

SWARNIM GUJARAT SPORTS UNIVERSITY GANDHINAGAR

**Established by State Government Gujarat Act No. 22 of 2011
&
Recognized by UGC under section 2f of the UGC Act 1956**



**Curriculum for the
Certificate Course in Fundamentals of Nutrition
CCFN
(3 Months full and 6 months part time Course)**

CCFN 1. Eligibility:

The Selection of the candidates will be done on the basis of the following eligibility criteria:

- **Education Qualification:** Any Practicing Dietitian or B.Sc Nutrition / M.Sc. Nutrition and Dietetics, PG Diploma in Nutrition and Dietetic
- **There are 3 courses are offered:**
- 1. Certificate Course in Fundamentals of nutrition CCFN
- 2. Certificate Course in Clinical Nutrition CCCN
- 3. Certificate Course in Sports Nutrition CCSN
- **Entry Points for the Courses: -**
- 1. Any 10th or 12th passed (Any Stream) student is eligible for the CCFN Course.
- 2. Any B.sc or M.Sc (Foods & Nutrition)/ or PGD in Nutrition & Dietetics Student/ B.P.Ed /M.P.Ed is eligible for CCCN and CCSN.
- 3. Any B.Sc or M.Sc (Foods & Nutrition/ Clinical Nutrition)/ PGD in Nutrition & dietetics or Nutritionist/Registered Dietitian is eligible for CFN, CCN and CSN.
- Candidate who does not match about criteria can also opt for the programme on basis of qualifying entrance test.
- **Exit Points for the Courses:**
- 1. Any 10th & 12th Passed (Any Stream) student can do CCFN Course and then they will be eligible for CCCN OR CCSN.
- 2. Any B.Sc or M.Sc (Foods & Nutrition) / or PGD in Nutrition & Dietetics Student will be eligible CCFN/CCCN/CCSN
- **CCFN 2. Age Limit:**

22 to 45 years as on the time of admission.

CCFN 3. Duration:

- **3 Month (Regular)**
- **6 Month (Part - Time)**

CCFN 4. Course Structure:

1. The Certificate Programme is of three months for regular programme and six months (Saturday & Sunday) for Part - Time Programme. The medium of instruction shall be English, Hindi and Gujarati. The students are allowed to write the answers in respective languages as offered in the examinations.
2. The programme consists of the following types of courses:
 - Theory
 - Practical

CCFN 5. Academic Information:

The Details of about theory subjects & practical skills of Certificate Course in Fundamentals of Nutrition are as follows.

- Theory
 - Fundamentals of Nutrition-I
 - Fundamentals of Nutrition- II
- Practical
 - Practicals of Fundamentals of Nutrition- I & II
 - Project

CCFN 6. Method of Instruction:

- **Theory:** Through Lectures, Discussion, Seminar, Paper readings, projects, films / video analysis, instructional work, assignment, term papers, book review, etc.
- **Practical:** Participation in practical Cooking classes, Use & Care of Kitchen Equipment's, etc.

CCFN 7. Examinations:

- There shall be one final exam at the end of certificate programme. A candidate who does not pass the Certificate Examination He / she shall be permitted to appear in next two academic sessions from the date of admission to certificate programme.
- If a candidate is owing to shortage of attendance beyond condonation limit / rules prescribed OR on medical grounds, such candidates are not permitted to proceed for examination. Such candidates shall redo the Certificate course in the next academic session.
- To pass, a candidate must obtain at least 50% marks separately in each subject / area.
- If a candidate fails in theory subjects, including that of main game / sport, practical skills or in Teaching / Coaching lessons during Final examination, he / she shall be eligible to supplementary examination to be conducted by the University timely applying for it and on payment of an additional examination Fee as fixed by the University. He / she are required to complete the Certificate Course with in two academic sessions.
- A candidate shall be eligible to apply for revaluation in only theory subjects in accordance with the prevailing University Rules for this purpose.

CCFN 8. Dates for examinations:

The Certificate Course started from August and hence, the exams may be conducted as follows.

For (August – January) Batch exam is in the month of February.

For (February – July) Batch exam is in the month August.

