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शिवाजी विद्यापीठ, कोल्हापूर, ४१६ ००४, महाराष्ट्र
दूरध्वनी - इपीबीएक्स - २०६०९०००, अभ्यासमंडळे विभाग : ०२३१- २६०९०९४. २६०९४८७
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Estd. 1962
"A++" Accredited by NAAC (2021)
With CGPA 3.52

Ref.: SU/BOS /Voc. / 222 **Date: 06 - 07- 2026**

The Principal,
All concerned Affiliated Colleges /Institutions,
Shivaji University, Kolhapur

Subject : Regarding Syllabi of B. Voc. Part II Programme under the Faculty of Inter- Disciplinary Studies as per National Education Policy 2020 (2.0)

Sir/Madam,

With reference to the subject, mentioned above, I am directed to inform you that the university authorities have accepted and granted approval to the syllabi of following B. Voc. Part II Programme under the Faculty of Inter-Disciplinary Studies, as per National Education Policy 2020 (2.0).

1	B. Voc. Food Processing Technology	6	B Voc. Tourism And Service Industry
2	B. Voc Sustainable Agriculture	7	B. Voc. Building Technology & Interior Designing
3	B. Voc. Automobile	8	B. Voc. Printing And Publishing
4	B. Voc. Graphic & Design	9	B. Voc. Nutrition And Dietetics
5	B. Voc. Nursing And Hospital Management	10	B. Voc. Sustainable Agriculture Management

This syllabus (nature of question paper and equivalence etc) shall be implemented from the academic year **2026-2027** onwards. A soft copy containing the syllabus is attached herewith and it is also available on university website www.unishivaji.ac.in NEP-2020 (Online Syllabus).

The question papers on the pre-revised syllabi of above-mentioned programmes will be set for the examinations to be held in October /November 2026 & March/April 2027. These chances are available for repeater students, if any.

You are therefore, requested to bring this to the notice of all students and teachers concerned.

Thanking you,

Yours faithfully

Dy Registrar

Encl. : as above
Copy to: For information and necessary action

1	The I/C Dean, Faculty of IDS	7	P.G.Admission Section
2	Director, Board of Examination and Evaluation	8	Affiliation T. 1 & T. 2 Section
3	The Chairman, Respective Board of Studies	9	Appointment A & B Section
4	All On Exam Section	10	P.G.Seminar Section
5	Eligibility Section	11	I. T. Cell
6	Computer Centre	12	Internal Quality Assurance Cell (IQAC)

SHIVAJI UNIVERSITY, KOLHAPUR

Accredited By NAAC with 'A++' Grade with CGPA 3.52

Structure and Syllabus in Accordance with

National Education Policy- 2020

With Multiple Entry and Multiple Exit

Faculty of Interdisciplinary Studies
Syllabus for

B. Voc.-Part II NEP-2.0
Nutrition and Dietetics

Revised Syllabus to be implemented from Academic Year 2026-2027 onwards

(Subject to the modifications that will be made from time to time)

SHIVAJI UNIVERSITY, KOLHAPUR
Revised Syllabus for the Bachelor of Vocation in Nutrition and Dietetics
(As per NEP- 2.0)
Applicable from the Academic Year 2026 – 27

1. **Title**: B. Voc. II Nutrition and Dietetics Degree Programme, Shivaji University, Kolhapur Revised Syllabus as per NEP – 2.0
2. **Faculty**: Faculty of Nutrition and Dietetics.
3. **Year of Implementation**: From June 2026
4. **Preamble (Nutrition and Dietetics):**

The industry is experiencing accelerated growth in several sectors amid a burgeoning global shift in consumer behavior regarding what we put in our bodies, aging population desiring improved muscle, joint, and cognitive health, and emerging middle and affluent classes in key markets.

The growth in this industry is driven by the increasing focus on personal health and wellbeing. With a shift in urban lifestyle towards sedentary, there is a renewed focus on fitness to avoid lifestyle-related diseases and deal with stress. Seeking professional guidance for fitness and slimming are no longer considered a luxury, but an elementary part of a healthy lifestyle. This change in consumer behavior and preferences will continue to provide an impetus to the industry.

Recruitment and retention of skilled manpower is the biggest challenge faced by the industry today. There is a dearth of good training institutes, with standardized and accredited courses.

The vocational training programs often impart theoretical knowledge with little hands-on experience. Hence, in-house training becomes the only option for companies to equip the workforce with the relevant skill set. There is a very limited pool of skilled professionals available in the country whereas the demand is huge. The attrition rate in the industry is high and retaining experienced professionals has become a key challenge. There are no dedicated government institutes or training centers to equip people with desired skills. Hence, there is a need for Recognized Degree programs in Integrative Nutrition & Dietetics.

5. **Program Outcomes:**
   - PO-1: - Have knowledge and skill of the information and communication technologies essential to follow today's technological developments and improve themselves in this field.
   - PO-2: - Acquire the skill of understanding the basic values and culture of the society they live in, adapting to these and changing themselves positively.
   - PO-3: - Have knowledge of the concepts of physiology, nutritional biochemistry, nutrition, dietetics and other terminologies related to human health.
   - PO-4: - Apply the knowledge and skills they obtain to the situations encountered in both national and international level, as well as the ability of lifelong learning.
   - PO-5: - Apply the scientific methods and techniques, as well as quality management processes related to food, nutrition and dietetics service sector.
   - PO-6: - Apply the professional competency acquired during the process of learning towards their career growth with the collaborative and cooperative attitude.

6. **Course Outcomes (CO):**
   - CO-1: - Exhibit effective oral communication through personal interaction as well as classroom presentations, individually or as part of a group, to a larger audience.
   - CO-2: - Possess skills and experience relating to health & nutrition consulting in a professional setting.

- CO-3: - Identify and classify food and foodstuffs. Determine their composition, properties, nutritive value, bioavailability, organoleptic, sensory and gastronomic characteristics, and the changes they undergo as a consequence of technological and culinary processes.
- CO-4: - Understanding the basic processes involved in the preparation, transformation and conservation of foods of both animal and vegetable origin.
- CO-5: - Interpret and use food composition tables and databases properly. 6. Understand the microbiology, parasitology and toxicology of food.

7. Objectives of a Bachelor of Vocation (B. Voc.) in Nutrition and Dietetics Program include:

- To understand the functions and role of nutrients, their requirements and the effect of deficiency and excess (in brief)
- To understand the concept of an adequate diet and the importance of nutrients in recommended Dietary Allowances
- To provide scientific training that encompasses all aspects of the nutritional and food sciences
- To develop skills and attitudes required for working in the broad field of nutrition and dietetics.
- To train students in the field of food service management.
- Prepare students for a just and healthy society by advancing the range of roles and settings in human nutrition.
- Amplify the contribution of dietetics and nutrition practitioners and expand workforce capability and capacity.
- Collaborate to resolve the greatest nutrition and food challenges of present and the future.

8. Duration of the Course: The B. Voc. II Course (Nutrition and Dietetics) (Level 5.0) will be of **Two Semesters (Sem. II and Sem IV)**.

9. Medium of Instruction: English

10. Eligibility for Admission to B. Voc. Part II (Level 5.0):

i. The students passing or ATKT the B. Voc. Part-I (or Undergraduate Certificate in Nutrition and Dietetics) shall be allowed to enter upon the B. Voc. Part-II (or Undergraduate Diploma in Nutrition and Dietetics).

