A UMore Park
Opportunity for
Research and Learning:
Fostering a Place-based
Program of Study

A report by the UMore Park
Interdisciplinary Curriculum
Development Committee

Academic Mission Advisory Board
July 2012
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# Table of Contents

Introduction ................................................................................................................. 2

Goals of UMore Park interdisciplinary curriculum development ........ 2

Models and relevant examples ............................................................................. 4

Challenges and barriers to interdisciplinary coursework .................. 6

UMore Park place-based program of study .............................................. 7

Opportunities and outcomes .............................................................................. 9

UMore Park Interdisciplinary Curriculum Development Committee ... 12

UMore Park Academic Mission Advisory Board .................................. 12
Introduction: UMore Park vision
The University of Minnesota Outreach, Research and Education (UMore) Park is the University’s 5,000-acre property located 25 miles southeast of the Twin Cities in Dakota County. The vision to build a unique, sustainable, University-founded community over the next 30 years was affirmed by the University’s Board of Regents in December 2006. The UMore Park property has created a place-based frame for real-time, real-world interdisciplinary experiences and opportunities.

The Office for UMore Park Academic Initiatives infuses the University’s academic mission into the planning and development of the property through creating research and education opportunities for faculty, students and staff. Through engagement within the University and broader community, the academic office seeks to create awareness and engagement in new opportunities, support creativity and discovery, as well as involve citizens in discussions of priorities and innovation for the new community. The Office works to coordinate these endeavors as well as support and facilitate interaction and partnerships. The ongoing research focused on UMore Park can dovetail with planning and future phased development. The UMore Park Academic Mission Advisory Board is advisory to the Office and serves to better integrate the University’s academic mission into planning and development while ensuring unique teaching, learning and research opportunities.

Goals for UMore Park interdisciplinary curriculum development
The Advisory Board’s ad hoc UMore Park Interdisciplinary Curriculum Development Committee was created to develop a framework for ongoing interdisciplinary courses based on long-term development at UMore Park. Undertaking a complicated and long-term project such as the development of a community is a challenging task that requires an interdisciplinary approach to address the issues of the day. Interdisciplinary research is needed to solve the critical challenges ahead and should play a major role in University curricula. The University of Minnesota’s undergraduate Student Learning
Outcomes outline the base of knowledge that students should have at the time of graduation. These outcomes broadly touch on integrating interdisciplinary concepts, specifically the outcome that calls on students to “understand diverse philosophies and cultures within and across societies”. The challenge for students to leave with this perspective is often easier said than fully accomplished, especially with the inherent challenges of offering and executing true interdisciplinary coursework.

The goal of the Committee is to outline an approach to interdisciplinary inquiry that will support 1) ongoing opportunities for students, faculty and staff members across all units of the University to contribute to the planning and development of the future sustainable community; 2) real-time, real-world experience that offers engaged research, learning and outreach in partnership with the local communities and broader communities of interest; 3) innovation and sustainability-driven models that can enrich the future community and surrounding region and be replicated elsewhere; and 4) highest quality scholarship and distinction for students, faculty and staff that also contribute to the reputation and prestige of the University of Minnesota. Using the interrelated aspirational goals for sustainability in The Sustainable Community at UMore Park report as a foundation, research and coursework can explore the areas of zero carbon, zero waste, sustainable transport, sustainable materials, local and sustainable food, sustainable water, land use and wildlife, culture and community, equity and local economy, and health and happiness, for example. The development of curricula will optimize learning opportunities that engage undergraduate and graduate students. In conjunction with student experiences, the Office seeks to support the creativity of faculty research and discovery, both disciplinary and interdisciplinary, through linking the academic endeavors of the University community. The interrelationships among current, but separate student projects and courses would create an opportunity for interdisciplinary learning across the University – with UMore Park as the main connection in their place-based studies. Students could learn from one another that the development of a community takes the expertise of many, and could also develop insights into the interdisciplinary climate of the professional world. A critical component of the success of interdisciplinary collaboration would be to develop formal and informal
interactions where potential collaborators could meet and where knowledge and paths of inquiry could be shared and discussed.