CCFN 9. Table-1: Scheme of Examination

Level- 1 Fundamental of Nutrition

Subject Code	Name of Subjects	Maximum Marks	Minimum Pass Marks
CCFN-101	Fundamentals of Nutrition-I	100	50
CCFN-102	Fundamentals of Nutrition- II	100	50
CCFN-103	Practicals of Fundamentals of Nutrition I & II	100	50
CCFN-104	Project	100	50
TOTAL		400	200

CCFN 10. Attendance:

- A student of Certificate course requires minimum 80% attendance to be eligible for appearing in the examination. Students who have 79% to 70% of attendance shall apply for condonation in the prescribed form with the prescribed fee along with the Medical Certificate. Students who have below 70% of attendance are not eligible to appear for the examination.

CCFN 11. Woman Candidates:

- Married woman is also eligible for admission. In case, a woman candidate conceives during the course, she will have to discontinue her studies. She can join back in the next academic session.

CCFN 12. External Evaluation: Question Paper Pattern:

- Questions may be drawn on 50 MCQ of 2 mark each or the pattern given below:
Each question paper for external evaluation shall have five questions. The pattern will be as follow:

Question No.	Description	Marks
1	Short Notes (Any Four out of Eight questions) (4 Questions of 5 number each)	20
2	Brief Notes (Any two out of four questions) (2 Questions of 10 number each)	20
3	Answer in details (Long Question) Or Answer in details (Long Question)	20
4	Answer in details (Long Question) Or Answer in details (Long Question)	20
5	Answer in details (Long Question) Or Answer in details (Long Question)	20
TOTAL		100

Note – The paper must be prepared from all included subjects equally i.e. 25 marks from each units.

CCFN 13. Evaluation:

- The Performance of a student in certificate course is evaluated in terms of percentage of marks with a provision for conversion to grades. Evaluation of certificate course shall be done by a course end examination.
- Attendance shall be taken as a component of continuous assessment although the students should have minimum 80 % attendance in certificate course. The final examination, which will be written type examination of at least 3 hours duration. The marks to be allotted on the basis of final examination performance. The evaluation of practical will also be based on final practical examination.

CCFN 14. Minimum Passing Standard:

- The passing minimum for certificate programme is 50% of the 100 marks (i.e. 50 marks)

CCFN 15. Grading:

- Once the marks of the final examinations for each of the courses are available, they will be added. The marks thus obtained will then be graded as per the below table:

Grades / Divisions shall be awarded as follows:

1.- 80% and above	-	Distinction	Distinction
2.- 70% to below 80%	-	1 st Division	(A Grade)
3.- 60% to below 70%	-	2 nd Division	(B Grade)
4.- 50% to below 60%	-	3 rd Division	(C Grade)
5.- Below 50%	-		(D Grade)

CCFN 16. Award of Certificate in Fundamentals of Nutrition:

- A candidate shall be awarded Certificate in Fundamentals of Nutrition by the University on successful completion of the course and having passed in both theory and practical separately by securing at least 50% marks in each subject / practical.

CCFN 17. Fee Structure:

- **For the Current Regular University Students:**

S.No	Description	Fee in Rupees
1	Tuition Fees	2500 /-
2	University Examination Fee	900 /-
3	University Examination form Fee	25 /-
	TOTAL	3425 /-

- **For the others**

S.No	Description	Fee in Rupees
1	Tuition Fees	4500 /-
2	University Examination Fee	900 /-
3	University Examination form Fee	25 /-
	TOTAL	5425 /-

Note:

Student will bear the expenses of practical courses they opt.

Certificate Course in Fundamentals of Nutrition

CCFN-101: FUNDAMENTALS OF NUTRITION-I

ESSENCE OF THE COURSE

1. The course enables the students to understand the functions of food and the role of various nutrients and the effects of deficiency and excess
2. To learn about the composition and nutritional contribution and selection of different food stuff
3. To be familiar with different methods of cooking, their advantages and disadvantages
4. To develop the ability to improve the nutritional value of food

COURSE LEARNING OUTCOMES

After completing this course, the students will be able to

- Students will be able to understand what is Nutrition, Concepts, Classification, Functions.
- Students will gain an understanding of the Importance and Essentials of Nutrition for the Body.
- Students will have an understanding and gaining knowledge of Cooking practice and various methods of cooking through holistic cooking and also to preserve nutritional value.

