

**CERTIFICATE COURSE IN SPORTS DIETICIAN –THREE  
MONTHS PROGRAM UNDER LEARNING OUTCOME BASED  
CURRICULUM FRAMEWORK (LOCF) EXAMINATION  
W.E.F.SESSION 2020-21.**



**KURUKSHETRA UNIVERSITY**  
**KURUKSHETRA**  
**(Established by the State Legislature Act XII of 1956)**

# LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

---

## ORDINANCE – CERTIFICATE COURSE IN SPORTS DIETICIAN/LOCF EXAMINATION (From Session – 2020-21)

1. The duration of the programme of instruction for the Certificate Course in Sports Dietician Examination shall be three months during 15<sup>th</sup> November to 15 February of the academic session. The intake of students will be 30 students and the admissions to the course shall be made once in an academic session.
2. The examination shall be held ordinarily in month of February on the dates notified by the Controller of Examinations.
3. The last date(s) by which the examination forms and fees must reach the Examination Enquiry shall be as per schedule at Appendix-I in the K.U. Calendar Vol.II.
4. A person who has passed one of the following examinations from this University or an examination recognized as equivalent thereto, shall be eligible to join the course:  
***(a) Bachelor's degree in any discipline with 45% marks and maximum 10% weightage will be given as per University Rules.***
5. The examination shall be held according to the Scheme of examination and Syllabus as approved by the Academic Council from time to time.
6. A student who possesses the qualifications laid down in Clause 4 above, has been on the rolls of the Department for the programme during the period mentioned in clause-1 above preceding the examination and produces the following certificates signed by the Chairman of the Department concerned, shall be eligible to appear in the examination:-
  - (a) of good character;
  - (b) of having attended not less than 75% of the full course of lectures in theory, practical and tutorial separately (the course to be counted up to the day before the commencement of the examination).  
Provided that a candidate who has not attended the requisite percentage of attendance for any paper(s)/practical(s) will be detained by the Department concerned to take the University examination in the said paper(s) unless he/she repeats the course in the paper(s)/practical(s) concerned and obtains the requisite percentage of attendance in that paper.
7. A deficiency in the prescribed programme (Lectures/Practical/Tutorials) may be condoned by the Chairman of the Department concerned as under:
  - (a) Lectures : Up to 15% of the lectures delivered in each paper.
  - (b) Practical : Up to 5%.
  - (c) Tutorial Assignment : 15%.These shall also include loss of attendance due to participation in the cultural and sports assignments etc. Provided that, a student who participates in the Inter-university Tournaments/Youth festivals may be allowed additional condonation on this ground up to 10% in each paper on a certificate from the Director, Physical Education and Sports or the Director, Youth and Cultural Affairs Department, as the case may be subject to the condition that such a student shall not be allowed to appear in the examination if his/her attendance, after condonation on all counts, falls below 50%.

## LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

---

8. A candidate who has completed the prescribed programme of instruction in the Department but does not appear in the examination, or, having appeared fails, may be allowed on the recommendation of the Chairman of the Department concerned, to appear/re-appear in the examination, as the case may be, as an ex-student, without attending a fresh course of instruction only twice, at the subsequent examinations. A candidate who fails in any paper (theory/practical) shall be deemed to have failed in the examination. He shall repeat the programme *be novo*, if he/she desires to pass the programme.
9. The amount of examination fee to be paid by a candidate shall be the same as prescribed by the University from time to time.
10. The medium of instruction and examination shall be English/Hindi.
11. The minimum number of marks required to pass the examination shall be 40% in each Written paper and Practical separately.
12. As soon as possible, after the termination of the examination, the Controller of Examinations shall publish the result of the candidates and issue Detailed-Marks-Cards.
13. The list of successful candidates shall be arranged in five grades as under and the grade obtained by the candidate will be stated in his/her Certificate:-

(a) Those who obtain 80% or more of the aggregate number of marks	Grade 'O'
(b) Those who obtain 70% or more but less than 79.99% marks in aggregate	Grade 'A <sup>+</sup> '
(c) Those who obtain 60% or more but less than 69.99% marks in aggregate	Grade 'A'
(d) Those who obtain 50% or more but less than 59.99% marks in aggregate	Grade 'B'
(e) Those who obtain 40% or more but less than 49.99% marks in aggregate	Grade 'C'
(f) Below 40% marks	Fail
14. Notwithstanding anything contained in any other Ordinance, a person may pursue studies for Certificate Course in Sports Dietician and take the examination thereof simultaneously with the studies for any other course of the Kurukshetra University, except for LL.B-3 Year course being run in the evening.

