Executive summary

This position paper provides rationale and background for the integration of sustainability across the curriculum at UW-Stout. It addresses one of the 2015 Focus on Sustainability University Priorities, and progress made to date on these initiatives.

In September 2007, Chancellor Charles W. Sorensen signed the American College & University Presidents Climate Commitment (ACUPCC), spurring campus action for development of Environmental Sustainability curriculum across university disciplines.

The Stout Environmental Sustainability Steering Committee (ESSC) was established in 2008. The charge given to the ESSC is to: Develop and recommend an environmental sustainability action plan including strategies to move towards sustainable campus operations, encourage the incorporation of sustainability into the curriculum, and increase public awareness and participation of the plan.

From 2008 to the present, committee members attended the Midwest Regional Collaborative for Sustainability Education (MRCSE) workshop and other conferences to gain shared understanding of scope. They have since collaborated with more than 30 faculty and academic staff to develop viable plans. As a result of the conferences attended, presentations conducted on campus, and workshops held for faculty and academic staff, several recommendations for action plans have been developed:

1. Implement the UNESCO-derived definition of sustainability, supported by the principles of the President’s Climate Commitment, signed by Chancellor Sorensen in 2007, and the Association for the Advancement of Sustainability in Higher Education (AASHE), of which UW-Stout is a member:

   The United Nations Education, Scientific, and Cultural Organization (UNESCO) (2004) posits three main branches of learning and action – social, environmental, and economic – that must be attended to by educators as they develop curriculum and prepare projects and lessons. Decisions that take the interaction of social, environmental and economic factors into account, attempting to produce positive outcomes in all three areas if possible, may be defined as sustainable.

2. Propose a set of sustainability competencies for students, to be considered by instructors when infusing sustainability into their curriculum.

3. Make available to campus a summary of action plans from the ‘Infusing Sustainability into Curriculum’ conference.

4. Incentivize incorporation of sustainability concepts in faculty curriculum, service, and research.

5. Collaborate with non-academic departments to provide campus resources for potential classroom projects formulated from the energy conservation & waste reduction policies (i.e., student research, capstone projects, etc.).


Spring 2011 recommended goals are also included in this position paper.
Position Paper: UW-Stout Sustainability Across the Curriculum Network

This position paper provides the rationale and background for the integration of sustainability across the curriculum at UW-Stout. It also addresses one of the 2015 Focus on Sustainability University Priorities: Integrate sustainability into the curriculum, via classroom experiences, research projects, and general education courses, as appropriate. In addition, Sustainability Across the Curriculum Network (SACN) goals for the spring 2011 semester are outlined.

Rationale
The University of Wisconsin-Stout’s active commitment to sustainability will enhance our capacity to undertake our unique educational missions, while teaching students the skills and values necessary to create a healthier, more equitable future. As we strive to produce more and better-prepared graduates who will positively contribute to a diverse and increasingly global society, we will also maintain UW-Stout’s vision for continued research and technology development.

Background
- September 2007, Chancellor Charles W. Sorensen signed the American College & University Presidents Climate Commitment (ACUPCC), making the campus a Charter Signatory for the pledge. Immediate actions to fulfill this commitment included creating a Sustainability Coordinator position and organizing the Environmental Sustainability Steering Committee (ESSC). The charge given to the ESSC is to: Develop and recommend an environmental sustainability action plan including strategies to move towards sustainable campus operations, encourage the incorporation of sustainability into the curriculum, and increase public awareness and participation of the plan.

- In 2008, UW-Stout began a process of strategic planning to reflect its polytechnic designation and the realities of an ever-changing world. The effort, referred to as FOCUS 2015, resulted in the development of four University Priorities for UW-Stout. One of the University Priorities is to “Assert/demonstrate leadership in sustainability, including campus policy development and active participation in regional initiatives and groups.”

- Spring of 2009, the UW-Stout Applied Research Center (ARC) conducted a series of focus groups to initiate a process for establishing an environmental sustainability action plan. A report summarizing the results of the focus groups indicated “knowledge systems” was one of the top three priorities in six of the eight focus groups. The three subthemes with the largest number of comments were: 1) initiatives to increase knowledge: provide education; increase awareness; 2) integrate sustainability into courses: integrate sustainability topics across all courses; communicate that sustainability is a priority; and 3) classes in sustainability: implement sustainability majors, courses.