OR

ii. An Examination of any other Statutory University or an examining Body recognized as equivalent there to.

11. Scheme of Teaching and Examination:

i. Each theory course paper constitutes of 4-5 units, which require 30 hours of teaching lectures and there shall be two lectures per theory (2 Cr) course per week.
ii. B. Voc. II Nutrition and Dietetics Course will be of 44 Credits (1100 marks).
iii. Examination of each **theory course** shall be of **50 marks** (30 university examination + 20 internal assessment). University examination of 30 marks (1.5 hours' duration) will be conducted at the end of each Semester. Internal assessment of 20 marks will be done before the semester examination during each semester.
iv. Examination for a practical course shall be 50 marks per semester.
v. Pattern and Nature, marking scheme for theory and Practical Examination for Major Specific SEC and VSC courses are included in syllabus.
vi. Question papers will be set in the view of the entire syllabus and preferably covering each unit of the syllabus. Weightage should be provided for each unit as per the hours allotted for teaching.

12. Structure of course: Given in Framework Chart

13. Standard of Passing: The standard of passing shall be as per the following table.

	Semester End Exam	Internal Assessment	Course Exam (Total)
Maximum Marks	30	20	50
Minimum Marks required for passing	12	8	20

i. There shall be a separate head of passing for semester-end examination and internal examination.
ii. Minimum 20 marks out of 50 are required for passing of practical examination of each course.
iii. **Assessment:** The NEP 2020 emphasizes upon formative and continuous assessment rather than summative assessment. Therefore, the scheme of assessment should have components of these two types of assessments. Assessment has to have correlations with the learning outcomes that are to be achieved by a student after completion of the course
    a) **Continuous Assessment:** Assignments, projects, presentations, seminars and quizzes
    b) **Examinations:** Midterm, finals, or comprehensive exams.
    c) **Research Projects/Dissertation/Thesis:** Evaluated through submission and viva-voce
    d) **Grading System:** Standardized letter grades, percentages, or CGPA

Letter Grades and Grade Points:

The Semester Grade Point Average (SGPA) is computed from the grades as a measure of the student's performance in a given semester. The SGPA is based on the grades of the current term, while the Cumulative GPA (CGPA) is based on the grades in all courses taken after joining the programme of study. The HEIs may also mention marks obtained in each course and a weighted average of marks based on marks obtained in all the semesters taken together for the benefit of students.

Computation of SGPA and CGPA: UGC recommends the following procedure to compute the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

Letter Grade	Grade Point
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Above Average)	6
C (Average)	5
P (Pass)	4
F (Fail)	0
Ab (Absent)	0

1. The SGPA is the ratio of the sum of the product of the number of credits with the grade points scored by a

student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

$$\textbf{SGPA } (S_i) = \frac{\sum (C_{ix} G_i)}{\sum C_i}$$

Where C_i is the number of credits of the i^{th} course and G_i is the grade point scored by the student in the i^{th} course.

2. The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$\textbf{CGPA} = \frac{\sum (C_{ix} S_i)}{\sum C_i}$$

Where S_i is the SGPA of the i^{th} semester and C_i is the total number of credits in that.

14. Nature of Question paper and scheme of marking:

- Theory question paper: Maximum marks -30
- Total No. of questions – 3
- All questions are compulsory.
- Question No.1 is MCQ type (6 Marks).
- Question number 2 is long answer type question Carries 12 marks.
- Question number 3 is short answer type question carries 12 marks.

(Nature of question paper is provided at the end of syllabus.)

SHIVAJI UNIVERSITY, KOLHAPUR

NEP 2.0: Credit Framework for B. Voc. Undergraduate (UG) Programme under Faculty of Interdisciplinary Studies

B. Voc. Nutrition and Dietetics

Level	Semester	COURSES			OE	VSC/SEC	AEC/VEC/IKS	OJT/FP/CEP/ CC/ RP	Total Credit	Degree/Cum/Cr. MEME
		Course –I	Course -II	Course -III			IKS			
4.5	I	DSC-I (2) DSC-II (2) DSC P-I (2)	DSC-I (2) DSC-II (2) DSC P-I (2)	DSC-I (2) DSC-II (2) DSC P-I (2)	OE -1 (T/P) (2)	-	IKS-I (2) Introduction to IKS	-	**22**	**UG Certificate 44**
	II	DSC-III (2) DSC-IV (2) DSC P-II (2)	DSC – III (2) DSC-IV (2) DSC P-II (2)	DSC-III (2) DSC-IV (2) DSC P-II (2)	OE-2 (T/P) (2)	-	VEC-I (2) (Democracy, Election and constitution)	-	**22**	
Credits		**8(T)+4(P)= 12**	**8(T)+4(P)= 12**	**8(T)+4(P)=12**	**2+2 =4**	**-**	**2 + 2= 4**	**-**	**44**	**Exit Option: 4 Credits NSQF/Internship/Skill Courses**
		MAJOR		**MINOR**						
5.0	III	Major-V (2) Major-VI (2) Major P-III (2)	-	Minor-V (2) Minor-VI (2) Minor P-III (2)	OE -3 (T/P) (2)	VSC- I (2) (P) (Major Specific) SEC-I (2) (T/P)	AEC-I (2) English	CC-I (2)	**22**	**UG Diploma 88**
	IV	Major-VII (2) Major-VIII (2) Major P-IV (2)	-	Minor-VII (2) Minor-VIII (2) Minor P-IV (2)	OE-4 (T/P) (2)	SEC-II (2) (T/P)	AEC-II (2) English VEC-II (2) (Environmental Studies)	CEP-I (2)	**22**	
Credits		**8(T)+4(P)= 12**	-	**8(T)+4(P)=12**	**2+2= 4 (T/P)**	**4 (T/P) +2 (P)=6**	**2 + 4= 6**	**2 + 2= 4**	**44**	**Exit Option: 4 Credits NSQF/Internship/Skill Courses**
5.5	V	Major-IX (2) Major-X (2) Major P-V (4)	Major-I(ELEC) (2) Major P-I (ELEC) (2)	-	OE-5 (T/P) (2)	VSC-II (2) (Major Specific) (P)	AEC-III (2) English	OJT (4)	**22**	**UG Degree 132**
	VI	Major-XI (2) Major-XII (2) Major P-VI (4)	Major-II (ELEC) (2) Major P-II (ELEC) (2)	-	-	VSC-III (2) (P) (Major Specific) SEC-III (2) (T/P)	AEC-III (2) English IKS-2(Major Specific) (2)	FP (2)	**22**	
Credits		**8 (T) + 8 (P) = 16**	**4 (T) + 4 (P) = 8**	-	**2 (T/P)**	**2 (T/P) +4 (P) = 6**	**2 + 4 = 6**	**4+2 = 6**	**44**	
Total Credits		**40+20=60**		24	**10**	**12**	**16**	**10**	**132**	**Exit Option**

