

## MEEA Certification (new) – A plan aligned with NAAEE Certification Requirements

At a July 2010 meeting, the MEEA board elected to work on aligning MEEA's EE certification program with that of the North American Association for Environmental Education (NAAEE) program. While MEEA is not in a position to have its program accredited by NAAEE, the board believed it was important to have the program ready to be accredited if MEEA got to that stage.

At that meeting, the board broke into work groups to brainstorm the assessments needed to determine successful completion of each of the NAAEE standards. The table directly below shows how the different components of the NAAEE would fit into a revised MEEA program. There are significant differences between this new program and the old program.

Formerly applicants documented participation in workshops and programs (130 hours) and provided examples of teaching activity and an action plan. The new plan relies much more on direct assessment for these items, 1, 2, 3 and 6 - through on-line structured response quizzes, through constructed response exams and papers and through a portfolio. All of these elements need to be developed, an application rubric, the quizzes, the exams and rubrics for the papers and the portfolio. We also need peer reviewers committed to evaluating the portfolios and possibly the papers. This is for two reasons, first, so it doesn't all fall on the executive director and second, so the decisions are perceived to be fair (jury of peers).

Change	Why/Benefits
reducing required workshop and knowledge of resources from 70 + 30 = 100 hours to 30 hours	less dependent on other organizations providing workshops, more flexibility for applicants to complete requirements on their schedule
aligning the program requirements with NAAEE accreditation	we can't afford to apply yet, but we will be ready for it
creating 4 levels of certification <ol style="list-style-type: none"> <li>1. Level 1: application \$10, and 6 quizzes at \$5 each <b>-\$40</b></li> <li>2. Level 2: 3 papers at \$15 each - <b>\$45</b></li> <li>3. Level 3: skills \$0, professional development \$0 and portfolio review <b>\$30</b></li> <li>4. Level 4: free membership for reviewers</li> </ol>	people can get as much certification as they want or think is worth the time and money, leading eventually to having certified volunteers equipped to provide critical feedback to applicants
using a structured, detailed application as the first step	it gets applicants to think about whether this is really what they want to do before investing any money, and they are much more prepared to follow through
using quizzes and papers instead of workshops to assess knowledge	these directly assess environmental content and environmental education content at little cost to MEEA once they are written; applicants can take them for <b>free</b> as many times as they like, when they like; they only pay the \$5 when they want to apply a quiz score to their application
using a structured detailed rubric to write papers demonstrating understanding	these require demonstrating understanding of the field in ways aligned with accreditation
using a portfolio to assess lessons and action planning	similar to, but more detailed compared to the requirements of the original certificate
creating "badges" as a way to show demonstration of specific skills that would be earned similar to how scout badges are earned, by having someone else sign a paper affirming that the skill was demonstrated	these directly assess skills instead of using attendance at a workshop as a proxy, plus they will be colorful and attractive, so people will want to acquire them

I think we should grand-parent completed certifications into the new program, but recertify in three years using requirements that follow the new program. Maybe a current events quiz, a new few skills, 10 hours of pd, something like that

**Time Frame** – Ready, or mostly ready by the October 10 meeting, doable if board commits in the next month or so

**Costs** - \$10 application, \$30 for 6 quizzes, \$45 for 3 exams/papers, \$30 for portfolio review - \$115 total over 3 years.

Documentation – Each accepted applicant would have a webpage set up – [www.meea.org/certification/susan-jones.html](http://www.meea.org/certification/susan-jones.html) – where her or his progress through certification would be recorded. This would be in addition to an electronic record and a paper record. The website could also include links to the applicant’s website, facebook, classroom, project or other page, so it would be a way for folks to show what they are working on and others to explore what other people are doing .

