

Ecosystem Science Center (ESC) Charter

Approved: September 13, 2022

Preamble: This charter governs the operations of the Ecosystem Science Center (Center) at Michigan Technological University. The Center was established in 2004 and aims to advance knowledge through research on ecosystems. The Center strives to foster a vibrant, and inclusive community of scholars who conduct research with relevance to ecosystems, enhance member efforts to acquire external funds for ecosystem research, and support and grow internal and external partnerships and capacity to achieve novel broader/research impacts.

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1. Mission

The mission of ESC is to advance knowledge through research on ecosystems.

2. Description of Proposed Activities

The Center brings together faculty and staff interested in the study of ecosystems, which we define following Odum (1969) as, “any unit that includes all of the organisms in a given area interacting with the physical environment so that a flow of energy leads to exchange of materials between living and non-living parts of the system.” Ecosystem science applies to natural and built environments, degraded and restored habitats, and socio-ecological systems.

The Center provides the guidance and resources necessary to attract funding from external sources to enhance and grow ecosystem science research and education. The Center operates through a shared-governance system, where Center members work together, with leadership of the Center Director and staff, to allocate resources and make decisions about priorities and programming. The Center supports its members through activities, such as, but not limited to, identifying funding opportunities, helping researchers develop externally funded research proposals, assisting in the creation and management of multiple investigator proposal and project teams, assisting with post-award project management and compliance, providing seed funding to support research development and acquisition of shared equipment, supporting members' graduate and undergraduate researchers through small awards, and providing opportunities to promote collaboration both at MTU and externally.

3. Governance Structure and Management

3.1 Membership

Membership in the Center will be open to all faculty, staff, postdoctoral associates, and adjunct faculty participating in research and graduate education in the subject area. Members are classified as Voting or Affiliated.

3.2 Voting Members

Voting members are limited to those members serving as Principal Investigator, Co-Principal Investigator or Official Collaborator on currently funded extramural projects that generate overhead return. An Official Collaborator contributes to the scientific development or execution of the project in a substantive, measurable way and has attached a letter of collaboration to an extramurally funded grant that generates overhead return at the time of submission, but they are not listed as a Co-Principal Investigator on the grant cover sheet. Voting membership may also be granted to faculty and staff that directly support Center activities through other funding avenues, such as direct support of ESC staff. Membership status is established annually based on activities at the start of the Michigan Tech fiscal year. Any amount of overhead generated or direct funding provided is sufficient to participate as a full voting member of the ESC.

3.3 Affiliated Members

Affiliated members are those that do not qualify as a voting member, i.e. are not involved in active grants that generate overhead or provide direct financial support. Affiliated members can participate in all Center activities and apply for most funding opportunities, but they cannot vote on

the allocation of Center resources, appointment of the Director, changes in the Center Charter or any other action that requires a formal vote by the voting members.

3.4 Director and Staff

A Director will provide general oversight of the Center. The Director must be a voting member and is installed, renewed, or removed by a simple majority vote of voting members by ballot. The Director will serve a four-year renewable term. Nominations of voting members will be accepted for at least one week upon notification to all members. Notice of an election should be provided to all members at least two weeks in advance. Voting will occur following the process set out below. Should a Director not be able to continue in their role, a temporary Director may be elected as described above or appointed by the Vice President for Research.

The Director shall perform such duties and exercise such powers as are necessary or incident to the supervision and management of the Center and shall see that the orders and resolutions as authorized by the membership are carried into effect. The Director is responsible for meeting the requirements and guidance for MTU centers and institutes as provided by the office of the Vice President of Research. Unless prohibited, the Director may delegate some or all of the duties and powers of their office, however, the Director remains accountable for proper and efficient performance of any delegated duties.

Staff may be hired using ESC funds to support the center mission, including a center manager, accountant, research scientists, or others. Any positions should be approved by the membership. The Director will have supervisory authority over all staff. Staff are considered Affiliated Members of the Center, but can become Voting Members if they meet the stated requirements.

3.5 Committees

The membership or the Director may from time to time appoint such committees as deemed proper and may prescribe the functions, duties, duration, and terms of membership of such committees.

3.6 Financial Management and Resource Allocation

The Center is funded through the receipt of Internal Research and Development (IRAD) funding provided by MTU in proportion to the total F&A charged on funded projects submitted through the Center. The IRAD distribution amount is governed by MTU policy and has historically ranged from 15.5 to 20%.