B. Voc. Nutrition and Dietetics

Titles of Papers

Sem	Course	Code	Paper No.	Title of Paper
III	I	Major-V	B. Voc. Paper- V	Food Micro-biology - I
		Major-VI	B. Voc. Paper- VI	Advanced Dietetics - II
		Major P-III	B. Voc. Practical –III	Based upon Major-V and Major-VI
	II	Minor-V	B. Voc. Paper- V	Community Nutrition
		Minor-VI	B. Voc. Paper- VI	Nutrition, Exercise and Fitness
		Minor-P-III	B. Voc. Practical –III	Based upon Minor-V and Minor-VI
	OE -III	Open Elective	Theory (2)	Diet Therapy -I
	VSC-I	Vocational Skill Courses	Practical (2)	Food Service and Management
	SEC-I	Skill Enhancement Courses	Practical (2)	Clinical Nutrition
	AEC-I English	Ability Enhancement Courses	Theory (2)	English
	CC-I	Co-Curricular Courses	2 Cr	Yoga Education
IV	I	Major-VII	B. Voc. Paper- VII	Introduction to Food Planning
		Major-VIII	B. Voc. Paper- VIII	Food Chemistry
		Major P-IV	B. Voc. Practical –IV	Based upon Major-VII and Major-VIII
	II	Minor-VII	B. Voc. Paper- VII	Food Processing and Preservation
		Minor-VIII	B. Voc. Paper- VIII	Nutrition Across Lifestyle
		Minor-P-IV	B. Voc. Practical –IV	Based upon Minor-VII and Minor-VIII
	OE -IV	Open Elective	Theory (2)	Diet Therapy-II
	SEC-II	Skill Enhancement Courses	Practical (2)	Ayurveda Concepts of Diet
	AEC-II English	Ability Enhancement Courses	Theory (2)	English
	VEC-II	Value Education Courses	Theory (2)	Environmental Studies
	CEP-I	Community Engagement Programme	Theory (2)	Community Engagement Programme in Nutrition and Dietetics

· Student Contact Hrs. Per week: 36 hrs.	· Total marks for B. Voc.- UG Diploma: 1100
· Theory and Practical Lectures: 60 Minutes Each	· Total credits for B. Voc.- UG Diploma: 44
· **DSC:** Discipline Specific Course	
· **MAJOR:** Mandatory/Elective	
• **MINOR:** Course may be from different disciplines of same faculty of DSC Major.	
· **OE (Open Elective):** Chosen compulsorily from faculty other than that of the Major.	
• **VSC/SEC: Vocational Skill Courses (MAJOR related)/Skill Enhancement Courses**	
· **AEC/ VEC / IKS:** Ability Enhancement Courses (English, Modern Indian Language)/Value Education Courses/ Indian Knowledge System (Generic & Specific))	
· **OJT/FP/RP/CEP/CC:** On-Job Training (Internship/Apprenticeship) / Field Project (Major related)/ Research Projects (Major related) Community Engagement (Major related)/ Co-Curricular Courses (CC) such as Health & Wellness, Yoga Education, Sport, and Fitness, Cultural activities, NSS/NCC and Fine /applied/visual/performing Arts / Vivek Vahini etc.	

Eligibility for Admission:

i. The students passing or ATKT the B. Voc. Part-I (or Undergraduate Certificate in Nutrition and Dietetics) shall be allowed to enter upon the B. Voc. Part-II (or Undergraduate Diploma in Nutrition and Dietetics).

OR

ii. An Examination of any other Statutory University or an examining Body recognized as equivalent there to.

SHIVAJI UNIVERSITY, KOLHAPUR

B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus with effect from June 2026

B. Voc. II (Nutrition and Dietetics)

Sem. III Major– V B. Voc. Paper-V

Food Micro-biology - I

Theory: 30 Hours

(Credits: 02)

Food Microbiology

Unit No.1:- Food Microbiology-Basic concepts and History in brief (8 Hrs)

General characteristics

- Morphological Characteristics
- Reproductive characteristics
- Physiological characteristics
- Molds of industrial importance
- Molds, Yeasts and Bacteria

Brief introduction to the following:

- Viruses, Algae and Parasites

Unit No.2:- Sources And Types Of Contamination Water (7 Hrs)

- Microbial flora- (types of micro organisms)
- Water-As a source of contamination
- Water purification
- Microbial examination
- Indicator organisms
- Water borne illnesses- (names)
- Microbial flora
- Sources of contamination

Unit No.3:- Sanitation in Food Service Establishment (7 Hrs)

1. Cleansing agents, Disinfectants & sanitizers used in Food service Establishment.
2. Personal hygiene
   - The food handler
   - Cleanliness with regard to hand, habits, working attire/cloths, jewellery,
   - Health of a food handler
3. HACCP Principles, Need and benefits

Unit No.4:- Micro Organisms and Food: (8 Hrs)

Beneficial effects of microorganisms.

Microorganisms responsible for commercial production of acid, alcohols, solvents, antibiotics, vitamins, hormones, enzymes, amino acid etc.

1. Microbial fermentation and role of micro organisms in Food fermentations
   - Beer, Wine, Bread
   - Indian pickles
   - Fermented dairy products curd, yoghurt and cheese
   - Vinegar

     Indian fermented products-idli, dhokla and khaman.
2. Food Spoilage And Food Borne Diseases

(1) Contamination and spoilage of cereals, grains and cereal products.

(2) Contamination and spoilage of meat and meat products.

References

1. Frazier, W. C. and Westhoff, D. (1988) Food Microbiology Tata McGraw-Hill
2. Guthrie, R. K. (1972) Food sanitation Inc. Eaglewood Cliff, N. J
3. Jay, 1978. Modern food microbiology. Van Nostr and Reinhold Company, New York
4. Marriot. N.G. (1995) Principles of Food Sanitation 4th edition Edward Arnold
5. Pelczar, M. L. and R.D Reid (1972) Microbiology. McGraw &Hill, New York
6. Reid, G.[ed] 1982. Prescott and Dunn's industrial microbiology AVI Publishing Co., Inc., Westport, Conn
7. Stanier, R. Y.,E. A. Adelberg and Ingraham 1976. The microbial world .4th ed. Prentice Hall.

SHIVAJI UNIVERSITY, KOLHAPUR

B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus with effect from June 2026

B. Voc. II (Nutrition and Dietetics)

Sem. III Major– VI B. Voc. Paper-VI

Advanced Dietetics - II

Theory: 30 Hours

(Credits: 02)

Unit No.1 **(8 Hrs)**

Diet in liver diseases and counseling: functions of liver, hepatitis, cirrhosis of liver, hepatic coma, diseases of gall bladder, diseases of pancreas.

Unit 2 **(7 Hrs)**

Diet in kidney diseases and counseling: functions of kidney, glomerulonephritis, nephrotic syndrome, acute renal failure, chronic renal failure, end stage renal diseases, urolithiasis.

Unit 3 **(8 Hrs)**

Nutrition in eating disorders: introduction, anorexia nervosa, bulimia nervosa, binge eating disorders.

Unit 4 **(7 Hrs)**

Nutrition and neurological disorders: Parkinson's disease, Alzheimer's disease, epilepsy, migraine, multiple sclerosis, neurotrauma, spine trauma, feeding problems of patients with neurological disorders.

