

**BOARD OF REGENTS**  
**EASTERN MICHIGAN UNIVERSITY**

**RECOMMENDATION**

**ADDITION AND DELETION OF ACADEMIC PROGRAMS**

**ACTION REQUESTED**

It is recommended that the Board of Regents approve the addition of two new Academic Programs: an Early Childhood Education Major and an Interdisciplinary Environmental Science and Society Major. It is further recommended that the Board of Regents approve the deletion of two existing degree programs: the Business French Major and the Three Minors (College of Education) Degree Program. We also report to the Board of Regents the deletion of the Business French Minor and the Early Childhood Education Minor.

**SUMMARY**

The attached materials provide the rationale for and contents of two proposed new degree programs: Early Childhood Major (ECE) and Interdisciplinary Environmental Science and Society Major (IESS).

The **Early Childhood Education Major** replaces a minor program in the same area. In the past, the State of Michigan allowed certification of teachers in this area with three academic minors (no subject major) one of which was Early Childhood Education. State standards have changed, requiring additional coursework for a newly constituted endorsement. These additional course requirements-- including expanded Special Education coursework- necessitate the move from the past three minors curriculum to a major (ECE) with only one minor area of study. The new major also provides opportunities to provide additional coursework to students with the previous endorsement who wish to upgrade to the new one. The new endorsement allows graduates to teach in Special Education classrooms as well as general education early childhood settings. The proposed program has been vetted and approved by the Michigan Department of Education and University President's Council. It may be implemented immediately upon Board of Regents approval. Currently enrolled students may only complete and receive the old endorsement through July 2012.

The **Interdisciplinary Environmental Science and Society Major** is a new major program built on a platform of existing science, social science and humanities courses. The proposed program includes a limited number of new courses- all interdisciplinary- designed to help students integrate and apply concepts from these diverse disciplinary perspectives to demands created by environmental change. Tracks within the program allow students to focus on scientific methodologies and applications or on social science/humanities approaches to policy making based on an understanding of environmental science. Program is designed to meet the demand for increased numbers of environmental scientists as well as professionals with a knowledge base in the field combined with policy and non-profit leadership skills.

## **FISCAL IMPLICATIONS**

The Early Childhood Education major would be paid for by shifting enrollments and resources currently invested in the Three Minors (College of Education) Program including those devoted to the Early Childhood Minor. Overall student credit hours and costs remain largely unchanged but would shift across major and minor programs within COE. Failing to move from the minor to major programs would result in EMU losing its ability to certify teachers in this area. There are also opportunities to market the program to individuals who have the previous endorsement who might now be interested in completing the additional focused coursework to obtain the new endorsement.

Given the economies resulting from the program design based primarily on a platform of existing science and policy course sections, the IESS program will require minimal additional resources beyond current expenditures. Nearly all of the credit hours (save 9 hours in the program core courses) in the program should be provided in this manner. We estimate the annual additional instructional cost (plus fringes) to be in the range of \$13,657-\$16,332 annually once the program is fully operational in the third year. Minimal coordination and operating expenses would also be incurred each year in the amount of \$5,375. Following the initial implementation period, additional course sections and coordination expenses would be increased based on student demand for courses and the program. Funds to cover these proposed expenditures will re-allocated from within the Academic Affairs Division.

## **ADMINISTRATIVE RECOMMENDATION**

The proposed Board action has been reviewed and is recommended for Board approval.

\_\_\_\_\_  
University Executive Officer  
President

\_\_\_\_\_  
9/6/2011  
Date

**EASTERN MICHIGAN UNIVERSITY  
DIVISION OF ACADEMIC AFFAIRS**

**OUTLINE FOR SUBMITTING PROPOSALS TO REVISE PROGRAMS**

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Use this outline to prepare proposals to revise existing programs, including undergraduate majors and minors and graduate degree programs and certificates. Proposals for revising programs should be submitted in narrative form, using the following outline. Guidelines are on the following page.

PROGRAM NAME AND SUBJECT CODE: EARLY CHILDHOOD EDUCATION (ECE) \_\_\_\_\_

REVISED PROGRAM NAME AND SUBJECT CODE (IF APPLICABLE): \_\_\_\_\_

DEGREE: \_\_\_\_\_

DEPARTMENT(S)/SCHOOL(S): TEACHER EDUCATION \_\_\_\_\_ COLLEGE(S): EDUCATION \_\_\_\_\_

CONTACT PERSON: KAREN PACIOREK \_\_\_\_\_ CONTACT PHONE: 487-7120 X 2629 \_\_\_\_\_

CONTACT EMAIL: KPACIOREK@EMICH.EDU \_\_\_\_\_

REQUESTED START DATE: TERM FALL \_\_\_\_\_ YEAR 2011 \_\_\_\_\_

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**I. Rationale:** Move from a minor to a major in Early Childhood Education (ECE)

Michigan is one of only five states nationwide without separate teacher certification in early childhood education covering the years from birth through age eight. Students in the State of Michigan who seek expertise in working with young children earn the elementary teacher certification and also complete a minor in early childhood education. The 26 credit hour minor in ECE, along with the appropriate field placements and successful completion of the state subject area test, enable the student to add the early childhood endorsement (coded ZA) to their elementary teaching certificate. Students are also required to have a content/teachable subject major or two other content subject minors along with the early childhood minor. This has been the case since the early 1970s when early childhood first became recognized as a field of study.

As the field evolved and more research became available on the developmental abilities of young children, along with the importance of quality programs for our youngest learners, early childhood education grew. The early childhood program area at Eastern Michigan University has six full-time faculty and has consistently been recognized by the National Association for the Education of Young Children (NAEYC), our NCATE Specialty Professional Association (SPA) at both the initial and advanced level. We are also considered to be a model program by our colleagues throughout the state and country. We have approximately 250 students at the undergraduate level who will be affected by the move from a minor to a major.

There are three key reasons for our proposal to move from a minor to a major: 1. The State changed the elementary teacher certification program requirements, 2. The State approved new standards for the preparation of Teachers for Early Childhood Education which are much more learner focused, (Appendix B) and 3. The State also made a significant reversal in policy and at the September 2008 State Board of Education meeting approved the Standards for the Preparation of Teachers of Early Childhood Education (ZA) and agreed to accept early childhood as a major to complete elementary certification program through option 2 of the elementary certificate standards. Previously, majors could only be subject content areas but the wealth of research on the importance of appropriate early education experiences was the impetus for the change.

The faculty at Eastern Michigan University has taken the lead at the state level in pressing for an approved major in early childhood education and has been very involved in the process for over ten years. The approval of a major means students wanting elementary certification with a focus on the early childhood years from birth through third grade can complete the requirements for elementary certification and take the early childhood major. No additional minors will be required; although the faculty will strongly recommend our students complete a minor in reading which will require an additional three courses. The move from our current 26 hour minor to the proposed 34 hour major will be a relatively smooth transition for students since in completing the current minor; they already take seven of the required proposed ten courses for the new major. The current minor and recommended major programs are presented side by side followed by a complete listing of the classes in the proposed Major (Appendix B.1). Students following the elementary certification program with a major in ECE will actually take fewer credits than they do now to earn the ECE minor. With the recent revision to the elementary program, the ECE program will be 133 credit hours. Currently students take anywhere from 142 credits to 156 credits depending on the major and minors chosen. (Appendix C)

There is new course content that addresses concerns raised by our recent graduates and student teachers related to their program preparation. The feedback from the Unit Assessment System, all NCATE institutions are required to collect, points to a deficiency in specific content on classroom management and guidance, preparation to work with students with special needs as well as interaction with families and co-workers as a developing professional. All three of these areas will be included in new or revised course outlines. (College of Ed. data presented at the Professional Education Advisory Council 10/29/09).

