#### **ENVIRONMENTAL STUDIES-I**

Course Code: EVS – 142 Credit Units: 02
Total Hours: 20

# **Course Objectives**

The term environment is used to describe, in the aggregate, all the external forces, influences and conditions, which affect the life, nature, behavior and the growth, development and maturity of living organisms. At present a great number of environmental issues, have grown and complexity day by day, threatening the survival of mankind on earth. Environment study is quite essential in all streams of studies including environmental engineering and industrial management. The objective of environmental studies is to enlighten the masses about the importance of the protection and conservation of our environment and control of human activities which has an adverse effect on the environment.

#### **Course Contents:**

# Module I: The multidisciplinary nature of environmental studies (6 Hrs)

Definition, scope and importance

Need for public awareness

## **Module II: Natural Resources (8 Hrs)**

Renewable and non-renewable resources:

Natural resources and associated problems

Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forests and tribal people.

Water resources: Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.

Mineral resources: Use and exploitation, environmental effects of extracting and using mineral resources, case studies. Food resources: World food problems, changes caused by agriculture and overgrazing, effects of modern agriculture,

fertilizer-pesticide problems, water logging, salinity, case studies.

Energy resources: Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources, case studies.

Land resources: Land as a resource, land degradation, man induced landslides, soil erosion and desertification.

Role of an individual in conservation of natural resources.

Equitable use of resources for sustainable lifestyles.

## **Module III: Ecosystems (3 Hrs)**

Concept of an ecosystem, Structure and function of an ecosystem, Producers, consumers and decomposers, Energy flow in the ecosystem, Ecological succession

Food chains, food webs and ecological pyramids

Introduction, types, characteristic features, structure and function of the following ecosystem:

- a. Forest ecosystem
- b. Grassland ecosystem
- c. Desert ecosystem
- d. Aquatic ecosystems (ponds, streams, lakes, rivers, ocean estuaries)

## **Module IV: Biodiversity and its conservation (3 Hrs)**

Introduction - Definition: genetic, species and ecosystem diversity

Biogeographical classification of India

Value of biodiversity: consumptive use, productive use, social, ethical aesthetic and option values Biodiversity at global, national and local levels

India as a mega-diversity nation, Hot-spots of biodiversity

Threats to biodiversity: habitat loss, poaching of wildlife, man wildlife conflicts, Endangered and endemic species of India

Conservation of biodiversity: In-situ and Ex-situ conservation of biodiversity

### **Course Outcome**

Upon course completion, students will be able to understand:

- The multidisciplinary nature of environmental studies, including its definition, scope and need for public awareness.
- Our natural resources including renewable and non-renewable resources comprising of forest, water, mineral, food, energy and land resources.
- The ecosystem, their structure and function, energy flow, bio-geochemical cycles, community



ecology, ecological succession, ecological pyramids, forest, grassland, aquatic and tundra ecosystem.

- Biodiversity and its conservation.
- Ecosystem diversity, species diversity and genetic diversity.
- Biological classification of India.
- Value of biodiversity.
- Biodiversity at global national and local level.
- Conservation of biodiversity.
- Characteristic of ideal ecosystem.
- Study of an artificial ecosystem.

## **Examination Scheme:**

Components	CT	HA	S/V/Q	A	ESE
Weightage (%)	15	5	5	5	70

### **Text & References:**

- Chauhan B. S. 2009: Environmental Studies, University Science Press New Delhi.
- Dhameja S.K., 2010; Environmental Studies, Katson Publisher, New Delhi.
- Smriti Srivastava, 2011: Energy Environment Ecology and Society, Katson Publisher, New Delhi.
- Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.
- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
- Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopaedia, Jaico Publ. House, Mumbai, 1196p
- De A.K., Environmental Chemistry, Wiley Eastern Ltd. Down to Earth, Centre for Science and Environment (R)
- Gleick, H.P. 1993. Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
- Hawkins R.E., Encyclopaedia of Indian Natural History, Bombay Natural History Society, Bombay (R) Heywood, V.H & Waston, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284
   p. McKinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
- Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- Survey of the Environment, The Hindu (M)
- Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
- Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
- Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB) Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p



## ENVIRONMENTAL STUDIES-II

Course Code: EVS- 242 Credit Units: 02
Total Hours: 20

# **Course Objectives**

- To understand various types of environmental pollution.
- To educate masses, in general and students, about the issues related to degradation of environment and social issues related to environment.
- To understand sustainable development.
- To understand environmental assets, local flora and fauna through field surveys.

