



MICHICAN STATE UNIVERSITY MSU GLOBAL SUSTAINABILITY COMPETENCIES

| Competency | Basic Level Mastery | Intermediate Mastery | Exemplary Mastery |
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| | Conceptual understanding, identify, define, describe, recognize, remember | Explain, articulate, practice, model, analyze | Create, generate alternatives, design, synthesize, critique |
| Personal Development/ Self Awareness Competency 1.0 The graduate will provide evidence of his/her personal development | 1.1 Describe ones self, identity(ies), values and worldview.* 1.2 Identify one's strengths and weaknesses as a learner and identify some strengths and places for growth.* | 1.3 Articulate one's relationships with the local and global sustainability communities.* 1.4 Practice and document self and peer evaluation in both and academic and applied setting.* 1.5 Articulate life and learning goals and a plan for achieving these goals as they relate to sustainability studies and actions.* | 1.6 Identify, compare/contrast, and apply moral and ethical development frameworks with one's values and worldview. 1.7 Synthesize personal experiences, values, and thinking with external opinions and evidence into a coherent statement related to current and envisioned goals for one's sustainability journey. |
| Critical Thinking Competency 2.0 The graduate will provide evidence of his/her ability to think critically about sustainability | 2.1 Define and explain critical thinking and the indicators one can use to identify critical thinking in the works of others.* 2.2 Identify multiple, competing and divergent perspectives of a particular issue. * | 2.3 Explain how context shapes the multiple competing and divergent perspectives in a current sustainability issue. * 2.4 Analyze the legitimacy claims of various stakeholders in a current sustainability issue. * 2.5 Explain the role of critical thinking in mediating complex situations related to sustainability.* | 2.6 Propose a plan of action to mediate multiple stakeholder concerns.2.7 Incorporate uncertainty in knowledge in relation to how we frame, problem solve, act, and communicate regarding sustainability. |





<u>Civic</u> <u>Engagement</u> Competency 3.0

The graduate demonstrates his/her role as an engaged citizen, locally, regionally, and globally

- **3.1** Describe the actors, processes, institutions, and communities that form civic society for a specific place, context, or sustainability issue.*
- 3.2 For a specific place, context, or sustainability issue, identify the interconnections and relationships among individuals, groups, networks, and systems involved at the local, regional, and global level.*
- 3.3 Employ civic engagement skills such as active listening, dialogue, group decision-making and priority setting, consensus building, conflict resolution, role clarification or other skills and the wisdom to use appropriate approaches.*
- 3.4 Articulate the importance of including multiple voices in the engagement process and the capacity to include historically marginalized people in community communications in sensitive and respectful ways.*
- 3.5 Engage with a community, agency, or organization to work in collaborative and reciprocal ways for the common good through shared goals, resources, and expertise.*

- 3.6 Demonstrate leadership in collaboratively formulating a strategy for action (and possible implementing that strategy) that contributes to the common good.
- 3.7 Reflect as an individual and in a group on experiences with civic engagement, including critical and connected reflection on capacity building, shared leadership, and other ways to sustain civic engagement over time.

Systems Thinking Competency 4.0

The graduate will provide evidence of his/her ability to think, process, and approach situations systematically

- **4.1** Identify and describe the basic language and structure of systems (e.g. stocks, flows). *
- **4.2** Describe system properties and behaviors (e.g. nonlinearity, emergence, path dependence, balancing and reinforcing loops, leverage, drivers).*
- **4.3** Describe the role of leverage points and drivers in a specific system.*

- **4.4** Recognize and explain the relationships between structures, properties and processes in an existing system utilizing a diagram.*
- **4.5** Articulate and model system properties and behaviors (nonlinearity, emergence, path dependence, balancing and reinforcing loops, leverage, drivers) in a real-world system.*
- **4.6** Develop, describe and bound a system that effectively captures the ecological, economic and social elements and the relationships between them.
- 4.7 Based on 4.5-4.6, diagnose a problem, create an intervention/alternative system to address the problem; or, delineate alternative initial conditions that could lead toward a more sustainable state.



MSU Global Sustainability Competencies V3.0



| The graduate will provide evidence demonstrating how social equity contributes to global sustainability |
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Social Justice

Competency 5.0

- **5.1** Identify and describe key examples of how individuals and social groups experience inequality.*
- **5.2** Identify examples of both historically significant and current social justice issues and describe their relevance to sustainability.*
- **5.3** Analyze the relationship between quality of life, place, sustainability, power, and justice.
- **5.4** Explain relationships between technology, environment, place, and time regarding social justice and equity.
- **5.5** Explain the relationship between social movements and social change for sustainability.
- **6.4** Articulate the meaning of full cost accounting in a variety of sustainability settings.
- **6.5** Explain different types of non-market value and the methods used to assess them.
- **6.6** Articulate the role of public goods and externalities and explain how they relate to the economic systems of a specific sustainability issue, topic or setting.
- **6.7** Analyze strengths and weaknesses of free market economy in relation to sustainability.

- **5.6** Compare and contrast various styles of justice (retributive, distributive, and restorative) and apply them to address a specific situation related to sustainability.
- 5.7 Propose a process or intervention that ameliorates the significance of power and privilege in a specific applied sustainability system.
- 6.8 Develop a plan to address a specific sustainability issue that demonstrates multiple perspectives of economic vitality and how they affect resource allocation as addressed through 6.1-6.7.

Economic Vitality Competency 6.0

The graduate will demonstrate knowledge of how economic theory and

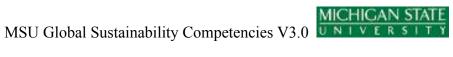
resource equity

contribute to

sustainability

- **6.1** Describe supply, demand, prices, profit, and markets and how they affect resource allocation.*
- **6.2** Describe opportunity costs and trade-offs related to sustainability.*
- **6.3** Describe a range of indicators of both financial and economic performance.*





| Ecological Integrity Competency 7.0 The graduate displays knowledge of basic ecological principles and the ability to apply ecological science to current issues regarding sustainability | 7.1 Describe the components of an ecosystem.* 7.2 Describe energy flow through ecosystems and how this flow is demonstrated in the food web.* 7.3 Describe a range of commonly used indicators of ecosystem integrity.* | 7.4 Analyze the biases and assumptions of the science and the claims of potential impacts for a politically debated global ecological issue. 7.5 Explain a regional or global cycle or pattern of ecosystem services (e.g. carbon, water, nitrogen, biodiversity) and how humans impact this service for a given sustainability topic or issue. 7.6 Explain the components and | 7.7 Propose a plan to address the roles of an actual threat to ecological integrity. |
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| Aesthetics Competency 8.0 The graduate recognizes, values, and interprets principles of aesthetics to contribute to sustainability | 8.1 Describe some common indicators of aesthetic quality.*8.2 Identify ways aesthetic qualities influence our experiences.* | interrelationships of one specific coupled human and natural system 8.3 Articulate how aesthetics affect global sustainability. 8.4 Articulate the role of inspiration, intuition, or emotion as it relates to a natural or created object, place or performance related to sustainability. | 8.5 Design and justify an aesthetically sound project (place, object, text, performance, etc.) that supports global sustainability. 8.6 Construct a sustainability project that is shaped by aesthetic values. |

^{*} Required for all students