- Summer of 2009, Provost Julie Furst-Bowe provided funding for Anne Hoel, Krista James, Joan Menefee, and Jeanette A. Schermann to attend the Midwest Regional Collaborative for Sustainability Education (MRCSE) workshop with the goal of establishing an initiative to integrate environmental sustainability across the curricula. After attending the MRCSE workshop, Krista James (Biology Dept) and Joan Menefee (English Dept) submitted and were awarded a MRCSE Seed Grant titled “Nurturing the Foundation of a UW-Stout Collaborative for Integrating Environmental Sustainability in Course Curricula.”

- Fall of 2009, the MRCSE grant project was initiated. The PIs worked with UW-Stout's Academic Research Center (ARC) to develop an informative and persuasive PowerPoint presentation that was subsequently delivered to over 20 academic departments by graduate students employed by the ARC. As a result of these presentations, more than 60 faculty and instructional staff signed-up to become members of the UW-Stout Sustainability Across the Curriculum Network (SACN). Phase two of the project consisted of 2 parts. First, Krista James attended the Integrating Sustainability Across the Curriculum AASHE Leadership Workshop in Atlanta, Georgia in January, 2010. Second, a UW-Stout Integrating Sustainability across the Curriculum World Cafe event was held during professional...
development week at the beginning of the spring 2010 semester. Of the 60 people who originally signed up, 30 attended. During the event, three very important questions were addressed: 1) What are some strategies for integrating sustainability in the course curricula at UW-Stout? 2) When a student graduates at UW-Stout, what should they know and what skills should they have related to sustainability (competencies)? 3) How could you integrate sustainability in your course? All notes were typed-up and distributed to all Sustainability across the Curriculum members.

- May, 2010, “Infusing Sustainability into the Curriculum” two day workshop. Due to the MRCSE seed grant funding for Phases 1 and 2 of this initiative, UW-Stout moved on to Phase 3, collaborating with UW-Stout Outreach Services to plan and implement a Sustainability Across the Curriculum two day summer workshop that was held on May 25-26, 2010.

- Spring of 2010, SACN members continued to meet monthly to discuss action plans for integrating sustainability across the curriculum and submit a budget proposal to Provost Julie Furst-Bowe. On September 8, 2010, a portion of the 2010-11 Sustainability Across the Curriculum budget request was approved: $5,129 and .25 FTE for a Graduate Assistant and $1,000 for the World Café Event.

- Summer of 2010, the Stout Strategic Planning Group held its annual summer retreat and identified 2015 Focus on Sustainability University Priorities and Action Plans for Fall 2010. The first priority and associated action plans are addressed in the next section of this position paper.

- October 2010, Ashley Rodencal was hired for the .25 FTE Graduate Assistant position as a Research Assistant for sustainability in the curriculum project. Ashley will contribute to research in campus sustainability, specifically the enrichment of sustainability curriculum at the University of Wisconsin-Stout. Ashley will perform a combination of the following duties: 1) Implement and assist in assessment of a broad-based survey using current survey tools; 2) Identify and evaluate the feasibility of grants that may assist administration and faculty in increasing and enhancing campus sustainability curriculum; 3) Examine course descriptions across colleges and assist in assessment of their sustainability content; 4) Provide organizational assistance in developing and hosting a campus sustainability listening event; 5) Develop and populate an on-line archive of sustainability curriculum data; 6) Prepare short presentations about sustainability curriculum.

- October 2010, Wendy Stary (Engineering and Technology Dept) attended “International Greening Education Event 2010,” sponsored by E-tech Germany. International connections were established with members of academia and community development groups from approximately 30 countries.

- October-December 2010, the SACN collaborated with the Environmental Sustainability Steering Committee (ESSC) to address charges from Chancellor Sorensen related to integrating sustainability into the curriculum.

**Focus 2015 University Priority for Sustainability: Integrate sustainability into the curriculum, via classroom experiences, research projects, and general education courses, as appropriate.**

**Action Plan: Recommend a definition of “Infusing Sustainability into Curriculum”**
The work of the United Nations Education, Scientific, and Cultural Organization (UNESCO) (2004) posits three main branches of learning and action – social, environmental, and economic – that must be attended to by educators as they develop curriculum and prepare projects and lessons for their students. According to UNESCO, decisions that take the interaction of social, environmental and economic factors into account, attempting to produce positive outcomes in all three areas if possible, may be defined as sustainable.

The UW-Stout ESSC and SACN believe the UNESCO definition supports the principles of the President’s Climate Commitment, signed by Chancellor Sorensen in 2007, and the Association for the Advancement of Sustainability in Higher Education (AASHE), of which UW-Stout is a member. The committee members believe this definition, which takes into account a three-pronged approach to sustainability, is closely aligned
with UW-Stout’s polytechnic focus, as it allows for more inclusivity from faculty and students from all disciplines. It is the committees’ belief that a broad definition of sustainability education that includes the interaction of environmental, economic, and social systems will allow faculty and instructional academic staff to better understand their potential role in developing sustainability curricula that prepares students to positively contribute to a diverse and increasingly global society.