Models and relevant examples
Various models were discussed in the Committee for developing a framework for UMore Park place-based courses. Across the University’s many colleges and departments, center-based programing and curricula address major and minor requirements as well as student learning needs. The Committee examined four models that have been or are currently being used at the University of Minnesota.

Creating a new designator
A UMore Park designator could be created to group courses under a minor or an academic unit. This would create a streamlined approach for clustering courses and would allow students to search courses within the designator easily. Using the Sustainability designator as a case study, the Committee learned that the Sustainability Studies Minor and subsequent Sustainability designator came about as a partnership among five colleges at the University of Minnesota. In order to engage students from across colleges and majors, the minor was created independent of a department or major. The independence is an advantage to the model in creating a true interdisciplinary system available to any student. Revenue from the classes goes toward instructor salary with the remaining funds allocated to the College of Food, Agriculture and Natural Resource Sciences for administrative costs. The challenge with this model is in allocating funds when courses are co-taught. Co-teaching situations require a memo of understanding between units, which can be burdensome for the instructors and units.

Creating a scholars program
A scholars program could be most beneficial in offering a place-based interdisciplinary experience for students and also for highlighting interdisciplinary activities on a student’s transcript. The Committee reviewed the Community Engagement Scholars
Program as a case study for this model. In examining the efforts invested to create the program, the Committee learned that the program was created through a 4-year developmental effort to create “a multi-faceted, flexible program of civic learning experiences encompassing varied formats and subject matter.” The Council on Public Engagement in partnership with the Career and Community Learning Center reviewed models and certifications at other U.S. institutions of higher education to construct a program that incorporated best practices. The Community Engagement Scholars Program is administrated through its Advisory Board composed of students, faculty, staff and community representatives. The Board works to identify faculty and community organizations to work with students in the program. The difficulty with this current program is keeping students involved throughout their student careers to obtain the Scholar designation. The Scholar designation model could prove challenging for UMore Park-based curriculum as students have strict major course requirements that often trump their desire to explore interdisciplinary opportunities outside of their major.

**Co-teaching across units**

Co-teaching is a model that allows separate courses in different units to interact together in order to understand a topic through another lens. Courses are offered separately with different course designators falling under a particular unit. This allows for different learning objectives and separate grading of exams, homework, and term papers. The co-teaching model can bring students together any number of times throughout the semester, ranging from once to weekly, to allow interaction between students and professors. Lectures occur in a blended classroom with both instructors sharing lecture time, within a class or alternating. In some models, there are joint presentations and joint grading. This model is helpful in that the allocation of resources stays within each unit while exposing students to other disciplines. The challenge is to coordinate classes from different units that overlap in subject matter as well as willing faculty.
Program of study

Clustering courses under a UMore Park program of study would allow courses to be taught separately, but acknowledges their similarity in theme and focus and highlights their relevance and connection to the UMore Park project. Under this approach, courses are taught within respective academic units and under the designator of the academic unit. The barriers of tuition attribution are overcome. Courses are highlighted in a way that the UMore Park connection could be visible to students, and students could self-design an emphasis that is aligned with their academic major. Courses offered in this manner may be a precursor to a minor. The Center for Spirituality and Healing was noted as an example of a unit that initially offered courses that collectively formed informal programs of study. Subsequently, a formal graduate minor was created. In contrast to the Center for Spirituality and Healing, students interested in UMore Park-related projects may have flexibility to enroll in one or two courses applicable to their field of study as individual subject matter could greatly vary.