## **Course Contents:**

## **Module I: Environmental Pollution (7 Hrs)**

Definition, causes, effects and control measures of:Air pollution, Water pollution, Soil pollution, Marine pollution, Noise pollution, Thermal pollution, Nuclear pollution. Solid waste management: Causes, effects and control measures of urban and industrial wastes. Role of an individual in prevention of pollution. Pollution case studies. Disaster management: floods, earthquake, cyclone and landslides.

# **Module II: Social Issues and the Environment (7 Hrs)**

From unsustainable to sustainable development, Urban problems and related to energy. Water conservation, rain water harvesting, watershed management. Resettlement and rehabilitation of people; its problems and concerns Case studies. Environmental ethics: Issues and possible solutions

Climate change, Global warming, Acid rain, Ozone layer depletion, Nuclear Accidents and Holocaust case studies. Fireworks/Crackers – Introduction, ill effects on environment and humans.

Wasteland reclamation, Consumerism and waste products, Environmental Protection Act, Air (Prevention and Control of Pollution) Act, Water (Prevention and control of Pollution) Act, Wildlife Protection Act, Forest Conservation Act. issues involved in enforcement of environmental legislation Public awareness

# **Module III: Human Population and the Environment (4 Hrs)**

Population growth, variation among nations. Population explosion – Family Welfare Programmes Environment and human health. Human Rights. Value Education. HIV / AIDS. Women and Child Welfare. Role of Information Technology in Environment and Human Health.

Case Studies

# Module IV: Field Work (2 Hrs)

Visit to a local area to document environmental assets-river / forest/ grassland/ hill/ mountain. Visit to a local polluted site — Urban / Rural / Industrial / Agricultural. Study of common plants, insects, birds. Study of simple ecosystems-pond, river, hill slopes, etc.

## **Course Outcome**

Upon course completion, students will be able to:

- > Explain various types of environmental pollutions.
- ➤ Understand role of individual in abatement of environmental pollution.
- > Explain methods to mitigate disasters.
- Learn various environmental protection laws.
- Learn role of IT in environment and human health.

#### **Examination Scheme:**

Components	CT	HA	S/V/Q	A	ESE
Weightage (%)	15	5	5	5	70

#### **Text & References:**

• Agarwal, K.C. 2001 Environmental Biology, Nidi Publ. Ltd. Bikaner.



- Bharucha Erach, The Biodiversity of India, Mapin Publishing Pvt. Ltd., Ahmedabad 380 013, India, Email:mapin@icenet.net (R)
- Brunner R.C., 1989, Hazardous Waste Incineration, McGraw Hill Inc. 480p Clark R.S., Marine Pollution, Clanderson Press Oxford (TB)
- Cunningham, W.P. Cooper, T.H. Gorhani, E & Hepworth, M.T. 2001, Environmental Encyclopaedia, Jaico Publ. House, Mumbai, 1196p
- De A.K., Environmental Chemistry, Wiley Eastern Ltd. Down to Earth, Centre for Science and Environment (R)
- Gleick, H.P. 1993. Water in Crisis, Pacific Institute for Studies in Dev., Environment & Security. Stockholm Env. Institute Oxford Univ. Press. 473p
- Hawkins R.E., Encyclopaedia of Indian Natural History, Bombay Natural History Society, Bombay (R) Heywood, V.H & Watson, R.T. 1995. Global Biodiversity Assessment. Cambridge Univ. Press 1140p.
- Jadhav, H & Bhosale, V.M. 1995. Environmental Protection and Laws. Himalaya Pub. House, Delhi 284
   p. McKinney, M.L. & School, R.M. 1996. Environmental Science Systems & Solutions, Web enhanced edition. 639p.
- Mhaskar A.K., Matter Hazardous, Techno-Science Publication (TB) Miller T.G. Jr. Environmental Science, Wadsworth Publishing Co. (TB)
- Odum, E.P. 1971. Fundamentals of Ecology. W.B. Saunders Co. USA, 574p
- Rao M N. & Datta, A.K. 1987. Waste Water treatment. Oxford & IBH Publ. Co. Pvt. Ltd. 345p. Sharma B.K., 2001. Environmental Chemistry. Geol Publ. House, Meerut
- Survey of the Environment, The Hindu (M)
- Townsend C., Harper J, and Michael Begon, Essentials of Ecology, Blackwell Science
- Trivedi R.K., Handbook of Environmental Laws, Rules Guidelines, Compliances and Standards, Vol I and II, Enviro Media (R)
- Trivedi R. K. and P.K. Goel, Introduction to air pollution, Techno-Science Publication (TB) Wanger K.D., 1998 Environmental Management. W.B. Saunders Co. Philadelphia, USA 499p



