

As per the NEP 2020
Skill Enhancement Courses(SEC)
(Arts / Science / Commerce)
(Effective from Academic Year 2024-2025 onwards)
Semester-III



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Arts/Science/Commerce/Others
Skill Enhancement Courses Syllabus
(CBCS) As per the NEP 2020 (Semester I to IV)
w.e.f. the Academic Session 2024-25

Semester-III

Note: Select as per structure of the programme(any one)

Course title	Credits	Course Code	Credit distribution of the course			Eligibility criteria
			Lecture	Tutorial	Practical/ Practice	
Calligraphy	2	24BSC6301	2	0	0	10+2 from any recognized Board
Digital World	2	24BSC6302	2	0	0	
Apiculture	2	24BSC6303	2	0	0	
Healthy and Sustainable Food Choices	2	24BSc5104	2	0	0	
Radiation Safety	2	24BSC6305	2	0	0	
Laboratory Operations and safety Measures	2	24BSC6306	2	0	0	
Graphics Design & 2D Animation	2	24BSC6307	2	0	0	
Ecotourism	2	24BSC6308	2	0	0	

Semester-III

Skill Enhancement Course (SEC)

Calligraphy

Code: 24BSC6301

Course Objectives:

The Learning Objectives of this course are as follows:

- To teach students the art of Calligraphy.
- To make students better at handwriting and embellish the scripts.
- To help the students communicate with creativity.

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Course outcomes:

The Learning Outcomes of this course are as follows:

- Students will be skilled in calligraphy scripts.
- Learning flourishing will help to develop good writing.
- Practice sessions will further a project at the end of semester.
- Will induce skills to set up a business, too.

Unit-I

Introduction to Calligraphy

- Definition, History of calligraphy, Calligraphy at the Global level, Types of Calligraphy : Classical Calligraphy & Modern Calligraphy
- Practice Sessions: Introducing students to Calligraphy and its types through images, videos and animations.

Unit II

Introduction to the Writing tools

Tool Kit, Different Types of Pens, Different Types of Nibs, Different Types of Brushes, Different Types of Inks

Practice Sessions: Display of Writing items, Discussion on the usage of different types pens, nibs and brushes through hands-on activities

Unit III

Foundation to Calligraphy -I

How to write letters?, Majuscules, Miniscules, Numbers, Learning Strokes, Sans Serif B-point, Celtic, Italian Script, Roman Script, Gothic Script, Practice Sessions: Learning and practicing strokes- Upstroke, Downstroke, Overturn, Underturn, Compound curve, Oval, Ascending loop

Unit-IV

Foundation to Calligraphy -II

Hands-on activities and Assessment on Sans Serif B-point, Celtic, Italian Script, Roman Script, Gothic Script, Flourishing

References Books

1. Suepsuan, P.A. (2021). Start Calligraphy The Right way to write: Learn Calligraphy The Complete Book - Modern Calligraphy Pen For Beginners; Learning Resources Step By Step Number Line, Mastering Modern Calligraphy. Independently published.
2. C., & Co., T. P. (2020). Modern Calligraphy Set for Beginners: A Creative Craft Kit for Adults featuring Hand Lettering 101 Book, Brush Pens, Calligraphy Pens, and More. Paige Tate & Co.

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Skill Enhancement Course (SEC)

Digital World

Code: 24BSC6302

Unit I: Marketing in the Digital World

Digital marketing: Concept, Features, Difference between traditional and digital marketing, Moving from traditional to digital Marketing;

Digital Marketing Channels: Intent Based- SEO, Search Advertising; Brand Based- Display Advertising; Community Based-Social Media Marketing; Others- Affiliate, Email, Content, Mobile.

Customer Value Journey: 5As Framework; The Ozone 03 Concept Key; Traits of online consumer

Unit II: Content and Email Marketing

Content Marketing: Step-by-step Content Marketing Developing a content marketing strategy Email Marketing: Types of Emails in email marketing, Email Marketing best practices

Unit III: Social Media Marketing

Social Media Marketing: Building .Successful Social Media strategy; Social Media Marketing Channels; Facebook, Linked in, YouTube (Concepts and strategies)

Unit IV: Display Marketing

Display Advertising: Working of Display Advertising; Benefits and challenges; Overview of Display ad Process.; Define- Customer, Publisher, Objectives; Format- Budget, Media, Ad Formats, Ad Copy.

