A photograph of the Sustainability training Session.



Lecture notes for Sustainability

(Academic Staff)



European University of Lefke

Sustainability on Campus The Role of Academic Staff

Asst. Prof. Sevket Bostanci



Contents

- UN Sustainable Development Goals
- Sustainability
- Sustainability on Campus & Role of Academic Staff
- Embedding Sustainability into Curriculum & Curriculum Integration
- Developing Sustainability Competencies & Sustainability-Focused Assignments
- Fostering Student Engagement & Academic Research for Sustainability
- Research Ethics and Sustainability
- Participating in Campus Sustainability Planning
- Academic Staff as Policy Influencers & Collaborating Across Disciplines
- Campus Footprint
- Challenges and Barriers & Strategies to Overcome Barriers
- Resources and Tools

UN Sustainable Development Goals





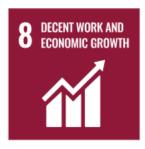




































Sustainability



• Environmental, economical and social balance







- Universities as leaders in innovation and influence
- Responsibility to students and community







Environmental footprint of higher education institutions (Categories)

- Catering
- Lab equipment
- IT equipment
- Electricity
- Gas & Fuels
- Daily commute
- Other goods & services
- International travel
- Business services

The Role of Academic Staff



• Instructors, researchers, mentors, policy influencers

Unique ability to shape student values and actions









Embedding Sustainability into Curriculum

Add sustainability themes to existing content





• Encourage critical thinking on real-world problems



• Interdisciplinary opportunities









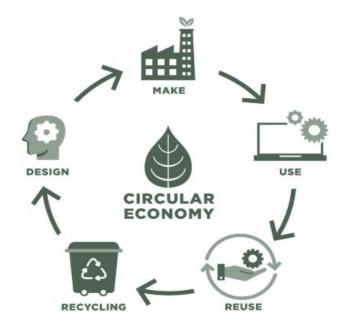
• Engineering: lifecycle analysis

• Literature: environmental storytelling



• Business: circular economy models

• Medicine: environmental health









Systems thinking

Critical thinking





- Anticipatory skills
- Strategic collaboration







Community-based projects





Campus sustainability audits

• Case studies on global challenges (features)

Colorado State University







• Support student-led sustainability initiatives









• Promote service learning and green internships



• Involve students in research and outreach









Interdisciplinary projects

Applying for sustainability-related grants

Solving local and global sustainability problems

Home > Developing Sustainability Competences Through Pedagogical Approaches > Chapter

Sustainability Competences and Pedagogical Approaches at the European University of Lefke

Chapter | First Online: 18 March 2021

pp 113–125 | Cite this chapter



<u>Developing Sustainability Competences</u> <u>Through Pedagogical Approaches</u> DOI: 10.1002/sd.2253

RESEARCH ARTICLE



Adopting sustainability competence-based education in academic disciplines: Insights from 13 higher education institutions

Rodrigo Lozano ^{1,2} Maria Barreiro-Gen ¹ Janna Pietikäinen ³
Carmen Gago-Cortes ⁴ Claudio Favi ⁵ Maria Teresa Jimenez Munguia ⁶
Ferenc Monus ⁷ João Simão ⁸ Javier Benayas ⁹ Cheryl Desha ¹⁰
Sevket Bostanci ¹¹ Ilija Djekic ¹² Jose Mariano Moneva ¹³
Orlando Sáenz ¹⁴ Bankole Awuzie ¹⁵ Bartlomiej Gladysz ¹⁶

¹Faculty of Engineering and Sustainable Development, University of Gävle, Gävle, Sweden

¹¹Department of Civil Engineering, Faculty of Engineering, European University of Lefke, Mersin, North Cyprus, Turkey

