THE EEC-A

The Environmental Educator Certification - Associate

The foundation of every environmental educator and MAEOE's Certification begins with the elements in this program.

June 2021

MAEOE-EEC Committee

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OVERVIEW

The Michigan Alliance for Environmental and Outdoor Education (MAEOE) created the Environmental Educator Certification - Associate (EEC-A) to help guide more people toward making meaningful contributions to environmental education (EE). The participants will demonstrate their EE knowledge and passion for positive environmental change through various requirements.

The EEC-A provides people an opportunity to earn recognition for their efforts and commitment to EE.

The program was designed for those who do not carry through with the rigor of presentations, writing an informational paper, or executing an action project for the full Environmental Educator Certification - Professional (EEC-P) program.

Although a worthy initiative, the EEC-A program will not be accredited by the North American Association for Environmental Education (NAAEE). To learn more information about pursuing MAEOE's internationally recognized EEC-P program, and the only certificate in the state eligible for accreditation, please visit the MAEOE website's EEC page (https://www.maeoe.com/get-certified).

INTRODUCTION

The EEC-A is an accomplishment that tells the world that you care about the environment. Having your EEC-A states that you have worked toward making your local environment a better place to live and work through education and action. The EEC-A can be viewed as the beginning of your EE journey. As an EE associate, you understand best practices in EE and have demonstrated a commitment as an environmental steward. The EEC-A can also serve as the foundation for your EEC-P, a certification that is recognized by employers as proof of your commitment and ability as a leader in EE.

MAEOE encourages *anyone* who currently teaches about the environment, or who has an interest in teaching about the environment, to become a certified environmental educator and complete the full EEC-Professional program. This is what will separate you as a leader in the EE field. The EEC-A is an associate's program meant for those who are looking for a professional development credential that is not as extensive as the EEC-P or cannot attain the professional status for whatever reasons. You may decide after pursuing the professional-level EEC that the EEC-Associate is a better fit for your needs. With either program, you can feel proud of your accomplishments and know you are making a positive difference in EE.

REQUIREMENTS

You may consider yourself a formal, nonformal, or informal educator – it does not matter for our programs. You are likely an educator or educator's assistant. You may teach or want to teach in public or private sectors of education. Examples of professions that may be interested in the EEC-A or EEC-P include, but are not limited to, preK-12th grade schoolteachers, homeschool parents, college professors, nature center employees, state park naturalists, museum educators, zoo employees, and community educators.

The requirements for entering either of MAEOE's EE programs involve you wanting to protect or restore the environment and to share what you know with others. From there, decide which program is right for you. For the EEC-A, you will complete the Strand 1's EE intensive workshop, Strand 2's EE professional development and lesson plan creation, and then you will fulfill the 30 hours of EE stewardship service hours.

Comparing the EEC-A to the EEC-P. We encourage you to take the time to review both Associate and Professional programs. Choose what makes sense for your professional development needs. Realize that you can use any of the work that you have already done (e.g., EE workshops, research, environmental projects/programs) if it has been done *within five years* of when you want to finish your EEC-A/EEC-P. Visit the MAEOE website for further comparisons.

	EEC-A	EEC-P
Strand 1	• 3-hr workshop (in-person, online, or hybrid; offered 1-3 times per year) • Online discussion & reflection requirements	• 3-hr workshop (in-person, online, or hybrid; offered 1-3 times per year) • Online discussion & reflection requirements
Strand 2	• 2 EE workshops • 1 lesson plan	• 2 EE workshops • 1 lesson plan • Implement, assess, reflect on lesson
Service Hours	• 30 hours (environmental stewardship & education design, planning, support efforts) • Reflection	• N/A
Strand 3	• N/A	• An Informational Paper
Strand 4	• N/A	• The Action Project
Strand 5	• N/A	• Presentation at MAEOE Conference
Fee	• $75	• $150
Time Frame	• 5 years	• 5 years
Recognition	• Acknowledged at MAEOE Conference Awards Ceremony	• Presented certification at MAEOE Conference Awards Ceremony • Acknowledged on MAEOE website • NAAEE Recognized/Accredited • Eligible for EEC Committee service • 1-year MAEOE membership
Recertification	• MAEOE member, 15 hours professional development, 15 hours EE stewardship service (for the environment or in education), $20	• MAEOE member, evaluations, EEC service, 30 hours professional development, MAEOEgram article, MAEOE Conference presentation, $35

Strand 1: Environmental Awareness, Basic Knowledge, and Skills in EE

Strand 1 is the same for the EEC-A and the EEC-P. The official onset of the EEC-A process occurs when MAEOE offers a new cohort opportunity and receives payment from you to begin the program. Potential in-person or online, 3-hour workshop dates are listed later in this document and will be advertised on the MAEOE website. *Upon receipt of payment, you will gain access to the EEC online portal where all requirements will be uploaded.*

Strand 1 is based on the NAAEE *Guidelines for the Professional Development of Environmental Educators*. As an EEC-A candidate, you will develop proficiency in the following areas:

- □ Environmental Awareness and Basic Knowledge
  Key topics will include:
  1. Michigan natural history
  2. Natural resource health and management in Michigan
  3. History of EE, with an emphasis in Michigan EE

- □ Building Skills in EE
  Key topics will include:
  1. Locating and evaluating trustworthy, scientific EE resources
  2. Advocacy vs. education
  3. Analyzing relevant local environmental concerns
  4. Teaching toward different learning styles
  5. Best practices when teaching outdoors
  6. Assessment and evaluation in EE

The topics will be introduced in an in-person or online 3-hour Strand 1 workshop, reinforced in the online coursework, and demonstrated throughout the EEC-A program. Refer to the EEC-A online classroom information, the MAEOE website (maeoe.com), and MAEOE Facebook (facebook.com/maeoe.mi/) and Instagram (maeoe_mi) pages often for EEC-A/EEC-P opportunities such as Strand 1 workshop dates and other EE professional developments. Strand 1 workshops may occur 1-3 times per year based on demand.

