

# **Shri Vaishnav Institute of Home Science**

### Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective UG Program

	Category	Subject Name	Teaching and Evaluation Scheme									
Subject Code			Theory			Practical						
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS	
GUFN503	GE	Nutraceuticals and Health Supplements	60	20	20	0	0	4	0	0	4	

 $\boldsymbol{Legends} \colon \boldsymbol{L} - Lecture; \, \boldsymbol{T} - Tutorial/Teacher \, Guided \, Student \, Activity; \, \boldsymbol{P} - Practical; \, \, \boldsymbol{C} - Credit;$ 

#### Course Educational Objectives (CEOs): The students will

- **CEO 1**: develop comprehensive understanding of different nutraceuticals and functional foods.
- **CEO 2**: identify phytochemical components and its management on health and diseases.

#### **Course Outcomes (COs): Student should be able to**

- **CO1**: understand the basicity of functional food and Nutraceuticals and its application in the development of Dietary supplements.
- CO2: differentiate different sources of functional food and its impact on health.
- CO3: classify various types of functional foods and associated factors and challenges with respect to its marketing.
- CO4: memorize various nutrition, health and functional claims and role of biotechnology.
- CO5: develop profound understanding for Nutraceutical compounds.

#### Unit I

- Functional foods and Nutraceuticals Definitions, sources, Health benefits, bioactive components of functional foods.
- Dietary supplements and fortified foods- need, health benefits adverse effects.

<sup>\*</sup>Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.



### **Shri Vaishnav Institute of Home Science**

### Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective UG Program

	Category	Subject Name	Teaching and Evaluation Scheme								
Subject Code			Theory			Practi					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	Т	P	CREDITS
GUFN503	GE	Nutraceutical and Health Supplements	60	20	20	0	0	4	0	0	4

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P - Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.

#### Unit II

- Functional foods of animal origin: Diary products, sea foods, egg,
- Functional foods of plant origin: fruits, vegetables, nuts, spices, cereals, beverages.

#### **Unit III**

- Types of functional foods: whole foods, enriched foods, enhanced foods, fortified foods, modified foods.
- Market of functional foods, Challenges for Functional food delivery, Factors affecting consumer interest.

#### **Unit IV**

- Food component approved health claims, labeling considerations for functional ingredients.
- Permissible and impermissible functional claims.
- Role of biotechnology in the development of functional foods.

#### Unit V

- Nutraceutical compounds Phytochemicals, phytosterols and other bioactive compounds.
- Probiotics, prebiotics and symbiotic as functional foods and its effects on health.



### **Shri Vaishnav Institute of Home Science**

### Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective UG Program

Subject Code	Category	Subject Name	Teaching and Evaluation Scheme								
			Theory			Practi					
			End Sem University Exam (60%)	Two Term Exam (20%)	Teacher Assessment (20%)	End Sem University Exam (60%)	Teacher Assessment (40%)	L	T	P	CREDITS
GUFN503	CC	Nutraceuticals and Health Supplements	60	20	20	0	0	4	0	0	4

**Legends**: L - Lecture; T - Tutorial/Teacher Guided Student Activity; P – Practical; C - Credit; \*Teacher Assessment shall be based following components: Quiz/Assignment/ Project/Participation in class, given that no component shall exceed more than 10 marks.

#### **Reference Books:**

- N. Shakuntala manay and M. Shadaksharaswam, (2008). *Food Facts and Principles*, 3/e, New Age International.
- A. B. Gerorge. Fenaroli's, (2004). *Handbook of Flavor Ingredients*. 5/e,. CRC Press.
- L. Branen, P. M. Davidson and S. Salminen, (2001). Food Additives. 2/e, Marcel Dekker.
- B. Gerorge, (1996). *Encyclopedia of Food and Color* Additives, Vol. III, CRC Press.
- D. L. Madhavi, S. S. Deshpande and D. K. Salunkhe, (1995). *Food Antioxidants: Technological, Toxicological and Health Perspective*. CRC press.
- I. D. Morton and A. J. Macleod, (1990). *Food Flavours*, Part C, Elsevier.



# Shri Vaishnav Institute of Home Science Choice Based Credit System (CBCS) in Light of NEP-2020 Generic Elective UG Program