practical task: Identifying processed foods and preservation methods	Applying knowledge of food processing technologies.	<i>[Signature]</i>

WEEKLY REPORT

WEEK - 7 (From Dt. 22-1-26 to Dt. 31-1-26)

Objective of the Activity Done: Food processing Technologies

Detailed Report:

The seventh week introduced food processing technologies used in the food industry. I studied both traditional and modern food preservation techniques.

Thermal processing methods such as pasteurization and sterilization were discussed as techniques to eliminate microorganisms and extend shelf life. Non-thermal methods such as high pressure processing were also introduced.

I learned about fermentation processes used in producing foods such as yogurt, cheese and pickles.

ACTIVITY LOG FOR THE EIGHTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to food safety principles	Understanding the importance of safe food handling	isa
Day - 2	Food Contamination and food borne diseases	Learning Causes of food borne illness	isa
Day - 3	Hazard Analysis Critical Control Point (HACCP)	understanding preventive food safety systems	isa
Day - 4	Food labelling and nutritional information.	Learning regulatary frame works for food quality	isa
Day - 5	food safety regulations and standards	understanding labelling requirements for consumers.	isa
Day - 6	practical task: food safety inspection checklist	Applying food safety standards to food environments.	isa

WEEKLY REPORT

WEEK - 8 (From Dt. 1-02-26 to Dt. 7-02-26)

Objective of the Activity Done:

Food Safety and Quality

Detailed Report:

The eighth week focused on food safety and quality management systems. I studied the importance of maintaining hygiene and preventing Contamination in food production and handling.

The concept of foodborne disease caused by microorganisms was discussed along with methods for preventing Contamination. I learned HACCP, an internationally recognized food safety management system used in food industry.

ACTIVITY LOG FOR THE NINETH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to Public health nutrition	understanding nutrition of population level	<i>[Signature]</i>
Day - 2	malnutrition and nutritional deficiencies	Learning causes and effects of malnutrition	<i>[Signature]</i>
Day - 3	Government nutrition programmes and Policies.	understanding national nutrition initiatives	<i>[Signature]</i>
Day - 4	Community nutrition assessment methods	Learning how nutrition status is evaluated	<i>[Signature]</i>
Day - 5	Nutrition education and awareness programs	understanding strategies for promoting healthy diets	<i>[Signature]</i>
Day - 6	Designing a Community nutrition awareness plan.	Applying knowledge to public health.	<i>[Signature]</i>

WEEKLY REPORT

WEEK - 9 (From Dt. 8-02-26 to Dt. 14-2-26)

Objective of the Activity Done: Public Health Nutrition.

Detailed Report:

During the ninth week, I studied public health nutrition and its importance in improving the health (status) of populations. Topics included malnutrition, nutrient deficiencies, and the social determinants of dietary health.

I learned about government nutrition programs designed to address nutritional deficiencies and improve community health outcomes. Nutrition education strategies were also discussed to promote healthy dietary habits among different population groups.

ACTIVITY LOG FOR THE TENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Nutritional needs during childhood	Understanding dietary requirements for growth.	JSR
Day - 2	Nutrition during adolescence	Learning increased nutrient needs during development.	JSR
Day - 3	Adult nutrition & lifestyle-related diseases	Understanding diet and chronic disease prevention.	JSR
Day - 4	Nutrition for elderly populations	Learning dietary adjustment for aging individuals	JSR
Day - 5	Special nutrition needs pregnancy and lactation	Understanding maternal nutrition requirements.	JSR
Day - 6	Designed diet plans for different life stages.	Applying life stage nutrition principles.	JSR

WEEKLY REPORT

WEEK - 10 (From Dt. 15-2-26 to Dt. 21-2-26)

Objective of the Activity Done:

Life - stage Nutrition

Detailed Report:

The tenth week focused on life stage nutrition, which studies how nutritional requirements change throughout the human life cycle. I learned about the dietary needs of children, adolescents, adults and elderly individuals. Special attention was given to the nutritional requirements during pregnancy and lactation, where increased intake of certain nutrients is essential for maternal and infant health.

Practical exercises involved designing diet plans suitable for different life stages based on energy requirements and nutritional guidelines.