Assessments of Strand 1 may include but are not limited to the following: open dialogue, question and answer session, written reflections, possible short presentation, class demonstration or activity during the workshop. Online, you

will have readings and brief videos, short assessments and activities, and discussions with fellow EEC-A/EEC-P participants.

Also, online, you will complete the Environmental Educator Self-assessment (Appendix A) at the beginning and end of the EEC-A experience and will submit the application information to help us understand our participants and for reporting purposes to NAAEE. Pursuing the EEC-A program signifies agreement to the Environmental Educator Code of Ethics (Appendix B).

Strand 2: Attending EE Professional Development Workshops & Creating a Lesson Plan

To complete Strand 2, you will attend at least two EE professional development (PD) workshops and create a unique lesson plan.

You will need to seek out the EE workshops on your own time - many of which will be advertised to MAEOE members and EEC-A/EEC-P participants. Workshops attended before starting the EEC-A program can be used toward this requirement as long as it was taken within five years of when you would like to have the EEC-A completed. When in doubt regarding the applicability of Strand 2 workshops, please contact the Coordinator for approval (EECmaeoe@gmail.com).

Record all the types of workshops attended, when, where, and with whom (see Appendix C). Examples of acceptable PD workshops are listed below:

- One of the EE PD workshop options must include a Michigan-based program such as one of the Michigan Environmental Education Curriculum Support (MEECS) focus areas or an Academy of Natural Resources (ANR) track.

- For the second EE PD workshop, other options include, but are not limited to Project WILD, Project WET, Project Learning Tree, NAAEE Guidelines for Excellence Trainings, and the Leopold Education Project. Check these workshop websites for further information.

In addition, you must plan a unique EE lesson based on the workshops attended and their local environmental interests while also considering the audience they wish to work with in the future. Carrying out the lesson is not required but it should follow the template in Appendix D. Ideally, the lesson plan would relate to at least one of the service projects worked on in the next section.

All materials, workshop details and lesson plan, will be submitted within the online classroom for further review by the EEC-A (EEC) Committee. The completion and approval of these documents are required prior to submitting for program clearance (see Fees and Timeline).

EE Stewardship Service Hours & Reflection

Stewardship is when we take care of something in the long-term. Environmental stewardship is when people act in a way to protect their natural resources. Ideally, this is a lifelong behavior. With an EEC-A or EEC-P, candidates are not only developing this mindset but they are also sharing information and activities with others. This can lead to making a positive difference in the local environment and community. The EEC-A's EE stewardship service hour requirements are as follows.

The service hours must be done through an organized event carried out by an organization, school, or agency. You will record the date, event, location, partners, activities, hours volunteered, verification, and a reflection of the experience (see Appendix E). A total of at least 30 hours are required.

Activities must be from both categories below that include an initiative in environmental stewardship *and* education efforts for the environment. There is no minimum number of hours for either focus area. If an event of interest does not appear on our list, then the participant must contact the Coordinator for approval (EECmaeoe@gmail.com).

Environmental Stewardship	Education Efforts for the Environment
• *Invasive species inventories* • *Invasive species removal* • *Native plantings* • *Community gardening* • *Stream/Lake monitoring (macroinvertebrates/chemistry)* • *Bird migration inventories or bird banding* • *Litter pick-up* • *Composting start-ups* • *Recycling volunteer* • *Sustainable living installations*	• *Small teaching/leadership roles in EE workshops, school events, outreach programs, community service events* • *Organizing and preparation for EE events* • *Assisting during EE events* • *Creating EE material for events, surveys, or reports*

FEES AND TIMELINE

Monetary expectations and timeframes are shared in this section to help you plan your EEC-A program's path.

Fee: The cost of the EEC-A is $75 and you will pay this upon registration for the program. This payment will cover the costs of maintaining quality engagements and resources and helps ensure the sustainability and success of the program. An additional $75 is due if you decide to pursue the full EEC-Professional program. Contact the EEC Coordinator for further information and guidance (EECmaeoe@gmail.com).

Timeline: A candidate has up to 5 years to complete the EEC-A process. For example, identify when you want to complete the program entirely, and work back from that end date. From another perspective, add five years to the year you paid your registration fee for Strand 1.

Strand 1 of the EEC-A will be offered in a cohort format. To formally enter the EEC-A program, you must register during times when new participants are being accepted. This will be announced on the MAEOE website, social media, and

listserv. Becoming a member of MAEOE will help ensure you do not miss EEC-A or EEC-P opportunities.

Completing the Strand 1 requirements before anything else will help with defining the program and laying the foundation for a successful and efficient journey through the EEC-A process. Your participation in Strand 1 functions as your commitment to the program. Strand 1 culminates with your participation in the workshop, completion of the online discussions pertaining to NAAEE Themes 1-6, and a summary submitted online of what you learned from the themes. Remember, workshops, lessons, and EE stewardship service hours can be used toward the EEC-A program if they occurred within five years from your end date.

Strand 1 workshops *may* be offered during the following times to meet the demand for the program. NOTE: The workshop may occur in-person, online, or in a hybrid format. Actual dates for this calendar year are posted on the MAEOE webpage under the EEC tab or will be determined.