In developing the major we worked closely with community colleges throughout Michigan. Over 50% of our students transfer from community colleges where they most likely completed a two year degree in child development or programs for young children. After much communication we have developed partnerships which will allow students to achieve the Early Childhood content standards covered in our first four courses in the major (ECE 214, 215, 307 and 314) at the community college level and transfer those 12 credits to EMU if they so desire. We sent our course outlines to the Michigan Associates Degree Early Childhood Consortium and have met with faculty from many institutions to assist them in adjusting current courses or developing new ones to allow students to achieve the content standards we address in the first four courses offered at EMU. This is an example of the strong partnership that already exists among faculty at the two levels and will only grow stronger as the major comes to fruition. The new standards align with the new stringent federal requirements for Head Start teachers and teachers in the Michigan Great Start Readiness Preschool program for at risk three and four year olds. Currently lead teachers in those programs are required to only hold an Associate's degree but by 2015 at least one of the teachers must be working toward a bachelor's degree with a major in early childhood education or child development and all lead teachers must have a Baccalaureate degree by 2020. (Appendix E) These additional students will bring additional revenue.

The ECE program area received unanimous approval from the Teacher Education Department on Friday Nov. 13, 2009. We are submitting our proposed major through the college and then the university input system. We must seek approval from the university prior to submitting our proposed major to the state for approval. Our time frame for implementation is to receive internal approval by April 2010 and submit the program to the state in the summer of 2010 so we can be one of the programs used at the reviewer preparation conference in September of 2010. State timeline (Appendix B.2). Associate Dean for the College of Education, Dr. Shawn Quilter, sent an email to Drs. Linda Lewis-White and Dr. Karen Paciorek about the elementary program being in place by October 2013 and the Early Childhood major by October 2012. (Appendix E.1 page 2)

**II. Description of Current Program** see attached (Appendix B.1) The current minor is 26 hours and student must also choose a content teaching major or two other content minors to go along with the minor in ECE. Depending on the major or minors they choose they could take upwards of 156 credit hours.

**III. Proposed Revision** See attached (Appendix C) Students will now be able to only take the major in early childhood education to go along with the elementary teaching program. The program will be 133 credit hours. Students will earn elementary teacher certification, the early childhood endorsement, coded ZA by the state, and the Early Childhood developmentally Delayed approval (ECDD) to work with special needs preschoolers. This approval is in high demand and previously could only be earned by completing a major in special education and the early childhood endorsement. The new major will have much more special education therefore the students will be approved to work with special needs preschoolers.

**IV. Impact:** There will be no affect on other university programs. We did develop a new early childhood/special education course (ECE 451) with full participation of four key faculty from Special Education. (Drs. Brenda Doster, Linda Polter, Bill Cupples and John Palidino. Dr. David Winters, dept. head for Special Education and Dr. Donald Bennion Dept. head for Teacher Education were also kept informed during the process.) The faculty in special Education cannot teach sections we will need of ECE /SPGN 451 so it will be taught in Teacher Education by ECE faculty but cross listed so Special Education students may take the class. (Appendix D)

#### **V. Budget**

We do anticipate requesting additional faculty to cover the new courses and the increase in students we will have as a result of the major being approved. It is our estimation we will need one additional faculty above the six full-time faculty we are currently allotted. We do anticipate an increase in enrollment due to the new requirements for Head Start and Great Start Readiness Teachers to be working toward a Baccalaureate degree by 2015 and by 2020 have a Baccalaureate degree. (Appendix E) This will bring a significant number of new students since few Head Start teachers currently have a Baccalaureate degree. The early childhood program participate in a significant amount of fundraising and has a number of donors who contribute to a program fund for the program area so we do cover expenses related to additional supplies from our program fund.

#### **VI. Action of the Department/College**

##### **1. Department/School:**

Vote of faculty: For 29 Against 0 Abstentions 0  
(Enter the number of votes cast in each category.)

I support this proposal. The proposed revision can \_\_\_\_\_ cannot \_\_\_\_\_ be implemented within the affected Department(s)/School(s) without additional College or University resources.

\_\_\_\_\_  
Department Head/School Director Signature

12-1-09  
Date

## 2. College/Graduate School:

### A. College

I support this proposal. The proposed program can \_\_\_\_\_ cannot \_\_\_\_\_ be implemented within the affected College without additional University resources.

\_\_\_\_\_  
College Dean Signature

04-06-10  
\_\_\_\_\_  
Date

### B. Graduate School (Graduate Program Revisions ONLY)

\_\_\_\_\_  
Graduate Dean Signature

\_\_\_\_\_  
Date

## VII. Approval

\_\_\_\_\_  
Associate Vice-President for Academic Programming Signature

\_\_\_\_\_  
Date

## VIII. Appendices

A. Market Analysis/Needs Assessment

B. Mandates

C. Request for New/Revised Course Forms

D. Letters of Support from Impacted Departments

E. Cost Analysis (Complete only if the revision cannot be implemented without additional University resources. Fill in Estimated Resources for the sponsoring department(s). Attach separate estimates for other affected departments.)

Estimated Resources:	Year One	Year Two	Year Three
Faculty / Staff	\$ _____	\$ _____	\$ _____
SS&M	\$ _____	\$ _____	\$ _____
Equipment	\$ _____	\$ _____	\$ _____
Total	\$ _____	\$ _____	\$ _____

# **APPENDIX "B"**

# Standards for the Preparation of Teachers of

## **Early Childhood Education (ZA)**



Adopted by the Michigan State Board of Education  
September 9, 2008



# **STANDARDS FOR THE PREPARATION OF TEACHERS OF EARLY CHILDHOOD EDUCATION (ZA)**

## **PREFACE**

### **Development of the Proposal**

Due to national and state attention to the needs of high quality programs and instructional opportunities for young children and changes in standards over the last two years, a referent group reflecting the interests of public and independent teacher preparation institutions and K-12 teachers worked on the revision of Michigan's standards for the preparation of teachers of early childhood education. The committee began its work by reviewing the K-12 content standards in the *Michigan Curriculum Framework, Early Childhood Quality Program Standards* and adapting national standards from the National Association for the Education of Young Children. The need for teachers prepared to address the learning of children with developmental delays during the early years prompted the committee to incorporate standards that address the Administrative Rules for Special Education regarding the preparation of teachers.

To provide information and gather feedback on the proposal, a copy was forwarded to selected groups/organizations, all Michigan teacher preparation institutions, and a random sample of intermediate and local school districts for review and comment. As presented in this document, the standards reflect the feedback received.

State Board of Education adoption of these standards typically leads to the revision of the certification test for teachers prepared to teach this content area. Test development for revised Michigan Test for Teacher Certification (MTTC) in Early Childhood Education (ZA) will be scheduled according to the recommendation of the Standing Technical Advisory Council.

### **Approval of Programs**

Teacher preparation institutions that wish to continue to offer programs to prepare early childhood education teachers are required to submit an application for program approval that demonstrates how the new standards are met throughout the proposed curriculum. Candidates in current Early Childhood Education (ZA) programs will have up to two years to complete the old program. The programs must be re-approved to show compliance with the new Early Childhood Education (ZA) standards. Following initial approval, the specialty content program will be reviewed for outcomes through the national accreditation process.

# Standards for the Preparation of Teachers of Early Childhood Education (ZA)

## Content Guidelines/Standards Matrix

College/University

Program/Subject Area Early Childhood Education Code ZA

Source of Guidelines/Standards Michigan State Board of Education, September 2008

Members of the Early Childhood Education Standards Committee recommend the following new requirements for the Early Childhood Education endorsement:

- The Early Childhood Education major or minor may be utilized to complete an elementary certification program through option 2 of the elementary certificate standards.
- Completion of an Early Childhood Education major must include a minimum of 30 semester credit hours.
- Completion of an Early Childhood Education minor must be at least 20 semester credit hours.
- In order to keep a focus on highly qualified elementary teachers, the following core content specialty areas must be evident in the program (Reading, Language Arts, Mathematics, Integrated Science, World Languages, Social Studies, and Fine Arts).
- The Early Childhood Education endorsement may be added to a secondary certificate only in combination with a special education endorsement to allow for employment in an early childhood developmentally delayed placement.
- To add an Early Childhood Education endorsement to an existing elementary certificate, the program must be at least 26 semester credit hours with 14 of those semester credit hours addressing learning related to birth through age 8 children.