Therefore, the UW-Stout ESSC and SACN propose the following definition of “Sustainability in the Curriculum”: *Curriculum that encourages students to think about environmental, social, and economic factors individually and in relation to one another.*

It is important to consider the learning outcomes detailed in UW-Stout’s Polytechnic Learning Outcomes Focus Groups report, prepared by the Applied Research Center (2009):

1. Critical and creative thinking skills
2. Effective communication skills
3. Knowledge of human cultures and the physical and natural world
4. Integrative learning
5. Individual, social, and environmental responsibility

Given these identified learning outcomes, particularly outcome #5, it is proposed that the following sustainability competencies be considered by instructors when infusing sustainability into their curriculum. Students who have identified sustainability as an important component of their curriculum at UW-Stout should be able to:

- Identify global trends that influence the social, environmental and economic well-being of different groups, both presently and into the future.
- Define sustainability and the principles of sustainable development.
- Explain how society and culture may influence an individual’s perception of sustainability.
- Explain how individual behaviors may affect environmental, social, and economic sustainability.
- Explain how environmental, economic and social systems are interrelated.
- Display leadership and communication capabilities necessary for acting as an effective change agent for sustainability in any type of business, organization, or community.

**Action Plan:** Make available to campus a summary of action plans from the ‘Infusing Sustainability into Curriculum’ conference.

Sustainability is important in recruiting new faculty and students; therefore sustainability needs to be more visible at UW-Stout. This can be accomplished in the following ways:

- Enhance web presence: link sustainability information to UW-Stout’s homepage, list courses that incorporate sustainability, identify programs that feature sustainability, and recognize faculty for including sustainability material in courses.
- Publicize sustainable activities undertaken by faculty, staff and students at UW-Stout.
- Integrate sustainability information in campus tours/admissions.
- Offer presentations on sustainability at Stout at the new faculty orientation and provide opportunities for networking and sharing information about sustainability.
- Recruit faculty with sustainability experience in their area.
- Encourage the Discovery Center to provide networking, research and classroom project opportunities at businesses implementing “green” practices for faculty and students.

It is beneficial to create incentives to incorporate sustainability concepts in faculty curriculum, service, and research. This can be accomplished in the following ways:

- Provide professional development funding such as workshops to infuse sustainability into courses.
- Encourage department level administrators to make integrating sustainability in course curricula part of the renewal/performance evaluation process at all levels, which will affect promotion/tenure.
Celebrate successes in sustainable curricular infusion and innovation through formal ceremonies and official recognition; provide framework for departmental recognition of faculty accomplishment in creating sustainable curriculum (e.g., Chancellor’s Award for Excellence in Sustainability).

There are a number of methods for integrating sustainability across the curriculum at UW-Stout. These include:
- Assigning “Sustainability Across the Curriculum Mentors” to new faculty.
- Collaborating with the college deans to organize discussions to encourage faculty and instructional academic staff to integrate sustainability into their course curricula.
- Incorporating sustainability concepts into all core courses, insuring a significant percentage of courses have a sustainability component.
- Allowing students to choose capstone projects with sustainability components; or require students to address sustainability concepts in their reflection on capstone projects.
- Facilitating student involvement in classroom experiences, research projects, and service learning that focus on community and campus infrastructures, such as renewable energy and community gardens.
- Initiating campus-wide Freshman sustainability seminar series.

**Action Plan:** Provide campus with a list of potential classroom projects formulated from the energy conservation & waste reduction policies (i.e., student research, capstone projects, etc.)

**Analysis**
- Energy audits for campus buildings.
- Waste audit for campus buildings—determining what is recycled versus what is thrown away.
- Campus-owned appliance audit – looking at the number and characteristics (Energy Star, model, year, etc.) of refrigerators, microwaves, printers, etc. for each academic and administrative building.
- Faculty, staff, and student-owned appliance audit – looking at the number and characteristics (Energy Star, model, year, etc.) of refrigerators, microwaves, printers, etc. for each academic and administrative building.
- Recycling bin audit- determining locations and number of recycling bins for all buildings on campus (inside/outside; academic/nonacademic).
- Feasibility study on developing a campus and community food waste recycling network.