> **March**: as a pre-conference workshop at/near the MSTA Conference (Michigan Science Teachers Association) - location rotates between Grand Rapids, Lansing, and Detroit areas. There are EE PD workshops often offered during the conference to help fulfill EEC's Strand 2.
>
> **July**: as a pre-Academy of Natural Resources (ANR) workshop at the RAM Center on Higgins Lake in Roscommon. Typically, you do not need to be registered for ANR to attend (however, ANR does fulfill a portion of Strand 2).
>
> **September/October**: as a MAEOE conference workshop (location varies around the state). Also, Strand 2 workshops are offered at the conference.

Finishing Up: Recognition of people who have completed the EEC-A will be done during the MAEOE Conference's Award Ceremony. To be considered for the EEC-A recognition, all requirements need to be completed and materials must be submitted in the online classroom by August 1st to be finished by the fall conference.

APPENDIX A: MAEOE'S ENVIRONMENTAL EDUCATOR SELF-ASSESSMENT

At the beginning and at the end of your EEC-A journey, you will complete the following assessment. Once accepted into the program, you will submit your pre- and post-program results in the EEC-A online portal. Appendix A serves as an orientation to the expectations of every environmental educator.

Self-Assessment for Environmental Educators is based on the *Guidelines for the Preparation and Professional Development of Environmental Educators* from the North American Association for Environmental Education (NAAEE).

Purpose: Use the scores on this self-assessment to help you determine which areas you need to emphasize in your professional development experiences toward earning MAEOE's EEC-A. This document is for your own records. You will complete another self-assessment online as part of your requirements.

Scoring: Score yourself based on your current perception of your abilities for each guideline using the following rating system:

4 = exemplary
3 = proficient
2 = needs improvement
1 = no knowledge of this guideline

Self-Assessment Averages: After completing the self-assessment on the following pages, place your averages for each theme on the corresponding lines below to provide yourself with a quick reference to your results. Spaces are provided for your averages before beginning the EEC-A program and the averages at the end.

NAAEE Theme #	Topic	Self-Assessment Averages	
Theme 1:	Environmental Literacy	Pre:	Post:
Theme 2:	Foundations of Environmental Education		
Theme 3:	Professional Responsibilities of the Environmental Educator		
Theme 4:	Planning and Implementing Environmental Education		
Theme 5:	Fostering Learning		
Theme 6:	Assessment and Evaluation		

For the NAAEE themes described below, enter your score (1-4) for each guideline on the line provided. Calculate your average for each section to determine an overall score for that theme topic. You will then place the average for each theme on page one for easy reference to your self-assessment results.

4 = exemplary 3 = proficient 2 = needs improvement 1 = no knowledge

Theme 1: Environmental Literacy

Guideline 1.1: Questioning, analysis and interpretation skills

- Willingness and ability to ask questions about the surrounding world, speculate and hypothesize, seek and evaluate information, and develop answers to questions.
- Familiarity with some basic modes of inquiry, a mastery of fundamental skills for gathering and organizing information, and an ability to interpret and synthesize information and communicate explanations.
- Pre-Score _____ Post-Score _____

Guideline 1.2: Knowledge of environmental processes and systems

- Understand the processes and systems that comprise the environment, including human systems and their influences.
- Knowledge synthesized from across the traditional disciplines (especially the natural and social sciences) and includes knowledge about the Earth as a physical system and living environment.
- Pre-Score _____ Post-Score _____

Guideline 1.3: Skills for understanding and addressing environmental issues

- Able to learn about, evaluate, and act on environmental issues.
- The skills and knowledge outlined in the first two guidelines (1.1, questioning, analysis, and interpretation skills; and 1.2, knowledge of environmental processes and systems) are applied and refined in the context of these issues—the real-life dramas where differing viewpoints and interpretations of data about environmental problems and their potential solutions are played out.
- Pre-Score _____ Post-Score _____

Guideline 1.4: Personal and civic responsibility

- Environmental literacy is activated by individual commitment.
- Motivated and empowered to act on their own informed conclusions about what should be done to ensure environmental quality.
- In developing and applying concept-based learnings and skills for inquiry, analysis, and action, an understanding exists that what is done as individuals and in groups makes a difference.
- Pre-Score _____ Post-Score _____

Theme 1 Pre-Average _____ Post-Average _____

Theme 2: Foundations of Environmental Education

Guideline 2.1: Fundamental characteristics and goals of environmental education - Educators understand environmental education as a distinct field and know its defining characteristics and goals.

- Identify the goals and objectives of environmental education as laid out in founding documents of the field such as the Belgrade Charter (UNESCO-UNEP, 1976) and Tbilisi Declaration (UNESCO, 1978), as well as in more recent definitions such as Agenda 21 (UNCED, 1992).
- Describe the broad view that environmental education takes of "environment," incorporating concepts such as systems, interdependence, and interactions among humans, other living organisms, the physical environment, and the built or designed environment.
- Discuss environmental education as an interdisciplinary field and provide examples of ways in which it draws on and integrates knowledge from across academic disciplines.
- Identify major components of environmental literacy. Discuss influences that have contributed to the evolution of these concepts, such as work done by Charles Roth, Harold Hungerford, R. Ben Beyton, and Rick Wilke.
- Relate environmental education's focus on environmental literacy and citizenship with the need to provide opportunities for learners to enhance their capacity for independent thinking and effective, responsible action.
- Pre-Score _____ Post-Score _____

Guideline 2.2: How environmental education is implemented - Educators understand that environmental education takes place in a variety of settings and that sources of support, program requirements, and other factors vary from context to context.