DOI: 10.1002/sd.2396

RESEARCH ARTICLE



Improving sustainability teaching by grouping and interrelating pedagogical approaches and sustainability competences: **Evidence from 15 Worldwide Higher Education Institutions**

```
Carmen Gago-Cortes<sup>6</sup> | Claudio Favi<sup>7</sup> | Ricardo Martins<sup>8</sup> |
Ferenc Monus<sup>9</sup> | Sandra Caeiro<sup>10,11</sup> | Javier Benavas<sup>12</sup> | |
Savindi Caldera 13  | Sevket Bostanci 14  | Ilija Djekic 15  |
Jose Mariano Moneva<sup>16</sup> | Orlando Sáenz<sup>17</sup> | Bankole Awuzie<sup>3</sup> |
```

²Organisational Sustainability, Ltd., Cardiff, UK

³Department of Forest Sciences Helsinki Institute of Sustainability Science (HELSUS) Teachers' Academy, University of Helsinki, Helsinki, Finland

⁴Facultade de Economía e Empresa, Universidade da Coruña, A Coruña, Spain

⁵Department of Engineering and Architecture, University of Parma, Parma, Italy

Chemical, Food and Environmental Engineering Department, Universidad de las Américas Puebla, Puebla, Mexico

⁷Institute of Biology, University of Nyíregyháza, Nyíregyháza, Hungary

⁸Universidade Aberta, Lisbon, Portugal

⁹Universidad Autónoma de Madrid, Madrid, Spain

¹⁰Cities Research Institute, School of Engineering and Built Environment, Griffith University, Brisbane, Australia

¹²Faculty of Agriculture, University of Belgrade, Belgrade, Serbia

¹³School of Economics and Business, University of Zaragoza, Zaragoza, Spain

¹⁴Universidad de Ciencias Aplicadas y Ambientales, Bogota, Colombia

¹⁵Department of Built Environment, Faculty of Engineering, Built Environment and Information Technology, Central University of Technology, Bloemfontein, South Africa

¹⁶Faculty of Production Engineering, Warsaw University of Technology, Warsaw, Poland

¹Faculty of Engineering and Sustainable Development, University of Gävle, Gävle, Sweden

Organisational Sustainability, Ltd., Cardiff, UK

³Department of Built Environment, Faculty of Engineering, Built Environment and Information Technology, Central University of Technology, Bloemfontein, South Africa

Department of Forest Sciences, Helsinki Institute of Sustainability Science (HELSUS) Teachers' Academy, University of Helsinki, Helsinki, Finland

⁵Finnish Environment Institute, Finnish Environment Institute (Suomen ympäristökeskus – SYKE), Helsinki, Finland

⁶Facultade de Economía e Empresa, Universidade da Coruña, A Coruña, Spain

Department of Engineering and Architecture, University of Parma, Parma, Italy

⁸Chemical, Food and Environmental Engineering Department, Universidad de las Américas Puebla, Puebla, Mexico

⁹Institute of Psychology, University of Debrecen, Debrecen, Hungary

¹⁰Universidade Aberta, Lisbon, Portugal

¹¹CENSE, Center for Environmental and Sustainability Research, Departamento de Ciências e Engenharia do Ambiente, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa, Caparica, Portugal

¹² Universidad Autonoma de Madrid, Madrid, Spain

¹³Cities Research Institute, School of Engineering and Built Environment, Griffith University, Brisbane, Australia

Department of Civil Engineering, Faculty of Engineering, European University of Lefke, Mersin, North Cyprus, Turkey

¹⁵Faculty of Agriculture, University of Belgrade, Belgrade, Serbia

¹⁶School of Economics and Business, University of Zaragoza, Zaragoza, Spain

¹⁷Universidad de Ciencias Aplicadas y Ambientales, Colombia

¹⁸Faculty of Production Engineering, Warsaw University of Technology, Warsaw, Poland





RESEARCH ARTICLE

Students' Perspectives on Sustainability Competences and Pedagogical Approaches: Groupings and Interrelations Results From 17 International Case Studies