ACTIVITY LOG FOR THE ELEVENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to nutritional assessment methods.	Understanding techniques for nutritional status.	San
Day - 2	Anthropometric measurements (BMI, body weight, height).	Learning body composition assessment methods.	San
Day - 3	Dietary survey methods (24 hours recall, food frequency).	Understanding data collection techniques for diet analysis.	San
Day - 4	Interpreting nutritional data deficiency indicators.	Learning how to analyze nutritional results.	San
Day - 5	Nutritional assessment tools and indicators.	Understanding population level nutrition.	San
Day - 6	Calculating BMI & evaluating dietary intake.	Applying nutritional assessment techniques.	San

WEEKLY REPORT

WEEK - 11 (From Dt. 22-2-26 to Dt. 28-2-26)

Objective of the Activity Done:

Nutritional Assessment

Detailed Report:

During the eleventh week, students studied nutritional assessment methods used to evaluate the dietary status of individuals and communities. Anthropogenic measurements such as body mass index (BMI), weight and height were discussed as indicators of nutritional health.

I also learned about dietary assessment techniques including 24 hours dietary recall and food frequency questionnaires. These methods are commonly used in nutritional research and public health studies.

ACTIVITY LOG FOR THE TWELVETH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to diet planning principles	Understanding factors influencing diet design	JSR
Day - 2	Calorie requirement calculations using BMR and TDEE	Learning quantitative methods for diet	JSR
Day - 3	Macronutrient distribution in balanced diets.	Understanding Carbohydrates, proteins and fat rations	JSR
Day - 4	Food Exchange systems and portion Control	Learning structured meal planning techniques	JSR
Day - 5	Designing balanced meal plans	Applying nutrition guidelines to meal planning	JSR
Day - 6	Preparing sample diet plans	Implementing diet planning calculations.	JSR

WEEKLY REPORT

WEEK - 12 (From Dt. 01-03-26 to Dt. 07-03-26)

Objective of the Activity Done:

principles of diet planning

Detailed Report:

The twelfth week focused on the principles of diet planning. I studied how energy requirements are calculated using Basal metabolic Rate and Total Daily Energy Expenditure.

The importance of balanced nutrient distribution was emphasized with recommended ratios for carbohydrates, proteins and fats. I also learned about portion control and food exchange systems used in diet planning.

ACTIVITY LOG FOR THE THIRTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Introduction to universal diet planning	understanding project objectives	<i>[Signature]</i>
Day - 2	Research on food groups and nutritional composition.	Learning how to classify foods for diet planning	<i>[Signature]</i>
Day - 3	calculating caloric requirements for different age groups	Applying nutritional calculations	<i>[Signature]</i>
Day - 4	Designing universal diet planning framework.	structuring diet plans for populations.	<i>[Signature]</i>
Day - 5	Preparing diet tables for different activity levels	Applying quantitative diet planning	<i>[Signature]</i>
Day - 6	Drafting the project structure	Organizing project components & data	<i>[Signature]</i>

WEEKLY REPORT

WEEK - 13 (From Dt. 9-03-26 to Dt. 16-03-26)

Objective of the Activity Done:

Project Development

Detailed Report:

During the thirteenth week, I initiated their final project on Universal Diet planning. The project involved integrating knowledge from food technology, nutrition science and metabolic physiology.

I analyzed food groups, nutritional composition and dietary guidelines to develop structured diet planning tables. Caloric calculations and macronutrient distributions were applied to design balanced diets for individuals with different metabolic needs.

ACTIVITY LOG FOR THE FOURTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Organizing project research materials	Understanding documentation structure.	JS
Day - 2	writing sections of project report	Learning academic documentation methods	JS
Day - 3	Preparing diet planning tables	Applying quantitative analysis	JS
Day - 4	Reviewing project framework and findings	Evaluating clarity and accuracy of research	JS
Day - 5	Editing and formatting project	Improving report presentation quality	JS
Day - 6	Finalizing project draft	Preparing project for submission.	JS

WEEKLY REPORT

WEEK - 14 (From Dt. 17-3-26 to Dt. 23-3-26)

Objective of the Activity Done:

Project Documentation

Detailed Report:

During the fourteenth week, I focused on preparing the documentation for their final project. The report included sections such as Introduction sections, such methodology, diet planning framework and discussion.

I organized diet tables and nutritional calculations to demonstrate the quantitative aspects of the project. I also reviewed my findings and refined the presentation of their work.