- Identify a range of individuals, organizations, and agencies delivering environmental education programs, including formal and non-formal programs.
- Identify efforts to link formal and non-formal programs through partnerships and other collaborations.
- Discuss how school policies, state or local mandates for environmental education, and federal legislation influence environmental education efforts.
- Describe a variety of national, regional, state, and local environmental education programs and support services, including funding sources and resources.

- Pre-Score _____ Post-Score _____

Guideline 2.3: The evolution of the field - Educators are familiar with how the field of environmental education has changed over time and continues to change.

- Discuss how educational movements, including progressive education, nature study, outdoor education, conservation education, and ecology education, contributed to the development of environmental education and how they differ from environmental education.
- Discuss how the work of bodies such as the Brundtland Commission (Brundtland, 1987), the United Nations Conference on Environment and Development (UNCED, 1992), the International Conference on Environment and

Society (UNESCO 1997), and the World Summit on Sustainable Development (2002) has influenced—or might influence—environmental education.
- Describe specific findings from environmental education research and discuss their effect on how environmental education might be perceived, defined, or practiced.
- Identify current and emerging issues in the field of environmental education. For example, evaluate assertions that environmental education focuses more on advocacy rather than education and discuss how these assertions are affecting environmental educators and education programs.
- Describe how specific environmental education research findings have informed the educator's own perspective.
- Pre-Score _____ Post-Score _____

Theme 2 Pre-Average _____ Post-Average _____

Theme 3: Professional Responsibilities of the Environmental Educator

Guideline 3.1: Exemplary environmental education practice - Educators understand their responsibility to provide environmental education that is appropriate, constructive, and aligned with the standards of the field.

- Identify ways in which environmental education can be used as a tool for meeting curriculum standards and addressing education reform goals. Identify and practice ways in which educators can enhance these links in their work.
- Assess the role of partnerships with community members and organizations, government agencies, businesses, the formal and nonformal education systems, and others in providing environmental education that is appropriate and helpful to the community.
- Model responsible, respectful, and reasoned behavior during instruction.
- Model the process of inquiry and application of environmental investigations in instruction.
- Pre-Score _____ Post-Score _____

Guideline 3.2: Emphasis on education, not advocacy - Educators understand that their commitment as environmental educators is to provide accurate, balanced, and effective instruction—not to promote a particular view about environmental conditions, issues, or actions.

- Identify and implement instructional techniques for presenting differing viewpoints and theories in a balanced manner and identifying potential sources of bias in information.
- Differentiate among instructional materials based on their factual accuracy. Select and use materials that together present a range of differing viewpoints, ethical positions, and interpretations where there are differences of opinion or competing scientific explanations. Weigh evidence regarding environmental problems based on validity of data (e.g., from scientific societies or reputable journals).

- Identify and implement instructional strategies and techniques that encourage learners to explore different perspectives, form their own opinions, and explain their beliefs.
- Pre-Score _____ Post-Score _____

Guideline 3.3: Ongoing learning and professional development - Educators are aware of the need to be active learners in their professional lives.

- Identify and practice ways of continually updating information about the environment and issues, current research, environmental education materials, and instructional methods. For example, critically read scientific journals or join and actively participate in local, state, national, or international organizations associated with environmental education, or participate in a professional certification program.
- Identify and develop relationships with mentors, advisors, and others who challenge educators to expand and upgrade their knowledge and skills and expand their firsthand understanding of different points of view about environmental issues.
- Reflect on and learn from personal practice as an environmental educator, both individually and with other professionals and colleagues. Use tools such as peer coaching, portfolios, and journals.
- Seek out opportunities to learn essential content and skills in real-world environmental settings or contexts, especially within the communities and ecosystems in which one lives and teaches.
- Learn and use research and analytical skills to expand existing knowledge about the environment, related issues, and environmental education.
- Pre-Score _____ Post-Score _____

Theme 3 Pre-Average _____ Post-Average _____

Theme 4: Planning and Implementing Environmental Education

Guideline 4.1: Knowledge of learners - Educators know how to tailor instructional approaches to meet the needs of, yet challenge, different learners.

- Identify and model methods for presenting the environment or environmental issues in appropriate and engaging ways for learners of different ages, backgrounds, levels of knowledge, and developmental abilities. (This range may include adults, especially for educators in nonformal settings.)
- Select environmental education materials and strategies that are developmentally appropriate for a designated age or level of knowledge. Adjust these to respond to individual differences among learners.
- Demonstrate an understanding of learning theories such as multiple intelligences and learning styles. Organize environmental education instruction to accommodate different approaches to learning.
- Apply theories of cognitive and moral or social development in creating an environmental education instructional plan for a particular grade level, class, or group.

- Recognize and acknowledge the validity of varying cultural perspectives present in groups of learners. Tailor instructional approaches to respond to these perspectives and use them as an educational resource.
- Pre-Score _____ Post-Score _____

Guideline 4.2: Knowledge of instructional methodologies - Educators are familiar with and can employ a range of instructional methods that are particularly suited to environmental education.

- Select among relevant environmental topics and issues for study based on learners' interests and their ability to construct knowledge to gain conceptual understanding.
- Use a variety of teaching methods and strategies appropriate for the environmental education content and context.
- Select instructional methodologies based on learning objectives, learner characteristics, time requirements, involvement of community members, community dynamics and policies, available resources, and the instructional setting.
- Pre-Score _____ Post-Score _____

Guideline 4.3: Planning for instruction - Educators can plan age-appropriate environmental education instruction and programs that meet specific instructional goals.