## ENVIRONMENTAL BIOTECHNOLOGY

Course Code: BSB 601 Credit Units: 04

## **Course Objective:**

The objective of this course is to familiarize the students with different processes and use of microbial technology that can be employed for a cleaner environment. The course also aims to make the students aware of legislation and rules prevalent to control the degradation of our environment.

## **Learning Outcomes:**

After successful completion of the course student will be able to:

- Understand the delicate interrelationship of different components of environment.
- Understand conventional fuels, their impact and concept of clean fuel technology.
- Learn approaches and concepts behind bioremediation xenobiotic compounds, mechanism of microbial leaching and mining.
- Learn the concept of municipal solid and liquid wastes management and EIA.
- Understand the concept and assessment of environmental quality.

## **Course Contents:**

#### Module I

Environmental components, Environmental pollution and its types, Non-renewable and renewable energy resources.

#### **Module II**

Conventional fuels and their major impacts: Global warming and greenhouse effect, Global Ozone Problem, Acid rain, Eutrophication, Biomagnification, Concept of clean fuel technology: Biomass energy and biofuels

#### Module III

Biodegradation of Xenobiotic compounds i.e. oil, pesticide and PAHs and bioremediation of major pollutants Biomineralisation: Use of microbial technology for mining

#### Module IV

Treatment of municipal solid and liquid wastes Environmental impact assessment and Environmental audit

#### Module V

Bioassessment of Environmental Quality, Biofertilizers and Biopesticides

#### **Examination Scheme:**

Components	СТ	Attendance	Assignment/ Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

### **Text & References:**

#### Text:

- Environmental Science, S.C. Santra
- Environmental Biotechnology, Pradipta Kumar Mohapatra

## References:

- Environmental Biotechnology Concepts and Applications, Hans-Joachim Jordening and Jesef Winter
- Waste Water Engineering, Metcalf and Eddy, Tata McGraw hill
- Agricultural Biotechnology, S.S. Purohit
- Environmental Microbiology: Methods and Protocols, Alicia L. Ragout De Spencer, John F.T. Spencer
- Introduction to Environmental Biotechnology, Milton Wainwright
- Principles of Environmental Engineering, Gilbert Masters
- Principles of fermentation Technology, Salisbury, Whitaker and Hall



## ENVIRONMENTAL BIOTECHNOLOGY

Course Code: MSB 206 Credit Units: 03

## **Course Objective:**

To introduce the students to regenerate clean environment using biotechnology as the key tool and provide them the insight for ecofriendly approach along with the concept of sustainable development.

## **Course Contents:**

#### Module I

Environmental pollution and its major impacts on human beings, plants, animals and climate, concept of Global warming and climate change, Global Ozone Problem, Eutrophication, Land degradation, Biomagnification.

#### **Module II**

Non-renewable and renewable energy resources, concept of clean fuel technology, Biomass energy and biofuels

#### Module III

Biodegradation, Bioremediation and Phytoremediation of major pollutants (PAH, Pesticides etc), Use of microbial technology for mining of metals (Bioleaching) and Concept of Biomineralisation.