**DIRECTIONS:** List required courses on matrix and provide additional narrative to explain how standards are met. If electives are included, they should be clearly indicated. Adjust size of cells as needed.

## PROFICIENCY LEVEL RATINGS

**A – AWARENESS:** Possesses general knowledge of (exposure)

**B – BASIC UNDERSTANDING:** Ability to comprehend and apply (use)

**C – COMPREHENSIVE UNDERSTANDING:** A high level of understanding, application, and reflecting (proficient)

NO#	Guideline/Standard	Level of Proficiency	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
1.0	<p><b>Promoting Child Development and Learning</b></p> <p>Candidates use their understanding of young children's typical and atypical developing characteristics and needs, and of multiple interacting influences on children's development and learning, to create environments that are healthy, respectful, responsive, supportive, and challenging for all children and in alignment with the State Board of Education's Universal Education Vision and Principles.</p> <p><b>The preparation program provides candidates with a variety of opportunities to demonstrate:</b></p>		
1.1	<p>Knowledge and understanding of young children's characteristics and needs, including multiple interrelated areas of child development and learning (including physical, cognitive, social, emotional, language, aesthetic domains, play), learning processes, and motivation to learn;</p>	C	
1.2	<p>Knowledge and understanding of the multiple influences on development and learning, (i.e., cultural and linguistic context, economic conditions of families, health status and disabilities, learning styles, peer and adult relationships; children's individual developmental and gender variations, and learning styles, opportunities to play and learn; family and community characteristics; the influence and impact of technology and the media);</p>	C	

<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
1.3	Use of developmental knowledge to create healthy, respectful, supportive, and challenging learning environments through such areas as curriculum, interactions, teaching practices, technology, and learning materials;	<b>C</b>	
1.4	Knowledge and skills to promote young children's physical and psychological health, safety, and sense of security including specifics about child abuse and neglect;	<b>C</b>	
1.5	Knowledge and skills to promote learning environments that demonstrate respect for each child as a feeling, thinking, self-regulating individual and also affirm each child's culture, home language, individual abilities or disabilities, family context, and community;	<b>C</b>	
1.6	Knowledge and skills to create a learning environment that supports young children's ability to learn and to make meaning from his/her experiences through play, spontaneous activity, and guided investigations; and	<b>C</b>	
1.7	Application of their knowledge of theory and research to construct learning environments that provide achievable and challenging experiences for all children, including children with special abilities and children with disabilities or developmental delays.	<b>C</b>	

NO#	Guideline/Standard	Level of Proficiency	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
2.0	<p><b>Building Family and Community Relationships</b></p> <p>Candidates know about, understand and value the importance and complex characteristics of children's families and communities as reflected in State Board of Education (SBE) Universal Education Vision and Principals. They use this understanding to create respectful, reciprocal relationships that support and empower families, and to involve all families in their children's development and learning.</p> <p><b>The preparation program provides candidates with a variety of opportunities to demonstrate:</b></p>		
2.1	Knowledge about and understanding of family and community characteristics and the critical role both play in children's development;	C	
2.2	A variety of communication strategies that support and empower families and communities through respectful, reciprocal relationships;	C	
2.3	Strategies that involve families in children's developmental learning;	C	
2.4	An understanding of the processes in initiating and developing an Individualized Family Services Plan (IFSP);	C	
2.5	An understanding of the processes in initiating and developing an Individualized Education Program (IEP), state and federal policy, procedures, and laws;	B	

<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
2.6	Strategies for clarifying and communicating sensitive issues with appropriate parties including but not limited to child abuse, neglect, hygiene, and nutrition;	<b>B</b>	
2.7	Knowledge and understanding of community assets and resources including collaborative community services. The ability to actively assist families in seeking those resources;	<b>B</b>	
2.8	Knowledge of signs of emotional distress, child abuse and neglect in young children, and follows appropriate procedures to report suspected abuse and neglect to authorities; and	<b>C</b>	
2.9	Knowledge of the teacher's role in transitionning, including the creation of a required transition plan for children with disabilities.	<b>C</b>	
3.0	<p><b>Observing, Documenting, and Assessing to Support Young Children and Families</b></p> <p>Candidates know about and understand the goals, benefits, use and misuse of assessment. They know about and use systematic observations, documentation, and other effective assessment strategies in a responsible way, in partnership with families and other professionals, to positively influence children's development and learning.</p> <p><b>The preparation program provides candidates with a variety of opportunities to demonstrate:</b></p>		

<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
3.1	Knowledge and use of assessment including an understanding of the goals, benefits, and uses a systematic approach for connecting assessment to planning, implementing, and evaluating effective curriculum;	<b>C</b>	
3.2	Knowledge about and use of ongoing systematic observation, documentation, screening tools and play based assessment, and other appropriate formative and summative assessment tools, and approaches embedded in assessment related activities in curriculum and daily routines;	<b>C</b>	
3.3	Use of skills in conducting systematic observations, interpreting those observations, and reflecting on their significance in combination with other data for instructional decision-making;	<b>B</b>	
3.4	Knowledge about and use of responsible assessment practices including administering assessment tools, adapting assessment tools for specific disabilities and needs (i.e. sensory motor disabilities, generation of reports, communication of results, and data driven decision making for alignment and adjustment of instruction and curriculum);	<b>B</b>	



<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
3.5	Knowledge about positive assessment partnerships with families and other professionals. Candidates articulate the value, appropriate use, and potential misuse of screening and referral practices. They are able to demonstrate appropriate use of assessment and other supporting documentation for student instruction;	<b>B</b>	
3.6	Knowledge and skills for integrating technology, inclusive of adaptive and assistive devices for children with disabilities, into assessment and instructional practices; and	<b>B</b>	
3.7	Knowledge of the teacher's role as a participant and an advocate during the development and use of an IFSP and IEP.	<b>B</b>	
4.0	<p><b>Teaching and Learning</b></p> <p>Candidates integrate their understanding of and relationships with children and families; their understanding of developmentally effective approaches to teaching and learning; and their knowledge of academic disciplines to design, implement, and evaluate experiences that promote positive behavioral supports and technologies which promote appropriate development and learning for all children.</p> <p><b>The preparation program provides candidates with a variety of opportunities to demonstrate:</b></p>		



<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
4.1	Use of individual and group guidance and problem solving techniques to develop positive and supportive relationships with children; to encourage and teach positive social skills and interaction among children; to promote positive strategies of conflict resolution; and to develop personal self-control, self-motivation, and self-esteem;	<b>C</b>	
4.2	An ability to model and affirm anti-bias perspectives regarding development and learning;	<b>C</b>	
4.3	Knowledge about the research and theory regarding early care and learning environments for all children (birth through age 8) that create optimal conditions which foster exploration and learning;	<b>C</b>	
4.4	Essential dispositions and skills to develop positive, respectful relationships with children whose cultures and languages may differ from their own, as well as with children who may have developmental delays, disabilities, or other learning challenges;	<b>C</b>	
4.5	Use of developmentally effective approaches which foster language and communication development embedded in every aspect of the learning environment and curriculum, thereby promoting appropriate literacy and cognitive development as foundations for continued educational success;	<b>C</b>	

<b>NO #</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
4.6	Knowledge and understanding of the central concepts, inquiry tools, and structures of each content area, (i.e., literacy, science, mathematics, social studies, the arts, world languages, technology, physical education and health);	<b>C</b>	
4.7	Implementation of the central concepts of core content areas in a developmentally appropriate manner drawing from a continuum of teaching strategies and multiple disciplines;	<b>C</b>	
4.8	Ability to formulate and use action plans based on IFSP and IEP;	<b>C</b>	
4.9	Understanding and skill in setting up and adapting all aspects of the indoor and outdoor environment to promote learning and development across all content-areas for all children. Understanding and skills must include adaptive and assistive devices for children with disabilities;	<b>C</b>	
4.10	Utilization of incidental teaching opportunities by identifying and taking advantage of informal experiences to build children's language, concept development related to core content-areas, and skills (i.e., diapering, meals, clean-up times, indoor and outdoor play, dressing, other routines, and transitions);	<b>C</b>	