References:

1. Dietetics: B. Srilaxmi (2012). Nutrition Science 4th Revised Edition, New Age Interntional Publishers.
2. Raghuvanshi, R.S. and Mittal, M. (2014). Food Nutrition and Diet Therapy. Westvills Publication Delhi.
3. Agarwal, A and Udipi, S. (2014). Text Book of Human Nutrition. Jaypee Medical Publication Delhi.
4. Robinson. Basic Nutrition And Diet Therapy (8th Edition)
5. Mahan L. K., Escott- Stump, S. and Raymond J. L. (2012): "Krause's Food and the Nutrition Care Process", 13th Edition, Elsevier.
6. Ross, A.C., Caballero B., Cousins R. J., Tucker K.L.. and Ziegler T. (2014) Modem Nutrition in Health and Disease. Wolters Kluwer Health/Lippincott Williams and Wilkins, Ed 11th
7. Garrow, J. S., James, W.P.T. and Ralph, A. (2000): Human Nutrition and Edition, Churchill Livingstone.
8. Nix Staci (2013) William's Basic Nutrition and Diet Therapy. Elsevier Ed.

SHIVAJI UNIVERSITY, KOLHAPUR

B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus with effect from June 2026

B. Voc. II (Nutrition and Dietetics)

Sem. III Major– P - III

Food Micro-biology - I

Group - I

Study of laboratory equipments -Principle, working and use of Microscope, Autoclave, Incubator, Refrigerator, colony counter.

1. Study of motility: - Hanging drop preparation.
2. Staining techniques: Simple staining, Gram staining, Spore staining, Capsule staining
3. Preparation of culture media composition and uses.

Isolation and observation of fungi

1. Isolation of bacteria:
   Using serial dilution streak plate and pour plate techniques:
   - From air
   - From soil
2. Bacteriological Analysis of Water.
3. Bacteriological analysis of milk.
4. Test for surface sanitation.
5. Permanent slides of pathogenic micro organisms

Advanced Dietetics - II

Group - II

1. To plan a diet for Hepatitis.
2. To plan a diet for Cirrhosis of Liver.
3. To plan a diet for Hepatic coma.
4. To plan a diet for Nephrotic Syndrome.
5. To plan a diet for Acute Renal Failure.
6. To plan a diet for Diabetes Mellitus.
7. To plan a diet for Gout.
8. To plan a diet for Hypertension.
9. To plan a diet for Myocardial infarction.
10. To plan a diet for Cancer.

Suggested References:

1. Frazier, W. C. and Westhoff, D. (1988) Food Microbiology Tata McGraw-Hill
2. Guthrie, R. K. (1972) Food sanitation Inc. Eaglewood Cliff, N. J
3. Jay, 1978. Modern food microbiology. Van Nostr and Reinhold Company, New York
4. Marriot. N.G. (1995) Principles of Food Sanitation 4th edition Edward Arnold
5. Dietetics: B. Srilaxmi (2012). Nutrition Science 4th Revised Edition, New Age Interntional Publishers.
6. Raghuvanshi, R.S. and Mittal, M. (2014). Food Nutrition and Diet Therapy. Westvills Publication Delhi.

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B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus with effect from June 2026

B. Voc. II (Nutrition and Dietetics)

Sem. III Minor– V B. Voc. Paper-V

Community Nutrition

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Introduction to Nutrition (8 Hrs)

1. Definition and characteristics of a community
2. Major Nutritional problems in India & factors contributing to it (PEM, Nutritional Anemia. IDD, Vitamin A and D deficiency, Metabolic Syndrome)- explain the paradox of malnutrition.
3. Anthropometric, Biochemical, Clinical and Dietary surveys (including sampling techniques in brief)

Unit No.2:- Supplementary feeding programmes (7 Hrs)

Supplementary feeding programmes (MDMP, School Lunch Programmes, ICDS, NNAPP, NIDDCP, Vitamin A prophylaxis programme)

Unit No.3:- Food Security Bill. (8 Hrs)

1. Green and white revolution
2. Agencies and their role in Nutrition Programmes-NIN, ICMR, ICAR, FAO WHO, UNICEF, CARE

Unit No.4:- Community strategies. (7 Hrs)

1. Individual strategies-Woman-Woman, Child to Child
2. Community strategies-community contact, rural school system.
3. Principles of Nutrition and health education techniques
4. Exhibition, Demonstration and Dramatization.

References

1. Rosalind. S. Gibson 2 Edition (2005) Principles of Nutritional Assessment Oxford University Press.
2. Isobel Contento, 2nd edition (2011) Nutrition Education: Linking Research, Theory, and Practice:. Jones and Bartlett Publishers International.
3. JE Park and K. Park (1991) Textbook of preventive and social medicine.

SHIVAJI UNIVERSITY, KOLHAPUR

B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus with effect from June 2026

B. Voc. II (Nutrition and Dietetics)

Sem. III Minor– VI B. Voc. Paper-VI

Nutrition, Exercise and Fitness

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Wellness and physical fitness **(8 Hrs)**

1. Concept of wellness
2. Concept of physical fitness and its components

Unit No.2:- Principles of physical training **(7 Hrs)**

1. Exercise guidelines for normal adults based on principles of physical training
2. Stress and Stress Management Techniques

Unit No.3:- Nutritional requirements of physically active **(8 Hrs)**

1. Macronutrient requirement of physically active

Unit No.4:- Fluid balance and rehydration **(7 Hrs)**

1. Fluid balance and rehydration
2. Ergogenic aids

References:

1. Anita B (1998), The Complete Guide to Sports Nutrition, A SC Black, London.
2. Catherine G.R.J. - Nutrition and strength Athlete.
3. Clork N.Sports Nutrition, Guide book, Leisure Press Campaign.
4. Inge K and Robert C-Food for Sport Cook Book.
5. Mc.Ardle, William D - Exercise Physiology, Energy, Nutril and Human Performance.
6. Robergs R.A. and Roberts S.O. (2000) Fundamental principles of exercise physiology for fitness, performance and health, Mcgraw Hill.
7. Sandhu G.S. and Mann N.S. (2000) - Sports Excellence a Psychological Pursuit, Friends Publication (India).
8. Wolinsky L. (1998), Nutrition in Exercise and Sport, CRC Press.
9. Alexandria V. (1981): Exercising for Fitness, Time Life Books.
10. Briggs G.M. (1984) York. Nutrition and Physical Fitness, Rinchart and Winston Inc New

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B. Voc. II (Nutrition and Dietetics)

Sem. III Minor– P- III

Community Nutrition

Group - I

1. Anthropometry: Weight and height measurements -Interpretation using WHO standards for children, Growth chart for infants BMI for adults (for Asians)
2. Interpret a mock biochemical report of a malnourished child
3. Clinical signs (Group 1-WHO classification)
4. Visit to aanganwadi, ANC, Hospital for practical observations
5. Dietary survey-24-hr recall, calculations and interpretation
6. Conduct a baseline survey to find out the need and gaps in knowledge.
7. Plan and conduct an appropriate nutrition education programme
8. Evaluate the programme through a feedback mechanism

Nutrition, Exercise and Fitness

Group - II

1. Body Composition
2. Assessment of flexibility Test for flexibility
3. Assessment of muscular strength and endurance
4. Assessment of aerobic fitness
5. Demonstration of exercise to develop, Flexibility, Endurance, Strength, Cardio respiratory fitness