#### Module IV

Waste water engineering: physicochemical characteristic of water, waste water treatment of municipal wastes and industrial effluents with special focus on use of biological methods, Advanced waste water treatments

#### Module V

Bioassessment of environmental quality: Biosensors and biomarkers, Principles of ecotoxicity.

Agriculture Sustainability and Clean agricultural practices: Biofertilizers, Biopesticides and vermi composting

### **Module VI**

Environmental impact assessment and Environmental audit, Related case studies from India.

## **Examination Scheme:**

Components	CT	Attendance	Assignment/ Project/Seminar/Quiz	EE
Weightage (%)	15	5	10	70

## **Text & References:**

#### Text:

- Environmental Science, S.C. Santra
- Environmental Biotechnology, Pradipta Kumar Mohapatra

## References:

- Environmental Biotechnology Concepts and Applications" by Hans-Joachim Jordening and Jesef Winter
- Waste Water Engineering by Metcalf and Eddy. Publisher: Tata McGraw hill
- Environmental Microbiology: Methods and Protocols by Alicia L. Ragout De Spencer, John F.T. Spencer
- Introduction to Environmental Biotechnology by Milton Wainwright
- Principles of Environmental Engineering by Gilbert Masters



## **Behavioural Science - I**

Course Code: BSU-143 Course Credit: 01

**Course Objective:** 

This course aims at imparting an understanding of:

- Understanding self & process of self exploration
- Learning strategies for development of a healthy self esteem
- Importance of attitudes and its effective on personality
- Building Emotional Competency

## **Course Contents:**

## **Module I: Self: Core Competency**

(2 Hours)

- Understanding of Self
- Components of Self Self identity
- Self concept
- Self confidence
- Self image

#### **Module II: Techniques of Self Awareness**

(2 Hours)

- Exploration through Johari Window
- Mapping the key characteristics of self
- Framing a charter for self
- Stages self awareness, self acceptance and self realization

#### **Module III: Self Esteem & Effectiveness**

(2 Hours)

- Meaning
- Importance
- Components of self esteem
- High and low self esteem
- Measuring your self esteem

#### **Module IV: Building Positive Attitude**

(2 Hours)

- Meaning and nature of attitude
- Components and Types of attitude
- Importance and relevance of attitude

## **Module V: Building Emotional Competence**

(2 Hours)

- Emotional Intelligence Meaning, components, Importance and Relevance
- Positive and negative emotions
- Healthy and Unhealthy expression of emotions

## **Student learning outcomes**

- Student will Develop accurate sense of self
- Student will nurture a deep understanding of personal motivation
- Student will develop thorough understanding of personal and professional responsibility
- Student will able to analyse the emotions of others for better adjustment.

#### **Examination Scheme:**

Evaluation Components	Attendance	Journal of Success (JOS)	Social Awareness Program (SAP) SAP Report/SAP Presentation	End Semester Exam	Total
Weightage (%)	5	10	15	70	100

- Organizational Behaviour, Davis, K.
- Hoover, Judhith D. Effective Small Group and Team Communication, 2002, Harcourt College Publishers
- Dick, Mc Cann & Margerison, Charles: Team Management, 1992 Edition, viva books
- Bates, A. P. and Julian, J.: Sociology Understanding Social Behaviour
- Dressler, David and Cans, Donald: The Study of Human Interaction
- Lapiere, Richard. T Social Change
- Lindzey, G. and Borgatta, E: Sociometric Measurement in the Handbook of Social Psychology, Addison Welsley, US.
- Rose, G.: Oxford Textbook of Public Health, Vol.4, 1985.
- LaFasto and Larson: When Teams Work Best, 2001, Response Books (Sage), New Delhi
- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 2, Group (1996); Pfeiffer & Company



## Behavioural Science - III

Course Code: BSU-343 Course Credit: 01

#### **Course Objective:**

To enable the students:

- Understand the process of problem solving and creative thinking.
- Facilitation and enhancement of skills required for decision-making.