<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
4.11	Knowledge and skills to build meaningful learning environments and curriculum by focusing on children's characteristics, needs and interests; linking children's language, culture, and community to early childhood learning; use of social interactions during routines and play experiences; incorporating technology and integrative approaches to content knowledge;	<b>C</b>	
4.12	Understanding and developmentally appropriate use of content knowledge in early education environments which include community building and classroom management with intentional experiences to foster social competence, child initiated experiences, and plan interactions moving toward child's self-regulation and respect of peers, and pro social skills;	<b>C</b>	
4.13	Knowledge of Michigan's curriculum standards and age/grade level expectations and the appropriate implementation of those standards in the early childhood classroom, using and appropriately modifying a variety of instructional methods, and materials; and	<b>C</b>	
4.14	Knowledge of disabilities, including, etiology, characteristics, and classification of common disabilities in young children and implications for development and learning in the early years.	<b>C</b>	

NO #	Guideline/Standard	Level of Proficiency	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
5.0	<p><b>Becoming A Professional</b></p> <p>Candidates identify and conduct themselves as members of the early childhood profession. They know and use ethical guidelines and other professional standards related to practices in early childhood education. They are continuous, collaborative learners who demonstrate knowledgeable, reflective, and critical perspectives on their work, making informed decisions that integrate knowledge from a variety of sources. They are informed advocates for sound educational practices and policies.</p> <p><b>The preparation program provides candidates with a variety of opportunities to demonstrate:</b></p>		
5.1	An awareness of the value of life long professional development, participation in collaborative communities, and reflective informed practice;	<b>B</b>	
5.2	Knowledge and application of legal and ethical guidelines and professional standards related to children and families;	<b>B</b>	
5.3	Knowledge and utilization of integrated cross content and interdisciplinary personnel and resources for children who exhibit typical and atypical development and challenging behaviors;	<b>B</b>	
5.4	An understanding of early childhood education as a professional field, and identification and involvement of oneself with professional organizations;	<b>B</b>	

<b>NO#</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
5.5	Knowledge and utilization of information about early childhood and other professional groups, resources, and literature, and recognizing the benefits of cross-disciplinary collaboration;	<b>B</b>	
5.6	Knowledge of public policy issues, processes, and impact on the education of young children;	<b>B</b>	
5.7	Knowledge and skills for informed advocacy for children, families, and early childhood education profession;	<b>B</b>	
5.8	Self-reflective practices integrating knowledgeable, reflective, and critical perspectives on early education;	<b>B</b>	
5.9	Knowledge and skills to participate as a team member to identify dynamics of team roles, interaction, communication, team building, problem solving, and conflict resolution; and	<b>B</b>	
5.10	Understanding and the application of various models of consultation in diverse settings.	<b>B</b>	

NO #	Guideline/Standard	Level of Proficiency	Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement
6.0	<p>*Field Experiences</p> <p>The preparation program provides candidates with a variety of opportunities to participate in early and ongoing structured and supervised field experiences in inclusive infant toddler (birth to 2 years), preschool, and early elementary programs. Inclusive programs may include but are not limited to, children with differing socioeconomic status, disabilities or developmental delays, English language learners, limited language learners, and children with special abilities.</p> <p><i>Additional endorsement candidates must provide documentation regarding the completion of supervised and structured field experiences as determined by the teacher preparation institution.</i></p> <p><b>The preparation program provides candidates with a variety of opportunities to participate in:</b></p>		
6.1	<p>A substantial number of hours of early field experience, before student teaching for initial certification candidates. Field experiences include observation and participation in programs serving children at infant/toddler, preschool, and early and upper elementary levels in connection with coursework;</p>	*	
6.2	<p>Student teaching experiences which occur in at least two of the three areas (i.e. infant/toddler, preschool and early elementary through grade 3) under the direction of a qualified cooperating teacher;</p>	*	

<b>NO #</b>	<b>Guideline/Standard</b>	<b>Level of Proficiency</b>	<b>Narrative Explaining how Required Courses and/or Experiences Fulfill the Guidelines for Endorsement</b>
6.3	Experiences that include involvement, partnering, and communicating with families including participation in parent/guardian conferences;	*	
6.4	Experiences where students must demonstrate knowledge and understanding of positive working partnerships with other adults in the educational setting; and	*	
6.5	Field experiences where students develop the knowledge, understanding, and competence in planning for and guiding the work with other adults in the classroom setting, i.e. paraprofessionals and classroom volunteers.	*	

\* These standards do not have levels of proficiency. Institutions either meet, or do not meet, these standards.

## **Glossary**

Adaptive or Assistive Devices	Any device that is designed, made, or adapted to assist a person to perform a particular task. For example, canes, crutches, walkers, wheel chairs, hearing aids, glasses, microphones, are assistive devices.
Developmental Delays	The term "Developmental Delay" addresses both the delays in the areas specified in the federal regulations and atypical development based upon professional judgment and information provided through multiple measures of assessment. An ongoing process of observing a child's current competencies (including knowledge, skills, dispositions, and attitudes) informs the professional judgment and is used to help the child develop further in the context of family, care giving, and learning environments (referenced in the National Early Childhood Technical Assistance Center Notes Issue 21 July 2006).
Developmentally Appropriate	Instruction and learning opportunities that align with the developmental stage of the learner.
Endorsement	An endorsement is the authorization, based on the completion of a standards-based program of study and successful completion of appropriate assessment, which is attached to a teaching certificate that allows a teacher to be the teacher of record for a specialty content area.
Etiology	The cause of a disorder or disease as determined by medical diagnosis.
IEP	Individualized Education Program
IFSP	Individualized Family Services Plan
Integrative Approaches	Instructional approaches that make knowledge, learning and their resulting opportunities available to everyone, regardless of ability, learning style, race, ethnicity, religion, gender, or social class.
ISD	Intermediate School District
MTTC	Michigan Test for Teacher Certification
Positive Behavior Support	A positive behavior support system is a data-based effort that concentrates on adjusting the system that supports the student. Such a system is implemented by collaborative, school-based teams using person-centered planning. School-wide expectations for behavior are clearly stated, widely promoted, and frequently referenced (SBE, September 12, 2006).



PSCT	Professional Standards Commission for Teachers
SBE	State Board of Education
Self regulation	Utilization of a set of skills by which individuals manage their own choices and actions often internally and private, rather than being publicly regulated by other people.
Social Competence	Possessing the knowledge and skills which allows a person to appropriately interact with others in large and small groups.
Transitions	Movement across time, space and activities. Transitions may create inconsistencies and disruptions in continuity of experience which can interfere with feelings of security and learning.
Universal Education Vision and Principles	The principles of Universal Education reflect the beliefs that each person deserves and needs a positive, concerned, accepting educational community that values diversity and provides a comprehensive system of individual supports from birth to adulthood (SBE, September 12, 2006).