COURSE CONTENT

Unit I

- a. Concept of nutrition
- b. Definition of food, diet, nutritional status and malnutrition
- c. Signs of good and poor nutrition

Unit II

Functions of food

- a. Energy yielding, body building and protective foods

Unit III

Macro nutrients: Classification, digestion, absorption, metabolism, sources, functions, RDA, deficiency and excess (in brief)

- a. Carbohydrates
- b. Protein
- c. Fat

Unit IV

Energy – Fuel and energy, energy yielding food factors, the energy value of food, energy units, determination of energy value using bomb calorimeter, direct and indirect calorimeter, basal metabolism, factors affecting BMR, BEE, recommended allowances for calories

TEACHING LEARNING STRATEGIES

- The content of the syllabus may be taught by using lecture method, discussion method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

MODE OF TRANSACTION

- Laboratory Work/Field Work/Outreach Activities/Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Presentations/Self- Learning Instructional Material etc.

ASSESSMENT RUBRICS

- End Course Exam

Marks: 100

Marks: 100

SUGGESTED READINGS

1. Sumati R. Mudambi S and M.V Rajagopal
2. Human Nutrition - Neelam Buddhdev, Bhavana Vaid
3. Prayukta Poshan – R. Rajlaxmi
4. Modern Cookery – Thangam E. Philip Vol. I
5. Food Science, Chemistry and Experimental Foods _ M. Swaminathan
6. Diet Therapy – F.P. Antia

Certificate Course in Fundamentals of Nutrition

CCFN-102: Fundamentals of Nutrition- II

ESSENCE OF THE COURSE

1. The course enables the students to understand the functions of food and the role of various nutrients and the effects of deficiency and excess
2. To learn about the composition and nutritional contribution and selection of different food stuff
3. To be familiar with different methods of cooking, their advantages and disadvantages
4. To develop the ability to improve the nutritional value of food

COURSE LEARNING OUTCOMES

After completing this course, the students will be able to

- This course will prepare students to:
- Understand the components of health, cooking and the role of nutrition in the human body system.
- Make nutritional, dietary and holistic cooking preparations for the athlete in a holistic approach.
- Develop ability to evaluate Nutritional well-being.

COURSE CONTENT

Unit I: The basic five food groups

Unit II: Micro nutrients: Classification, sources, functions, RDA, deficiency and excess (in brief)

1. Vitamins – Fat soluble vitamins A, D, E, K
Water soluble vitamin C and B-Complex
2. Minerals _ Calcium, phosphorus, iron, magnesium, selenium, sodium, potassium, chloride, fluorine, iodine, copper

Unit III: Water: Sources, water balance and requirement

Unit IV: Basic terminology used in food preparation

- a. Pre-preparation – Peeling, scraping, paring, cutting, grating, steeping, centrifuging, emulsification, homogenization, germination, fermentation
- b. Mixing terms – Beating, blending, cutting in, creaming, folding in

Unit V: Methods of food preparation

1. Boiling
2. Pressure cooking
8. Baking
9. Frying

3. Stewing
4. Poaching
5. Brewing
6. Braising
7. Solar cooking

10. Microwave cooking
11. Steaming
12. Roasting
13. Puffing

TEACHING LEARNING STRATEGIES

- The content of the syllabus may be taught by using lecture method, discussion method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

MODE OF TRANSACTION

- Laboratory Work/Field Work/Outreach Activities/Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Presentations/Self- Learning Instructional Material etc.

ASSESSMENT RUBRICS

- End Course Exam

Marks: 100

Marks: 100

SUGGESTED READINGS

1. Sumati R. Mudambi S and M.V Rajagopal
2. Human Nutrition - Neelam Buddhdev, Bhavana Vaid
3. Prayukta Poshan – R. Rajlaxmi
4. Modern Cookery – Thangam E. Philip Vol. I
5. Food Science, Chemistry and Experimental Foods _ M. Swaminathan
6. Diet Therapy – F.P. Antia

Certificate Course in Fundamentals of Nutrition
CCSN-103: PRACTICAL OF FUNDAMENTALS OF NUTRITION I & II

ESSENCE OF THE COURSE

This course will enable students to understand the practical aspects related to Nutrition for Health with holistic cooking approach.