References Books:

- 1.Moutusy Maity: Internet Marketing: A practical approach in the Indian Context: Oxford Publishing
- 2.Seema Gupta: Digital Marketing: Mcgraw Hill
- 3.Ultimate guide to digital Marketing by Digital Marketer

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Skill Enhancement Course (SEC)

Apiculture

Code: 24BSC6303

Learning Objectives

The Learning Objectives of this course are as follows:

- To help the student to become familiar with the significance of beekeeping as an economically viable industry.
- It will help them to understand the different species of honeybees, their biology, behavior and role in pollination.
- To train the students to learn the techniques of honey bee rearing, optimization of techniques based on climate and geographical regions, and various measures to be taken to maximize the benefits.
- To understand the significance of beekeeping in the diversification of agriculture for the rural communities to increase their income and create employment opportunities and at the same time to develop entrepreneurial skills required for self-employment in the beekeeping sector.

Course Outcomes

By the end of the course, the students will be able to:

- Comprehend the various species of honey bees in India, their social organization and its importance.
- Appreciate the opportunities and employment in apiculture – in public, private and government sector.
- Gain thorough knowledge about the techniques involved in bee keeping and honey production.
- Make various products and by-products obtained from beekeeping sector and their importance.
- Develop entrepreneurial skills necessary for self-employment in beekeeping sector.
- Enhance collaborative learning and communication skills through practical sessions, teamwork, group discussions, assignments and projects.

Skill development and job opportunities

- After completion of this course students would obtain the training in collection, identification, and various ways/aspects of bee rearing.
- The students can also take a job as an apiary worker, often called a beekeeper, manage colonies of honeybees for the production of honey as well as pollination services.
- The course would also provide a basic training to enable the students to construct hives and replace combs.
- Enhance entrepreneurial skills by collecting and packaging hive products including

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honey, beeswax and pollen.

- Make decisions on yards, treatment, splits, honey harvesting and all other beekeeping decisions.
- Identify and report hive health concerns.

Unit- I: Biology of Bees

Historical background of apiculture, classification and biology of honey bees, Social organization of bee colony, behavioral patterns (bee dance, swarming).

Demonstration

1. Study of the life history of honey bees: *Apis cerana indica*, *Apis mellifera*, *Apis dorsata*, *Apis florea*, *Melipona* sp. from specimen/ photographs - Egg, larva, pupa, adult (queen, drone, worker).
2. Study of morphological structures of honey bees through permanent slides/photographs—mouthparts, antenna, wings, sting apparatus and temporary mount of legs (antenna cleaner, mid leg, pollen basket).
3. Study of natural beehive and identification of queen cells, drone cells and brood.

Unit-II: Rearing of Bees

Artificial Bee rearing (Apiary), Beehives – Newton and Langstroth; Bee Pasturage; Selection of bee species for apiculture –*Apis cerana indica*, *Apis mellifera*; Bee keeping equipment methods of extraction of honey (Indigenous and Modern) & processing; Apiary management - Honey flow period and lean period, effects of pollutants on honeybees.

Demonstration

1. Distinguishing characters of workers of three bee species.
2. Importance of site selection for bee keeping.
3. Study of an artificial hive (Lang troth/Newton), its various parts and beekeeping equipment: draw diagrams of bee boxes proportionate to the body size and measure the body length and wing size.
4. Preparation of mount of pollen grains from flowers.

Unit-III: Rearing of Bees

Bee diseases control and preventive measures: enemies of bees and their control.

Demonstration

1. Diagnosis of honeybee diseases: Protozoan diseases, Bacterial diseases, Viral diseases (one each)-symptoms, nature of damage and control.
2. Identification of honeybee enemies: Predators-Insects and non-insects.

Unit-IV: Bee Economy & Entrepreneurship in Apiculture

Products of apiculture industry (Honey, Bees Wax, Propolis, Royal jelly, Pollen etc.) and their uses; Modern methods in employing artificial Beehives for cross pollination in horticultural gardens-stationary and migratory bee keeping.

Bee keeping industries – Recent advancements, employment opportunities, economics in small and large-scale beekeeping, scope for women entrepreneurs in beekeeping sector, study of development programs and organizations involved in beekeeping in India.

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Demonstration

1. Video demonstration of wax extraction and preparation of comb foundation sheets.
2. Analysis of honey – purity, physical and biochemical parameters (any two constituents).
3. Study of bee pasturage – visit to fields/gardens/orchards for studying the bee activity (role in pollination, nectar collection, videography of honeybee activity) and preparation of herbarium of nectar and pollen yielding flowering plants (floral mapping).

