



**CRUE**

**CADEP** Calidad ambiental, desarrollo sostenible y prevención de riesgos

## **Guidelines for the Inclusion of Sustainability in the Curriculum**

**Document approved by the Executive Committee of the Working Group for Environmental Quality and Sustainable Development of the Association of Spanish University Rectors (CRUE), held in Valladolid on 18 June 2005.**

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### **Preamble**

In 1987 the United Nations Conference on Environment and Development (UNCED), through the report of the Brundtland Commission (*Our Common Future*), introduced the concept of sustainable development. It was defined as development that meets people's present needs without compromising the ability of future generations to meet their own.

In 1992 the UNCED brought together representatives from 179 governments in Rio de Janeiro, Brazil, in what has come to be known as the Earth Summit. Participants raised critical issues on sustainability and the conservation of natural resources, and drew up a plan of action for a global future to set specific objectives and create a work agenda for the new century, known as Agenda 21 (1992).

Higher education had previously been identified as an important tool for solving many global problems and chapter 36 of Agenda 21 recognises that education is vital for achieving sustainable development. Many universities have signed statements, such as the Talloires Declaration (1990) or the Copernicus Charter (CRE, 1993), in which they undertake to introduce sustainable development in the training they offer. These statements are a response to international awareness of the unsustainability facing the planet. In 2002 the United Nations proclaimed 2005-2014 as the Decade of Education for Sustainable Development and designated UNESCO as the lead agency.

The basic vision for the Decade is a world in which everybody has the opportunity to benefit from education and learn the values, behaviour and lifestyles necessary for a sustainable future and the positive transformation of society.

In September 2002, the Association of Spanish University Rectors unanimously approved the proposal to create the CRUE Working Group for Environmental Quality and Sustainable Development. The purpose of this working group is to promote initiatives related to risk prevention, environmental management, participation and awareness in universities and inter-university cooperation on these matters. In this context, this Group has developed these guidelines for the design and development of curriculum content for our activities.

### **Opportunity for Change**

New generations need to be trained in basic skills that are consistent with sustainability and will enable them to make appropriate decisions in their personal and professional domains. There is no doubt that



higher education is key to achieving sustainable human development. This requires universities to reinvent themselves, since the operational models followed until now have not been capable of training professionals to deal with current and future challenges.

In this regard, universities should go beyond merely developing specialised knowledge and skills. As part of a wider cultural system, their role is also to teach, promote and develop the values and attitudes required by society. Universities must prepare professionals who are not only capable of using their knowledge in a scientific context, but also to meet social and environmental needs. The entire educational process must be approached holistically to implement sustainability skills across the board so that students can learn to make decisions and take action based on sustainable criteria.

The creation of the European Higher Education Area (EHEA) and the Decade of Education for Sustainable Development (2005-2014) offers a great opportunity to consolidate and replicate existing best practices in higher education. The EHEA sets forth certain basic conditions, such as undergraduate studies to provide students with professional qualifications of value in the European labour market, and common working methods including new teaching methodologies to provide students with more comprehensive education and lifelong learning experiences. Furthermore, it recognises the importance of establishing mechanisms to improve the training received by future professionals to enable them to meet the challenges posed by the global situation.

These last two aspects – final professional qualifications and more comprehensive undergraduate education – are the foundations for a proposed curriculum that will ensure and promote the inclusion of sustainability criteria in higher education, based both on general, common guidelines and on specific proposals for each degree, while also defining core sustainability skills common to all subjects.

### **General Criteria for Curricular Sustainability**

Today's professionals must be able to:

- Understand how their professional activity affects society and the environment, locally and globally, in order to identify potential challenges, risks and impacts.
- Understand the contribution of their work in different cultural, social and political contexts and how, in turn, these affect the work and socio-environmental quality of their surroundings.
- Work in multidisciplinary and interdisciplinary teams to address socio-environmental problems caused by unsustainable lifestyles and propose professional alternatives that contribute to sustainable development.
- Apply a systemic and holistic approach to solve environmental problems, transcending traditional approaches that divide reality into discrete parts.
- Actively participate in the discussion, definition, design, implementation and evaluation of policies and actions, in both the public and private sectors, to help redirect society towards a more sustainable form of development.
- Apply professional knowledge in accordance with universal ethical principles and values that safeguard human rights.
- Take citizens' perceptions, demands and proposals into account and allow them to have a say in the development of their community.

Education must therefore:

- Adopt a holistic approach to the knowledge, procedures, attitudes and values in education.
- Promote work in multidisciplinary and interdisciplinary teams.
- Stimulate creativity and critical thinking.
- Promote reflection and self-directed learning.
- Strengthen systemic thinking and holistic approaches.
- Train people to be participatory and proactive and to make responsible decisions.



- Become aware of the challenges posed by globalisation.
- Promote respect for diversity and the culture of peace.