Members will collectively decide how to distribute resources among its programs and activities at the first meeting of each semester of the academic year. Priorities for the distribution of resources will ideally be decided by consensus, but a simple majority vote will be used to make decisions. Members have the responsibility for making proposals for the distribution of resources through the meeting agenda and planning activities in advance so that all voting members have a voice in the distribution of resources. The Director shall have signing and spending authority consistent with the direction provided by the membership.

The Director will provide an updated summary of the ESC finances at the beginning of each of the four annual meetings.

3.7 Meetings

The ESC will hold at least four meetings each academic year, two in each academic semester.

All meetings will be announced at least two weeks in advance and members will be able to forward agenda items for each meeting to the Director. The Director will distribute an agenda at the beginning of each of the four annual meetings, and meetings will follow the agenda as amended by members at the beginning of each meeting.

Minutes of each meeting will be taken by a designated attendee and they will be distributed to members within two weeks following each meeting.

3.8 Voting

Voting shall take place via ballot either electronically or in meetings of the whole where a quorum has been reached. For any meeting of the whole where business is conducted, a quorum will consist of 50% + 1 of all Voting Members. Votes via electronic ballot require notice to all members, a 50% +1 response rate of Voting Members, and should follow an opportunity for discussion of the matter. A motion will pass with a majority of votes, unless a larger vote is required as set forth in this charter or another authority. A voting period should typically last one week with notice of the voting period provided in the notice.

3.9 Annual Report and Renewal

The Center Director will submit an annual report to the members and the Vice President for Research (VPR) or appropriate entity as required. The annual report will summarize the activities of the Center for the past year, including financials, progress on goals, future plans or other topics as required by VPR.

The Center is authorized according to MTU policy. At the end of a term, the director, in consultation with the members, will seek renewal every five years following VPR guidelines.

3.10 Charter Amendments

Proposed changes to the Charter can be initiated by voting members of the ESC. Notice of proposed changes must be provided to members for review 14 days prior to the opening of voting. Voting will follow the procedures set out above except that changes to the Charter require a two-thirds majority of voting members.

4. Five (5) Year Strategic Plan

4.1 Mission

The mission of ESC is to advance knowledge through research on ecosystems.

4.2 Vision

ESC will be a productive, vibrant, and inclusive community of scholars at Michigan Tech who collaborate across disciplines to conduct basic research and help steward ecosystems in the anthropocene.

4.3 Guiding Principles/Core Value

- Research excellence and integrity
- Shared governance
- Diversity, equity, inclusion and respect
- Stewardship

4.4 Goals and Actions

1. Foster a vibrant, and inclusive community of scholars who conduct research with relevance to ecosystems
 - a. Support community-building programs among members (e.g., Coffee hour, Research Forum, DELS)
 - b. Develop and help navigate access to research infrastructure
 - i. Cost-share for advanced instrumentation for ecosystem research that is available for use by multiple members.
 - ii. Sustainability initiatives to reduce redundancy of equipment on campus
 - c. Encourage collaboration between ESC and other MTU research centers/institutes and facilities through MOUs, research hubs, collaborative proposals, and other opportunities.
 - d. Participate in discussions internal and external to Michigan Tech to sustain research and build capacity related to our core values.
2. Enhance member efforts to acquire external funds for ecosystem research.
 - a. Identify funding opportunities and help researchers develop externally funded research proposals, in partnership with Research Development and other groups at Michigan Tech.
 - b. Support research by members across all career stages through graduate and undergraduate student mini-grants, seed/matching funds and grant-specific mentoring
 - c. Identify and lead large, multi-institution, interdisciplinary proposals related to our mission and vision (e.g., climate change, stewardship, transdisciplinary research)
 - d. Sustain and grow ESC staff to support pre-award activities and enhance post-award programming and effectiveness
3. Support and grow internal and external partnerships and capacity to achieve novel broader/research impacts
 - a. Assist with collaborations among members to bring research to the public through education, outreach and community partnerships

- b. Pursue external partnerships to improve graduate student research and training through internships, fellowships, etc.
- c. Build visibility of ESC research external to Michigan Tech (social media, marketing, agency visits)

Approval Signatures

Amy Marcarelli, Ecosystem Science Center Director

Kathy Halvorsen, Associate Vice President for Research Development

Version History

Date	Notes
September 2004	Initial adoption of the charter following establishment of the ESC.
Current (2022)	Updated and restructured to align with the Vice President for Research Office guidance.