# **APPENDIX “B.1”**

Eastern Michigan University proposed move from current minor to new major in Early Childhood Education

Current Minor in Early Childhood Education			Proposed Major in Early Childhood Education			
Current Course	Title	Credits	New Course	Title	Credits	Changes
ECE 214	The Developing Child Co-req 215	3	ECE 214	The Developing Child Birth – Age 8	3	Title change only
ECE 215	The Developing Professional & concurrent field placement Co-req 214	2	ECE 215	The Developing Professional Concurrent field placement stays the same	3	1 add. credit to allow for added content
ECE 307	Young Children in Peril: Educational Implications	3	ECE 307	Diverse Children, Families and Communities	3	Title & was an elective, now a required class
ECE 314	Infants and Toddlers in ECE	3	ECE 314	Infants and Toddlers: Development and Programs	3	Title & was an elective, now a required class
ECE 302	Methods for Implementing Curriculum in ECE co-req ECE 303	3	ECE 302	Child Centered Teaching and Learning	3	Title and minor content changes
ECE 303	Implementing Curriculum in ECE & concurrent field placement co-req ECE 302	2	ECE 303	Implementing the Curriculum Concurrent field placement stays the same	3	1 add. credit to allow for added content
ECE 341	Assessment of the Young Child	3	ECE 341	Assessment of the Young Child	3	No changes
ECE 318	Play and Creativity in ECE	3	ECE 342	Intentional Teaching in the Content Areas	3	New course
EDUC 495	Student Teaching Preschool	4	ECE 343	Advocacy, Leadership and Administration	3	New course
			ECE/SPG N 451	Inclusive Classrooms in Early Childhood	3	New course
			EDUC 495	Student Teaching Preschool	4	No changes
<b>Total Credits</b>		<b>26</b>	<b>Total Credits for proposed new major</b>			
						<b>34</b>

Content from ECE 318 will be added to ECE 303 for the proposed major

## **New Proposed Undergraduate Major in Early Childhood Education**

**Students completing the Professional Education Program and the Major in ECE will receive elementary teacher certification, the ECE (ZA) endorsement and approval for Early Childhood Developmentally Delayed (ECDD). If graduating by Dec. 2012 students follow the current minor. If graduating after Dec. 2012, students follow the new major.**

All classes are 3 credits

\* course taken at a community college will be accepted for transfer

# course already a part of the current minor:

**1. #\* ECE 214 The Developing Child Birth – Age 8**

A basic child development class which covers Pregnancy – age eight

Taken concurrently:

**2. #\* ECE 215 The Developing Professional**

Plus a three hour practicum one day each week in the EMU Children's Institute

To take the following courses numbered 3-10, students must be admitted to the Professional Teaching Program in the College of Education

**3. #\* ECE 307 Diverse Children, Families and Communities**

Focus on families, especially children living in peril, and resources in communities

**4. # \* ECE 314 Infants and Toddlers: Development and Programs**

Focus on fostering and planning for learning experiences for children from birth - 3

**5. # ECE 302 Child Centered Teaching and Learning**

Focus on history of ECE, curriculum and how to establish an EC learning environment

Taken concurrently:

**6. # ECE 303 Implementing the Curriculum**

Plus a three hour practicum one day each week in the EMU Children's Institute

**7. # ECE 341 Assessment of the Young Child – take prior to Elem. St. teaching**

Focus on appropriate assessment of young children

**8. ECE 342 Intentional Teaching in the Content Areas – take prior to ECE St. teaching**

Focus on Michigan early learning standards along with content standards for ECE

**9. ECE 343 Advocacy, Leadership and Administration -may take with ECE St. teaching**

Content for center administrators, developing leadership and advocacy skills

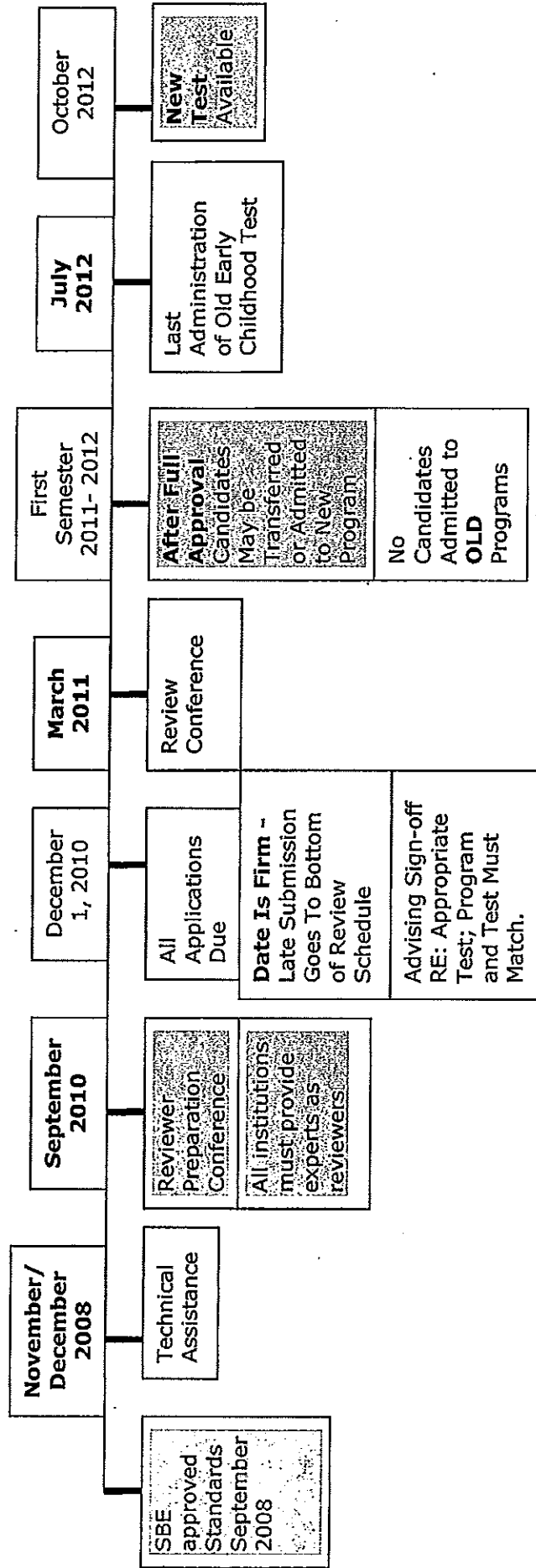
**10. ECE/SPGN 451 Inclusive Classrooms in Early Childhood –may take with ECE St. teaching. Special education focus on children from birth - 8**

**11. # ECE 495 Student Teaching Preschool: 5 half days for an entire semester - 4 credits. This would follow the elementary 5 credit student teaching in a 1<sup>st</sup>-3<sup>rd</sup> grade classroom the semester before.**

10/14/09

# APPENDIX "B.2"

**Early Childhood Standards 2008  
Program Review Tentative Timeline  
DRAFT 8 20 08**



# **APPENDIX "C"**

### Early Childhood Major Program Requirements

Comprehensive Planned Program	ECE Major	Professional Education Sequence
ENGL 121 English Composition (3) CTAS 124 Fundamentals of Speech (3) MATH 108 Math I for Elementary Teachers (3) MATH 110E Math II for Elementary Teachers (3) PHY 100 Physics for Elementary Teachers (3) CHEM 101 Chemistry for Elementary Teachers (3) ESSC 202 Earth Science for Elementary Teachers (3) CHIL 207 Introduction to Children's Literature (3) ART 220 Visual Arts for Elementary Teachers (3) MUSC 220 Music for Elementary Teachers (3) DANC 220 Dance for Elementary Teachers (3) PLSC 112 American Government (3) GEOG 110 World Regions (3) HIST 123 The United States to 1877 (3) HIST 313 Michigan History (3) RDNG 240 Reading/Writing Connection In Elementary Grades (3) or ENGL 307 Writing Process for Elementary Teachers (3)	ECE 214 The Developing Child Birth – Age 8 (3) ECE 215 The Developing Professional (3) ECE 307 Diverse Children, Families, and Communities (3) ECE 314 Infants and Toddlers (3) ECE 302 Child Centered Teaching and Learning (3) ECE 303 Implementing the Curriculum (3) ECE 341 Assessment of the Young Child (3) ECE 342 Intentional Teaching in the Content Areas (3) ECE 343 Advocacy, Leadership, and Administration (3) ECE/SPGN 451 Inclusive Classrooms in Early Childhood (3) EDUC 495 ECE Student Teaching (4)	EDPS 322 Human Development and Learning (4) SPGN 251 Education of Exceptional Children (3) SOFD 328W: Schools in a Multicultural Society (3) CURR 304 Curriculum and Methods: Elementary (3) PRCT 304 Practicum I: Elementary (3) RDNG 300 Early Literacy (3) HIST/CURR 308 Social Studies Methods (3) EDMT 330 Instructional Applications of Media and Technology (3) RDNG 310 Literacy Across the Curriculum in the Intermediate Grades (3) PRCT 310: Practicum II: Elementary (3) BIOT 303 Life Science for Elementary Teachers (3) MATH 381 The Teaching of Mathematics (3) CTAR 300 Integrated Arts for Elementary Teachers (3) EDUC 490 Student Teaching (5)
<b>Total Credit Hours in Planned Program: 48</b>	<b>Total Credit Hours in Major: 34</b>	<b>Total Credits Hours in Professional Sequence: 45</b>