## NEW MEEA Certification Program

Stage	Fee	Components	NAAEE	Who in MEEA is responsible
1. Application and Essay – certification should be completed within 3 years of applying	\$10	Identify his or her own past and present professional development activities, conduct a self-assessment of the degree to which s/he currently meets the core competencies, and create a plan for his or her future professional development identifying a) specific gaps in knowledge or skills and b) 3 different methods to achieve improvement (membership, prof journals, mentoring, conferences, field experiences)	3.3.1	The executive director (ED) receives the application with the essay. If the essay meets requirements, the ED sets up a web page, an electronic file and a paper file for tracking accomplishments The application should meet some minimum standard. Meeting the standard can be determined by the ED or by peers.
2. Structured Response Quizzes – Applicants who take and pass the required quizzes have reached <b>Level 1 Certification</b>	\$5 each – at least 6 quizzes, possibly more	Science; Society; MO Natural & Cultural History; Diff between event, problem, issue; <i>Critical Issues; etc.</i> – 30 questions selected randomly from a test bank, must score 26 right to pass, can take repeatedly, payment is for registering a successfully completed quiz	1.2.1; 1.2.2; 1.3.1	The executive director receives documentation of passing score and \$5 fee and posts on the person’s page, and records the info in the file and paper copies
3. Constructed Response Exams or Papers – Applicants who take and pass the required exams or papers have reached <b>Level 2 Certification</b> and are eligible to prepare and submit portfolios	\$15 each – 3 exams or papers	Compare and contrast 3 invest approaches, 2 scenarios where environmental knowledge is incomplete, analyze 2 sources of info, choose and analyze an issue, including society values, citizen attitudes, justify and critique a course of action. Describe goals, characteristics, histories, policies, persons, movements of EE and how it affects your work, use 2 examples to differentiate between education and advocacy	1.1.1; 1.1.2; 1.1.3; 1.3.2; 1.4, 2; 3.1.2; 3.2	The executive director or peer graders will review the exams or papers and evaluate them using a rubric available to the applicants. Applicants must score 85% to pass and can resubmit once if they don’t pass, using the comments on the rubric to improve their score. Payment is in advance. If they don’t pass, they must wait 6 months before trying again.
4. Demonstrated Skills – these can be worked on as soon as the application is accepted. We might want to consider grand-parenting some the of the skills	\$0	Using the honor system, applicants can acquire virtual badges certifying that they have demonstrated a particular skill. The only required skills 1) are model respectful, reasoned, behavior in 2 presentations and one interaction; 2) demonstrate 3 instructional methods for EE; and 3) demonstrate using teachable moments. Additional skills will/can include conservation skills like fishing and camping, maker skills like cooking and sewing and so on.	3.1; 4.2; 5.3	Applicants will demonstrate their skill in front of a third party who will sign and date a skill sheet – very similar to what scouts do to add badges. When the applicant submits a signed, dated sheet, the ED will post a virtual badge on her/his certification web page and make a notation in the electronic and paper files. Third parties should be knowledgeable about the skill (not sure how to guarantee this)

5. Professional Development – these can be worked on as soon as the application is accepted. We should accept anything taken in the last three years	\$0	Applicants must have attended 30 hours of professional development within 3 years of submitting their portfolio. Professional development should be consistent with the goals established in their application and should help prepare them for the required quizzes, exams, papers and portfolio requirements.	no requirements	Applicants will submit a list of the program name, the provider, the date, the hours and briefly describe what they learned (skill, instructional strategy, etc.)
Portfolio Review – Applicants whose portfolios pass review have reached <b>Level 3 Certification</b> and are eligible to become Portfolio Reviewers	\$30	Applicants must submit a portfolio, following a detailed rubric that includes documentation of the following – approaches for diverse learners, programs aligned to NAAEE Guidelines, evaluations of EE materials, examples of instructional tools, analysis of their teaching environment, description of field experiences, examples of successful integration, strategies for supporting teachers, demonstration of learner interest, relevance of lessons, and where learner background was used, and the use of assessment tools and strategies.	4.1; 4.3-4.7; 5.1; 5.2; 6	Peers who have completed certification review the portfolios of persons in the program. There are 2 reviewers for each portfolio. Reviewers use a detailed rubric to evaluate portfolios and the rubric will be available to the applicant. If reviewers disagree, the portfolio will be sent to a third reviewer.
Portfolio Reviewer –	\$0	Review at least 2 portfolios per year to receive one year’s annual professional membership for free.		After reviewing two portfolios, the executive director extends membership for one year.
Mentor – <b>Level 4 Certification</b>	\$0	After reviewing 5 portfolios, a Level 3 can become Level 4 certified by agreeing to mentor an applicant in the preparation of their portfolio		The executive director assists matching of interested applicants and directors. The mentorship follows a specific protocol

