



RESOLUTION-POLICY

X	Action Item
	For Information Only

From: Dr. Eric Milou, Rowan University Senate President

To: Dr. Ali Houshmand, Provost

Date: 3/14/11

RE: Senate Resolution **110311-2**

Resolution to Recommend Recognition of Sustainability as an Institutional Learning Objective

WHEREAS, in 2004, the University Senate unanimously passed an Environmental Resolution calling for Rowan University to make a commitment to environmental responsibility;

WHEREAS, in 2007, President Donald Farish (and over 650 other presidents and chancellors to date) signed the American College and University Presidents' Climate Commitment, a pledge to reach climate neutrality in our campus operations (and which requires Rowan University to establish a plan for integrating sustainability into the curriculum and make it a part of the educational experience);

WHEREAS, the Senate formed an Ad Hoc Committee on Integrating Sustainability into the Rowan Curriculum in order to further build a culture of sustainability on our campus;

And WHEREAS, sustainability, defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987) and "the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future" (US Regional Ecosystem Office 2009), is a global value as well as a complex and difficult challenge;

THEREFORE BE IT RESOLVED that the Rowan University Senate recognizes the importance of producing graduates with knowledge, skills, and dispositions that will prepare them to fulfill their civic, professional, and personal responsibilities regarding sustainability and recommends that sustainability be designated as an Institutional Learning Objective for all students and formally integrated into the curriculum.

Further details regarding the goals and rationale for recognizing sustainability as an institutional learning objective are described in the report below from the Ad Hoc Committee on Integrating Sustainability into the Rowan Curriculum.

Sustainability in the Curriculum

Goal

Rowan University undergraduates shall be exposed to environmental, social, and economic aspects of

sustainability. Sustainability is can be defined as "meeting the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development 1987). In an ecological context, sustainability can be defined as the ability of an ecosystem to maintain ecological processes, functions, biodiversity and productivity into the future (US Regional Ecosystem Office 2009). For Rowan's purposes, using a combination of these two definitions focuses educational efforts both on the sustainability of human life on earth and on the sustainability of earth's ecosystems under human impact. As such, sustainability requires taking account of the triple bottom-line, i.e., economic, environmental (ecological), and social performance. Sustainable activities work within acceptable economic and social systems and do not degrade the environment to a level unable to support future generations or ecosystems. Programs may vary the emphasis placed on each aspect, e.g., biology may focus more on environmental aspects, sociology on social, or business on economic. Sustainability shall be incorporated into the Rowan University curriculum as an Institutional Learning Objective, similar to the Multicultural & Global requirement.

Recommended Educational Objectives

Although the specific implementation of this recommendation will need to be developed within the needs and constraints of the general education and programmatic curricula, a minimum level of competence should include understanding of:

- The current situation regarding sustainability, such as human-caused climate change, population growth, biodiversity loss, pollution, etc.
- The human causes of non-sustainability, including individual and institutional contributions
- The best proposed solutions to return to sustainability
- The relationship between sustainability and the triple bottom line (environment, society, and economics issues)

Rationale

Rowan Students will be faced with significant challenges during their lifetimes. The current world population is part of a grand and novel experiment: "What happens when more than six billion people live on the Earth?" Past population crises have been avoided through technological advances, e.g., the green revolution of the mid 20th century; however, population can grow beyond the possibility of terrestrial technological solutions. Estimates of how many people can be sustained by the Earth vary greatly, and include values both below and above our current population. The possibility that we have already exceeded the Earth's carrying capacity is a prime reason to include sustainability in the curriculum.

While there is some upper theoretical limit to the Earth's carrying capacity, practical limits depend on how we choose to live, how we let other species live (or die), how we maintain the Earth's environment, and the technologies we employ in the pursuit of these objectives. Managing these issues will have significant social and economic impacts. Currently, the USA comprises approximately 5% of the World population, but accounts for 20-25% of the resources consumed annually. Most estimates indicate that it would take approximately five Earths to sustain the entire Earth's population in the manner of the average USA citizen. The populations of emerging economies, such as China, India, and Brazil, are looking to take back some or all of the excess resources we consume. Our students must be prepared for the coming environmental, social, and economic challenges by including sustainability in the Rowan University curriculum.

The Earth is in the midst of an anthropogenic extinction event. Extinction rates are many times higher than

the background extinction rate, with the current rate reported to be as high as 140,000 species per year. There are many reasons, both self serving and altruistic, for students to understand the link between choices we make and the well-being of other species.

Major environmental challenges face us, such as human caused climate change. There is scientific consensus that human caused climate change will have significant effects on sea level, storm intensity, flooding and drought, and agriculture. This scientific consensus is clearly demonstrated in the reports of the Intergovernmental Panel on Climate Change; however, many students do not understand the scientific process well enough to adequately process common misinterpretations promoted by their friends and family, the media, and politicians. Other environmental challenges that need to be understood to be an intelligent actor in our society include depletion of easily obtainable energy sources, access to clean water, and toxins in air, water and soil.

Just maintaining the current world population will require changes in lifestyle and improvements in technology. Buildings and travel must become more efficient. Clean energy must become more prevalent. Individuals may need to make lifestyle changes, such as living in smaller houses, living closer to work, or using public transportation. Students that understand sustainability will be better able to both influence and adapt to the environmental, social, and economic challenges of the future.

Acceptance:

I give my approval. I have forwarded this item to _____ for implementation.

No approval is actually needed. I have forwarded this item to the following individual or office for informational purposes only:

ADDITIONAL REVIEW NEEDED:

I am willing to give approval if the following modification(s) are made:

Before I can approve or reject this item, I need clarification on the following:

I have forwarded this item to the following individual or office for further consideration and consultation.

Rejection:

I decline acceptance of this item for the following reason:

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