COURSE LEARNING OUTCOMES

After completing this course, the students will be able to

- understand the skills and techniques of concerned opted Diet Therapy
- understand the use of different techniques of concerned opted Health and Nutrition.
- Describe the different equipment used for in concerned opted in Diet and Menu planning.
- understand the importance of practical experience of concerned opted Fitness and diet of person's with specific requirement.

COURSE CONTENT

Unit I: Use and care of kitchen equipments

Unit II: Controlling techniques: weights and measures – Standard and household measures for raw food

Unit III: Preparation and calculation of following rich recipes

- a. Carbohydrates
- b. Protein
- c. Energy

Unit IV: Preparing recipes using pre-preparation methods

- a. Germination
- b. Fermentation

Unit V: Preparation of following recipes rich in (One each)

1. Vitamin A
2. Vitamin C
3. Vitamin B₁
4. Vitamin B₂
5. Vitamin B₃
6. Folic acid
7. Calcium
8. Iron

Unit VI: Preparing recipes using different methods of cooking (One each)

1. Boiling
2. Pressure cooking
3. Steaming
4. Solar cooking
5. Baking
6. Frying
 - i. Deep frying
 - ii. Shallow frying

TEACHING LEARNING STRATEGIES

- The content may be taught by using different practical training, lecture method, Cooking method, discussion method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

MODE OF TRANSACTION

- Laboratory Work/Field Work/ survey work/ Outreach Activities/Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Presentations/Self- Learning Instructional Material etc.

ASSESSMENT RUBRICS

Marks: 100

- End Term Exam (Internal only) **Marks: 100**
 - Skill/Practical Activity 25% (own choice) + 25% (examiner choice) of total
 - Viva-voce 40% of total
 - Project File 10% of total

Certificate Course in Fundamentals of Nutrition

CCFN-104: PROJECT

ESSENCE OF THE COURSE

This course offers an introduction of making a project on sports nutrition. It aims to develop understanding about the projects in the field of sports nutrition.

COURSE LEARNING OUTCOMES

After completing this course, the students will be able to

- carry out a substantial project in any aspect of sports nutrition
- demonstrate an understanding of the ethical issues associated with practitioner research
- analyze data and synthesize research findings
- report research findings in written and verbal forms
- use research findings for advancement of sports nutrition activities

COURSE CONTENT

The write-up should focus on the specific objectives of the project, the methodology used, and the major findings. Regarding title instead of giving a general, topic-like title, be specific and emphasize the explicit nature of the work. The report should be brief, with the number of pages of the main content of the report 20-25 pages. Front matter, appendix, etc. can be extra.

- **ARRANGING THE CONTENTS:**

The sequence in which the project report material should be arranged and bound should be as follows:

- Cover Page & Title Page
- Bonafide Certificate from the project supervisor(s), counter signed by the HoD / Division or Group Head
- Declaration by author(s)
- Abstract
- Table of Contents
- List of Symbols, Abbreviations and Nomenclature
- Chapters
- Appendices
- References

- **PAGE DIMENSION AND BINDING SPECIFICATIONS:**

The dimension of the project report should be in A4 size. The project report should be neatly bound. The cover should be printed in black letters and the text (or font?) for printing should be identical.

- **PREPARATION FORMAT:**

- Cover Page & Title Page – A specimen copies of the Cover page & Title page of the project report is given in Appendix 1.
- Bonafide Certificate – The Bonafide Certificate shall be in double line spacing Times New Roman using Font Style and Font Size 14, as per the format in Appendix 2. The certificate shall carry the supervisor's signature and HoD's signature for projects done in ASYA and signatures of equivalent people if it is done outside ASYA.
- Declaration by Student(s) – see template in appendix 3
- Abstract – Abstract should be straight to the point; not too descriptive but fully informative. The following things should appear in the abstract. (a) the problem

addressed, (b) its importance/novelty, (c) the approach adopted for solving the problem, highlighting novelty, if any, (d) the major results obtained, (e) and the major conclusion. The abstract does not have to be an entire summary of the project, but rather a concise summary of the scope and results of the project. It should inform a reader whether to read or not the full text, and also give a precise idea on what has been attempted. An abstract should be short, and limited to 1 page. Include key words (Font Style: Times New Roman and Font Size: 12, Spacing: Single)

