

**SWARNIM GUJARAT SPORTS  
UNIVERSITY  
GANDHINAGAR**

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**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 Sports Nutrition  
CCSN  
(3 Months full and 6 months part time Course)**

### **CCSN 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 10<sup>th</sup> or 12<sup>th</sup> 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 or 12 th + CCFN 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 or Graduate (any stream), nursing interns, physio interns is eligible for CCFN, CCCN and CCSN.
  - 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 10<sup>th</sup> & 12<sup>th</sup> 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

- **CCSN 2. Age Limit:**

22 to 45 years as on the time of admission.

### **CCSN 3. Duration:**

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

### **CCSN 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

### **CCSN 5. Academic Information:**

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

- Advanced Exercise Physiology
- Essentials of sport Nutrition and supplements
- Project
- Applied sport nutrition, meal plan development

**CCSN 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, planning for Sports Diets, etc.

**CCSN 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.

**CCSN 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.

## CCSN 9. Table-1: Scheme of Examination

### Level:3 Sports Nutrition

Subject Code	Name of Subjects	Maximum Marks	Minimum Pass Marks
CCSN-101	Advanced exercise physiology	100	50
CCSN-102	Essentials of sports nutrition and supplements	100	50
CCSN-103	Applied sport nutrition and meal plan development	100	50
CCSN-104	Project	100	50
<b>TOTAL</b>		<b>400</b>	<b>200</b>

### CCSN 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.

### CCSN 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.

**CCSN 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:

<b>Question No.</b>	<b>Description</b>	<b>Marks</b>
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
<b>TOTAL</b>		<b>100</b>

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

**CCSN 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 practicum will also be based on final practical examination.

**CCSN 14. Minimum Passing Standard:**

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

**CCSN 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 <sup>st</sup> Division	(A Grade)
3.- 60% to below 70%	-	2 <sup>nd</sup> Division	(B Grade)
4.- 50% to below 60%	-	3 <sup>rd</sup> Division	(C Grade)
5- below 50%			(D Grade)

**CCSN 16. Award of Certificate in Sports Nutrition:**

- A candidate shall be awarded certificate in Sports 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.

**CCSN 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 /-
	<b>TOTAL</b>	<b>3425 /-</b>

- **For the others**

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

**Note:**

**Student will bear the expenses of practical courses they opt.**

# **Certificate Course in Sports Nutrition**

## **CCSN-101: ADVANCED EXERCISE PHYSIOLOGY**

### **ESSENCE OF THE COURSE**

This course offers an introduction to Clean Sports Regulations. It aims to develop understanding about Clean sports, its classification, and new trends in sports, training institutes, governing bodies and scope in sports.

### **COURSE LEARNING OUTCOMES**

**After completing this course, the students will be able to**

- Students will be able to understand of what is considered to be doping.
- Students will gain an understanding of the impact of historical ‘sporting scandals’, on present day athletes, and the organizations that regulate ‘anti-doping’.
- Students will have an understanding of why some athletes may ‘dope’

### **COURSE CONTENT**

#### **Unit – I: Introduction to exercise physiology**

- Origins of Exercise physiology
- Food energy and optimum nutrition for physical activity
- Nutritional and pharmacological Aids to performance

#### **Unit-II: Energy Transfer**

- Introduction to physiological systems
- The pulmonary system and physiological activity
- The cardiovascular system and physiological activity

#### **Unit – III: Exercise training and adaptations**

- Anaerobic and aerobic energy systems
- Training muscles to become stronger
- Factors affecting physiological Function

#### **Unit – IV: Optimizing body composition and successful ageing**

- Body composition, obesity and weight control
- Physical activity, successful ageing, and disease prevention
- Health related physical activity benefits

### **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**

**Marks: 100**

- End Course Exam

**Marks: 100**

#### **SUGGESTED READINGS**

- **Essentials of exercise physiology , wolters kluwer**
- **Adventure Sports Coaching**, Routledge 2015
- Barton, **Safety, Risk and Adventure in Outdoor Activities**, Sage Publications 2006
- Bob Stremba and Christian A Bisson, Editors, **Teaching Adventure Education Theory: Best Practices**, Human Kinetics, 2009
- Fritz Allhoff, **Climbing: Because It's There**, John Wiley & Sons 2010
- Mark Wagstaff , Aram Attarian, **Technical Skills for Adventure Programming: A Curriculum Guide**, Human Kinetics Publishers 2009
- Matt Berry and Charis Hodgson, **Adventure Education: An Introduction**, Taylor & Francis 2011
- Nick Draper Chris Hodgson, **Adventure Sport Physiology**, John Wiley & Sons Inc
- R. James Sibthorp, Alan Ewert, **Outdoor Adventure Education**, Human Kinetics Publishers 2014
- <http://dash.harvard.edu/>
- [www.fina.org](http://www.fina.org)
- <http://ukad.org>
- <http://www.wada-ama.org/>
- <http://www.asada.gov.au/>
- [www.iwf.net/wp-content/](http://www.iwf.net/wp-content/)
- <http://www.ncbi.nlm.nih.gov>
- [www.ohsaa.org](http://www.ohsaa.org)



