

Contact: Diana Gonzalez

**REQUEST TO CREATE NEW CENTER AT THE UNIVERSITY OF NORTHERN IOWA:
ARCTIC, REMOTE, AND COLD TERRITORIES INTERDISCIPLINARY CENTER**

Action Requested: Consider recommending approval of the request by the University of Northern Iowa to establish the Arctic, Remote, and Cold Territories Interdisciplinary Center (ARCTICenter) in the College of Social and Behavioral Sciences.

Executive Summary: The purpose of the proposed center is to advance the interdisciplinary knowledge about socio-economic and social-ecological systems in the polar, remote, and cold regions. This proposal was reviewed by the Board Office and the Council of Provosts and is recommended for approval. Board of Regents Policy §6.08 requires that all centers and institutes be approved by the Board. This request addresses the Board of Regents Strategic Plan priorities to provide “educational excellence and impact” and “economic development and vitality,” Goal #7 - “Iowa’s public universities shall contribute to the expansion and diversification of the Iowa economy,” and Goal #8 - “Iowa’s public universities and special schools shall be increasingly efficient and productive.”

Background:

Description of proposed center. Polar and cold regions represent approximately 25% of the total Earth land mass and include Arctic, Antarctic, boreal zones and highlands. In the last five years, UNI has become a recognized national center for social-ecological research in the Arctic and other remote and cold regions. In 2011, the University established the *Arctic Social and Environmental Systems Research Lab (ARCSES)* in the Department of Geography (College of Social and Behavioral Sciences). Since then, the lab has received more than \$1.4 million in external research funding, primarily from NSF. UNI was selected to host and lead the NSF Research Coordination Networks in Arctic Sustainability (Arctic-FROST) and Arctic Coastal Social-Ecological Systems research (Arctic-BASE). These national networks with broad international participation bring together researchers, students and community members who are engaged with issues of sustainability and sustainable development in remote regions that experience rapid environmental and social changes. Using NSF funding (already secured through 2021), UNI is proposing to transform the ARCSES laboratory to establish the **Arctic, Remote, and Cold Territories Interdisciplinary Center (ARCTICenter)** that will serve as campus, statewide and national hub for Arctic social and sustainability science research. The Center will focus on sustainability of socio-economic and social-ecological systems in the Arctic Region, and other Cold and Remote areas of the world, including Arctic, Antarctic, Subarctic, high mountainous areas, cold deserts, and other remote and isolated regions.

The vision of the ARCTICenter is to advance the interdisciplinary knowledge about socio-economic and social-ecological systems in the polar, remote, and cold regions. The ARCTICenter’s mission is to:

- ⇒ Become a leading national hub for polar, remote, and cold regions interdisciplinary research.
- ⇒ Develop synergies and collaboration among faculty, staff, and students across UNI campus and among Iowa institutions of higher learning who are engaged in research and educational activities pertaining to the Arctic as well as other remote and cold regions.

- ⇒ Expand Arctic research at UNI and build further capacities for receiving external funding, raising university's profile and attracting students to UNI, as well as providing research and educational opportunities for faculty, staff, and students from Iowa universities and outreach to the Iowa public.
- ⇒ Facilitate faculty, staff, graduate, and undergraduate students involvement in Arctic-based field work.
- ⇒ Serve as a center of excellence in research, education, and outreach on issues concerning the Arctic for the state of Iowa and to be a primary source of accurate information and educational materials about the Arctic, Antarctic and other cold and remote regions of the planet.
- ◇ Need for proposed center. The size and scope of current and planned research concerning Arctic, remote and cold regions at UNI, including major NSF national research coordination networks, is consistent with activities of a center. Creating a designated center on campus will also bring its structure in line with expectations by NSF and other funding agencies, especially in respect to administering coordination network grants that involve multiple researchers, projects and locations, but have to have strong institutional support and a host unit reportable to the funder. In addition to administering current funding, ARCTICenter will assist in securing further extramural support to continue center's programs. It will also be instrumental in developing educational programs to serve UNI students, K-12 and Iowa residents. The center will be a point of contact for conducting research and educational activities that will include faculty, researchers and students from a variety of departments across campus and Regent universities.
- ◇ Proposed center activities and objectives.
 - ⇒ Serve as a national hub and host institution for research coordination networks in Arctic social and sustainability sciences.
 - ⇒ Coordinate research, educational and outreach activities concerning Arctic, remote and cold areas at UNI and in the state of Iowa.
 - ⇒ Provide collaborative interdisciplinary opportunities for research, scholarship and creative activity for faculty, graduate and undergraduate students.
 - ⇒ Develop international and national policy documents and promote sustainability principles and sustainable development practices in Arctic, remote and cold regions. Provide decision support to relevant government agencies and stakeholders.
 - ⇒ Serve a regional focal point for Arctic research and education: the IArctic initiative (to incorporate polar and cold regions research in curriculum at UNI, collaborate with the Geographic Alliance of Iowa for developing K-12 curriculum related to environment and societies of the Arctic).
 - ⇒ Enhance diversity and international opportunities at UNI by developing inter-institutional collaboration programs that connect UNI students and faculty with communities, stakeholders, researchers and students in Arctic countries (Canada, Russia, Iceland, Greenland/Denmark, Norway, Finland, and Sweden). Support Fulbright applications, foreign scholars and establish representation and communication with national and international Arctic and Polar research organizations.