Challenges and barriers to interdisciplinary curriculum

Interdisciplinary opportunities help students to understand professional work environments, confront their assumptions, and explore multiple solutions to challenges through different perspectives. Although the advantages seem apparent, interdisciplinary coursework is a challenge to put in practice, often because of unintentional barriers, practicalities and limitations within the University. The Committee identified three key barriers:

Tuition and allocation

The largest barrier to overcome is the challenge in allocating student tuition dollars. A quarter of a student’s tuition is tied to the college in which they are enrolled, while the remaining 75 percent is distributed to the colleges tied to each course the student is enrolled in. Each college is motivated to offer more courses itself because monetary loss is much higher when students take courses outside of the college in which they are enrolled. For example, colleges have created their own general requirement course in subjects such as statistics or writing to retain tuition dollars.
Major requirements
When requirements within a major involve courses within the college, students are not given much flexibility to explore interdisciplinary opportunities. Subsequently, students must work hard to expose themselves to new ways of thinking. Interdisciplinary approaches are increasingly valued in both the private and public sector. The Committee believes that the University can better support student learning and career preparedness by ensuring ease of student participation in interdisciplinary courses, capstones, internships and learning activities in their undergraduate careers.

Cross-listed courses
Coordinating co-teaching models or cross-listed courses is a challenge for faculty. Although tuition dollars are linked to a course and not to the instructor, the Committee believes that colleges have a challenge to incentivize faculty to teach or co-teach outside of their college. Many of these situations require a memo of understanding between units, which many view as a cumbersome process. With barriers that are institutionalized within the University system, it is understandable why interdisciplinary curriculum efforts are a challenge. More quantifiable data to ensure that a broad portfolio of interdisciplinary experiences for students is available and a critical mass of faculty and student champions are required.

UMore Park place-based program of study
With consideration of the various options for framing a UMore Park-based curriculum, the Committee determined that clustering courses as a “place-based program of study” would unify the current academic efforts that draw on aspects of UMore Park in existing courses. The model is optimal as a starting point as it is flexible and requires no policy or administrative changes. Engaging University faculty, students and staff to pursue a unique-in-the-nation opportunity to contribute research and new ideas for a sustainable community in the context of placemaking would build a critical mass of interest to develop future curriculum. Placemaking, according to the Project for Public Spaces, is “a whole process that fosters the creation of vital public destinations: the kind of places
where people feel a strong stake in their communities and a commitment to making things better.”¹ This concept recognizes that landscape is temporal and spatial, personal and political, and weaves together geography, history, cultural studies, and art and design as well as engineering, ecology, public health, biosciences, law and more. This sense of place is about “connections, what surrounds it, what formed it, what happened there, what will happen there.”² It includes all the connections between the physical environment and human beings, as University of Minnesota geographer Yi-fu Tuan wrote in his 1974 book, Topophilia: A Study of Environmental Perception, Attitudes, and Values.³ Using placemaking as a frame, courses can offer research and learning opportunities that are closely linked to current and evolving planning and development activities at UMore Park. Through engaging students and faculty, course by course, in interdisciplinary research and learning, interaction can be more easily facilitated and awareness of opportunities for partnership will allow faculty to connect across units. The emphasis on placemaking strengthens the connections between UMore Park and the surrounding communities in the region. It binds the unique history of the property to the future sustainable community, anticipates contributions through longitudinal studies, and serves as a mechanism to create a learning community for both University scholars and community members.

Criteria to include course in curriculum

The Committee identified criteria that can be used to establish a foundation for coursework that may be included as UMore Park place-based courses. These courses could be from any college or center across the University, at the undergraduate or graduate level, based on two criteria:

- Addresses one or more of the UMore Park sustainability principles.
- Includes a UMore Park component that could be based on research, education and/or outreach, a case study or analysis in conjunction with a public or private sector partner(s).