### NAAEE Certification Requirements – so you can match up the colors with the new certification program

1. Environmental Literacy	1.1 Questioning and Answering Skills	1.1.1 Compare and contrast 3 different investigative approaches/methods/modes and apply at least one of them to an environmental topic.
1. Environmental Literacy	1.1 Questioning and Answering Skills	1.1.2 Describe 2 scenarios in which environmental knowledge is incomplete and explain how environmental knowledge continues to change as discoveries are made.
1. Environmental Literacy	1.1 Questioning and Answering Skills	1.1.3 Critically analyze 2 or more sources of information for accuracy and reliability
1. Environmental Literacy	1.2 Knowledge of Environmental Processes and Systems	1.2.1 Demonstrate understanding of processes and systems of a) biological change, b) cycles, physical processes that shape the earth and energy flow, c) biodiversity, d) cultural, political and economic systems, e) human interactions with the environment, f) ecological consequences
1. Environmental Literacy	1.2 Knowledge of Environmental Processes and Systems	1.2.2 Demonstrate knowledge of the certifying state and bioregion's natural and cultural histories
1. Environmental Literacy	1.3 Skills for Understanding and Addressing Environmental Issues	1.3.1 Differentiate between an environmental event, problem and issue

1. Environmental Literacy	1.3 Skills for Understanding and Addressing Environmental Issues	1.3.2 Identify an environmental issue and, for that issue, design a plan to a) investigate, analyze and evaluate its scope, causes and consequences and b) investigate and evaluate alternative solutions
1. Environmental Literacy	1.4 Personal and Civic Responsibility	1.4.1 Describe an environmental issue and various societal values that play a role in it
1. Environmental Literacy	1.4 Personal and Civic Responsibility	1.4.2 Articulate citizen rights and responsibilities, as well as his/her position, with respect to that issue
1. Environmental Literacy	1.4 Personal and Civic Responsibility	1.4.3 Propose and justify a course of action for that issue
1. Environmental Literacy	1.4 Personal and Civic Responsibility	1.4.4 Design a plan to carry out that action
1. Environmental Literacy	1.4 Personal and Civic Responsibility	1.4.5 Critique that plan, to include probable outcomes and consequences
2. Foundations of Environmental Education	2.1 Fundamental Characteristics and Goals of EE	2.1.1 Describe the goals, objectives and characteristics of ee that contribute to making it a distinct field
2. Foundations of Environmental Education	2.2 How EE is Implemented	2.2.1 Identify 2 major national and 2 state EE providers and the resources they offer
2. Foundations of Environmental Education	2.3 Evolution of the Field	2.3.1 Explain the evolution of the field of EE by citing and describing the significance or impact of 2 historical documents, 3 movements (historical and emerging), 2 policies, and 3 individuals in making the field what it is today
2. Foundations of Environmental Education	2.3 Evolution of the Field	2.3.2 Discuss how at least 1 current policy impacts his or her day-to-day work
3. Professional Responsibilities of the Env Educator	3.1 Exemplary EE Practice	3.1.1 Model responsible, respectful and reasoned behavior during 2 presentations and an interaction (committee meetings, activities, communications, etc.) with a local community
3. Professional Responsibilities of the Env Educator	3.1 Exemplary EE Practice	3.1.2 Correlate 2 inquiry-based lessons to national or state academic standards
3. Professional Responsibilities of the Env Educator	3.2 Emphasis on Education, not Advocacy	3.2.1 Illustrate with 2 examples what the differences are between advocacy and education
3. Professional Responsibilities of the Env Educator	3.2 Emphasis on Education, not Advocacy	3.2.2 Identify 2 instructional strategies and 2 curriculum materials/resources (CD-ROMs, videos, posters, books, websites) and explain how they can be used to encourage learners to gain/explore different perspectives, form their own opinions and support their beliefs
3. Professional Responsibilities of the Env Educator	3.2 Emphasis on Education, not Advocacy	3.2.3 Implement one of the instructional strategies s/he identified and explained