- ⇒ Develop next generation of professionals and enhance field experiences for social and natural sciences students at UNI.
 - ⇒ Work to transfer knowledge and practice of sustainable development in remote and isolated areas to serve rural communities in Iowa and the Upper Midwest.
- ◇ Relationship of proposed center to University's Strategic Plan. ARCTICenter will be an interdisciplinary center that will bring together faculty and students from social and natural sciences, education and humanities. The center will support the mission "to provide transformative learning experiences" and core values of the university, including diversity, community, engagement, sustainability and academic freedom. The center will also be instrumental in accomplishing the mission of the College of Social and Behavioral Sciences "to increase understanding of people in individual, social, cultural, and historical contexts and to share this knowledge among faculty, students, and the larger community."

It will also serve the following strategic goals and objectives of the University and College:

Goal 1 – Objective 2 (UNI). *Provide a transformative learning experience that inspires student responsibility for their learning.* Most ARCTICenter projects will involve students who will work on globally, regionally, and locally-relevant issues in various locations around the globe. Many projects will deal with knowledge integration from multiple disciplines and result in developing community-based solutions. All these elements will create atmosphere for transformative learning and development of personal responsibility for the outcomes of one's educational and research activity.

Goal 1 – Objective 3 (UNI) & Goal 2A (CSBS). *Recruit, develop, and retain faculty distinguished by their creative and intellectually rigorous teaching and scholarship.* Through collaborative research and specifically through UNI-based international and national research coordination networks the center will connect UNI faculty with communities of research and practice and, thus, will provide assistance to existing UNI faculty in achieving academic excellence and will serve as a point of attraction of new faculty to UNI.

Goal 1 – Objective 4 (UNI) & Goal 2B (CSBS). *Infuse an interdisciplinary approach into teaching, scholarship, and engagement.* The center will be interdisciplinary in nature and will establish and develop research and curricular collaborations between multiple disciplines and departments, including social sciences, natural sciences, education and humanities. ARCTICenter will be one of the key university-wide mechanism for interdisciplinary collaboration (G1.O4.S1) and provide support for interdisciplinary initiatives that result in extramural funding, expansion of community outreach projects in various regions, and establishment of research clusters at UNI (G1.O4.S2).

Goal 2 (UNI). *Provide rigorous and relevant graduate education that meets the needs of graduate students, the university, and the community.* One of the goals of the Center will be to support graduate students in various relevant departments. The center will provide graduate student funding from external funds it receives.

Goals 3 – Objective 3 (UNI) & Goal 3C (CSBS). *Recognize and support external professional partnerships to promote exemplary teaching, research, scholarship, creative activity and engagement.* ARCTICenter will capitalize on existing excellence to expand professional partnerships with international and national organizations and institutions engaged in research activities in remote regions and cold environments. These partnerships will be instrumental in further enhancing UNI educational, research and service missions.