**Design/Development/Implementation**
- Energy efficiency marketing campaign (turning computers off at night, etc.).
- Waste reduction and energy conservation teams- organizing teams for particular areas (academic buildings, campus-housing, etc), to develop goals/projects to reduce waste and energy use.
- Strategy for sharing refrigerators, microwaves, printers, etc.
- Educational programming for turning off phantom energy in all buildings.
- Common signage for turning off phantom energy and for turning off lights in rooms.
- Common signage for all garbage cans that encourages people to recycle, instead of throwing recyclables in trash.
- Energy retrofits for academic/nonacademic buildings.
- Unified strategy for campus recycling.
- Evaluation instruments to assess the effectiveness of all waste and energy projects.
- Evaluation instruments to determine additional waste and energy projects.

**Evaluation**
- Compare benefit of current recycling system to alternatives.
- Assess effectiveness of all waste and energy projects.
- Identify future short-term, long-term projects.
Additional potential projects related to areas other than energy and waste.

Analysis
- Current green and natural spaces throughout campus.
- Sustainability applications with Human Resources minor and certificate programs.
- Potential sustainability projects (energy, materials, audits, etc...) linked to UW-Stout’s built environment.
- Programs that currently include sustainability in performance evaluations.
- Green building design/management training (benchmark) of current UW-Stout personnel.
- Options for GREEN training for UW-Stout personnel.
- Rain garden projects for campus/community.
- Course evaluation questions that assess sustainability competencies.

Design/Development/Implementation
- Stormwater management education (e.g., inlet stenciling around campus, promotional campaigns, brochures, website, workshops, etc.)
- "Keep America Beautiful: UW-Stout Campus" campaign.
- Online “Green Tour” of UW-Stout (links to all the sustainable things UW-Stout is doing.).
- Sustainable Human Resources interventions with Masters in Applied Psychology students.
- Audit of local food purchased by UW-Stout Dining Services.
- Audit of green products (e.g., cleaning products, paper, etc.) purchased by UW-Stout.
- Collection of excess produce from family gardens and farms and distribution to families in need to aid the Campus Kitchen Project.

Evaluation
- Assess effectiveness of all sustainability projects listed above.
- Identify future short-term, long-term sustainability projects.

Action Plan: Review and evaluate environmental cost-benefit analysis methodologies and recommend one that will be used to assess the proposed and actual impact of policy changes, specifically policy changes related to energy conservation and waste reduction.

December, 2010, the Environmental Sustainability Steering Committee (ESSC) recommended that UW-Stout adopt the Association for the Advancement of Sustainability in Higher Education’s (AASHE) Sustainability Tracking Assessment and Rating System (STARS®) as its evaluation tool. STARS is a transparent, self-reporting framework for colleges and universities to gauge relative progress toward sustainability. It was developed by AASHE in collaboration with higher education, and has broad participation from the higher education community. STARS is designed to evaluate: 1) Education and Research, which includes a Curriculum subcategory; 2) Operations, which includes Energy and Waste subcategories; 3) Planning, Administration, and Engagement; and 4) Innovation.

Spring 2011 Goals for the Sustainability Across the Curriculum Network:
- Meet with the UW-Stout College Deans to enlist their help in organizing discussions to encourage faculty and instructional academic staff to integrate sustainability into their curricula. The Northwest Earth Institute (NWEI) education programs will be used to facilitate these discussion groups. NWEI is a national leader in the development of innovative programs that empower individuals and organizations to transform culture toward a sustainable and enriching future. The NWEI programs encourage participants to explore their values, attitudes and actions through discussion with other people. Each guide contains a series of articles, book excerpts and discussion questions for the group to follow. Groups can be self-facilitated, meeting from four to nine times depending on the program chosen.
- Collaborate with UW-Stout Outreach Services to organize the 2nd annual “Infusing Sustainability into the Curricula” two day workshop for faculty and instructional academic staff.
- Assess current curricular offerings in terms of their actual and potential sustainability components using course catalog, ImageNow-accessible curriculum database, and survey methods.
• Develop Professional Communication and Emerging Media (formerly Technical Communication) course “Sustainability Communication” to form part of a specialization or certificate that will be available in spring 2012 to enhance communications offerings in the area of sustainability.

• Research, organize and facilitate a discussion (likely in a World Café format, to follow on a similar event held in January 2010) that defines and advances the goal of increasing course offerings related to sustainability across campus. This meeting will be held in Fall 2011 and will build on progress made during the 2nd annual “Infusing Sustainability into the Curricula” two-day workshop for faculty and instructional academic staff.

• Appoint a “Speakers’ Bureau” of SACN members and UW-Stout students to address relevant committees and share news with the press as necessary.