3. Professional Responsibilities of the Env Educator	3.3 Ongoing Learning and Professional Development	3.3.1 Identify his or her own past and present professional development activities, conduct a self-assessment of the degree to which s/he currently meets the core competencies, and create a plan for his or her future professional development identifying a) specific gaps in knowledge or skills and b) 3 different methods to achieve improvement (membership, prof journals, mentoring, conferences, field experiences)
4. Planning and Implementing EE	4.1 Knowledge of Learners	4.1.1 Demonstrate or document appropriate instructional approaches that meet needs of diverse learners, taking into account differences in a) cultural and socioeconomic backgrounds, b) age and grade level, c) levels of knowledge and experience, d) special needs and e) developmental abilities
4. Planning and Implementing EE	4.2 Knowledge of Instructional Methodologies	4.2.1 Demonstrate three distinct instructional methods that are particularly suited to EE (see list on p. 14 of Guidelines for Initial Prep of Env Educators)
4. Planning and Implementing EE	4.3 Planning for Instruction	4.3.1 Articulate the scope of what constitutes env knowledge and skills as well as the sequence in which they should be learned by aligning one program's content to the Guidelines for Learning K-12 (adult programs refer to 1. Env Lit of Guidelines for Initial Prep of Env Educators)
4. Planning and Implementing EE	4.4 Knowledge of EE Materials and Resources	4.4.1 List and critically evaluate 2 types of EE materials obtainable from community and corporate organizations, agencies, pd training programs and/or internet (evals should be based on EE Materials: Guidelines for Excellence)
4. Planning and Implementing EE	4.4 Knowledge of EE Materials and Resources	4.4.2 Critically evaluate one state or local EE program (based on Nonformal EE Programs : Guidelines for Excellence)
4. Planning and Implementing EE	4.5 Technologies that Assess Learning	4.5.1 Describe 3 types of instructional tools or technologies and give examples of their safe, effective, appropriate use in instructional settings
4. Planning and Implementing EE	4.6 Settings for Instruction	4.6.1 Analyze one of her/his teaching environments citing 3 ways to address potential safety issues and 3 ways in which the teaching environment is appropriate for the subject matter s/he is teaching
4. Planning and Implementing EE	4.6 Settings for Instruction	4.6.2 Describe 3 field experiences in which s/he has been able to link content to the learners' immediate environment
4. Planning and Implementing EE	4.7 Curriculum Planning	4.7.1 Give 2 examples of how s/he has successfully integrated EE into curricula, programs or an organization's mission
4. Planning and Implementing EE	4.7 Curriculum Planning	4.7.2 Nonformal - Demonstrate strategies for supporting and enhancing teachers' efforts in EE at the P-12 level
5. Fostering Learning	5.1 A Climate for Learning About and Exploring the Environment	5.1.2 Demonstrate the s/he has successfully stimulated learners' interest in the environment

5. Fostering Learning	5.2 An Inclusive and Collaborative Learning Environment	5.2.1 Demonstrate the s/he successfully engaged children/adults in their own learning and provided first-hand, inquiry-based, developmentally appropriate experiences, indicating ways in which they collaborated
5. Fostering Learning	5.2 An Inclusive and Collaborative Learning Environment	5.2.2 Demonstrate that her/his lesson/presentation was relevant and interdisciplinary
5. Fostering Learning	5.2 An Inclusive and Collaborative Learning Environment	5.2.3 Cite 2 instances where s/he used the diverse backgrounds and perspectives of learners not just as a context but also as an instructional resource
5. Fostering Learning	5.3 Flexible and Responsive Instruction	5.3.1 Demonstrate that s/he is able to take advantage of "teachable moments" by being flexible and open to student questions and ideas
6. Assessment and Evaluation	6.1 Learner Outcomes	6.1.1 Demonstrate the use of 2 assessment tools designed to measure cognitive, affective and/or psychomotor outcomes that align with instructional objectives (drawn from state stds and or EE goals and objectives)
6. Assessment and Evaluation	6.2 Assessment That is Part of Instruction	6.2.1 Demonstrate the implementation of one strategy to engage learners in setting their own expectations for learning and evaluating their performances
6. Assessment and Evaluation	6.2 Assessment That is Part of Instruction	6.2.2 Demonstrate how one assessment strategy was used to shape instructional planning and/or delivery
6. Assessment and Evaluation	6.3 Improving Instruction	6.3.1 Demonstrate one example of how assessment and/or evaluation data were used to improve instruction
6. Assessment and Evaluation	6.4 Evaluating Programs	6.4.1 Describe a) one way s/he used evaluation to design or develop an EE program, b) one way s/he used evaluation during program implementation to improve an EE program, c) one way s/he used evaluation to determine the impact of an EE program
6. Assessment and Evaluation	6.4 Evaluating Programs	6.4.2 Display 3 data collection tools and the analysis s/he used to evaluate an EE program