Goal 4 – Objectives 1-3 (UNI) & Goals 5A-5B (CSBS). *Create and maintain an inclusive educational environment that prepares students to thrive in a diverse global environment.* ARCTICenter will serve as a hub for research in diverse regions of the world. UNI faculty and students will have opportunity to be exposed to diverse cultural experiences (including Native culture and societies) and to have meaningful interactions with people from different backgrounds. Since some of the ARCTICenter programmatic activities are focused on broadening the participation of Indigenous (Native) Arctic residents and participants from the international community, having the center on campus will also help in recruiting minority and international students and faculty. The center will also implement programs (e.g., workshops, speaker events, exhibits) that will infuse diversity awareness and accountability UNI curricular and co-curricular activities and expand student learning experiences. It will also be instrumental in equipping students, faculty, and staff to engage positively and productively in diverse communities of learning and enhancing faculty professional development in the area of diversity. ARCTICenter will facilitate the development of meaningful collaborative relationships with domestic and international communities.

Goal 5 – Objectives 1-2 (UNI). *Enhance the economic, social, cultural, and sustainable development of the state.* ARCTICenter will be a focal point for research in various parts of the world focusing on issues of social change, economic development, environmental transformation and sustainability in cold and remote regions. Many of these projects will have relevance to social, cultural, and sustainable development in Iowa as they will deal with communities that share many of the characteristics common for Iowa's rural areas – declining populations, specialization in the primary sector (mining, fishing, and agriculture), vulnerability to environmental change, isolation from major world markets, difficult access to human and financial capital and others.

- ◇ Relationship of proposed center to existing centers/institutes at UNI. ARCTICenter will serve as interdisciplinary unit that will be open to faculty and students from all colleges, departments, centers and institutes. The center will not duplicate or significantly overlap with any of the existing UNI centers or institutes. However, ARCTICenter will have strong relationships with several units that will allow enhancing their activities. The center will work closely with other on-campus institutes and centers to develop collaborative research, educational and outreach programs in the areas of mutual interest. The center will coordinate efforts with other units as appropriate, including the following relationships:

Center/Institute	Relationship	Points of cooperation
Geographic Alliance of Iowa (GAI)	K-12 curricular programming, outreach to teachers	Arctic initiative (raise awareness about climate and social changes in the Arctic among Iowa teachers)
Center for Energy and Environmental Education (CEEE)	Research and outreach – sustainability science and practice	Research collaboration Community outreach to Iowa stakeholders
Center for Social and Behavioral Research (CSBR)	Collaborative externally funded projects (social sciences)	Project development and implementation
Geoinformatics Training, Research and Education Center (GeoTREE)	Collaborative externally funded projects (geospatial science and technology)	Project development and implementation, student training and mentoring
Sustainable Tourism and Environment Program (STEP)	Research and undergraduate education at UNI	Undergraduate research and curriculum development
UNI Business and Community Services	Community-based projects, economic development research	Exchange in methodologies, information sharing, engagement in locally-relevant research (rural communities)

- ◇ Existence of proposed center at other Iowa institutions. ARCTICenter has no significant overlap with existing centers or institutes at Iowa universities and colleges. There are only a few centers in the United States that have some similarities with ARCTICenter’s mission and goals (e.g., Ohio State University, Dartmouth College, University of Minnesota-Twin Cities, University of Colorado-Boulder, University of Alaska, and Pennsylvania State University) but ARCTICenter will be unique in the nation for its interdisciplinary focus and emphasis on social sciences and sustainability.

- ◇ Unique features of the University of Northern Iowa to support the proposed center. UNI has a long legacy of involvement in Arctic and cold environment research. UNI alumna Dorothy Jean Ray was a renowned Arctic anthropologist who created an endowed scholarship for UNI anthropology students. The Arctic Social and Environmental Systems Research (ARCSES) was established in 2011. In the recent past, UNI faculty and students made multiple contributions to understanding social, cultural and environmental change in the Arctic by conducting field work, presenting and publishing research at international and national levels. UNI has a number of faculty with strong interests in Arctic, cold and remote regions across multiple disciplines, including geography, geology, remote sensing, health, leisure studies, music, and humanities and social sciences. In the recent past, UNI researchers contributed to such important circumpolar initiatives as International Polar Year, Arctic Human Development Report, Arctic Social Indicators, Resources and Sustainable Development in the Arctic and others. UNI faculty have served on the International Arctic Science Committee, International Arctic Social Sciences Association Council, and Polar Geography Board of the Association of American Geographers. UNI also developed partnerships with institutions of higher learning in Arctic countries, as well as with the Consulate General of Canada in Minneapolis.