ACTIVITY LOG FOR THE FIFTEENTH WEEK

Day & Date	Brief description of the daily activity	Learning Outcome	Person In-Charge Signature
Day - 1	Final review of project documentation - on	Ensuring completeness & accuracy of report	See
Day - 2	Evaluating diet planning model and nutritional	Understanding practical applicability	See
Day - 3	Preparing project presentation	Organizing project findings for explanation	See
Day - 4	Submission of internship log book & project report	Receiving feedback on project work	See
Day - 5	Project discussion and Evaluation	Completing documentation	See
Day - 6	Internship reflection and learning review.	Understanding overall learning outcomes.	See

WEEKLY REPORT

WEEK - 15 (From Dt. 24-3-26 to Dt. 31-3-26)

Objective of the Activity Done:

Project Evaluation & Submission

Detailed Report:

The final week of the Internship focused on reviewing and submitting the project documentation and Internship logbook. I evaluated and checked my universal diet planning model and ensured that all nutritional calculations and diet tables were correctly presented.

The project findings were discussed with faculty and feedback was provided on the research approach and implementation.

I reflected on the knowledge and skills acquired during the Internship.

The Internship concluded with the submission of the project report and completion of the logbook documentation.



chapter 5 - Outcomes Description

Work Environment Experience

The internship was conducted in an online learning environment organized by Anjanaas Foundation, where students participated in structured training sessions on food technology and Nutrition. The learning environment was interactive and research-oriented, allowing discussions, assignments and project work.

The internship followed a disciplined weekly schedule, ensuring the theoretical concepts were gradually connected with practical applications. Students were encouraged to maintain consistency in attending sessions, completing assignments and documenting activities in the internship logbook.

Despite being conducted in an online learning environment, the internship fostered a collaborative atmosphere. This environment promoted teamwork, academic curiosity and mutual respect among participants.

Real - Time Technical skills Acquired

During the internship, we gained practical knowledge and technical skills related to food technology and nutrition science.

One of the primary technical skills developed was nutritional analysis, which involves understanding the composition of foods and the functions learned how to classify foods into nutrients in the human body. students learned how to classify into different categories based on their nutritional value and processing levels.

The internship introduced methods for calculating energy requirements using metabolic parameters such as Basal metabolic rate (BMR) and Total Daily Energy Expenditure (TDEE).

In addition, the internship provided exposure to food processing technologies and food safety principles, which are essential for ensuring the quality and safety of food products.

Managerial Skills Acquired

The Internship helped to develop several managerial and organizational skills that are important for professional development.

I learned how to plan and organize their work schedules effectively by following the structured weekly learning by following the plan the project development phase required to set clear goals, allocate time for research and analysis and complete documentation tasks within deadlines.

The Internship also enhanced decision making and analytical thinking skills, as I thinking skills, as I evaluated different dietary patterns and nutritional requirements while designing diet plans. I also developed problem-solving abilities.

Overall, the Internship strengthened time management, planning and systemic thinking skills.

participation in team Discussions and Collaborative Learning.

Although the internship was conducted online. Collaborative learning played an important role in the training process. I engaged in group discussions related to nutrition science, food technology concepts and diet planning strategies.

These discussions allowed students to exchange ideas, explore different perspectives and develop a deeper understanding of food science topics. Participation in group discussions also improved the ability to listen to others, articulate ideas clearly and contribute constructively to academic conversations.

collaborative discussions during the project phase helped students refine their diet planning models and improve the quality of the project work.

Conclusion

The Food Technology and Nutrition Internship provided valuable exposure to the scientific principles that govern food composition, nutrient metabolism and dietary planning. The students to gradually build knowledge from fundamental concepts to practical applications in diet planning.

Through the Internship, students gained a deeper understanding of macronutrients, micronutrients, digestion, metabolism, food processing technologies and food safety practices. The development of the project titled "Universal Diet Planning using Food Technology and Nutrition" enabled students to apply this knowledge in designing balanced dietary frameworks based on nutritional guidelines and metabolic requirements.

~~The~~ The Internship also helped to develop analytical thinking, time management, and research skills while improving their ability to communicate scientific concepts effectively.

Overall, the Internship proved as an important learning experience that strengthened both academic knowledge and practical understanding of food technology and nutrition science.