References

1. Rosalind. S. Gibson 2 Edition (2005) Principles of Nutritional Assessment Oxford University Press.
2. Isobel Contento, 2nd edition (2011) Nutrition Education: Linking Research, Theory, and Practice:. Jones and Bartlett Publishers International.
3. JE Park and K. Park (1991) Textbook of preventive and social medicine.
4. Alexandria V. (1981): Exercising for Fitness, Time Life Books.
5. Briggs G.M. (1984) York. Nutrition and Physical Fitness, Rinchart and Winston Inc New
6. Smolin L.A. (1994) College Publishing. Nutrition Science and Applications, M.B. Fort Worth, Saunders
7. Davidson S. (1986) Livingstone. Human Nutrition and Dietetics Edinburgh, ELBS/ Churchill
8. Katch and Katch-Exercise Physiology

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B. Voc. II (Nutrition and Dietetics) Sem. III

OPEN ELECTIVE (OE) - III

Diet Therapy - I

Credits: 02

1. Meal planning for clear fluid, full fluids, soft food, full diet
2. Meal planning for fever and typhoid
3. Meal planning for HIV
4. Meal planning for Acidity, Diarrhea and constipation
5. Meal planning for Hepatitis
6. Meal planning for weight loss and weight gain
7. Meal planning for lactose intolerance, gluten intolerance

Reference Books:

1. Anderson L, Dibble MV, Turkki PR, Mitchall HS, and Rynbergin HJ(1983): Nutrition in Health and Disease, 17th Ed. J. B. Lipincott& Co. Philadelphia.
2. Anita FP and Abraham P: Clinical Dietetics and Nutrition, 4th Ed. Oxford University Press, Delhi.
3. Mahan LK and Escott-Stump S(2007): Krause's Food and Nutrition Therapy. 12th Ed. WB Saunders Company, London.
4. Robinson. CH, Lawler MR, Chenoweth WL and Garwick, AE(1986): Normal and Therapeutic Nutrition. 17th Ed., Macmilian Publishing Co.
5. Williams SR (1989): Nutrition & Diet Therapy, 6th Ed. Times Mirror/Mosby College Publishing, St. Louis.
6. Begum RM (2009): A textbook of Food, Nutrition and Dietetics, 3rd Ed. Sterling Publishers, New Delhi.
7. Joshi SA(2017): Nutrition and Dietetics, 4th Ed. Tata McGraw Hill Publications, New Delhi.
8. Hutchison, R(2010) Food And The Principles Of Dietetics, Kessinger Publishing, LLC.

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B. Voc. II (Nutrition and Dietetics) Sem. III

Vocational Skill Courses (VSC) - I

Food Service and Management (Practical)

(Credits: 02)

1. Preliminary Planning Survey of types of units, identifying clientele, menu, operations and delivery
2. Planning the set up:
   a) Identifying resources
   b) Developing Project plan
   c) Determining investments
3. Market survey for food items both raw and processed. Survey of food service units
4. Standardization of a recipe
5. Preparing Quick Foods for scaling up for quantity production & Planning menus for the following:
   a) Packed meals for office employees
   b) Nutritious tiffins for school children
   c) School/college canteens
7. Develop a checklist for good hygiene practices

Reference :

1. Khan MA (1987): Food Service Operations, Avi Publication Co.
2. Tompkins D(1969):Table Layout and Decoration, Ward Lock Co. Ltd.
3. Kinton R and CaseraniV (1989): The Theory of Catering, 6th Ed. ELBS.
4. Edward K(1997): Food Service Facilities Planning 3rd Ed, John Wiley & Sons.
5. Sethi M (2015):Catering Management: An Integrated Approach, 3rd Ed. New Age International(P) Ltd.
6. RodayS(2017): Food Hygiene and Sanitation with Case Studies, 2nd Ed. McGraw Hill Education.

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B. Voc. II (Nutrition and Dietetics) Sem. III

Skill Enhancement Courses (SEC) - I

Clinical Nutrition (Practical)

(Credits: 02)

Modules at a Glance Practicals-

1. Meal planning for Diabetes type 1 and 2
2. Meal planning for Hypertension, dyslipidemia, CHD
3. Meal planning for Asthma, TR, COPD, Bronchitis
4. Meal planning for Hypothyroid and Hyperthyroid
5. Meal planning for Metabolic syndrome

Cooking Practicals:

1. Diabetes type 1 and 2
2. Hypertension, dyslipidemia, CHD 3. Asthma, TB, COPD, Bronchitis
4. Hypothyroid and Hyperthyroid
5. Metabolic syndrome

Reference:

1. Joshi SA (2010). Nutrition and Dietetics. 3rd Ed. New Delhi: McGraw Hill Education (India) Put Ltd.
2. Raut SK., Mitra K and Chowdhury P., Adhunik Pustibigyan, Academic Publishers.
3. Srilakshmi B. (2018). Dietetics,, New Delhi: New Age International.
4. Sahoo S and Sahoo SK. (2016). Pustibigyan, Kolkata: ChayaPrakashani.
5. Sohi D. A Comprehensive Textbook of Nutrition & Therapeutic Diets, New Delhi: Jaypee Brothers Medical Publishers.
6. Mudambi SR and Rajagopal MV.(2012). Fundamentals of Foods, Nutrition and Diet Therapy, 6thed. New Delhi: New Age International.
7. Begum MR, A Textbook Of Foods- Nutrition And Dietetics. Sterling Publishers Pvt. Ltd.

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B. Voc. II (Nutrition and Dietetics) Sem. III

Co-Curricular Courses (CC-I)

Yoga Education (Practical)

(Credits: 02)

Note: For this course, follow the common syllabus and evaluation guidelines issued by the university separately.

Examination Pattern: -

1.	Participation in activities	30 marks
2.	Seminar, Report, Group Discussion, Viva Voce, etc.	20 marks

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Major– VII B. Voc. Paper-VII

Introduction to Food Planning

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Introduction to Food planning (8 Hrs)

- Introduction to Food planning
- Food pyramid and labels- reading of labels,
- Standardisation, portion size, mindful eating,
- Steps in meal planning

Unit No.2:- Food exchange list (7 Hrs)

- Food exchange list across all food groups- cereals, pulses, fruits, veggies, dairy, fats, nuts and seeds,.
- Coming up with own handy food exchange list to be used while planning,
- Practical application of food exchange list in planning

Unit No.3:- Recommended Dietary Allowance (RDA) (8 Hrs)

- RDA across age groups- for carbohydrates, proteins, fats, and micronutrients like Na, K, Iron, Vit C, B12.
- Looking at the requirements across different stages of life and including sources for the same,
- How to derive RDA, its impact in planning

Unit No.4:- Meal Planning (7 Hrs)

- Meal planning for adult male and female
- Planning using food exchange list, calorie and protein and carb counting

References :

1. Seema Puri Archana Bhagat, Food Exchange List.

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Major– VIII B. Voc. Paper-VIII

Food Chemistry

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Physico-chemical properties of foods (8 Hrs)

- Moisture in Foods,
- Hydrogen Bonding,
- Bound Water, Water Activity in Foods,
- Determination of Moisture Content in Foods
- True Solutions,
- Dispersions, Sols, Gels, Foams, Colloids and Emulsions

Unit No.2:- Chemistry of Starch and Sugars (7 Hrs)