**Additional Credit Hours Needed for General Education Requirements: 6**

**TOTAL PROGRAM: 133 Credit Hours to Graduation**



# **APPENDIX "D"**

Eaglemail Collaboration Suite

kpaciorek@emich.edu

Re: new ECE/SPGN course

Wednesday, October 21, 2009 3:21:00 PM

From: bdoster@emich.edu

To: kpaciorek@emich.edu

Hi Karen,

Thank you for allowing me to provide input for the ECE/SPGN course. The class looks very good! It seems to have all the pertinent information needed for such a class. I like that it is both ECE and SPGN so that either faculty can teach it.

Let me know if I can be of further assistance.

Brenda

----- Original Message -----

From: "Karen M. Paciorek" &lt;kpaciorek@emich.edu&gt;

To: "Brenda Doster" &lt;bdoster@emich.edu&gt;, "Linda Polter" &lt;linda.polter@emich.edu&gt;, "Willie Cupples Jr" &lt;wcupples@emich.edu&gt;

Cc: "Margo Dichtelmiller" &lt;margo.dichtelmiller@emich.edu&gt;, "David Winters" &lt;dwinter1@emich.edu&gt;, "Don Bennion" &lt;donald.bennion@emich.edu&gt;

Sent: Wednesday, October 14, 2009 4:00:40 PM GMT -05:00 US/Canada Eastern

Subject: new ECE/SPGN course

Greetings, I am contacting you on behalf of the Early Childhood program area in Teacher Ed. to ask for your assistance in our next step as our program area works to add more special education content for our students. In August 2008 the State of Michigan approved new standards for the preparation of early childhood teachers which include more standards related to young children with exceptional needs. Along with that they also approved universities offering a major in ECE for students seeking elementary certification. Students following the new major in ECE will receive the Early Childhood Developmentally Delayed (ECDD) approval on their certificate. We recognized the SPGN 251 course alone will not be sufficient for our new ECE major students and an additional course needed to be developed and required. First some background:

1. Brenda Doster and Linda Polter from Special Education and Margo Dichtelmiller (who had been an ECSE teacher) and Karen Paciorek from Teacher Ed. met during the summer of 2008 to discuss the need for some collaboration between ECE and special education since we have a number of special education students seeking the ECE minor.
2. Brenda and Linda were very helpful in providing us with names of individuals to contact and information to gather as we moved forward.
3. During the 08-09 academic year the ECE faculty gathered resources and did reading to acquaint ourselves with the special ed/ECE field.
4. Karen met with John Paladino on Feb. 16, 2009 to have a discussion about appropriate content for a new ECE/SPGN class and to share our respective professional standards. John agreed to review materials over the spring/Summer and provide us with some direction for a new course.
5. John met with Margo and Karen on Sept. 28th and provided us with additional resources and suggestions as we worked to develop a new class. John indicated that he doubted whether special education would be able to teach the six sections each year we will need, but we did have a fruitful discussion about cross-listing the class so students in both departments could take the class.
6. Karen and Margo developed a draft course outline (attached and numbered ECE/SPGN 451 to keep with the 51 number they take for 251) and sent it to John for his feedback. We received feedback on October 14 and incorporated his suggestions into the course outline. We asked John to provide the names of additional special ed. faculty who should review the course outline and he suggested Brenda, Linda and Bill so that is why you are receiving a draft of the proposed new course. We are also keeping the two

department heads in the loop.

7. We would appreciate your feedback and are very open to meeting in person if that would be best so we can develop a strong relationship as we work to develop an outstanding educational experience for our students.

Feel free to contact Margo Dichtelmiller or me with any questions. Thank you. Karen Paciorek

--

Karen Menke Paciorek, Ph.D.  
Professor, Early Childhood Education  
Eastern Michigan University  
Department of Teacher Education  
313J Porter  
Ypsilanti, MI 48197  
734.487.7120 x 2629 - Office  
734.487.2101 - FAX  
248.305.8839 - Home  
kpaciorek@emich.edu

--

Brenda Doster, Ph.D.  
Assistant Professor  
Eastern Michigan University  
Special Education  
734 487-7120, ext. 2673  
bdoster@emich.edu

Eglemail Collaboration Suite

kpaciorek@emich.edu

Re: new ECE/SPGN course

Sunday, October 25, 2009 2:10:20 PM

From: kpaciorek@emich.edu

To: wcupples@emich.edu

Bill, your excellent suggestions for addition of information about augmentative communication is exactly the reason we needed to get input from many people. Thank you for your thorough review and additions which I incorporated into the outline. We will keep your dept. posted as the course makes its way through the input system. Karen

--

----- Original Message -----

From: "Bill Cupples" &lt;wcupples@emich.edu&gt;

To: "Karen M. Paciorek" &lt;kpaciorek@emich.edu&gt;

Sent: Sunday, October 25, 2009 10:17:58 AM GMT -05:00 US/Canada Eastern

Subject: Re: new ECE/SPGN course

Karen,

John passed this on to me to review as an SLP. This looks great, what a great course! Please see my additions in the attached document.

Bill Cupples, Ph.D., CCC/SLP  
Professor and Speech-Language Pathologist  
Department of Special Education  
EMU Autism Collaborative Center  
128D Porter Building  
734-487-7120, Ext. 2674  
Fax: 734-487-2473

----- Original Message -----

From: "Karen M. Paciorek" &lt;kpaciorek@emich.edu&gt;

To: "Brenda Doster" &lt;bdoster@emich.edu&gt;, "Linda Polter" &lt;linda.polter@emich.edu&gt;, "Willie Cupples Jr" &lt;wcupples@emich.edu&gt;

Cc: "Margo Dichtelmiller" &lt;margo.dichtelmiller@emich.edu&gt;, "David Winters" &lt;dwinterl@emich.edu&gt;, "Don Bennion" &lt;donald.bennion@emich.edu&gt;

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Subject: new ECE/SPGN course

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7. We would appreciate your feedback and are very open to meeting in person if that would be best so we can develop a strong relationship as we work to develop an outstanding educational experience for our students.