MEAL TIMING, PORTION CONTROL & FOOD EXCHANGE LISTS

1. Introduction

Balanced nutrition is not only about what we eat, but also

- When we eat
- How much we eat
- How foods can be substituted

Proper meal management helps in:

- Weight control
- Diabetes management
- Good digestion
- Stable energy levels

Proper meal management helps in:

Food Product Standardization and Quality Control

1. Introduction

After developing a new food product, it cannot be immediately marketed. The product must:

- Maintain the same taste every batch
- Be safe to eat
- Have proper shelf life

This requires standardization and quality control.

Without quality control, a product will fail in the market even if the idea is good.

2. What is Standardization?

Definition

3. Recommended Dietary Allowance (RDA)

Definition

RDA (Recommended Dietary Allowance) is the average daily intake level sufficient to meet the nutrient needs of nearly all (97-98%) healthy individuals.

- It is the most commonly used nutritional standard.

Purpose of RDA

1. What is a Prototype?

Definition

A **prototype** is the first trial version of a food product prepared based on the developed concept.

It is a sample product made to:

- Check feasibility
- Evaluate quality
- Identify problems before large-scale production.

It is also called a **trial product** or **experimental product**.

2. Purpose of Prototype Development

- Convert idea into real food product
- Test recipe and formulation
- Check taste and texture

9. Combining Age and Activity

Diet planning must consider both together.

Example:

- Adolescent athlete + very high calories
- Elderly sedentary person + low calories

Same food cannot suit both.

10. Application in Diet Planning

Using age and activity, dietitian can:

3.2 Energy Value

- Given in kilocalories (kcal)
- Shows how much energy the food provides

3.3 Macronutrients

Carbohydrates

- Includes sugars and dietary fiber

Proteins

- Body building nutrient

Fats

- Total fat
- Saturated fat
- Trans fat

5. Food Frequency Questionnaire (FFQ)

Method

Person reports how often certain foods are eaten:

- Daily
- Weekly
- Monthly

POPULATION DIETARY MODELS

DASH Diet (Dietary Approaches to Stop Hypertension)

1. Introduction to Population Dietary Models

What are Population Dietary Models?

Population dietary models are evidence-based eating patterns designed to:

- Improve public health
- Prevent lifestyle diseases
- Provide practical nutrition guidance

Examples:

- DASH diet
- Mediterranean diet
- HyPlate model

2. What is Meal Timing?

Definition

Meal timing refers to planning meals at appropriate intervals throughout the day to maintain steady energy and metabolism.

Instead of 1-2 heavy meals, the body works better with regularly spaced meals.

3. Importance of Meal Timing

Proper timing:

- Maintains blood glucose levels
- Improves digestion
- Prevents overeating
- Enhances metabolism

DEFINING INPUT VARIABLES: AGE AND ACTIVITY LEVEL

When we plan a diet or calculate nutrient requirements, we cannot give the same diet to everyone.

Nutritional needs depend on input variables, especially:

- Age
- Physical activity level

These variables help us estimate:

- Energy needs (calories)
- Protein needs
- Micronutrient requirements

Therefore, diet planning always begins with collecting personal information.

RDA, RDI, EAR AND THEIR APPLICATIONS

1. Introduction

Every person needs a certain amount of nutrients daily to:

- maintain health
- support growth
- prevent deficiency diseases

But one question arises:

How much nutrient is enough?

To answer this, nutrition science uses dietary reference standards such as:

- EAR
- RDA
- RDI

These are called Dietary Reference Values (DRVs).

Dietary Assessment Methods

1. Introduction

In nutrition practice, a dietitian must answer:

- Is the person eating enough?
- Is the diet balanced?
- Are nutrient requirements met?

This is done by **dietary assessment**.

Definition

Dietary assessment is the process of evaluating a person's food and nutrient intake to determine nutritional adequacy.

2. Objectives of Dietary Assessment

2. Estimated Average Requirement (EAR)

Definition

EAR (Estimated Average Requirement) is the daily nutrient intake level estimated to meet the requirement of 50% of healthy individuals in a particular age and gender group.

It is the minimum average requirement.

Purpose of EAR

- Used for research

2. What is Standardization?

Definition

Standardization is the process of fixing the exact recipe, ingredients, and preparation method so the product gives the same quality every time it is prepared.