- Components of Starch,
- Swelling of Starch Granules,
- Gel Formation,
- Retrogradation,
- Syneresis,
- Effect of Sugar,
- Acid, Alkali, Fat and Surface Active Agents on Starch,
- Stages of Sugar Cookery,
- Crystal Formation and factors affecting it.
- Types of Candies,
- Action of Acid, Alkali and Enzymes,
- Chemistry of Milk Sugar,
- Non Enzymatic Browning

Unit No.3:- Chemistry of Proteins (8 Hrs)

- Components of Wheat Proteins, Structure,
- Gluten Formation,
- Effect of Soaking,
- Fermentation and Germination on Pulse Proteins,
- Properties of Egg Protein,
- Chemistry of Milk Protein,
- Changes in Milk, Egg and Meat Proteins during Heating
- Action of Heat, Acid, Alkalis on Vegetables Proteins and Animal Proteins

Unit No.4:- Chemistry of Fats and Oils, Pectic Substances, Plant Pigments, Spices and condiments (7 Hrs)

- Physical and Chemical Properties of Fats and Oils,
- Rancidity, Hydrogenation, Winterization, Decomposition of Triglycerides,
- Shortening Power of Fats,
- Changes in Fats and Oils during Heating,
- Factors Affecting Fat Absorption in Foods, Pectins, Phenolic Components, Enzymatic Browning in Fruits and Vegetables, Volatile Compounds from Cooked

References :

1. Shakuntala Manay, Shadaksharaswamy. M (2000) Foods, Facts and Principles, New Age International Pvt Ltd Publishers, 2nd Edition
2. Chandrasekhar, U. Food Science and applications in Indian Cookery (2002) Phoenix Publishing House, New Delhi
3. Swaminathan, M. Food Science, (2005) Chemistry and Experimental Foods, Bappco Publishers, Bangalore.
4. Meyer, L.H, Food Chemistry, (2004) CBS Publishers and Distributors, 4th edition
5. Paul, P.C. and Palmer, H.H. Food Theory and Applications(2000) John Wiley and Sons, New York, (Revised Edition)
6. Chopra H.K, Panesar, P.S, Food Chemistry (2010) Narosa Publishing House, New Delhi

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Major– P - IV

Introduction to Food Planning

Group - I

Demonstration

1. Derivation of exchange list.
2. Standardization of different food groups.
3. Standardization of cooked foods
4. Meal planning for average Indian male and female
5. Cooking practical's for average Indian male and female

Food Chemistry

Group - II

1. Carbohydrate Analysis

- Reducing Sugars Test
- Benedict's / Fehling's test
- Detects glucose, lactose, etc.
- Total Sugar Estimation
- Anthrone method
- Starch Estimation Iodine method (qualitative)
- Color: blue-black

2. Lipid (Fat) Analysis

- Acid Value of Fat
- Measures free fatty acids (rancidity indicator)
- Peroxide Value
- Detects oxidative rancidity
- Saponification Value
- Indicates average molecular weight of fats

3. Mineral Analysis

- Calcium Estimation
- Titration with EDTA
- Iron Estimation
- Colorimetric method
- Phosphorus Estimation
- Spectrophotometric method

References :

1. Seema Puri Archana Bhagat, Food Exchange List.
2. Shakuntala Manay, Shadaksharaswamy. M (2000) Foods, Facts and Principles, New Age International Pvt Ltd Publishers, 2nd Edition
3. Chandrasekhar, U. Food Science and applications in Indian Cookery (2002) Phoenix Publishing House, New Delhi
4. Swaminathan, M. Food Science, (2005) Chemistry and Experimental Foods, Bappco Publishers, Bangalore.
5. Meyer, L.H, Food Chemistry, (2004) CBS Publishers and Distributors, 4th edition
6. Paul, P.C. and Palmer, H.H. Food Theory and Applications(2000) John Wiley and Sons, New York, (Revised Edition)
7. Chopra H.K, Panesar, P.S, Food Chemistry (2010) Narosa Publishing House, New Delhi

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Minor– VII B. Voc. Paper-VII

Food Processing and Preservation

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Introduction to food processing and preservation (8 Hrs)

- Nature and properties of food, fluid and visco elastic behavior of foods,
- Principles of different food processing.
- Effect of food processing on nutritional properties of food.
- Importance of food processing

Unit No.2:- Food Spoilage (7 Hrs)

- Types of Spoilage and organisms causing food spoilage-
- The environment conducive for their growth,
- How to identify spoilage and prevention techniques,
- Basic Principles of Food Preservation,
- Preservation at high and low temperatures,
- Preservation-
    - Using Different natural preservatives like sugar,salt and oils,
    - Using osmotic pressure,
    - By dehydration

Unit No.3:- Processing of cereals and millets (8 Hrs)

- Milling products and by products of wheat, rice, corn, barley, oats, whole wheat atta, blended flour, fortified flour, flaked, puffed and popped cereals, malted cereals,
- Processed foods - bakery products, pasta products and value added products.

Unit No.4:- Processing of milk and milk products (7 Hrs)

- Milk-manufacture of different types of milk, drying of whole and skim milk, cream separation, churning of butter, processing of different types of cheese,
- Probiotic milk products - yoghurt, curd and ice-cream,
- Indigenous milk products - khoa, burfi, paneer, ghee
- Physical and Chemical Properties of Fats and Oils,

- Rancidity, Hydrogenation, Winterization,
- Decomposition of Triglycerides,
- Shortening Power of Fats,
- Changes in Fats and Oils during Heating,
- Factors Affecting Fat Absorption in Foods, Pectins, Phenolic Components, Enzymatic Browning in Fruits and Vegetables, Volatile Compounds from Cooked Vegetables,

References :

1. Shakuntala Manay, N. and Shadaksharaswamy, M., Foods - Facts and Principles, New Age International (P) Limited Publishers, New Delhi, 2003.
2. Sivasankar B, Food Processing and Preservation, Prentice Hall of India Private Ltd., New Delhi, 2002.
3. Bawa AS, Raju PS, Chauhan OP, Food Science, New India Publishing Agency, New Delhi, 2013.
4. Srilakshmi, N., Food Science, New Age International Private Ltd., New Delhi, 2002.
5. Swaminathan, M., Food Science, Chemistry and Experimental Foods, Bappco Publishers, Bangalore, 2004.
6. Chandrasekhar, U, Food Science and Applications in Indian Cookery, Phoenix Publishing House Private Ltd., New Delhi, 2002
7. Fellow, P., Food Processing Technology Principles and Practices, 3rd Edition, CRC Press Woodland Publishers, England, 2009.
8. Adams, M.R. and Moss, M.O., Food Microbiology, New Age International (P) Ltd., New Delhi, 2005.