Community or interdisciplinary engagement emphases are encouraged but not required.
Opportunities and outcomes
Connecting UMore Park place-based courses that incorporate strengths from across University colleges and departments will create an interdisciplinary environment for students to learn about the multifaceted issues surrounding sustainable community planning and development. In general, interdisciplinary interaction between the coursework and the community would give students the opportunity to engage with real-time projects and connect them with local governmental units, nonprofits, private entities and citizen groups. UMore Park provides a convenient, location-based, real-time experience. Place-based courses can address the continuum of knowledge and promote scholarship in all its forms – basic and applied research, teaching and learning, outreach, community engagement, and others. The local community has welcomed student research and participation with the UMore Park development. New knowledge and the creativity and fresh perspectives of students can complement ongoing work locally. Capstone courses and special projects can provide the community with advice or consultation through shared-expertise interactions. Placemaking is a context for scholarship that considers the history and future of both the sustainable community and of the surrounding area. The timeline of development at UMore Park gives additional context to the scholarship, emphasizing different areas of inquiry as phases of the planning and development evolve.

Research and educational platform. The opportunities that come with constructing a foundation for interactive and cross-disciplinary learning can foster student excitement and interest as well as faculty interaction and partnerships. The planning and development of the property present innumerable researchable questions that demand the expertise of a broad range of disciplines. These questions provide the basis for rigorous research and for research-based learning and curriculum development that is centered on problem solving. Networking opportunities and formal interactions among UMore Park place-based courses could easily occur at least once per semester. Interactions could be achieved through combined class site tours of UMore Park, faculty presenting to another course as a guest lecturer, online forums, co-teaching for one class session, or holding a final presentation event for all place-based courses. The
networking opportunities can be helpful for students and pique their interest in other disciplines or courses that may complement their current studies. Connecting courses through UMore Park facilitates the exchange of ideas and promotes interdisciplinary collaboration among faculty and students.

**Long-term studies and evaluation.** The possibilities for longitudinal research are particularly rich. Studies of human interaction on the landscape from the predevelopment state forward are unique in a large metropolitan area such as the Twin Cities. Long-term studies could focus on ecological systems, stormwater management, and biodiversity as well as diet-related chronic diseases, vital aging, business development patterns and regional economics, among others. Both interdisciplinary and longitudinal studies represent unique opportunities for engaging the community over time and for student learning experiences. Building a base of students who participate in place-based courses related to UMore Park could present an opportunity to evaluate student experiences and begin to quantify the contributions of cross-disciplinary, real-world based research projects. Data collection and measurement of student outcomes will be an important component of enhancing the place-based curriculum over time. Measurement was beyond the charge of the ad hoc committee.

**Interdisciplinary approach.** UMore Park place-based courses are an ideal forum for the exploration of a place at a moment of great change and transition. Potential areas of teaching and inquiry span the entire spectrum of University interests and expertise, providing opportunities for translational research and holistic projects with a variety of scales (individual, family, neighborhood and community, for example). Students can combine theory with application and contribute to a meaningful and sustainability-driven project. Sustainability is inherently an interdisciplinary topic. Using sustainability as a theme draws students from all backgrounds with its broad reach. The faculty will have new possibilities for networking across the University and can further engage with communities. Interdisciplinary teaching not only contributes to student learning but allows faculty to make connections beyond their area of expertise. Faculty and students
engaging in disciplinary and interdisciplinary scholarship can ultimately contribute to the quality of life in the UMore Park region.

This proposal for a place-based program of study takes a comprehensive approach to the notion of interdisciplinary curriculum as it brings together faculty, staff, students and community members around issues as broad as the expertise of the University community itself. While a portfolio of UMore Park place-based courses can fill a unique niche at the University, it also can build upon and leverage existing University programs to meet shared goals for publicly-engaged research, teaching and learning, and outreach. The success of UMore Park will ultimately benefit from contributions from all University departments. To date, seventeen courses and capstones have used UMore Park as a foundation for student learning. 122 undergraduate and 65 graduate students have participated in these courses. Evaluations distributed by the academic office provide anecdotal information on student and faculty interest and learning. Successful engagement and expansion of UMore Park place-based courses will be based in part on the ability of academic office staff to continue to engage instructors in ways to shape courses, research questions, and opportunities for interdisciplinary engagement.

1 See http://www.pps.org/what_is_placemaking/.
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