- Produce a plan for environmental education instruction and demonstrate how the plan and specific elements (such as plans for units of instructional or daily activities) enhance coordination or integration across disciplines or help meet specific goals of environmental education.
- Develop a plan for a coherent, focused environmental education program that is consistent with the content outlined in *Excellence in Environmental Education—Guidelines for Learning (K–12)* or comparable expectations for adults.
- Demonstrate how plans for environmental education instruction will help learners meet relevant national, state, and local educational standards for learning performance in specific disciplines.
- Pre-Score _____ Post-Score _____

Guideline 4.4: Knowledge of environmental education materials and resources - Educators are aware of a range of materials and resources for their environmental education efforts and understand how to access, evaluate, and use these resources.

- Identify and evaluate materials and education resources using criteria such as those suggested in *Environmental Education Materials: Guidelines for Excellence*.
- Demonstrate ways in which the community can be a resource for environmental education, identifying local businesses, service organizations, government agencies, nonprofit organizations, and others that may participate in and support instructional programs.
- Identify and use sources of information about instructional materials and other resources including training offered by national, state, and local environmental education programs and professional organizations.

- Use the internet to identify and access sources of information about the environment, particular issues, and educational resources. Critically evaluate the usefulness of resources found on the internet.
- Pre-Score _____ Post-Score _____

Guideline 4.5: Technologies that assess learning - Educators are familiar with a range of technologies available to assist student learning.

- Use a variety of tools for environmental observation, measurement, and monitoring (e.g., magnifying glasses, chemical tests, hygrometers, surveys and interview techniques, traffic counts) and instruct learners in their safe and proper use.
- Demonstrate proficiency with technologies used to display, analyze, and communicate environmental information.
- Identify sources of expertise about unfamiliar learning technologies and learn from them or incorporate this outside expertise into instruction.
- Pre-Score _____ Post-Score _____

Guideline 4.6: Settings for instruction - Educators understand the importance of a safe and conducive learning environment both indoors and outside.

- Demonstrate a concern for learner safety in designing, planning, and implementing instruction, especially experiences that are hands-on or that take place outside the classroom. Attend to the physical layout and maintenance of the learning facility or center so learners can use it safely and effectively.
- Identify, create, and use diverse settings for environmental education, appropriate to different subject matter and available resources. These may include the school yard, laboratory, field settings, community settings, museums, zoos, demonstration sites, and other places.
- Identify or develop and implement responses to real or perceived barriers to using expanded settings (such as outdoor settings) in educational and safe ways.
- Plan and implement instruction that first links content to learners' immediate surroundings and Self-Assessment for Environmental Educators experience, then expands learners' horizons as appropriate to larger environmental issues and contexts.
- Pre-Score _____ Post-Score _____

Guideline 4.7: Curriculum planning - Educators are familiar with ways of including environmental education in the curriculum.

- Describe basic approaches to creating a developmentally appropriate scope and sequence for environmental education curricula.
- Develop an environmental education program designed to meet the educational goals of an agency or other institution using criteria such as those outlined in *Nonformal Environmental Education: Guidelines for Excellence*.
- Develop a plan for integrating environmental education into the formal school curriculum, either across the curriculum or as a separate course or emphasis within one or more areas of study.
- Demonstrate links between environmental education curricula (or plans for integrating environmental education into an existing curriculum) and national,

state, or local standards in disciplines such as science, mathematics, social studies, geography, and language arts.
- Correlate environmental education with state education standards in a particular discipline or grade level.
- Pre-Score _____ Post-Score _____

Theme 4 Pre-Average _____ Post-Average _____

Theme 5: Fostering Learning

Guideline 5.1: A climate for learning about and exploring the environment - Educators understand how to create a climate in which learners are intellectually stimulated and motivated to learn about the environment.

- Relate the idea of lifelong learning to instructional practices that engage learners in taking responsibility for their own learning and expectations for achievement. Demonstrate proficiency with these practices in instructional settings.
- Imbue instruction with a sense of the importance and excitement of the content.
- Provide opportunities for experiences that increase learners' awareness of—and enthusiasm for—the natural and human-designed environment.
- Incorporate opportunities for learners to have firsthand experiences exploring the world around them.
- Discuss why fostering clear and independent thinking is important considering environmental education's goal of developing environmentally literate citizens.
- Identify and use instructional techniques that encourage learners to ask questions and explore a variety of answers.
- Pre-Score _____ Post-Score _____

Guideline 5.2: An inclusive and collaborative learning environment - Educators know how to maximize learning by fostering openness and collaboration among learners.

- Identify and use ways to encourage flexibility, creativity, and openness, considering the assumptions and interpretations that influence the conclusions that learners and others draw about the environment and environmental issues.
- Relate learners' capacity for collaborative work to their ability to function as responsible and effective citizens. Describe and implement management techniques that foster independent and productive group work.
- Include diverse cultures, races, genders, social groups, ages, and perspectives with respect, equity, and an acknowledgment of the value of such diversity. Use diverse backgrounds and perspectives as instructional resources.
- Pre-Score _____ Post-Score _____

Guideline 5.3: Flexible and responsive instruction - Educators know how to augment proper planning with the flexibility that allows them to take advantage of new instructional opportunities.