UNI has facilities and infrastructure to house the proposed center in the College of Social and Behavioral Sciences. UNI also has necessary programmatic base to fulfill the service and outreach functions of the center, including active programs fostering undergraduate research, innovating undergraduate and K-12 curriculum and established of public education. In addition, ARCTICenter will capitalize on UNI's established reputation as a leader in community-based sustainability initiatives. Upon establishment, ARCTICenter will immediately apply for a full membership in the Arctic Research Consortium of the United States (ARCUS).

- ◇ Inter-institutional and collaborative efforts with other entities. Inter-institutional cooperation and collaboration will be encouraged by the proposed center leadership. The center will collaborate with research units and individual faculty members or students from the University of Iowa and Iowa State University as appropriate. Questions will be asked here.
- ◇ Personnel. The proposed center will have an administrative assistant and graduate students as its employees. The administrative assistant position (half-time) will be filled by existing ARCSES personnel through reallocation of duties. Graduate students will be funded by external grants with occasional support from existing university sources to qualified graduate students (based on regular scholarship/assistantship competitive process in relevant graduate programs).
- ◇ Facilities. The proposed center will use existing facilities in CSBS (currently occupied by the ARCSES lab). No additional facilities are required at this time.
- ◇ Equipment. The center will utilize standard office equipment purchased for faculty and graduate student use based on existing university policies. Any additional equipment, if needed, will be provided by external grants.
- ◇ Expected need. The proposed center has external funding to maintain its programs through 2021. In the years prior to that the center will solicit further support from NSF and other funding agencies to maintain its operations beyond this date.
- ◇ Communication with existing campus structures. The ARCTICenter has been reviewed and approved by the appropriate campus authorities at UNI.
- ◇ Cost. The total cost of the proposed center at UNI for Years One-Six will be \$1,439,456. External funds will provide \$1,350,000 and reallocations from existing sources will be \$200,349.

The center will be dependent on external funds for most of its programming. The loss of these funds until the expiration date of the existing (awarded) projects is highly unlikely as the funds have been fully transferred to UNI by the funding agencies. The loss of funds in the future will affect the center's ability to function effectively, although reduced programmatic activities can be still maintained. To minimize the risk, the center's leadership has develop a plan to secure necessary funding through external funding agencies.

The leadership of the proposed center has developed a plan to address center's external funding needs beyond 2020. The plan includes grant applications to various agencies, primarily NSF, including specific programs such as ARCSEES and SRN (Sustainability Research Network) with a funding potential up to \$12 million per funded project. Additional options will be explored in the forthcoming years as proposal solicitations and opportunities become available.

Proposed Center Costs and Funding Sources

Year	Total	Sources of funds (Grants)	Total new costs
1	\$155,312	\$130,000	\$130,000
2	\$339,535	\$314,000	\$314,000
3	\$340,683	\$314,000	\$314,000
4	\$340,876	\$314,000	\$314,000
5	\$130,907	\$114,000	\$114,000
6	\$132,143	\$114,000	\$114,000
7	\$TBD	\$TBD	\$TBD

- ◇ Evaluation plan. ARCTICenter will be evaluated in accordance to policies and procedures established by the Board of Regents and the University of Northern Iowa. These include annual reports, regular financial audit and other appropriate evaluation mechanisms. The Dean of the College of Social and Behavioral Science will be reported regularly on center's activities (a standard practice for all CSBS centers and institutes). Externally, ARCTICenter will apply for the membership in the Arctic Research Consortium of the United States (ARCUS) and will undergo an evaluation by the ARCUS board. Individual projects hosted by the center may also have separate external evaluation mechanism required by a granting agency. ARCTICenter will be committed to transparency – information on its activities will be available on the website for public access and comment.
- ◇ Implementation. After obtaining Board approval, the Arctic, Remote, and Cold Territories Interdisciplinary Center (ARCTICenter) will be implemented immediately.