Notes : Visit to an apiary/honey processing unit/institute and submission of a report.

References Books:

1. Singh, S. (1962). Beekeeping in India, Indian Council of Agricultural Research, New Delhi.
2. Mishra, R.C. (1995). Honeybees and their management in India. Indian Council of Agricultural Research, New Delhi.
3. Prost, P. J. (1962). Apiculture. Oxford and IBH, New Delhi.
4. Rahman, A. (2017). Beekeeping in India. Indian Council of Agricultural Research, New Delhi. Gupta, J.K. (2016). Apiculture, Indian Council of Agricultural Research, New Delhi.

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Skill Enhancement Course (SEC)

Healthy and Sustainable Food Choices

Code: 24BSC6304

Learning Objectives

The Learning Objectives of this course are as follows:

- To identify healthier food options
- To understand portion control for foods
- To demonstrate skill for preparing healthy and nutritious dishes
- To link sustainability with healthy food choices

Learning Outcomes

The Learning outcomes of this course are as follows:

- To be able to select and prepare healthier food options
- To relate the influence of food environment on food choices
- To comprehend the importance of sustainable food choices

Unit -I: Healthy food choices

Identification of healthy and unhealthy foods and Understanding the immediate food environment

- Food labels and basics of nutrient profiling models to classify foods as HFSS
- Nutrient profiling of commonly consumed food items
- Exploring the food environment by mapping the food outlets and food available near home and college.

Unit -II

Food portion sizes and related factors

Understanding food portion sizes and its relation to nutrient density


- The concept of portion/serving sizes and portion control
Estimation of energy and nutrient density of selected food products using nutrient composition database

Unit -III

Basics of food preparation

Planning and preparation of healthy and nutritious dishes

- Planning and preparation of the following:
 - Snacks
 - Soups and Salads
 - Desserts
 - Meal combinations


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Unit -IV

Sustainability and healthy food

Linking the concept of healthy eating with sustainability

- Identification of nutritious food sources which have minimal impact on the environment
- Case study on understanding food supply chain and carbon footprints of any commonly consumed foods

References Books

1. Chadha R and Mathur P (2015). Nutrition - A Lifecycle Approach. New Delhi: Orient Blackswan Pvt Ltd.
2. Longvah T, Ananthan R, Bhaskarachary K and Venkaiah K (2017). Indian Food Composition Tables. National Institute of Nutrition, Indian Council of Medical Research, Department of Health Research, Ministry of Health and Family Welfare, Government of India, Hyderabad.
3. Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. New Delhi: Elite Publishing House Pvt Ltd.
4. Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition. Hyderabad: Orient Black Swan.
5. HLPE. 2017. Nutrition and food systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security, Rome. <https://www.fao.org/3/i7846e/i7846e.pdf>


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Skill Enhancement Course (SEC)

Radiation Safety

Code: 24BSC6305

Course Objectives:

- This course focuses on the applications of nuclear techniques and radiation protection.
- It will not only enhance the skills towards the basic understanding of the radiation but will also provide the knowledge about the protective measures against radiation exposure.
- It imparts all the skills required by a radiation safety officer or any job dealing with radiation such as X-ray operators, jobs dealing with nuclear medicine: chemotherapists, operators of PET, MRI, CT scan, gamma camera etc.

Course Outcomes:

This course will help students in the following ways.

- Awareness and understanding the hazards of radiation and the safety measures to guard against these hazards.
- Having a comprehensive knowledge about the nature of interaction of matter with radiations like gamma, beta, alpha rays, neutrons etc. and radiation shielding by appropriate materials.
- Knowing about the units of radiations and their safety limits, the devices to detect and measure radiation.
- Learning radiation safety management, biological effects of ionizing radiation, operational limits and basics of radiation hazards evaluation and control, radiation protection standards,
- Learning about the devices which apply radiations in medical sciences, such as X - r a y , MRI, PET, CT-scan

Unit -I

Radiation and its interaction with matter: Basic idea of different types of radiation electromagnetic (X-ray, gamma rays, cosmic rays etc.), nuclear radiation and their origin.

Nuclear Radiation: Basic idea of Alpha, Beta, Gamma neutron radiation and their sources (sealed and unsealed sources).

Interaction of Charged Particles (including alpha particles): Heavy charged particles (e.g. accelerated ions) - Beth-Bloch Formula, Scaling laws, Mass Stopping Power, Range, Straggling.