- Modify instructional plans and approaches, when appropriate, to take advantage of unexpected opportunities (e.g., new developments in community issues, recent events or phenomena that are in the news, or breakthroughs in scientific understanding) and learner questions and interests.
- Blend a variety of instructional methods and activities to meet instructional objectives. Make smooth transitions from one to another.
- Work collaboratively with other instructors and discipline areas, adapting instructional approaches as needed to blend or complement instructional styles and to meet shared environmental education goals.
- Pre-Score _____ Post-Score _____

Theme 5 Pre-Average _____ Post-Average _____

Theme 6: Assessment and Evaluation

Guideline 6.1: Learner outcomes - Educators understand the importance of tying assessment to learning.

- State expected learner outcomes that are tied to the goals and objectives of environmental education.
- Identify national, state, and local standards that apply to stated learner outcomes and link assessment of environmental education learnings to these.
- Develop and use a variety of strategies for assessing learning outcomes that reflect both subject area standards and environmental education goals and objectives.
- Describe and use means for engaging learners in setting their own expectations for achievement. Discuss the importance of these abilities considering environmental education's emphasis on learner-centered education and lifelong learning.
- Pre-Score _____ Post-Score _____

Guideline 6.2: Assessment that is part of instruction - Educators are familiar with ways of incorporating assessment into environmental education.

- Make objectives and other expectations clear to learners at the outset of an environmental education activity or instruction.
- Provide examples of and implement specific performance-based assessments such as portfolios, open-ended questions, oral reports, group or independent research, or other projects appropriate to environmental education instruction.
- Identify and use techniques that assess learners' baseline understandings and skills at the beginning of environmental education programs, lessons, units, and other segments of instruction such as school terms.
- Develop formative and summative assessment tools appropriate to specific environmental education instructional segments or projects.
- Discuss the importance of and identify techniques for encouraging learners to assess their own and others' work. Use these assessments to improve their learning experiences.
- Pre-Score _____ Post-Score _____

Guideline 6.3: Improving instruction - Educators know how to use their instructional experiences and assessments to improve future instruction.

- Organize, interpret, and use the results of differing kinds of assessment to help modify and improve future instruction.
- Demonstrate a willingness and ability to collect additional information from and about learners to help modify and improve future instruction.
- Seek out opportunities to reflect, individually and with colleagues, on their own instructional practices and the broader practice of environmental education within the field.
- Pre-Score _____ Post-Score _____

Guideline 6.4: Evaluating programs - Educators understand the importance of evaluating environmental education programs and are familiar with basic evaluation approaches.

- Discuss how program evaluation, including needs assessment, formative evaluation, and summative evaluation, contributes to program design and implementation.
- Differentiate among program outputs, outcomes, and impacts and explain how they relate to program goals and objectives.
- Describe reasons for evaluating environmental education programs.
- List a variety of data collection methods used in environmental education program evaluation.
- Develop a plan for integrating evaluation into the overall program design process using criteria such as those suggested in *Nonformal Environmental Education Programs: Guidelines for Excellence*.
- Pre-Score _____ Post-Score _____

Theme 6 Pre-Average _____ Post-Average _____

For your records, provide the theme averages scored on the first page of Appendix A. You will submit these scores in the online classroom.

APPENDIX B: MAEOE'S ENVIRONMENTAL EDUCATOR ASSOCIATE (EEC-A) CODE OF ETHICS

As a practicing and future certified environmental educator in Michigan, you are agreeing to accept the following code of conduct. By pursuing the EEC-A and completing all the requirements, you are thereby agreeing to the statement of purpose and standards set forth below.

Statement of Purpose

The environmental educator shall comply with standard practices and ethical conduct toward students, professional colleagues, school officials, parents, program participants, members of the community, whatever their age or development level, and shall safeguard academic freedom. The Michigan environmental educator, in maintaining the dignity of the profession, shall respect and obey the law, demonstrate personal integrity, and always exemplify honesty. In exemplifying ethical relations with colleagues and professional organizations, the Michigan environmental educator shall extend just and equitable treatment to all members of the profession. In accepting a position of public trust, the Michigan environmental educator shall measure success by the progress of each student toward the realization of his or her potential as an effective member of the community. In fulfilling responsibilities in the community, the Michigan environmental educator shall cooperate with parents and other community members to improve the educational opportunities throughout the community.

Standards

(1) Ethical Practices and Intellectual Responsibility

a. The educator shall strive to avoid situations where a conflict of interest may arise
b. The educator shall work towards promoting competence in the field of environmental education by supporting high standards of education, performance, and employment practices
c. The educator shall subscribe to the highest standards of integrity and conduct
d. The educator shall strive to increase knowledge and skills towards involvement in resolving environmental issues
e. The educator shall facilitate the communication of facts relating to the environment and environmental issues
f. The educator shall accurately and adequately represent facts and research results, refraining from basing decisions on personal beliefs, political pressures, or client/supervisor pressures
g. The educator shall provide the most balanced and factual information possible about the environment
h. The educator shall make an effort to become familiar with new research in field of environmental education and keep informed of new trends within the field as they arise
i. The educator shall make it a priority to promote education while refraining from advocating personal views and beliefs