## **Certificate Course in Sports Nutrition**

### **CCSN-102: Essentials of Sports Nutrition and Supplements**

#### **ESSENCE OF THE COURSE**

This course offers an introduction of Sports nutrition and supplements. It aims to develop understanding about the Nutrition for sports, Nutritional management in sports, athletes diet, fitness management and it's outcomes.

#### **COURSE LEARNING OUTCOMES**

**After completing this course, the students will be able to**

- This course will prepare students to:
- Understand the components of health and fitness and the role of nutrition in these.
- Make nutritional, dietary and physical activity recommendations to achieve fitness and well-being.
- Develop ability to evaluate fitness and well-being.

#### **COURSE CONTENT**

##### **Unit – I: An overview of sports nutrition**

- Carbohydrates and performance
- Protein requirements for sport
- Vitamins and minerals
- Hydration

##### **Unit-II: overview of sports supplements**

- Definitions, types and use of different ergogenic aids like nutritional, physiological etc and commercial supplements, sports drinks, sports bars etc. Regulations regarding dietary supplements and ergogenic.

##### **Unit – III: nutritional and exercise regimes for management of obesity**

- Body fat and dietary fat
- Weight loss
- Wight gain

##### **Unit – IV:**

- Sports nutrition for strength/power
- Sports nutrition for endurance
- Special case studies

#### **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. Mahan L.K. & Ecott Stump.S. (2000): Krause's Food, Nutrition and Diet Therapy, 10<sup>th</sup> Edition, W.B.Saunders Ltd.
- 2.Sizer, F.& Whitney, E (2000): Nutrition – Concepts & Controversies, 8<sup>th</sup> Edition, Wadsworth. Thomson Learning.
3. Whitney, E.N. & Rolfes, S.R. (1999): Understanding, Nutrition, 8<sup>th</sup> Edition, West/ Wadsworth, An International Thomson Publishing Co.,
4. Ira Wolinsky (Ed.) (1998): Nutrition in Exercise and Sports, 3<sup>rd</sup> Edition, CRC Press.
5. Parikova, J. Nutrition, Physical activity and health in early life, Ed. Wolinsky, I. CRC Press.
6. Shils, M.E., Olson, J.A., Shike., N. and Rossa, A.C. (Ed.) (1999): Modern Nutrition in Health & Disease, 9<sup>th</sup> Edition, Williams & Wilkins.
7. McArdle, W.Katch, F. and Katch, V. (1996). Exercise Physiology. Energy, Nutrition and Human performance 4<sup>th</sup> edition, Williams and Wilkins, Philadelphia.

### **Journals**

1. Medicine and Science in Sports and Exercise
2. International Journal of Sports Nutrition

## **Certificate Course in Sports Nutrition**

### **CCSN-103 Applied sport nutrition and meal plan development**

#### **ESSENCE OF THE COURSE**

This course will enable students to understand the practical aspects related to Nutrition for Health & Fitness and Sports Athletes Diet.

#### **COURSE LEARNING OUTCOMES**

**After completing this course, the students will be able to**

- understand the skills and techniques of concerned opted Sports Diet Therapy
- understand the use of different techniques of concerned opted Health, Nutrition in sports
- describe the different equipment used for in concerned opted in Diet and Menu planning of sport athletes
- understand the importance of practical experience of concerned opted Fitness and diet of athletes.

#### **COURSE CONTENT**

1. To plan, prepare and calculate pre-game meal.
2. To plan, prepare and calculate During game meal.
3. To plan, prepare and calculate Post-game meal.
4. Visit to sports gym
5. Visit to sports fitness and training center
6. Market survey of ergogenic aids
7. Market survey of dietary supplements
8. Market survey of sports drinks and sports bars

#### **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**

- 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 Sports Nutrition**

## **CCSN-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)
  - Presentation 50% of total
  - Viva-voce 30% of total
  - Project File 20% of total

**Marks: 100**

**Marks: 100**