#### **Course Contents:**

#### Module I: Thinking as a tool for Problem Solving (2 Hours)

- What is thinking: The Mind/Brain/Behavior
- Critical Thinking and Learning:
- Making Predictions and Reasoning
- Memory and Critical Thinking
- Emotions and Critical Thinking
- Thinking skills

#### Module II: Hindrances to Problem Solving Process (2 Hours)

- Perception
- Expression
- Emotion
- Intellect
- Work environment

#### Module III: Problem Solving (2 Hours)

- Recognizing and Defining a problem
- Analyzing the problem (potential causes)
- Developing possible alternatives
- Evaluating Solutions
- Resolution of problem
- Implementation
- Barriers to problem solving:
- Perception
- Expression
- Emotion
- Intellect
- Work environment

## Module IV: Plan of Action (2 Hour)

- Construction of POA
- Monitoring
- Reviewing and analyzing the outcome

# **Module V: Creative Thinking (2 Hours)**

- Definition and meaning of creativity
- The nature of creative thinking
- Convergent and Divergent thinking
- Idea generation and evaluation (Brain Storming)
- Image generation and evaluation
- Debating
- The six-phase model of Creative Thinking: ICEDIP model

#### Student learning outcomes

- Student will be able to understand and solve the problems effectively in their personal and professional life.
- Students will outline multiple divergent solutions to a problem,
- Student will able to create and explore risky or controversial ideas, and synthesize ideas/expertise to generate innovations.

## **Examination Scheme**:

Examination Scheme.					
Evaluation Components	Attenda nce	Journal of Success (JOS)	Social Awareness Program (SAP) SAP Report/SAP	End Semester Exam	Total
Weightage (%)	5	10	15	70	100

## **Suggested Readings:**

•Michael Steven: How to be a better problem solver, Kogan Page, New Delhi, 1999 •Geoff Petty: How to be better at creativity; Kogan Page, New Delhi, 1999



# **Behavioural Science - IV**

Course Code: BSU-443 Course Credit: 01
Total Hours: 10

**Course Objective:** 

This course aims at imparting an understanding of Values, Ethics & Morality among students for making a balanced choice between personal & professional development.

**Course Contents:** 

Module I: Introduction to Values & Ethics (2 Hours)

Meaning & its type

Relationship between Values and Ethics Its

implication in one's life

Module II: Values Clarification & Acceptance (2Hours)

Core Values-Respect, Responsibility, Integrity, Resilience, Care, & Harmony Its

process-Self Exploration

Nurturing Good values

Module III: Morality (2 Hours)

Difference between morality, ethics &values

Significance of moral values

Module IV: Ethical Practice (2 Hours)

Ethical Decision making Challenges in

its implementation Prevention of

Corruption & Crime

Module V: Personal & Professional Values (2 Hours)

Personal values-Empathy, honesty, courage, commitment

Professional Values-Work ethics, respect for others

Its role in personality development Character building- New-self awarness

## Student learning outcomes

- Able to answer the question: What do I stand for?
- Ability to apply a coherent set of moral principles within professional and specialized contexts
- Willing to make unpopular but right decision
- Committed to working for justice and peace locally and globally.

## **Examination Scheme:**

Evaluation Components	Attend ance	Journal of Success (JOS)	Social Awareness Program (SAP) SAP Report/SAP	End Semester Exam	Tota l
Weightage (%)	5	10	15	70	100

### **Text & References:**

Cassuto Rothman, J. (1998). From the Front Lines, Student Cases in Social Work Ethics. Needham Heights, MA: Allyn and Bacon.

Gambrill, E. & Pruger, R. (Eds). (1996). Controversial Issues in Social Work Ethics, Values, & Obligations. Needham Heights, MA: Allyn and Bacon, Inc.



#### BEHAVIOURAL SCIENCE-V

Course Code: BSU-543 Course Credit: 01
Total Hours: 10

### **Course Objective:**

- To inculcate in the students an elementary level of understanding of group/team functions
- To develop team spirit and to know the importance of working in teams

#### **Course Contents:**

#### **Module I: Group formation (2 Hours)**

- Definition and Characteristics
- Importance of groups
- Classification of groups
- Stages of group formation
- Benefits of group formation

#### **Module II: Group Functions (2 Hours)**

- External Conditions affecting group functioning: Authority, Structure, Org. Resources, Organizational policies etc.
- Internal conditions affecting group functioning: Roles, Norms, Conformity, Status, Cohesiveness, Size, Intergroup conflict.
- Group Cohesiveness and Group Conflict
- Adjustment in Groups