(2) Professional Performance and Conduct

a. The educator shall submit only honest and accurate requests for reimbursement, expenses, and pay
b. The educator will use monies, personnel, property, and equipment committed to his or her charge according to accepted ethical standards
c. The educator shall maintain accurate and honest records
d. The educator shall comply with all state regulations, written school board policies, and other applicable state and federal laws
e. The educator shall apply for, accept, offer, or assign a position or a responsibility only on the basis of professional qualifications
f. The educator shall not knowingly engage in deceptive practices regarding official policies of the local school district or institution
g. The educator shall put forth maximum effort in the best interest of each client/employer, regardless of the degree of remuneration
h. The educator shall uphold the dignity and integrity of the environmental education field by endeavoring to avoid even the suspicion of dishonesty, fraud, deceit, misrepresentation, or unprofessional demeanor
i. The educator shall cooperate fully with other professionals in the best interests of environmental education
j. The educator shall refrain from injuring the reputation of another environmental educator or environmental organization through the use of false, biased, or otherwise undocumented claims
k. The educator shall not make false, misleading, or deceptive statements regarding personal qualifications
l. The educator shall constantly remain aware of how personal belief systems may affect professional activities
m. The educator shall accept responsibility for all behavior and decisions
n. The educator shall possess an adequate basis for professional judgment
o. The educator shall respect fundamental rights, dignity, and worth of program participants, staff, colleagues, etc.
p. The educator shall not accept nor offer gifts, gratuities, tokens, or favors that may impair professional judgment or serve to obtain special advantage
q. The educator shall use institutional or professional privileges only in the appropriate context and not for personal or partisan advantage
r. The educator shall work to encourage the use of sound environmental education principles in management decisions

(3) Ethical conduct towards professional colleagues

a. The educator shall maintain confidentiality concerning matters of health and personnel information concerning colleagues unless disclosure serves a lawful purpose or is required by law
b. The educator shall adhere to written policies and state and federal laws regarding hiring, evaluation, and dismissal of personnel
c. The educator shall insure that a colleague’s exercise of political, professional, or citizenship rights and responsibilities are not restricted
d. The educator shall not discriminate against or coerce a colleague on the basis of race, color, religion, national origin, age, sex, disability, or family status

e. The educator shall not use coercive means or promise of special treatment in order to influence colleagues or professional decisions
f. The educator shall support fair and uniform standards of employment and treatment of those professionally engaged in environmental education
g. The educator shall not retaliate against any individual who has filed a complaint under these standards

(4) Ethical conduct towards students and the learning environment

a. The educator shall maintain confidentiality concerning students unless disclosure serves lawful professional purposes or is required by law
b. The educator shall not knowingly treat a student in a manner that adversely affects the student's learning, physical health, mental health, or safety
c. The educator shall not deliberately or knowingly misrepresent facts regarding a student
d. The educator shall not exclude a student from participation, deny benefits to a student, or grant advantages to a student on the basis of race, color, sex, disability, national origin, religion, or family status
e. The educator shall not furnish alcohol or illegal/unauthorized drugs to any student or knowingly allow any student to consume alcohol or illegal/unauthorized drugs in the presence of the educator
f. The educator shall not engage in physical mistreatment of a student
g. The educator shall not solicit or engage in sexual conduct or a romantic relationship with a student
h. The educator shall be sure that students remain safe
i. The educator shall make sure that students follow directions and use appropriate equipment when necessary
j. The educator shall stay within boundaries, ask property owners before taking students on sites off of school/institution property, and ask property owners before taking anything from the land
k. The educator shall be sure supervision is adequate for the number of students and for the particular study site

(5) Social and Environmental Responsibility

a. The educator shall strive to be sensitive to cultural and individual differences of those they interact with professionally
b. The educator shall recognize education about the environment and human interaction with the environment as their primary goal
c. The educator shall disseminate information to promote understanding of, and appreciation for, the human relationship with the natural environment
d. The educator shall accurately represent the capability of science to resolve environmental problems
e. The educator shall promote EE as positive but realistic manner so as to encourage involvement by other professionals
f. The educator shall obey all laws protecting plants and animals; all living things are to be respected and not injured in any way
g. The educator shall collect a plant/animal only if it can be kept alive during the process of learning from it and if it is then returned it to its natural habitat

h. The educator shall not collect things that may harm program participants
i. The educator should only collect something if there are a lot of them in that place; minimize the number of organisms collected; never collect a rare or endangered species or in a state or national park
j. The educator shall collect something only if something very important and can be learned from it
k. The educator shall avoid making collection the main focus of outdoor activities and should instead focus on the understanding of ecological concepts
l. The educator shall respect fundamental rights, dignity, and worth of the environment

REFER TO THE CODE OF ETHICS AS A REMINDER OF STANDARD PRACTICES AND ETHICAL CONDUCT OF AN ENVIRONMENTAL EDUCATOR.

APPENDIX C: STRAND 2 EE PROFESSIONAL DEVELOPMENT WORKSHOP RECORD

For this aspect of Strand 2, candidates must attend two EE PD workshops within five years of earning their EEC-A. One must be a Michigan-centric workshop. From these experiences, you will develop a lesson plan that fits with one of the activities they took part in for the EE Stewardship Service Hours and is appropriate for their audience.

Provide the following information to signify your completion of the requirements as stated in the official EEC-A document and in the online classroom.

	Provide your information in this column:
Your Full Name	
Email	
Name of EE PD (MI-centric)	
Date When Class was Taken	
Facilitator's Name + Contact Info/Website	
Location of PD	
What was the most meaningful takeaway from the experience?	
Name of 2nd EE PD	
Date When Class was Taken	
Facilitator's Name + Contact Info/Website	
Location of PD	
What was the most meaningful takeaway from the experience?	
LIST OTHER EE PDs from last 5 years	**Date, Location**

APPENDIX D: STRAND 2 LESSON PLAN TEMPLATE

Your lesson plan will be unique to your setting. Although you will have completed two EE professional development workshops in preparation and may have received completed lesson plans, you will tailor a lesson to an audience you spend the most time with and a lesson that could pertain to one of your EE stewardship service events.