Provided further that a person registered for Ph.D. Course may pursue studies for this Course only if he/she is permitted by the Vice-Chancellor as per provision of the Ph.D Ordinance.

**Certificate Course in Sports Dietician (3-Months)**  
**Scheme of Examination**  
**(w. e. f - 2016-17)**

<b>Sr. No.</b>	<b>Paper No.</b>	<b>Paper Name</b>	<b>Marks</b>	<b>Internal Assessment</b>	<b>Total Marks</b>	<b>Passing Marks</b>
1.	101 (Theory)	Nutritional Value of Food	80	20	100	40
2.	102 (Practical)	Diet Planning	100	-	100	50
<b>Total</b>			<b>180</b>	<b>20</b>	<b>200</b>	<b>90</b>

## **PROGRAMME OUTCOMES:-**

1. Learners will be able to comprehend the acquire knowledge during the Programme of study.
2. Learners will be able to reflect on the issues relating to the discipline-'Education'.
3. Learners will be able to exhibit the professional skills and competencies acquired during the Programme of study.
4. Learners will be able to show scientific & research capabilities in their academic, professional and general life pursuits.
5. Learners will be able to apply the knowledge and skills acquired in academic planning, organizing, evaluation, decision making and resource management according to pre-determined objectives/outcomes.
6. Learners will be able to work as member or leader in various teams and multi-disciplinary & diverse settings.
7. Learners will be able to discuss and solve the problems relating to the discipline and life.
8. Learners will be able to state and follow the ethical issues relating to the discipline and society.
9. Learners will be able to apply different tools and techniques of communication and related skills.

**PROGRAMME SPECIFIC OUTCOMES:**

1. apply knowledge of different nutrients in eradicating of excess and deficiency disorders of various nutrients.
2. apply knowledge of carbohydrates, fats and protein in different sports activities.
3. prepare diet chart for requirements of carbohydrates, fats and protein in short duration, medium duration and long duration activities.
4. apply knowledge of vitamins, minerals and fluids in different sports activities.
5. prepare and apply nutritional supplementation such as antioxidants, creatine, omega-3, fatty acids for different sports activities and also prepare meal planning for different periods of periodization.

**Certificate Course in Sports Dietician (3-Months)**

**Syllabus (w. e. f - 2016-17)**

**Paper – 101 (Nutritional Value of Food)**

**Time: Three Hours**

**Total Marks: 100**  
**(Theory Marks: 80 + Internal Assessment: 20)**

**Note: Paper setter is required to set 2 questions from each Unit - I, II, III and IV. Unit - V consists of 10 questions of short answers distributed from all over the syllabus. The candidates are required to attempt one question from each Unit – I, II, III & IV carrying 15 marks for each question. Unit - V is compulsory for all consisting 2 marks of each short answer.**

**Course Outcomes:**

**After completion of the course contents of this paper, the student will be able to:**

- CCSD 101.1** apply knowledge of carbohydrates and fats in removing related disorders of these nutrients.
- CCSD 101.2** apply knowledge of protein and fats in removing related disorders.
- CCSD 101.3** apply knowledge of vitamins, minerals and fluids for different sports activities.
- CCSD 101.4** prepare diet plan for competition and transitional period along with nutritional supplementation.

**SYLLABUS**

**Unit 1: Carbohydrates and Fats**

Carbohydrate: Types of Carbohydrate and their availability in different types of food stuffs.

Fats: Types of fats and their availability in different types of food stuffs.

Overview of deficiency and excess disorders of Carbohydrates and Fats in sports persons.

**Unit 2: Proteins**

Protein: Types of Proteins, their availability in different types of food stuffs.

Overview of deficiency and excess disorders of Proteins in sports persons.

Role of Carbohydrate, Fats and Proteins in different sports activities: Short duration (High, Medium & Low) intensity activities, Medium duration (High, Medium & Low) intensity activities and Long duration (Medium & Low) intensity activities.

## **Unit 3: Vitamins, Minerals and Fluids**

Vitamins: A, D, E, K, B1, B2, B3, Folic Acid and C. Role of these Vitamins in body during different sports activities.

Minerals: Macro - Ca & P, Micro – Fe, Zn, K & Na. Role of these macro and micro minerals body during different sports activities.

Fluid and electrolyte balance, Fluid supplements for Sports: Isotonic, hypertonic and hypotonic.

## **Unit 4: Diet Planning**

Principles of diet planning, Principles for evaluation of diet plan, Diet planning for different phases of training: preparatory phase, pre competition, competition and transition phase.