Interaction of Beta Particles: Collision and Radiation loss (Bremsstrahlung).

Interaction of Photons: Linear and Mass Attenuation Coefficients. Interaction

of Neutrons: Collision, slowing down and Moderation.

Unit -II

Radiation detection and monitoring devices: Basic concepts and working principle of gas detectors, Scintillation Detectors, Solid State Detectors and Neutron Detectors, Thermo- luminescent Dosimetry.

Radiation Quantities and Units: Basic idea of different units of activity, KERMA, exposure, absorbed dose, equivalent dose, effective dose, collective equivalent dose, annual limit of intake (ALI) and derived air concentration (DAC).


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Unit -III

Radiation Units, dosage and safety management: Basic idea of different units of activity, KERMA, exposure, absorbed dose, equivalent dose, effective dose, collective equivalent dose, annual limit of intake (ALI) and Derived air concentration (DAC).

Radiation safety management: Biological effects of ionizing radiation, Operational limits and basics of radiation hazards, its evaluation and control: radiation protection standards.

Unit -IV

Application of radiation as a technique: Application in medical science (e.g., basic principles of X-rays, MRI, PET, CT scan, Projection Imaging Gamma Camera, Radiation therapy), Archaeology, Art, Crime detection, Mining and oil. Industrial Uses: Tracing, Gauging, Material Modification, Sterilization, Food preservation.

Demonstration

Minimum five experiments need to be performed from the following, graphs to be plotted using any graphical plotting software

- 1) Estimate the energy loss of different projectiles/ions in Water and carbon, using SRIM/TRIM etc. simulation software, (different projectiles/ions to be used by different students).
- 2) Simulation study (using SRIM/TRIM or any other software) of radiation depth in materials (Carbon, Silver, Gold, Lead) using H as projectile/ion.
- 3) Comparison of interaction of projectiles with $Z_P = 1$ to 92 (where Z_P is atomic number of projectile/ion) in a given medium (Mylar, Carbon, Water) using simulation software (SRIM etc).
- 4) SRIM/TRIM based experiments to study ion-matter interaction of heavy projectiles on heavy atoms. The range of investigations will be $Z_P = 6$ to 92 on $Z_A = 16$ to 92 (where Z_P and Z_A are atomic numbers of projectile and atoms respectively). Draw and infer appropriate Bragg Curves.
- 5) Calculation of absorption/transmission of X-rays, γ -rays through Mylar, Be, C, Al, Fe and $Z_A = 47$ to 92 (where Z_A is atomic number of atoms to be investigated as targets) using XCOM, NIST (<https://physics.nist.gov/PhysRefData/Xcom/html/xcom1.html>).
- 6) Study the background radiation in different places and identify the source material from gamma ray energy spectrum. (Gamma ray energies are available in the website <http://www.nndc.bnl.gov/nudat2/>).
- 7) Study the background radiation levels using Radiation meter.
- 8) Study of characteristics of GM tube and determination of operating voltage and plateau length using background radiation as source (without commercial source).
- 9) Study of counting statistics using background radiation using GM counter.
- 10) Study of radiation in various materials (e.g. KSO₄ etc.). Investigation of possible radiation in different routine materials by operating GM counter at operating voltage.
- 11) Study of absorption of beta particles in Aluminum using GM counter.
- 12) Measurement of gamma ray attenuation co-efficient of aluminum using GM counter.
- 13) Estimation of half thickness for aluminum using GM Counter.


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References Books:

1. Basic ideas and concepts in Nuclear Physics: An introductory approach by K Heyde, third edition, IOP Publication, 1999.
2. Nuclear Physics by S N Ghoshal, First edition, S. Chand Publication, 2010.
3. Nuclear Physics: Principles and Applications by J Lilley, Wiley Publication, 2006.
4. Fundamental Physics of Radiology by W J Meredith and B Massey, John Wright and Sons, UK, 1989.
5. An Introduction to Radiation Protection by A Martin and S A Harbisor, John Willey and Sons, Inc. New York, 1981.
6. Schaum's Outline of Modern Physics, McGraw-Hill, 1999.
7. Schaum's Outline of College Physics, by E. Hecht, 11th edition, McGraw Hill, 2009.
8. Modern Physics by K Sivaprasath and R Murugesan, S Chand Publication, 2010.
9. AERB Safety Guide (Guide No. AERB/RF-RS/SG-1), Security of radioactive sources in radiation facilities, 2011
10. Radiation detection and measurement by G F Knoll, 4th Edition, Wiley Publications, 2010.
11. Techniques for Nuclear and Particle Physics experiments by W R Leo, Springer, 1994.
12. Thermoluminescence dosimetry by A F Mcknlly, Bristol, Adam Hilger (Medical Physics Hand book 5
13. Medical Radiation Physics by W R Hendee, Year book Medical Publishers, Inc., London, 1981.
14. Physics and Engineering of Radiation Detection by S N Ahmed, Academic Press Elsevier, 2007.
15. IAEA Publications: (a) General safety requirements Part 1, No. GSR Part 1 (2010), Part 3 No. GSR Part 3 (Interium) (2010); (b) Safety Standards Series No. RS-G-1.5 (2002), Rs-G-1.9 (2005), Safety Series No. 120 (1996); (c) Safety Guide GS-G-2.1 (2007).