- Table of Contents – The table of contents should list all material following it as well as any material which precedes it. The title page, Bonafide Certificate, and Declaration by Authors may not be included in the Table of Contents, but the page numbers of which are in lower case Roman numbers. The format of the table of contents is given in Appendix 4.
- List of Symbols, Abbreviations and Nomenclature –Standard symbols, abbreviations etc. should be used.
- Chapters – The main text will be divided into several chapters and each chapter may further be divided into sections and subsections. Chapters, sections, and subsections should be given appropriate titles. Tables and figures should be placed in the immediate vicinity of the first reference to them. Figure and table numbers should carry their chapter number. For example, Fig. 4.2 is the second figure in the fourth chapter.
- The following are suggested chapters and what they could contain. The division into chapters may vary from project to project. The important point is that the report should mainly contain the work accomplished in the project, with a small portion devoted to describing the problem addressed and how others have tackled this or similar problems. The report should be understandable to your classmates. It should have sufficient detail to enable the examiners to assess the validity of the approaches used and the results obtained.
 - a) Introduction could contain the following. (i) Brief statement of the problem, (ii) importance/novelty of the problem, (iii) related literature - how others have addressed this or similar problems and the relevant results they obtained, (iv) scope of the project - precise idea on what is to be achieved in the work, (v) brief statements on what subsequent chapters contain.
 - b) Approach Used: This could be in one or more chapter. It should give the details of the approaches used by the student for arriving at results. The approach could be theoretical, computational, experimental, or a combination of these. The description should be detailed enough to enable someone else with the author's background to use the same approach and get the same results. Detailed part of the description, parameter values used, etc can be presented in Appendices.
 - c) Results and Discussion: This could also be in one or more chapters. These chapters include the specific details of data generated and results obtained, in graphical and/or tabular form. Based on the analysis and interpretation of data and results, major findings should be pointed out unambiguously. It should be noted that the findings are to be summarized according to the significance to the stated objectives, and should complement the latter. Detailed aspects can be presented in Appendices.
 - d) Conclusions and Recommendations: Conclusions are to be drawn with reference to the previously stated objectives of the project. This should highlight the major results. Recommendations are often more important than conclusions. It is known to us how to

do better only after we finish a project, i.e. after we obtain an appropriate experience. Particularly, students' experiments are hampered due to lack of experience, time, methods and equipment as well as insufficient attention to accuracy and details. Recommendations should be given for any further changes or work that would better accomplish the project objectives, or can extend them.

Note: It is very important to draw the figures and prepare the tables yourself. If any figure or table or data or result or opinion is not yours, cite relevant reference. If you do not cite reference in such cases, you will be regarded to have plagiarized/stolen the material. This could lead to punitive action.

(e) Appendices: Appendices may be provided to give supplementary information, which is included in the main text may serve as a distraction and cloud the central theme.

(f) List of References: The listing of references should be typed below the heading "REFERENCES" in the order in which they appear in the work. A typical illustrative list is given below.

- **REFERENCES**
- **TYPING INSTRUCTIONS**

The imprint on the typed copies should be black in color. One and a half spacing should be used for typing the text, and shall be typed in the Font style 'Times New Roman' and Font size 12, unless otherwise stated explicitly.

TEACHING LEARNING STRATEGIES

- The content of the syllabus may be taught by using lecture method, discussion method, cooking method, quiz method, educational videos, charts and assignment method depending upon the resources and facilities available at the University/Institute/ Department/Colleges.

MODE OF TRANSACTION

- Laboratory Work/Field Work/ survey work/ Outreach Activities/Project Work/ Vocational Training/Viva/ Seminars/ Term Papers/Presentations/Self- Learning Instructional Material etc.

ASSESSMENT RUBRICS

- | | |
|---------------------------------|-------------------|
| • End Term Exam (Internal only) | Marks: 100 |
| ○ Presentation | 50% of total |
| ○ Viva-voce | 30% of total |
| ○ Project File | 20% of total |