Objectives of Standardization

- Maintain uniform quality
- Fix ingredient quantity
- Determine cooking time and temperature

- Ensure consumer satisfaction

Student Self Evaluation of the Long-Term Internship

Student Name:
Manda kalpana

Registration No: 236030863005

Term of Internship:

From: 24-11-2025 To: 31-03-2026

Date of Evaluation:

Organization Name & Address: Anjanaa's Foundation, Avanigadda/Hyderabad.

Please rate your performance in the following areas:

Rating Scale: Letter grade of CGPA calculation to be provided

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Pro activeness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	OVERALL PERFORMANCE	1	2	3	4	5

M. kalpana
Signature of the Student

Date:

Evaluation by the Supervisor of the Intern Organization

Student Name:

Manda kalpana

Registration No: 236030863005

Term of Internship: From: 24-11-2025 To: 31-03-2026

Date of Evaluation:

Organization Name & Address: Anjanaa's Foundation, Avanigadda/Hyderabad

Name & Address of the Supervisor
with Mobile Number Naveen

Please rate the student's performance in the following areas:

Please note that your evaluation shall be done independent of the Student's self-evaluation

Rating Scale: 1 is lowest and 5 is highest rank

1	Oral communication	1	2	3	4	5
2	Written communication	1	2	3	4	5
3	Pro activeness	1	2	3	4	5
4	Interaction ability with community	1	2	3	4	5
5	Positive Attitude	1	2	3	4	5
6	Self-confidence	1	2	3	4	5
7	Ability to learn	1	2	3	4	5
8	Work Plan and organization	1	2	3	4	5
9	Professionalism	1	2	3	4	5
10	Creativity	1	2	3	4	5
11	Quality of work done	1	2	3	4	5
12	Time Management	1	2	3	4	5
13	Understanding the Community	1	2	3	4	5
14	Achievement of Desired Outcomes	1	2	3	4	5
15	OVERALL PERFORMANCE	1	2	3	4	5

Signature of the Supervisor



Date:

INTERNAL ASSESSMENT STATEMENT

Name of the Student: Manda kalpana

Programme of Study: 3rd B.sc botany

Year of Study: 2026

Group: Science

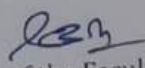
Register No/H.T.No: 236030863005

Name of the College: GOVERNMENT DEGREE COLLEGE RAJAMPET

University: Yogi Vemana University

Sl. No	Evaluation Criterion	Maximum Marks	Marks Awarded
1.	Activity Log	10	
2.	Internship Evaluation	30	
3.	Oral Presentation	10	
	GRAND TOTAL	50	

Date:


Signature of the Faculty Guide
Lecturer Incharge
Department of Botany
Government Degree College,
RAJAMPET (Kadapa Dt.)

EXTERNAL ASSESSMENT STATEMENT

Name of the Student: Manda kalpana

Programme of Study: 3rd B.sc botany

Year of Study: 2026

Group: Science

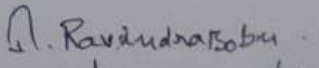
Register No/H.T.No: 236030863005

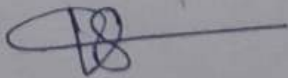
Name of the college: GOVERNMENT DEGREE COLLEGE RAJAMPET

University: Yogi Vemana University

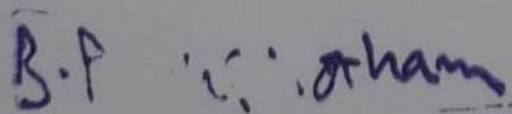
Sl. No	Evaluation Criterion	Maximum Marks	Marks Awarded
1.	Internship Evaluation	80	
2.	For the grading giving by the Supervisor of the Intern Organization	20	
3.	Viva-Voce	50	
	TOTAL	150	
GRAND TOTAL (EXT.50M+INT.100M)		200	

Signature of the Faculty Guide 

Signature of the Internal Expert :- 
A. Ravindran Babu
Lecturer in History
Date: 13/4/2026

Signature of the External Expert 

Signature of the Principal with Seal


B.P. C. Aham

PRINCIPAL
Govt. Degree College,
RAJAMPET-516115, Y.S.R (Dist.)



Anjanaas Foundation offers internships that can help you
grow professionally and personally.



**ANDHRA PRADESH
STATE COUNCIL OF HIGHER EDUCATION**

(A Statutory Body of the Government of Andhra Pradesh)

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