To achieve this, we feel it is important to review the following aspects of the educational process:

- The relevance of education models to the social and professional models required for sustainable development.
- Sustainability skills included in the curriculum.
- The consistency between all stages of education.
- The structure of the curricula.
- Course content.
- Educational strategies in the classroom.
- Teaching and learning techniques.
- The training of educators.
- Evaluation and assessment techniques.
- The participation of external entities in the development and assessment of the curriculum.
- Quality control systems.
- The possibility of providing non-formal or extra-curricular education in sustainability.

It is essential for universities to commit to revising these aspects. Such a commitment should entail:

- Redefining universities' mission to reflect the current situation, in which sustainability is one of the values governing society. This definition should be included in the statutes of each university.
- Institutional commitment to quality in education.
- Institutional support for changing educational paradigms and the goals of research programmes to make them consistent with sustainability in all their dimensions.
- Opening up channels for members of university communities to commit to sustainability by providing avenues for participation in decision-making and actions.

### **Specific Recommended Actions**

It is recommended that the authorities in charge of regulating official qualifications ensure that:

- Curricula are comprehensively reviewed from the perspective of sustainable human development to ensure the inclusion of basic cross-curricular content on sustainability in all courses so that students may acquire the necessary professional, academic and disciplinary skills. This should be achieved through quantifiable academic recognition of general sustainability content for all degrees, and specific content adapted to the context of each degree.
- Sustainability criteria are included in university quality-assessment systems.
- Sustainability criteria are included in the assessment of educators to ensure that teaching and research activity that are consistent with the principles of sustainable human development.

It is recommended that Spanish universities work to promote:

- The adoption of a Declaration of Principles in the field of Education for Sustainable Human Development, approved by the Council of each university.
- The development and implementation of a sustainability evaluation system that meets institutional quality system requirements.
- Research into education for sustainability.
- The training necessary for educators to include content on sustainability which is consistent with the core skills specified in their teaching guides.



- Practical lessons that include procedures consistent with the principles of sustainability and risk prevention.
- Pathways to specialisation in sustainability specific to each degree course.
- Extra-curricular sustainability education activities that complement students' education, including seminars, training days, workshops, living labs, apprenticeships/internships, and that could contribute supplementary credits to overall qualifications.
- The development of resources and materials to include sustainability in academic curricula.
- The assessment of final projects, master's and doctoral theses from a sustainability perspective, as well as specific courses on sustainability.
- Consistency between the sustainability-related elements in academic curricula and the activities of university life and campus management. This can be accomplished by providing students with opportunities to participate in decision-making processes and in actions that improve the quality and socio-environmental awareness of university communities.
- Social interaction mechanisms that strengthen the role of universities in the achievement of sustainable human development.
- Postgraduate courses that specialise in socio-environmental and risk prevention issues.

Moreover, this Committee recommends the development of joint actions to promote the gradual inclusion of sustainability issues in academic curricula. This can be accomplished through the creation of a national platform to facilitate the process and promote experiences introducing sustainability issues in academic curricula, for example, through publications and workshops, while fostering inter-university working groups to coordinate and enhance this process.

## References

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## **ANNEX: GUIDELINES FOR THE INCLUSION OF SUSTAINABILITY IN THE CURRICULUM**

**(The Universities of Cadiz, Salamanca, Cordoba, Valencia and Burgos, the Universitat Internacional de Catalunya and the *Universitat Politècnica de Catalunya*)**

In 2005 the Executive Committee of the CRUE Working Group for Environmental Quality and Sustainable Development approved the document called *Guidelines for the Inclusion of Sustainability in the Curriculum*.

This text, updated in 2011, laid down some general criteria and recommended actions to introduce curricular sustainability in Spanish universities, in the framework of the European Higher Education Area and the opportunities for change it represents.

This document advances the development and expansion of these general guidelines by exploring the concept of sustainability and its application at universities.

To facilitate an understanding and the application of criteria for the inclusion of sustainability in the curriculum, we define the concept and set forth some generic principles and basic skills:

1. Definition of the concept of sustainability.
2. Principles of sustainability in a university context.
3. Cross-curricular skills for sustainability in university teaching.

### **1. WHAT WE UNDERSTAND BY SUSTAINABILITY**

**Sustainability involves striving for environmental quality, social justice and an equitable, viable economy in the long term.**

It defines a set of ethical behaviour criteria with regard to everything around us (resources, people, spaces, etc.), intended to achieve intra- and intergenerational equality and to manage our interactions with the natural and social environment, while maintaining its availability and ecological balance and promoting a more fair and equitable distribution of environmental resources, costs and benefits.

