

VAC003. Sustainability Education: Principles and Practices in Environmental Contexts

Course title: Certificate course in Sustainability Education: Principles and Practices in Environmental Contexts
Learning Outcomes: Course is intended <ul style="list-style-type: none">• Students will be able to understanding the concept of sustainability and its significance at global level• Students will be able to develop a deeper understanding of environmental concepts and ecosystems• Students will be able to familiarize with the United Nations Sustainable Development Goals and their relevance to sustainability education• Students will be able to explore pedagogical approaches for effectively integrating sustainability education into teaching practices• Students will be able to encouraging sustainable behaviours among students
Duration: 30 hours
Teaching Scheme <ul style="list-style-type: none">• Theory: 10hours• Practical: 20 hours• Tutorial
Examination scheme <ul style="list-style-type: none">• Assignments• Mid semester examination• End semester examination• Project
Marks <ul style="list-style-type: none">• Theory: 25• Practicals: 75
Mode of transaction Lecture cum discussion, seminars, group presentations, projects, assignments, ICT tools
Module 1: Introduction to Sustainability Education– 2 hours <ul style="list-style-type: none">1.1 Understanding the concept of sustainability1.2 Importance of sustainability education in modern contexts1.3 Basic principles and goals of sustainability education
Module 2: Environmental Awareness and Ecological Understanding– 2 hours <ul style="list-style-type: none">2.1 Introduction to environmental concepts and ecosystems2.2 Biodiversity and its significance2.3 Human impact on the environment: pollution, deforestation, and habitat destruction
Module 3: Sustainable Development Goals (SDGs)– 2 hours <ul style="list-style-type: none">3.1 Overview of the United Nations Sustainable Development Goals3.2 Understanding the interconnectedness of social, economic, and environmental aspects

of sustainability

3.3 Case studies illustrating progress towards achieving SDGs

Module 4: Teaching Strategies for Sustainability Education– 2 hours

4.1 Pedagogical approaches for integrating sustainability education into teaching practices

4.2 Hands-on activities, projects, and games for engaging students in sustainability concepts

4.3 Incorporating real-world examples and local environmental issues into the curriculum

Module 5: Promoting Sustainable Practices– 2 hours

5.1 Encouraging sustainable behaviours among students

5.2 Waste reduction, recycling, and resource conservation initiatives

5.3 Building partnerships with local organizations and businesses to support sustainability efforts

PROJECT WORKS

1. Classroom discussion on personal experiences with sustainability and its relevance in daily life.
2. Group activity to brainstorm examples of unsustainable practices and their potential impacts on the environment
3. Field trip to a local park or nature reserve to observe and identify different ecosystems and biodiversity.
4. Hands-on activity to simulate the effects of pollution on a mini-ecosystem (e.g., water pollution experiment with aquatic plants)
5. Group research project on one of the SDGs, including an analysis of its importance, current status, and potential challenges
6. Presentation of case studies highlighting successful initiatives related to achieving specific SDGs in different regions.
7. Workshop on creating interdisciplinary lesson plans that incorporate sustainability concepts across multiple subject areas (e.g., math, science, social studies).
8. Role-playing activity where students take on the role of educators and design sustainability-themed lesson plans or activities for a specific grade level.
9. School-wide campaign to raise awareness about sustainable practices, including poster-making competitions or eco-friendly challenges.
10. Collaboration with local environmental organizations to organize a community clean-up or tree-planting event, involving students, teachers, and community members.

REFERENCES

- "Introduction to Sustainability" by Robert Brinkmann and Sandra Garren
- "Environmental Science: Principles and Practices" by William Cunningham and Mary Ann Cunningham
- "Achieving the Sustainable Development Goals: From Agenda to Action" edited by Shamshad Akhtar and David Souter
- "Teaching for EcoJustice: Curriculum and Lesson Plans" by Rita-Marie Conrad and Julie Davis

- "The Green Classroom: Integrating Sustainability Education into K-12 Curricula" by Daniel Winterbottom and Amy Kohout
- "Engaging Students in Sustainable Development Goals: The Role of Higher Education" edited by Walter Leal Filho et al