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Minor– VIII B. Voc. Paper-VIII

Nutrition Across Lifestyle

Theory: 30 Hours

(Credits: 02)

Unit No.1:- Preconception and Pregnancy **(8 Hrs)**

- Preconception and Pregnancy, lactation
- Challenges faced during preconception,
- Nutrients of importance during all 3 phases,
- Physiological changes occuring during pregnancy and bactation,

Unit No.2:- Infancy, childhood **(7 Hrs)**

- RDA during these phases,
- Physiological changes,
- Nutrients of importance - calcium, iron,
- vitamins of interest- vit B, A, C, D during infancy and childhood

Unit No.3:- Adolescence **(8 Hrs)**

- Physiological changes,
- Anemia (during period),
- Hormonal changes,
- Development of sec sexual characters- boys and girls,
- Nutrients of importance-proteins, calcium, iron fats
- Vitamins of interest, like ADC, Bcomplex etc during these conditions

Unit No.4:- Nutrition in Old Age **(7 Hrs)**

- Geriatric nutrition - Physiological changes, RDA,
- Nutrients of importance,
- Common diseases during this phase-
- Introduction to Parkinsons and Alzheimers,
- Postural changes

References :

1. Rajammal P. Devadas and Jaya N.Muthu, (1996): A text book of Child Development,
2. Hurlock E.B., (1972): Child development, McGraw Hill Book Company.
3. Suriakanthi A., (1997): Child Development - An Introduction, Kavitha Publ
4. Hurlock, E.B., (1995): Developmental Psychology-A life span approach, 5 McGraw Hill Book Co., New York.
5. Nanda V.K., (1998): Principles of Child Development, Anmol Publications Pv New Delhi.

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B. Voc. II (Nutrition and Dietetics)

Sem. IV Minor– P - IV

Food Processing and Preservation

Group - I

Industrial Visits and Report Writing

1. Visit to Food processing unit
2. Visit to food industry.

Nutrition Across Lifestyle

Group - II

1. Meal planning (2 hours weekly)

- Preconception
- Pregnancy- trimester I II and III
- Lactation
- Weaning and infants
- Kids
- Adolescent-both boys and girls
- Meal planning for geriatrics

2. Cooking practicals - for all the meals planned

References :

1. Shakuntala Manay, N. and Shadaksharaswamy, M., Foods - Facts and Principles, New Age International (P) Limited Publishers, New Delhi, 2003.
2. Sivasankar B, Food Processing and Preservation, Prentice Hall of India Private Ltd., New Delhi, 2002.
3. Bawa AS, Raju PS, Chauhan OP, Food Science, New India Publishing Agency, New Delhi, 2013.
4. Srilakshmi, N., Food Science, New Age International Private Ltd., New Delhi, 2002.
5. Rajammal P. Devadas and Jaya N.Muthu, (1996): A text book of Child Development, Macmillan, N.Delhi.
6. Hurlock E.B., (1972): Child development, McGraw Hill Book Company.
7. Suriakanthi A., (1997): Child Development - An Introduction, Kavitha Publishers.
8. Hurlock, E.B., (1995): Developmental Psychology-A life span approach, 5th Edition, McGraw Hill Book Co., New York.
9. Nanda V.K., (1998): Principles of Child Development, Anmol Publications Pvt. Ltd., New Delhi.
10. Berk L.E., (2004): Child Development, Pearson Longman New Delhi.

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OPEN ELECTIVE (OE) - IV

Diet Therapy - II

Credits: 02

I. Meal planning

- Gastroesophageal reflux disease (GERD)
- Peptic ulcers
- Sibo and Hpylori,
- Irritable bowel syndrome (IBS)
- Inflammatory Bowel Disease (IBD)
- Pancreatitis, liver cirrhosis, cholelithiasis, Osteoarthritis,
- PCOD endometriosis, AKD, CKD,
- ADHD autism, epilepsy

II. Cooking Demonstration for:

- Gastroesophageal reflux disease (GERD)
- Peptic ulcers
- Sibo and Hpylori,
- Irritable bowel syndrome (IBS)
- Inflammatory Bowel Disease (IBD)
- Pancreatitis, liver cirrhosis, cholelithiasis, Osteoarthritis,
- PCOD endometriosis, AKD, CKD,
- ADHD autism, epilepsy
- Low sodium and low potassium recipes

Reference Books

1. Anderson L, Dibble MV, Turki PR, Mitchall HS, and Rynbergin HJ(1983): Nutrition in Health and Disease, 17th Ed. J. B. Lipincott& Co. Philadelphia.
2. Anita FP and Abraham P: Clinical Dietetics and Nutrition, 4th Ed. Oxford University Press, Delhi.
3. Mahan LK and Escott-Stump S(2007): Krause's Food and Nutrition Therapy. 12th Ed. WB Saunders Company, London.
4. Robinson. CH, Lawler MR, Chenoweth WL and Garwick, AE(1986): Normal and Therapeutic Nutrition. 17th Ed, Macmilian Publishing Co.
5. Williams SR (1989): Nutrition & Diet Therapy, 6th Ed. Times Mirror/Mosby College Publishing, St. Louis.
6. Begum RM (2009): A textbook of Food, Nutrition and Dietetics, 3rd Ed. Sterling Publishers, New Delhi.
7. Joshi SA(2017): Nutrition and Dietetics, 4th Ed. Tata McGraw Hill Publications, New Delhi.
8. Hutchison, R(2010)Food And The Principles Of Dietetics, Kessinger Publishing, LLC.

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Skill Enhancement Courses (SEC) - II

Ayurveda Concepts of Diet (Practical)

(Credits: 02)

1. Identification, nutritional importance of foods as per classics
2. Preparation of selected food items as per classics
3. Visit to Pathyahara section (Diet section) of Ayurveda Hospital and observing preparation and serving protocol
4. Diet history taking and Diet counselling techniques
5. Preparation of balanced diet by various available food stuffs

References :

1. Agnivesh, Charaksamhita with Chakrapani commentary, RP-2011, Rashtriya Sanskrit Sansthan New Delhi.
2. Sushruta, Sushrutasamhita with Dalhan commentary, 1P-2012, ChoukhambaSurabharati
3. Vagbhata, AshtangHrudaya with Arunadatta&Hemadri commentary, 3RD-2012, Choukhamba Sanskrit seriesi
4. Vruddha Vagbh ata, AshtangSamgraha with Indu commentary, RP-2000, Krishnadas Academy Varanasi
5. Sharangadhara, Sharangadharasamhit, 1-2010, ChoukhambaSurabharati
6. Bhavamishra, Bhavaprakasha-2006, Choukhamba Orientalia, Vijayarakshit Madhavanidana
7. Vaidya Pt Rajes var Dutta Shastri, Swasthavritta Samuchaya, 4 2005, Sanjeevani Aushadhalaya
8. Dr.B.G.Ghanek arshastri, SwasthyaVignyana, 6-2005
9. Choukhamba Sanskrit series, Dr.L.P.Gupta, Positive Health, 1 2000, Choukambha Sanskrit Pratishthan

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Ability Enhancement Courses (AEC) - II

English (Theory)

(Credits: 02)

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Value Education Courses (VEC) - II

Environmental Studies (Theory)

(Credits: 02)

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Community Engagement Programme (CEP) - I

Community Engagement Programme in Nutrition and Dietetics (Theory)

(Credits: 02)

1. INTRODUCTION:

New generation of students are increasingly un aware of local rural and peri-urban realities surrounding their HEIs, as rapid urbanization has been occurring in India. A large percentage of Indian population continues to live and work in rural and peri-urban areas of the country. While various schemes and programs of community service have been undertaken by HEIs, there is no singular provision of a well-designed community engagement course that provides opportunities for immersion in rural realities. Such a course will enable students to learn about challenges faced by vulnerable households and develop an understanding of local wisdom and life style in are spec full manner

2. OBJECTIVES:

- To promote a respect for rural culture, life style, and wisdom among students.
- To learn about the present status of agricultural and development initiatives.
- Identify and address the root causes of distress and poverty among vulnerable households.
- Improve learning out comes by applying class room knowledge to real-world situations.