To speak of sustainability is to speak of an ethical imperative related to protecting the natural environment, reducing poverty, striving for gender equality and promoting health, human rights, peace, cultural understanding, responsible production and consumption, equal access to ICTs, etc., as established by the Decade of Education for Sustainable Development Declaration (2005-2014) <sup>1</sup>, whose aim is to build a world where everyone is able to meet their basic needs and has access to education, which will teach values, behaviour and lifestyles consistent with a sustainable future.

### **2. GENERIC PRINCIPLES OF SUSTAINABILITY IN A UNIVERSITY CONTEXT**

The university community, in accordance with its commitment to strive for environmental quality, social justice and a sustainable and fair economy, believes that the development of a culture that contributes to comprehensive and environmentally sustainable human development is an ethical imperative. To that end, it is necessary to establish channels to facilitate the involvement of the entire university community in the construction of a model of higher education institution which promotes sustainability.

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<sup>1</sup> Resolution 57/254 of the United Nations General Assembly, 2002



The guidelines of the new curricula contain principles for the implementation of criteria to steer university studies towards sustainable human development. A synthetic analysis of different proposals leads us to highlight the following basic principles:

1. **ETHICAL PRINCIPLES:** Universities must strive to educate citizens to recognise the intrinsic value of each person, by establishing freedom and the protection of life as objectives in public policy and individual behaviour. The pursuit of this goal should be carried out in harmony with the environment and should be conditioned by the need for fairness, respect for the rights of future generations and the promotion of procedures of communicative and participatory rationality in decision-making processes.
2. **HOLISTIC PRINCIPLES:** Universities, in all their facets, must act in an all-inclusive and interdependent manner with regard to social realities and economic and environmental components. They must adopt ethical, ecological, social and economic approaches to address issues in relation to environmental imbalances, poverty, injustice, inequality, armed conflicts, access to health care and consumerism. This involves an understanding of the inter-relatedness of processes, regardless of their various manifestations.
3. **COMPLEXITY PRINCIPLE:** The adoption of systemic and cross-curricular approaches to better understand the complexity of social, economic and environmental issues, as well as the involvement of citizens and professionals in them.
4. **GLOCALISATION PRINCIPLE:** The adoption of approaches which establish a relationship between curriculum content and local and global realities.
5. **CROSS-CURRICULAR PRINCIPLE:** Integration of content to develop sustainability skills in different areas of knowledge, subjects and courses, and to be applied to different levels of management, research and transfer at universities.
6. **PRINCIPLE OF UNIVERSITIES' SOCIAL RESPONSIBILITY:** Universities' contribution to the community sustainability. This will be reflected in internal management and in collaboration with agencies and entities in research projects and actions which contribute to improving the quality of university education, and to progress in solving social, economic and environmental problems.

### **3. CROSS-CURRICULAR SKILLS FOR SUSTAINABILITY IN UNIVERSITY TEACHING**

Current ministerial legislation<sup>2</sup> specifies that training in any professional activity must contribute to the awareness and development of human rights, democratic principles, principles of equality between women and men, solidarity, environmental protection, universal access and design for all, and to promoting a culture of peace. These issues constitute the priority themes promoted by UNESCO in the Decade of Education for Sustainable Development.

Higher education plays a key role in promoting sustainable human development, a responsibility accepted by the CRUE in the guidelines adopted in 2005 and ratified in 2011, for the incorporation, in all university courses, of cross-curricular sustainability skills. These are understood to be the complex and comprehensive combination of knowledge, skills, attitudes and values that enable students to act and to transform reality using sustainability criteria.

A proposal for sustainability education at universities must include the promotion of cross-curricular skills related to cognition, methodology and attitude. Integrating these three concepts will provide students with a critical understanding of social, economic and environmental problems on a local and global level, enabling them to make decisions and take actions that are consistent with sustainability,

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<sup>2</sup> Organic Law 4/2007 regulating Universities, dated 12 April. Royal Decree 1393/2007



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and to adopt personal ethics consistent with sustainability values. This will allow the development of a sense of responsibility for the consequences of one's own decisions and actions, and the ability to face ethical dilemmas and to reason and justify their possible solutions.

In view of the above, the following cross-curricular skills for sustainability are proposed for inclusion in university education:

- SOS1. Competence in the critical contextualisation of knowledge through the linking of social, economic and environmental issues on a local and/or global level.
- SOS2. Competence in the sustainable use of resources and in the prevention of negative impacts on natural and social environments.
- SOS3. Competence to participate in community processes that promote sustainability.
- SOS4. Competence to apply ethical principles related to sustainability values in personal and professional behaviour.

This proposal involves changes in the revision processes of the new degree courses:

- \* A comprehensive review of curricula to ensure the inclusion of basic, cross-curricular sustainability content in all courses, in accordance with the defined skills.
- \* Sustainability criteria included in university quality assessment systems and teacher evaluation processes, to ensure that teaching and research activities are consistent with the principles of sustainable human development.