



## Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore

### 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		Th	T	P	CREDITS
			END SEM University Exam	Two Term Exam	Teachers Assessment*	END SEM University Exam	Teachers Assessment*				
BTUGE01	GE	Stress and Human Health	60	20	20	0	0	3	0	0	3

**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 stress.

##### 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, Vasopressin, Thyroid Hormones, Gonadotropins, Prolactin, Growth Hormone, insulin.

  
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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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