To achieve the objectives of the socio-economic development to of New Indianhead scan play an important role through active community engagement. This approach will also contribute to improve the quality of both teaching and research in HEIs in India. India is a signatory to the global commitment for achieving Sustainable Development Goals (SDGs) by2030.Achieving these 17 SDG goals requires Generating locally appropriate solutions. Community engagement should not be limited to a few social science disciplines one. It should be practiced a cross all disciplines and faculties of HEIs. These can take the forms of enumerations, surveys, awareness camps and campaigns, training, learning manuals/films, maps, study reports, public hearings, policy briefs, cleanliness and hygiene teachings, legal aid clinics, etc. For example, students of chemistry can conduct water and soil testing in local areas and share the results with the local community. Students of science and engineering can undertake research in partnership with the community on solid and liquid waste disposal Therefore; students are being encouraged to foster social responsibility and community engagement in their teaching and research.

3. LEARNINGOUTCOMES:

After completing this course, students will be able to

- Gain an understanding of rural life, Indian culture, and social realities.
- Develop empathy and bond so mutuality with the local community.
- Appreciate the significant contributions of local communities to Indian society and economy.
- Learn to Value local knowledge and wisdom.
- Identify opportunities to contribute to the community 'stoic economic improvement.

4. Credits: Two credit Course; Students are expected to complete 60hours of participation

5. COURSE STRUCTURE:

Sr.	Module Title	Module Content	Teaching/Learning /Methodology
1	Understanding CEP	Introduction, Guidelines, Necessities	Classroom discussions, Field visit. Survey, Individual / Group conference, Report submission & VIVA
2	Identification of the topic and area	Use of survey, Field visits, communication with society	
3	Organization of Activities	Organization of Hands-on Training, Exhibitions, lectures, community conferences	
4	Project	Detailed report of the outcome of the works	

Note: Faculty can make addition in the list of activities as per domain content:

Recommended field-based activities (Tentative):

- Participate in Gram Sabha meetings, and study community participation;
- Visit to Swatch Bharat Mission project sites, conduct analysis and initiate problem solving measures;
- Interaction with Self Help Groups (SHGs)women members, and study their functions and challenges; planning for their skill-building and livelihood activities;
- Visit Mahatma Gandhi National. Rural Employment Guarantee Act 2005 (MGNREGS) project sites, interact with beneficiaries and interview function airiest the worksite;
- Surveys on Mission A today at a support under Gram Panchayat Development Plan
- Visit Rural Schools /mid-day meal centres, study academic can infrastructural resources, digital dividend gaps;
- Associate with Social audit exercise sat the Gram Panchayat level, and interact with programme beneficiaries;
- Visit to local Nagar palika office and review schemes forebrain formal workers and migrants;
- Attend Parent Teacher Association meetings, and interview school dropouts;
- Visit local Anganwadi and observe these rives being provided;
- Visit local NGOs, civil society organizations and interact with their staff and beneficiaries;
- Organize awareness programmers, health camps, Disability camps and cleanliness camps;
- Conduct soil health test, drinking water analysis, energy use and fuel efficiency surveys and building solar powered village;
- Understanding of people's impacts of climate change, building up community's disaster preparedness;
    - Organize orientation programmers for farmers regarding organic cultivation, rational use of irrigationand fertilizers, promotion of traditional species of crops and plants and awareness against tubule burning;
    - Formation of committees for common property resource management, village pond maintenance and fishing;

- Identifying the small business ideas (hand loom, handy craft, khadi, food products, etc.) For rural areas to make the people self-reliant.
- Inter active with local leaders, panchayat function Aries, grass-root officials and local institutions regarding village development plan preparation and resource mobilization;
- Financial Literacy Awareness Programme
- Digital Literacy Awareness Programme
- Education Loan Awareness Programme
- Entrepreneurship Awareness Programme
- Awareness Programmers on Government Schemes
- Products Market Awareness
- Services Market Awareness
- Consumer Awareness Programme
- Accounting Awareness Programme for Farmers
- Accounting Awareness Programmer or Street Vendors etc.

6. IMPORTANT RULES AND REGULATIONS FOR CEP:

Concurrent Fieldwork:

Students must conduct comprehensive studies on various challenges that they face in their chosen field. Every work relevant to the subject matter should be compiled and documented.

Students should keep separate fieldwork diary or maintain journal in order to record their fieldwork experiences i.e. reading, e- contents, tasks, planning and work hours have to be recorded in the diary. Detailed work records report on students' fieldwork experiences and activities to be submitted and should be presented. The fieldwork conference is part of the timetable and is mandatory. Faculty should hold a fieldwork conference FOREIGHTNIGHTLY for all students.

In addition to the principal curriculum, the students engage in a variety of community development- related activities. They are encouraged to plan and carry out programs, processions, and events for social causes. These activities seek to enhance students' personal and professional skills as well as foster self- development. "Rural Camp" should be embedded in the curriculum for first-year students to be held in the backward and neglected areas of District's.

Concurrent Fieldwork is the core curriculum activity in the CEP course. Hence, 100% attendance of the students is mandatory in case of absence on any student, supplementary fieldwork must be arranged and accomplished with the approval of the faculty supervisor.

7. EVALUATION/ASSESSMENT SCHEME:

Students should keep a Field Diary / journal to record, content, readings and field visit planning. The assessment pattern is internal and external i.e. 30+20.

Internal continuous Assessment: Participation in concurrent field visits 40%; individual/group field project conference, report/journal submission 40%.

External Assessment: Presentation of field project findings (VIVA) should be assigned 20%.

SHIVAJI UNIVERSITY, KOLHAPUR

B. Voc. Part II (Nutrition and Dietetics) NEP 2.0 Syllabus

To be implemented from June 2026 onwards

Name of College

Community Engagement Programme (CEP)

in Nutrition and Dietetics

Diary

Name of Student :	
Roll No.	**Exam Seat No.**

No.	**Date**	**Activity**	**Type of Activity**	**Time Duration**	**Sign of Student**	**Signature of Teacher**
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Total 30 Hours participation is required.

Teacher in Charge **H.o.D.** **Principal**

B. Voc. II Syllabus (NEP-2.0)
To be implemented from June 2026 onwards Semester – III & IV
Nature of a Question Paper

Time: 1 hours **Total Marks: 30**

Solve questions from the following.

Q. 1 Multiple choice Question **06 Marks**

i.

ii.

iii.

iv.

v.

vi.

Q. 2 Long answer Question (Any Two out of three) **12 Marks**

i.

ii.

iii.

Q. 3 Short Answer Questions (Any Four out of six) **12 Marks**

i.

ii.

iii.

iv.

v.

vi.

Internal Assessment 20 Marks

- Home Assignment
- Class Assignment (Tutorial Type)
- Quiz
- Mid-Term Test

Nature of Practical Question Paper:

Internal practical examination **50 marks**

1.	Group I	20 Marks
2.	Group II	20 Marks
3.	Submission of Certified Journal	10 Marks