¹Organisational Sustainability Ltd., London, UK | ²Faculty of Business and Economics, Chair of Business Administration, Esp. Sustainability Management and Environmental Accounting, TU Dresden, Dresden, Germany | ³ECOBAS, C+D Group, Universidade da Coruña, Coruña, Spain | ⁴School of Engineering and Sciences, Tecnologico de Monterrey, Monterrey, Mexico | ⁵Research Institute for Sustainability Science and Technology, Universitat Politècnica de Catalunya, Barcelona, Spain | ⁶Center for Global Studies (CEG-UAb), Universidade Aberta, Lisbon, Portugal | ⁷Department of Engineering for Industrial Systems and Technologies, Parma University, Parma, Italy | ⁸Warsaw University of Technology, Warsaw, Poland | ⁹Economic Development and Social Sustainability, Department of Business, Universidade da Coruña, Coruña, Spain | ¹⁰Business School, Pontificia Universidade Católica Do Paraná, Curitiba, Brazil | ¹¹Faculty of Humanities, Institute of Psychology, University of Debrecen, Debrecen, Hungary | ¹²Department of Forest Sciences, Faculty of Agriculture and Forestry, University of Helsinki, Finland | ¹³The Centre for University Teaching and Learning, Faculty of Educational Sciences, University of Helsinki, Helsinki, Finland | ¹⁴Helsinki Institute of Sustainability Science, University of Helsinki, Helsinki, Finland | ¹⁵European University of Lefke, Cyprus | ¹⁶Institute of Environmental Science, University of Nyíregyháza, Nyíregyháza, Hungary | ¹⁷Ecology Department, Universidad Autónoma de Madrid, Madrid, Spain | ¹⁸Chemical, Food and Environmental Engineering Department, Universidad de las Americas Puebla, Puebla, Mexico | ¹⁹Griffith University, Brisbane, Australia | ²⁰Faculty of Agriculture—University of Belgrade, Beograd-Zemun, Serbia | ²¹School of Science, Technology and Engineering, University of the Sunshine Coast, Petrie, Australia | ²²Universidad de Ciencias Aplicadas y Ambientales, Bogotá, Colombia | ²³International Institute Zittau, Chair of Business Administration, Esp. Environ

Correspondence: Rodrigo Lozano (rodlozano@org-sustainability.com)

Received: 19 September 2024 | Revised: 29 December 2024 | Accepted: 11 January 2025

Keywords: higher education institutions | pedagogical approaches | students | sustainability competences | sustainable development





Consider environmental and social impact of research

- Promote open-access knowledge sharing
- Reduce waste in lab and fieldwork





Role modelling sustainable practices in everyday work





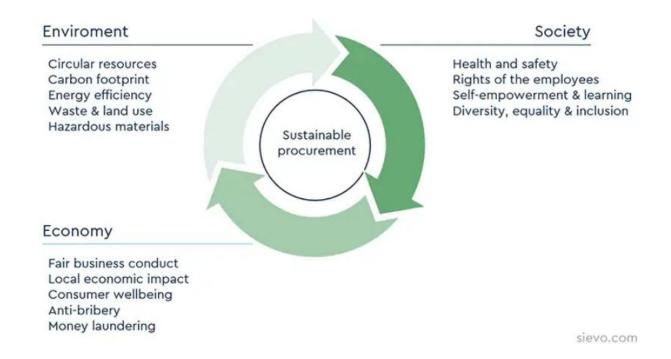
Reducing paper and energy use



Attending conferences virtually when possible







- Sustainable procurement in labs and offices
- Creating sustainability action plans



Participating in Campus Sustainability Planning

Join university sustainability committees

- Provide input on institutional sustainability goals
- Collaborate with administration and facilities





Advocate for sustainability in faculty boards





- Influence decisions on travel, purchasing, and operations
- Push for sustainability criteria in faculty evaluations







Co-teaching with other departments

Joint research projects

Sustainability across the curriculum initiative

Campus Footprint



- Carbon footprint
- Energy use in buildings
- Waste management
- Water usage transportation

Carbon footprint



Energy

Transportation



Waste



Water (efficient use of fittings)







Heating/cooling

Lighting

Lab equipment

Be a responsible consumer!