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Skill Enhancement Course (SEC)
Laboratory Operations and safety Measures

Code: 24BSC6306

Demonstration

Unit-I

Definition, History and Classification of cosmetic & cosmeceutical products.

Skin Care Products: Basic structure and function of skin. Principles of formulation of skin care products.

Role of herbs in Skin Care: Aloe and turmeric. General Ingredients and preparation of

- (a) Preparation of Talcum powder (chemical based and herbal)
- (b) Face cream/ vanishing cream/ cold cream/ suntan cream/lather shaving cream (any two)
- (c) Body lotion

Unit-II

2. Hair Care Products: Basic structure of hair and classification of hair. Principles of formulation of Hair care products. Types of shampoo and conditioners. Role of herbs in Hair care: Henna and Amla. Role of primary and secondary surfactants in shampoo. General Ingredients and preparation of

- (a) Shampoo (chemical based and herbal)
- (b) Conditioners

Unit-III

Hand Care and hygiene Products: Principles of formulation of hand sanitizers and hand wash. General Ingredients and preparation of:

- (c) Hand wash
- (d) Hand sanitizer

3. Nail preparation: Structure of nail, Nail lacquers, Nail polish remover. General Ingredients and preparation of:

- (a) Nail polish and nail polish remover


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Unit-IV

Personal hygiene products: Total fatty matter, alkali content and pH of soaps. Bathing soap and toilet soap. Antiperspirants and deodorants. General Ingredients and preparation of

(a) Soaps

(b) Cream Soaps

Oral hygiene products: Common problem associated with teeth and gums. Role of herbs in oral care: Neem and clove. Principles of formulation of Oral hygiene products. Flavours and essential oils.


General Ingredients and preparation of

(a) Tooth powder (Chemical based and Herbal)

(b) Tooth paste

References Books:

1. Barel, A.O.; Paye, M.; Maibach, H.I. (2014), Handbook of Cosmetic Science and Technology, CRC Press.
2. Garud, A.; Sharma, P.K.; Garud, N. (2012), Text Book of Cosmetics, Pragati Prakashan.
3. Gupta, P.K.; Gupta, S.K. (2011), Pharmaceutics and Cosmetics, Pragati Prakashan
4. Butler, H. (2000), Poucher's Perfumes, Cosmetic and Soap, Springer
5. Flick, E.W. (1990), Cosmetic and toiletry formulations, Noyes Publications / William Andrew Publishing.
6. Natural Ingredients for Cosmetics; EU Survey 2005
7. Formulation Guide for cosmetics; The Nisshin Oillio Group, Ltd.
8. Functional Ingredients & Formulated Products for Cosmetics & Pharmaceuticals; NOF Corporation


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Skill Enhancement Course (SEC)

Graphics Design & 2D Animation

Code: 24BSC6307

Learning Objectives

The Learning Objectives of this course are as follows:

- To introduce the students to the skill of animation.
- To learn about the application of 2D and 3D animation.

Learning outcomes

The Learning Outcomes of this course are as follows:

- After studying this course, students will be able to understand the importance of animation and graphics design
- After studying this course, students will be able to learn graphics design in 2D and 3D animation.
- After studying this course, students will be able to learn the application of graphics design in 2D and 3D animation in advertising and other areas.