Feel free to contact Margo Dichtelmiller or me with any questions. Thank you. Karen Paciorek

--

Karen Menke Paciorek, Ph.D.  
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248.305.8839 - Home  
kpaciorek@emich.edu

# APPENDIX "E"

	1 class/1 teacher	2 classes/2 teachers	3 classes/3 teachers
2006	<p>Teacher has a minimum of a Child Development Associate Credential [CDA] or equivalent<sup>i(i)</sup>.</p> <p>The teacher has or is working toward an Associates<sup>ii(ii)</sup> or Baccalaureate<sup>iii(iii)</sup> degree or equivalent. [AnnualAnnual reports must show continuous progress.]</p>	<p>Both teachers have a minimum of a Child Development Associate Credential or equivalent.<sup>i</sup></p> <p>Both teachers have or are working toward an Associates<sup>ii</sup> or Baccalaureate<sup>iii</sup> degree or equivalent. [AnnualAnnual reports must show continuous progress.]</p>	<p>All teachers have a minimum of the Child Development Associate Credential or equivalent.<sup>i</sup></p> <p>At least 1 teacher has an Associates<sup>ii</sup> or Baccalaureate<sup>iii</sup> degree or equivalent</p> <p>All teachers have or are working on an Associates or Baccalaureate degree or equivalent. [AnnualAnnual reports must show continuous progress.]</p>
2010	<p>Teacher must have a minimum of an Associates degree<sup>ii</sup> or equivalent.</p>	<p>Both teachers have a minimum of an Associates degree<sup>ii</sup> or equivalent.</p> <p>At least 1 of the 2 teachers is enrolled in a Baccalaureate<sup>iii</sup> degree program or equivalent. [Annual reports must show continuous progress.]</p>	<p>All 3 teachers must have a minimum of an Associates degree<sup>ii</sup> or equivalent.</p> <p>At least 1 of the 3 teachers must be enrolled in a Baccalaureate<sup>iii</sup> degree program or equivalent. [Annual reports must show continuous improvement.]</p>
2015	<p>The teacher must have a minimum of an Associates<sup>ii</sup> degree or equivalent.</p> <p>The teacher must be working toward a Baccalaureate<sup>iii</sup> degree or equivalent. [Annual reports must show continuous progress.]</p>	<p>At least one teacher must have a minimum of an Associates<sup>ii</sup> degree or equivalent.</p> <p>At least one teacher must have a minimum of a Baccalaureate<sup>iii</sup> degree or equivalent.</p>	<p>All teachers must have a minimum of an Associates<sup>ii</sup> degree or equivalent.</p> <p>At least 1 of 3 teachers must have a minimum of a Baccalaureate<sup>iii</sup> degree or equivalent.</p>
2020	<p>The teacher must have a minimum of an Associates<sup>ii</sup></p>	<p>At least 1 teacher must have a minimum of a Baccalaureate<sup>iii</sup></p>	<p>At least 2 teachers have a Baccalaureate<sup>iii</sup> degree or</p>

1 class/1 teacher	2 classes/2 teachers	3 classes/3 teachers
degree or equivalent <u>and</u> be enrolled in a Baccalaureate <sup>iii</sup> degree program. (The teacher must have a minimum of a Baccalaureate <sup>iii</sup> degree or equivalent by next NAEYC Accreditation cycle.)	degree or equivalent.  The second teacher must have a minimum of an Associates <sup>ii</sup> degree or equivalent <u>and</u> be working toward a Baccalaureate <sup>iii</sup> degree. [Annual reports must show continuous progress.]	equivalent.  The third teacher must have a minimum of an Associates <sup>ii</sup> degree or equivalent.

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<sup>i[i]</sup> -Equivalence to CDA: A minimum of 12 college credits [semester hours] in Child Development [CD]/Early Childhood Education ECE]/Early Childhood Special Education [ECSE]

<sup>ii[ii]</sup> -Associates degrees should be in Child Development/Early Childhood Education. Equivalence is defined as 60 college credits with 30 college credits [semester hours] in CD/ECE/ECSE as defined by Criterion 6.6, including relevant field-based experience.

<sup>iii[iii]</sup> - Baccalaureate degree should be in CD/ECE/ECSE. Equivalence is defined as a Baccalaureate's degree in any discipline with a minimum of 36 college credits [semester hours] in CD/ECE/ECSE as defined by Criterion 6.6, including relevant field-based experience.



# **APPENDIX "E.1"**

Eaglemail Collaboration Suite

kpaciorek@emich.edu

ECE endors. for certified teacher in the "new"  
system

Tuesday, October 06, 2009 4:30:47  
PM

From: squilter@emich.edu  
To: llewiswh@emich.edu; kpaciorek@emich.edu  
Cc: aeastmal@emich.edu; clancaste@emich.edu  
Reply To: squilter@emich.edu

Hi Linda and Karen,

Please read below. Ruben asked about the changeover to new elementary and new ECE. He poses his questions and Bonnie Rockafellow (MDE) answers them in all caps.

Hopefully this all makes sense.

Shawn

---

**From:** Reuben Rubio <rarubio@arbor.edu>  
**Date:** October 1, 2009 4:34:20 PM GMT-04:00  
**To:** Directors and Representatives of teacher education programs  
<DARTEP@LISTSERV.MICHIGAN.GOV>  
**Subject:** ECE endorsement for certified teacher in the "new" system

Here is question for the MDE folks that may be of interest to all of us. Can the MDE pls shed some light on this?

If an elementary-certified teacher was coming back to get an ECE endorsement, would they have to satisfy option II or would they just take the courses for the endorsement? **THIS INDIVIDUAL IS ALREADY CERTIFIED SO THE NEW ELEMENTARY STANDARDS ARE NOT OF A CONCERN FOR THIS PERSON. THE TEACHER WILL SIMPLY COMPLETE THE INSTITUTION'S APPROVED EARLY CHILDHOOD ENDORSEMENT PROGRAM (ZA).**

Please cover the three scenarios below:

Student has Fall 2009 start date w/ existing elem program and existing ECE program but student will be finishing up after one or both have flipped to the new program?

**BASED ON THE CHART WE HAVE POSTED, THE INSTITUTION NEEDS TO ADVISE CANDIDATES THAT THE LAST DATE FOR THE OLD TEST IS JULY 2013. I KNOW THAT THE ADVISORY COMMITTEE WANTED TO HAVE THIS DATE BE IN 2015 BUT MDE IS UNABLE TO ALLOW THAT LENGTH OF TIME.**

**THERE WILL BE NO OVERLAP OF THE OLD ELEMENTARY TEST AND THE NEW**

**ELEMENTARY TESTS. OCTOBER OF 2013 IS THE FIRST ADMINISTRATION OF THE NEW ELEMENTARY TESTS (A, B).**

**STUDENT ADVISING IS ENCOURAGED TO INCLUDE A SIGN OFF FORM THAT DOCUMENTS THE CANDIDATES ARE INFORMED OF THE TRANSITIONS THE NEW STANDARDS AND PROGRAM REVIEWS PROMPT. THE CANDIDATES WILL NEED TO SCHEDULE THEIR PROGRAM WITH THE DEADLINES IN MIND AND IF NEEDED BE PREPARED TO TRANSITION TO NEW PROGRAM REQUIREMENTS IF THE NEW ASSESSMENTS ARE THE ONLY ONES AVAILABLE UPON COMPLETION OF THE PROGRAM.**

**Student has Fall 2010 start date w/ new elem program (early adopter) but old ECE program? THE LAST ADMINISTRATION OF THE OLD ECE TEST IS JULY 2012. THERE WILL BE NO OVERLAP OF TESTS. THE NEW ECE ASSESSMENT WILL OCCUR IN OCTOBER OF 2012. AGAIN, ADVISING NEEDS TO ADDRESS THESE ISSUES.**

**Student has Fall 2011 start date w/ new elem program and new ECE program? THE NEW ELEMENTARY AND ECE ASSESSMENTS WILL BE IN PLACE IN OCTOBER 2013. THE ASSESSMENT AND PROGRAMS NEED TO MATCH FOR OPTIMUM RESULTS.**

**DR. STEGINK SUGGEST THAT YOU CONSULT THE INFORMATION PRESENTED IN THE OCTOBER DARTEP UPDATE PAGE 1 FOR ADDITIONAL INFORMATION**

Thanks!

RR



RICK SNYDER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF EDUCATION  
LANSING



MICHAEL P. FLANAGAN  
SUPERINTENDENT OF  
PUBLIC INSTRUCTION

January 6, 2011

**MEMORANDUM**

TO: Local and Intermediate School District Superintendents  
Deans of Teacher Preparation Institutions  
Public School Academy Directors and Authorizers

FROM: Sally Vaughn, Ph.D. *Sally*  
Deputy Superintendent/Chief Academic Officer

SUBJECT: Change in Endorsement Name and Code of the Early Childhood  
Education (ZA) to Early Childhood ZS (General and Special Education)

Revised Early Childhood Education (ZA) standards were presented and approved at the State Board of Education (SBE) meeting on September 9, 2008. These revised standards reflect the knowledge and skills identified to teach children from birth to age 8 in general education settings, as well as significant knowledge and skills for teaching children with disabilities.