Waste Management



Recycling

Composting

Reducing waste generation



Water Usage

Consumption (minimise as much as you can)

• Leak detection (inform as soon as you can)

Water-saving technologies (ask for it)





Staff and student commuting patterns

Cut down your emissions







Time constraints (short, medium and long terms)

Lack of institutional support

Perceived lack of relevance to field





- Institutional Commitment
 - Green campus policies, sustainability offices

- Sustainability Committees
 - Multidisciplinary teams with faculty involvement

- Greening Operations
 - Energy retrofits, green roofs, low-flow fixtures

- Digitalization and Efficiency
 - Paperless offices, smart systems

- Incentives for Staff
 - Recognition programs



Strategies to Overcome Barriers

• Start small (Beware! Sustainable development starts from the possible smallest scale)

Collaborate with sustainability offices

Use existing resources and toolkits





 AASHE (Association for the Advancement of Sustainability in Higher Education)

SDG Academy

Teaching materials and case studies

University's sustainability office





• Identify one change you can make this semester

Gather meetings and talk to your department

Inspire your students

Electronic copy of this presentation is available!

Any questions?



Lecture notes for Sustainability Training

(Administrative Staff)



European University of Lefke

Sustainability on Campus

Asst. Prof. Sevket Bostanci

Contents



- Sustainable Development Goals
- Sustainability Matters & Achieving Sustainability on Campus
- Administrative Staff as Key Players
- Energy Efficiency & Sustainable Procurement
- Paper Reduction & Waste Management
- Greener Meetings and Events
- Commuting and Transportation
- Water Conservation
- Creating a Sustainable Office Culture
- Campus Initiatives You can Support
- Tracking and Reporting

Sustainable Development Goals









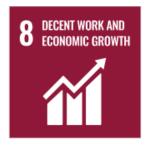




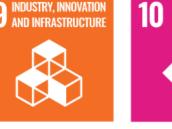


































Sustainability

• Sustainability has 3 aspects; environmental, economical and social.



Sustainability Matters

- Climate change (influence on Global Warming)
- Waste
- Resource depletion



Beware! Universities are large consumers!



What is Campus Sustainability?



- Reducing environmental impact
- Improving economic efficiency
- Creating a healthy environment
- Supporting social responsibility



Administrative Staff as Key Players



You manage processes, buildings, and resources daily

Your choices shape campus culture

You're crucial in leading change



Energy Efficiency





Turn off lights and equipment after hours

• Use energy-efficient office equipment

Optimize heating/cooling settings

Sustainable Procurement



• Buy recycled, eco-labeled, and local products

Choose vendors with green policies

Reduce unnecessary purchases







Go digital where possible

Use double-sided printing

Share documents electronically





Waste Management

• Recycle paper, plastic, e-waste

- Properly dispose of batteries and ink cartridges
- Compost food waste if available





Greener Meetings and Events

Use online platforms for virtual meetings

Avoid single-use items

Provide digital materials instead of printouts

Commuting and Transportation



Promote carpooling, biking, walking

Use public transport when possible

Offer flexible or remote work options





Water Conservation

Report leaks promptly

Use water-efficient appliances

Do <u>not</u> leave taps running unnecessarily









Creating a Sustainable Office Culture

Encourage colleagues to adopt green habits

• Create a green team or office champion

Celebrate small wins and improvements



Campus Initiatives You Can Support

Sustainability office/programs

Student-led green projects

Annual campus sustainability events









Tracking and Reporting

Help collect data on energy use, paper usage, etc.

Provide feedback on green policies

Help set achievable goals for your department

This presentation will be shared electronically **ONLY**

Any questions?