Follow the headings and descriptions in either outline provided (i.e., "MEECS Ecosystem Lesson Plan Sample" or the "Sample Lesson Plan") to create a thorough plan of an environmentally focused activity. If you are required to complete lesson plans for your job, please feel free to utilize your own style but ensure these main elements are covered - a title with clarification of topic focus, learning outcomes, alignment to NGSS or other standards, a creative way to pique the audience's interest, enough information to duplicate the lesson, and means for assessment shared.

Completeness is partly how the Committee will evaluate you, along with depth and appropriateness of the application. Remember to tie your lesson to something relevant to your service hours.

The lesson plan will exhibit an environmentally related topic that is experiential and appropriate for your target audience. **Refer to the template provided below and the subsequent page to create a thorough lesson plan. Remember, you are only creating the lesson plan and do not need to execute it.**

MEECS Ecosystem Lesson Plan Sample

Michigan Ecosystems: What Have They Done for YOU Lately?
Access the link below to see how MEECS formats their lesson plans. This is a great example to follow.

https://www.cmich.edu/colleges/se/Geography/Michigan%20Geographic%20Alliance/Environmental%20Education/Documents/MEECS%20EcoBio%20sample%20lessonwm.pdf.

See another lesson plan example on the next page. Feel free to number your responses as you see in the outline and use the bold-faced words as headings.

SAMPLE LESSON PLAN

1. **Title** of Lesson/Project Proposal (attention grabbing).
2. **Topic** - a one-sentence introduction to what the lesson will entail.
3. **Learning outcomes** listed (3-4). Tip: use terms from Bloom's taxonomy to begin each statement.
4. **Duration** of lesson? How long will it take to prepare, implement, and discuss?
5. Intended **audience/grade level**?
6. Align with applicable **Michigan Academic Standards** (K-12) – **at least three standards written in their entirety** (http://www.michigan.gov/mde/0,4615,7-140-28753_64839_65510---,00.html), **Next Generation Science Standards (**https://www.nextgenscience.org/search-standards)**, OR indicate other formal guidelines or standards addressed**.
7. **Materials** needed to complete lesson.
8. **Prior knowledge** students have learned need to be listed or described.
9. **Pre-survey/Pre-assessment** questions (given pre- and post- lesson); this is an assessment of the students' knowledge, attitude, behavior, etc. regarding the topic about to be presented then given to students again or derivation of at the culmination of the lesson. Must be audience appropriate.
10. **Engage** – how will you pique the interest of the intended audience?
11. **Explore** – discuss ways you can help students guide student inquiry of the topic
12. **Presentation** of the lesson/project. Bullet your discussion points of the topic from beginning to the end of lesson – what you expect them to know. Provide details of specific content separately.
13. Age-level appropriate **activity** for audience to partake. Provide a stepwise (numbered) format to explain the relevant, experiential activity for students to conduct to help understand material.
14. **Summary/closing** of lesson/proposal; this is how you will summarize or have students demonstrate understanding.
15. **Teacher notes** to help with setup, discussion, answers, or other things to help with streamlining the lesson.
16. **Post-survey/Post-assessment** – Methods to assess students' knowledge, skills, attitude, behavior, etc. regarding the topic presented to students at the culmination of the lesson. Must be audience appropriate. Indicate how much time has lapsed for post-assessment; you may separate survey/assessment into stages or types (self, graded, formative, summative, etc.); provide on a separate page**.**
17. **Assignment/extensions/guidelines for further learning** for the participants; this is something for students to do after the lesson is finished or to do as homework to extend learning beyond the classroom; provide this idea on a separate page.

APPENDIX E: EE STEWARDSHIP SERVICE HOURS & REFLECTION TEMPLATE

Keep track of your EE stewardship service hours. You will record and submit the date, event, location, partners, activities (environmental stewardship and education efforts for the environment), hours volunteered (30 required), verification (e.g., photos of the event with you present, an event flyer/brochure with your name present, or a written statement/signature from the event organizer), and a reflection of the experience. A digital form will be available in the online classroom, you can create your own digital document, or photograph and upload your written information on the following chart.

EE STEWARDSHIP SERVICE HOURS

Date	Event	Location	Event Partner	Activities (refer to main text in EEC-A document for ideas)		Hours	Verification (links, signatures, etc.)	Reflection Notes (see following template for complete reflection)
				Environmental Stewardship	Education Efforts			

EE STEWARDSHIP SERVICE HOURS REFLECTION TEMPLATE

After completing your 30 EE Stewardship Service Hours, reflect on those experiences by following the outline provided. You will upload this reflection in the online classroom as a written or typed document, or by recording or videotaping your responses. Please follow the numbering below as you reflect. There is no word minimum or maximum – simply answer the questions with thoughtful and complete answers.

1. How many EE events did you participate in for the EEC-A? How many events had an environmental focus? How many were geared toward educational efforts?

2. Identify at least one theme that you recognized in all or many of your events (e.g., related to invasive species, water quality, recycling, same type of audience, you were a leader, you were a creator or assistant, etc.). Was there a reason for the theme(s)? Examples could include that you work or volunteer for the same event organizer, you work in what interests you, or perhaps there is an environmental concern near you or have another vested interest in the initiative.

3. What was your primary role in most of these events? What did you like about your role(s)? What would you like to do differently with your role in the future for similar events?

4. Based on your observations or conversations, do you think other participants learned anything or enjoyed themselves during the events? How engaged were the other participants in the event? What are your ideas for recruiting more people or making more of a positive difference with the event in the future?

5. What are your plans for future EE Stewardship Service Hours?

6. What do you hope the EEC-A does for your personal and professional goals?

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