Unit-I

2D Animation

Introduction to 2D Animation: Introduction to 2D Animation, Drawing concept, Colour theory & basics, Incorporating sound into 2D animation

Unit-II

Layout & Designing

Basic of sketching, still life and assignment of basic drawing, Composition of basic elements, Work in different media, such as drawing, collage, and painting, Explore the relationship between elements and principal, Pixel and resolution, tor and Bitmap Graphics

Unit-III

Graphics and advertising (Demonstration)

- Creating Digital Layout
- Professional image editing (PHOTOSHOP)
- Advertising and relevant case , Graphics and illustration (Corel Draw, Paint)
- Vector Composition, 2D animation (Macromedia Flash)


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Unit-IV

Broadcast Design (Demonstration)

- Working with visual images
- Story Boarding
- Titles and Credit Making
- Stop motion animation

Production/ Post-Production (Demonstration)

- Paint & animate (scanning, tracing, ink & Paint)
- Understanding Background composition
- Basic Understanding of 2D animation and technique
- Animation with flash, Portfolio Making

2D Animation

- Drawing fundamentals using lines
- Sketching of cartoon characters
- 2D Logo designing
- Storyboarding of a 30 seconds film
- Portfolio making of an organization

References Books :

1. The Illusion of Life: Disney Animation, Ollie Johnston and Frank Thomas, Disney Editions.
2. Blender Production Creating Short Animations from Start to Finish, Roland Hess, Routledge.
3. Animating with Blender: Creating Short Animations from Start to Finish, Roland Hess, Focal Press
4. Simplified Drawing for Planning Animation, Wayne Gilbert, Anamie Entertainment Ltd.
5. Getting Started in 3D with Maya, Adam Watkins, Routledge.
6. Creating Characters with Personality: For Film, TV, Animation, Video Games, and Graphic Novels, Tom Bancroft, Watson-Guption
7. Force: Dynamic Life Drawing for Animators, Mike Mattesi, Focal Press

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Skill Enhancement Course (SEC)

Ecotourism

Code: 24BSC6308

Course Objectives:

- To train students in concepts and principles of sustainable ecotourism leading to a new generation of entrepreneurs
- To inculcate field-based practical skills in translating ecological systems into wealth generation while conserving natural resources
- To transform local biological wealth into a hub of global attraction and generate a scientific basis of Indian traditional knowledge

Course Outcomes

- After studying this course, students will be able to develop next-generation ecological entrepreneurs
- After studying this course, students will be able to evolve eco-literate society by integrating market-based instruments with eco-cultural knowledge of traditional societies
- After studying this course, students will be able to practice ecological knowledge for wealth generation, environmental conservation, and popularization of Indian traditional knowledge

Unit-I

Assess the current state of ecotourism in little-known/explored areas and examine ecotourism potential

Field surveys to identify the existing locations having ecological, wildlife, scenic, and ethnic potential for ecotourism and analyze existing prevalent eco-practices having the potential to integrate with ecotourism program.

Unit-II

Identify ten plant species having ecological, economic, and cultural significance as ecotourist attraction

Develop stories on the selected wild habitats to attract ecotourists from within and outside the country

Identify suitable track and prepare a checklist of birds and animals with their stories for a diverse group of ecotourists

Unit-III

Examine the current state of natural resources and develop suitable messages and appropriate media for educating different target groups

Survey and identify the target group for ecotourism based on their age, education, economic and other criteria and evaluate their psychological barriers to ecotourism.

Unit-IV

Develop messages, stories, and pictures to attract tourists and promote ecotourism in the target area

Analyze basic elements of ecotourism, the special needs of ecotourists, develop trips and travel packages offering an array of experience? and predict the market trends

Develop ecotourist activities for individuals, families, and groups and craft social media campaigns for the proposed ecotourism business.

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References Books:

1. Ballantyne, R. and Packer, J., 2013. International Handbook on Ecotourism. Edward Elgar Publishing Limited, UK
2. Blumstein, D.T., Geffroy, B., Samia, D.S. and Bessa, E., 2017. Ecotourism's promise and Peril. A Biological Evaluation. Springer Int. Publ. (Chapters 10-11)
3. Fennell, D.A., 2014. Ecotourism. An Introduction. Routledge, London, UK.
4. Fletcher, R., 2014. Romancing the wild. In Romancing the Wild. Duke University Press.
5. Tanguay, G.A., and Rajaonson, J., (2015). Evaluating Sustainable Tourism Using Indicators: Problems and Solutions. In: Brophy, S.C., (Ed), Ecotourism: Practices, Benefits and Environmental Impacts. Nova Science Publishers, pp. 119 - 134.
6. Wearing, S. and Schweinsberg, S., 2019. Ecotourism: Transitioning to the 22nd century. Routledge

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