

## Shri Vaishnav Institute of Science Department of Life Science Generic Electives (GE) Under Graduate Courses

#### SEMESTER III

COURSE CODE	Category	COURSE NAME	TEACHING & EVALUATION SCHEME								
			THEORY			PRACTICAL					
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*	Th	Т	Р	CREDITS
BTUGE01	GE	Stress and Human Health	60	20	20	0	0	3	0	0	3

 $\label{eq: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.$ 

#### **Course Objectives:**

- 1. Understanding of the stress process and its relation to health and disease.
- 2. The incorporation of stress management techniques into one's lifestyle.

#### **Course Outcomes:**

- 1. Recognition of stress symptoms and its management.
- 2. Understanding Biochemical and Physiological changes during stream.

#### **UNIT - I: Nature of stress**

Stress – concept, features types of stress and identify types of stressors. Potential Sources of Stress, Symptoms of stress, long-term effects from stressors.

#### UNIT - II: Oxidative stress and antioxidant

Oxidative stress. Type of Free radicals and environmental factors in generation of free radicals, antioxidant and its mechanism.

#### UNIT - III: Impact of stress on hormonal system

Hormonal Changes during Stress and their effects on body: - cortisol, Catecholamines, Vasopressinm, Thyroid Hormones, Gonadotropins, Prolactin, Growth Hormone, insulin.

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Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

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### **BTUGE01 Stress and Human Health**

#### UNIT - IV: Impact of stress on diseases

Describe the physiological stress response and its relationship to health, disease, Acute and Chronic Stress Responses. Consequences of stress.

#### **UNIT - V: Stress management**

Stress management therapy: through mind control via music, Visualization, meditation, physical exercise, practice of yoga, and nutrition.

#### **BOOKS:**

- 1. Allen Elkin. (2013). Stress Management for Dummies (2<sup>nd</sup> Edition).john wiley and sons.
- 2. Helmut Sies. (2019). Oxidative Stress and Inflammatory Mechanisms in Obesity, Diabetes, and the Metabolic Syndrome. by CRC Press. SBN 9780367388782
- 3. Özben, Tomris. (1997). Free Radicals, Oxidative Stress, and Antioxidants: Pathological and Physiological Significance. Springer Publisher.
- 4. Surh Y.J and Packer L.(2005). Oxidative Stress, Inflammation, and Health. Taylor and Francis group.

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