Nutritional supplementation for sports person: Antioxidants, Amino acids, Creatine, Herbal supplements, Omega 3 fatty acids.

### ***References:***

- Bessesen, D. H. (2008). Update on obesity. J ClinEndocrinolMetab.93(6), 2027-2034.*
- Butryn, M.L., Phelan, S., & Hill, J. O. (2007). Consistent self-monitoring of weight: a key component of successful weight loss maintenance. Obesity(Silver Spring). 15(12), 3091-3096.*
- Chu, S.Y. & Kim, L. J. (2007). Maternal obesity and risk of stillbirth: a metaanalysis. Am J ObstetGynecol, 197(3), 223-228.*
- DeMaria, E. J. (2007). Bariatric surgery for morbid obesity. N Engl J Med,356(21), 2176-2183.*
- Dixon, J.B., O'Brien, P.E., Playfair, J. (n.d.). Adjustable gastric banding and conventional therapy for type 2 diabetes: a randomized controlled trial. JAMA. 299(3), 316-323.*





## **Diet Planning (Practical)**

### **Course Outcomes:-**

**After completion of the course contents of this paper, the student will be able to:**

- CCSD -102.1** plan and apply knowledge of nutrients for the weight loss.
- CCSD -102.2** plan and apply knowledge of nutrients for the weight gain.
- CCSD -102.3** plan and apply knowledge of nutrients in making diet plan for different calorie requirements.
- CCSD -102.4** plan and apply knowledge of nutrients in making diet plan for endurance training, strength training and speed training.

### **PRACTICAL SYLLABUS**

1. Preparing weekly diet plan for weight loss.
2. Preparing weekly diet plan for weight gain.
3. Preparing weekly diet plan for 3000 Cal., 4000 Cal., 5000 Cal., 6000 Cal. and 7000 Cal.
4. Diet plan for endurance training, strength training and speed training.





**Attainment of COs:**

The attainment of Cos can be measured on the basis of the results of internal assessment and semester examination. The attainment is measured on scale of 3 after setting the target for COs attainment. Table 5 shows the CO attainment levels assuming the set target of 60% marks:

**Table 5 : CO Attainment Levels for internal assessment.**

Attainment Level	
<b>1</b> <b>(Low level of attainment)</b>	<b>50% of students score more than 50% of marks in class tests of a course.</b>
<b>2</b> <b>(Medium level of attainment)</b>	<b>60% of students score more than 50% of marks in class tests of a course.</b>
<b>3</b> <b>(High Level of attainment)</b>	<b>70% of students score more than 50% of marks in class tests of a course.</b>

*Note: In the above table, the set target is assumed as 50%. It may vary in different departments/institutes. The staff Councils of the departments/institutes may finalize the set target*

A proper mapping of course outcomes with assessment methods should be defined before measuring the attainment level. The questions in tests for internal assessment are based on COs. Here it is assumed that class test – I is based on first two COs (i.e. CCSD 101.1 and CCSD 101.2) of a course with equal weightage given to both COs. Similarly class test – II is based on next two COs (i.e. CCSD 101.3 and CCSD 101.4) of a course with equal weightage given to these two COs. For each internal assessment test, the percentage of students attaining the target level of CO is estimated and average percentage will decide the attainment level of COs. Following steps may be followed for determining the attainment level in internal assessment of course.

- i. Estimate the %age of students scoring set target (say 50%) or more in the questions of test-I based on first CO i.e. CCSD 101.1
- ii. Estimate the %age of students scoring set target (50%) or more in the question(s) of test-I based on second CO i.e. CCSD 101.2
- iii. Estimate the %age of students scoring set target (50%) or more in the question(s) of test-II based on third CO i.e. CCSD 101.3
- iv. Estimate the %age of students scoring set target (50%) or more in the question(s) of test-II based on fourth CO i.e. CCSD 101.4
- v. Take average of the percentages obtained above.
- vi. Determine the attainment level i.e. 3, 2 or 1 as per scale defined in table 5.

*Note: In the above steps, it is assumed that internal assessment is based on two tests only. However if internal assessment is based on more than two tests and/or on assignment then same may be incorporated*

# LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

to determine the CO attainment level. There may be more than four COs for a course. The set target may also be different for different Cos. These issues may be resolved by the Staff Councils of the departments/institutes.

For determining the attainment levels for end semester examination, it is assumed that questions in the end term examination are based on all COs of the course. Attainment levels for end semester examination of a course can be determined after the declaration of the results. The CO attainment levels for end semester examination are given in Table 6.