## **Module III: Teams (2 Hours)**

- Meaning and nature of teams
- External and internal factors effecting team
- Building Effective Teams
- Consensus Building
- Collaboration

### Module IV: Leadership (2 Hours)

- Meaning, Nature and Functions
- Self leadership
- Leadership styles in organization
- Leadership in Teams

#### Module V: Power to empower: Individual and Teams (2 Hours)

- Meaning and Nature
- Types of power
- Relevance in organization and Society

### Student learning outcomes

- Students will Develop critical and reflective thinking abilities
- Students will Demonstrate an understanding of group dynamics and effective teamwork
- Student will develop a range of leadership skills and abilities such as effectively leading change, resolving conflict, and motivating others
- Student will Gain knowledge and understanding of organization resources, policies, and involvement opportunities.
- Student will Develop strategies to recruit, retain, and continually motivate contributing members to

#### the organization

Evaluation Components	Attenda nce	Journal of Success (JOS)	Social Awareness Program (SAP) SAP Report/SAP Presentation	End Semester Exam	Total
Weightage (%)	5	10	15	70	100

- Organizational Behaviour, Davis, K.
- Hoover, Judhith D. Effective Small Group and Team Communication, 2002, Harcourt College Publishers
- Dick, Mc Cann & Margerison, Charles: Team Management, 1992 Edition, viva books
- $\bullet$  Bates, A. P. and Julian, J.: Sociology Understanding Social Behaviour
- Dressers, David and Cans, Donald: The Study of Human Interaction
- Lapiere, Richard. T Social Change
- Lindzey, G. and Borgatta, E: Sociometric Measurement in the Handbook of Social Psychology, Addison Welsley, US.
- Rose, G.: Oxford Textbook of Public Health, Vol.4, 1985.
- LaFasto and Larson: When Teams Work Best, 2001, Response Books (Sage), New Delhi
- J William Pfeiffer (ed.) Theories and Models in Applied Behavioural Science, Vol 2, Group (1996); Pfeiffer & Company
- Smither Robert D.; The Psychology of Work and Human Performance, 1994, Harper Collins College Publishers



# Behavioural Sciences - VI

Course Code BSU643 Course Credit 1

**Total Hours: 10** 

#### **Course Objective:**

- To develop an understanding the concept of stress its causes, symptoms and consequences.
- To develop an understanding the consequences of the stress on one's wellness, health, and work performance.

#### **Course Contents:**

Module I: Stress (2 Hours)

- Meaning & Nature
- Characteristics
- Types of stress

#### Module II: Stages and Models of Stress

(2 Hours)

- Stages of stress
- The physiology of stress
- Stimulus-oriented approach.
- Response-oriented approach.
- The transactional and interact ional model.
- Pressure environment fit model of stress.

## Module III: Causes and symptoms of stress

(2Hours)

- Personal
- Organizational
- Environmental

## Module IV: Consequences of stress

(2 Hours)

- Effect on behavior and personality
- Effect of stress on performance
- Individual and Organizational consequences with special focus on health

## Module V: Strategies for stress management

(2 Hours)

- Importance of stress management
- Healthy and Unhealthy strategies
- Peer group and social support
- Happiness and well-being.

## **Student learning outcomes**

- Student will able demonstrate thorough understanding of stress and its effects
- Student will able to learn various coping strategies to deal stress effectively so to overcome the
  consequences and impact of stress on their health and wellbeing, ultimately it will enhance their
  performance.

### **Examination Scheme:**

			Social Awareness Program		
Evaluation Components	Attendance	Journal of Success (JOS)	(SAP) SAP Report/SAP Presentation	End Semester Exam	Total
Weightage (%)	5	1 0	15	70	100

### **Suggested Readings:**

- Blonna, Richard; Coping with Stress in a Changing World: Second edition
- Pestonjee, D.M, Pareek, Udai, Agarwal Rita; Studies in Stress And its Management
- Pestonjee, D.M.; Stress and Coping: The Indian Experience.