**Table 6 : CO Attainment Levels for End Semester Examination (ESE)**

Attainment Level	
<b>1</b> (Low level of attainment)	<b>60% of students obtained letter grade of A or above (for CBCS programs) or score more than 60% of marks (for non-CBCS programs) in ESE of a course.</b>
<b>2</b> (Medium level of attainment)	<b>70% of students obtained letter grade of A or above (for CBCS programs) or score more than 60% of marks (for non-CBCS programs) in ESE of a course.</b>
<b>3</b> (High Level of attainment)	<b>80% of students obtained letter grade of A or above (for CBCS programs) or score more than 60% of marks (for non-CBCS programs) in ESE of a course.</b>

*Note: In the above table, the set target is assumed as grade A for CBCS courses and 60% for non-CBCS courses. It may vary in different departments/institutes. The staff Councils of the departments/institutes may finalize the set target.*

## **Overall CO Attainment level of a Course:**

The overall CO attainment level of a course can be obtained as:

Overall CO attainment level = 50% of CO attainment level in Internal assessment + 50% of Co Attainment level in end semester examination.

The overall COs attainment level can be obtained for all the courses of the program in a similar manner.

## **Attainment of POs:**

The overall attainment level of POs is based on the values obtained using direct and indirect methods in the ratio of 80:20. The direct attainment of Pos is obtained through the attainment of COs. The overall CO attainment value as estimated above and CO-PO mapping value as shown in Table 4 are

# LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

used to compute the attainment of POs. PO attainment values obtained using direct method can be written as shown in the Table 7.

**Table 7: PO Attainment Values using Direct Method**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
CCSD 101									
CCSD 102									
Direct PO attainment	Average of above values	Average of above values	Average of above values	--	--	--	--	--	Average of above values

The PO attainment values to be filled in above table can be obtained as follows:

For CCSD 101-PO1 Cell:

PO1 attainment value = (Mapping factor of CCSD 101-PO1 from Table 4 x Overall CO attainment value for the course CCSD 101)/3

For CCSD 104-PO1 Cell:

PO1 attainment value = (Mapping factor of CCSD 104-PO1 from Table 4 x Overall CO attainment value for the course CCSD 104)/3

Similarly values for each cell of Table 7 can be obtained. The direct attainment of POs is average of individual PO attainment values.

In order to obtain the PO attainment using indirect method, a student exit survey based on the questionnaire of POs may be conducted at end of last semester of the program. The format for the same is given in Table 8. Average of the responses from the outgoing students for each PO is estimated.

The overall PO attainment values are obtained by adding attainment values estimated using direct and indirect methods in the proportion of 80:20 as follows:

Overall attainment value for PO1 =

[0.8 x average attainment value for PO1 using direct method (from table 7)] + [0.2 x average response of outgoing students for PO1].

Similarly overall attainment value can be obtained for each PO.

**Table 8: PO Questionnaire for indirect measurement of PO attainment**  
**(For Outgoing students)**

At the end of my degree program I am able to do:

## LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

Statements of POs	Please Tick any one		
1. Learners will be able to comprehend the acquire knowledge during the Program of study.	3	2	1
2. Learners will be able to reflect on the issues relating to the discipline- 'Education'.	3	2	1
3. Learners will be able to exhibit the professional skills and competencies acquired during the Program of study.	3	2	1
4. Learners will be able to show scientific & research capabilities in their academic, professional and general life pursuits.	3	2	1
5. Learners will be able to apply the knowledge and skills acquired in academic planning, organizing, evaluation, decision making, resource management according to pre-determined objectives/outcomes.	3	2	1
6. Learners will be able to work as member or leader in various teams and multi-disciplinary & diverse settings.	3	2	1
7. Learners will be able to discuss and solve the problems relating to the discipline and life.	3	2	1
8. Learners will be able to state and follow the ethical issues relating to the discipline and society.	3	2	1
9. Learners will be able to apply different tools and techniques of communication and related skills.	3	2	1

Overall PO attainment values can be written as shown in Table 9:

**Table 9: Overall PO attainment Values.**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9
Direct PO attainment									
Indirect PO attainment									
Overall PO attainment.									
Target									

The overall PO attainment values obtained above are compared with set target. The set target for each PO may be different and can be finalized by the staff councils of the departments/institutes. If overall PO



## LOCF/CERTIFICATE COURSE IN SPORTS DIETICIAN/KUK

---

attainment value is less than the set target value then an action plan may be prepared for improvement in the subsequent academic session.

**The overall PSO attainment level based on CO-PSO mapping values and overall CO attainment values can be obtained in a similar manner as above.**