It was then determined that to present a clear transition and indication of different knowledge and authorization, the revised standards should be known by a new name, Early Childhood ZS (General and Special Education), that represents the knowledge and skill changes presented in the standards. The name and code change for this endorsement was approved by the SBE on October 12, 2010.

The Office of Professional Preparation Services is in the process of approving the revised programs submitted by teacher preparation institutions. It is expected that the revised programs will be approved during the January-June 2011 review cycle and that the new Michigan Test for Teacher Certification (MTTC) Early Childhood ZS (General and Special Education) assessment will be available by October 2012. Currently enrolled students have the option of completing their coursework and completing the old Early Childhood ZA MTTC until July 2012.

A teacher who currently possesses a certificate with the Early Childhood Education ZA endorsement will continue to be authorized to teach in general education classrooms within the validity of the certificate and code.

STATE BOARD OF EDUCATION

JOHN C. AUSTIN • NANCY DANHOF • MARIANNE YARED MCGUIRE  
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608 WEST ALLEGAN STREET • P.O. BOX 30008 • LANSING, MICHIGAN 48909  
[www.michigan.gov/mde](http://www.michigan.gov/mde) • (517) 373-3324

January 6, 2011

Page 2

A teacher preparation institution with an approved ZS program may offer an opportunity for teachers possessing the old ZA endorsement to complete the additional coursework based on the institution's newly approved ZS program and documentation of the successful completion of the new Early Childhood ZS (General and Special Education) MTTC, and make the recommendation for the ZS as an additional endorsement.

A teacher who has earned a ZS endorsement will be qualified to teach in an early childhood general or special education program upon promulgation of the Administrative Rules for Special Education. A teacher who has earned a ZS endorsement will not be qualified to teach any other special education program.

Teachers prepared in new Early Childhood ZS (General and Special Education) programs are authorized to teach within the validity of the endorsement without the additional letter of authorization from the Office of Special Education and Early Intervention Services (OSE-EIS) or the Office of Early Childhood Education and Family Services. The ZS endorsed teacher will be able to teach in general education early childhood classrooms, inclusive early childhood classrooms, and in early childhood special education classrooms.

A teacher who possesses both a special education and an early childhood endorsement on his/her teaching certificate, or possesses a special education endorsement with a major or minor in early childhood education and a full approval letter from the OSE-EIS, will continue to be qualified to be an early childhood special education teacher.

The Administrative Rule for Special Education authorizing the use of the ZS endorsement has been approved for rulemaking. A memo will be distributed to institutions of higher education, local school districts, and intermediate school districts as soon as the new rule allowing the use of the ZS endorsement is promulgated.

Thank you for your continued attention to the needs of Michigan's youngest learners and the professionals who work with them. More information about the Early Childhood ZS (General and Special Education) can be accessed at:

[http://www.michigan.gov/mde/0,1607,7-140-6530\\_5683\\_6368-204349--,00.html](http://www.michigan.gov/mde/0,1607,7-140-6530_5683_6368-204349--,00.html)

Should you have questions please contact Thomas T. Bell, Higher Education Consultant, Professional Preparation and Development, at 517/241-0172 or [bellt1@michigan.gov](mailto:bellt1@michigan.gov).

cc: Michigan Education Alliance

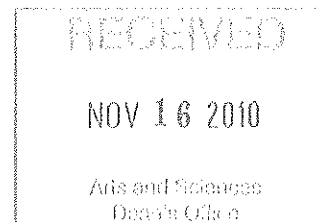
## Approval of Specialty Program

### Recommendations from Review Panel Regarding Programs to Prepare Teachers of Early Childhood Education Undergraduate (Major And additional endorsement), and Graduate programs (Additional Endorsement) (ZS)

**February 22, 2011**

<b>Institution:</b> Eastern Michigan University					
Program Level	Major (# Credits)	Minor (# Credits)	Group Major (# Credits)	Group Minor (# Credits)	Endorsement Only (# Credits)
Early Childhood Undergrad.	34				34 credits
Early Childhood Grad program					24-26
<b>Source of Standards/Guidelines:</b> State Board of Education				Pub. Date: 2008	
<b>Program Assessment Summary/Recommendation</b>					
X	<b>Meets all standards and requirements</b>		Not all standards and requirements are met		Insufficient documentation for program review
X	<b>Approval</b>		Program is not Approvable as Presented		
<b>Standards/requirements not met:</b>					
<b>Additional information needed/action to be taken:</b>  N/A					
<b>Comments:</b>  The reviewers found both program routes to be clear and meet standards.					

EASTERN MICHIGAN UNIVERSITY  
DIVISION OF ACADEMIC AFFAIRS



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**OUTLINE FOR SUBMITTING PROPOSALS FOR NEW DEGREE PROGRAMS**

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Use this outline to prepare proposals for new programs, including undergraduate majors and minors and graduate majors. Proposals should be submitted in narrative form, organized according to the following outline. Guidelines for submitting such proposals are on the following pages.

PROPOSED PROGRAM NAME: INTERDISCIPLINARY ENVIRONMENTAL SCIENCE AND SOCIETY

DEGREE: B.S. REQUESTED START DATE: SEPTEMBER 1, 2011

DEPARTMENT(S)/SCHOOL(S): CAS COLLEGE(S): CAS

CONTACT PERSON: TOM KOVACS OR ULRICH REINHARDT CONTACT PHONE: 7-8571 OR 7-4398

CONTACT EMAIL: TKOVACS@EMICH.EDU OR UREINHARD@EMICH.EDU

**I. Description:**

**A. Goals, Objectives, Student Learning Outcomes**

The Interdisciplinary Environmental Science and Society (IESS) program is an interdisciplinary program designed to provide broad knowledge of the interaction between humans and the environment from various points of view. Students can tailor their curriculum by following one of several concentrations and sub-concentrations to gain a deeper understanding of an environmental issue depending on their interest. Currently, concentrations in *Environmental Science* and *Environment and Society* are available, but more can be developed in the future. All IESS students will learn how population growth and increased economic activity affect our environment and how GIS can be used as a tool to present environmental data. Students choosing the environmental science concentration then learn the concepts needed to understand the 'Grand Challenges in Environmental Science' as identified by the National Academies of Science<sup>1</sup> including biodiversity and ecosystem functioning, climate variability, hydrologic forecasting, land-use dynamics, and biogeochemical cycles. Students choosing the environment and society concentration learn how environmental policies and regulations have economic, political, and social impacts.

Students completing the program will be competitive to enter careers such as environmental technician, environmental advocate, hydrologist, resource manager, and environmental lobbyist. Research institutions, regulatory agencies, nonprofit organizations, and consulting firms will be the main source of employment for graduates of the program. Although, as with many science baccalaureate degrees, many of the jobs available to students who complete the environmental science concentration are entry-level, experience and graduate work can allow students to advance to environmental management positions. The environmental science degree, in consultation with an advisor, prepares students to enter a graduate degree or graduate certificate program in a specific environmental science such as atmospheric scientist, ecologist, or hydrogeologist.

Upon graduating from the IESS program, students will have achieved the following learning outcomes:

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<sup>1</sup> Committee on Grand Challenges in Environmental Sciences, Oversight Commission for the Committee on Grand Challenges in Environmental Sciences, Grand Challenges in Environmental Sciences, The National Academies Press, 2001.

1. be able to effectively communicate on topics relating to environmental studies in written and oral forms
2. be able to use scientific reasoning and methodology
3. demonstrate an understanding of the importance of ethics and diverse worldviews in the public discourse on environmental issues
4. demonstrate an understanding of the major environmental issues and their potential solutions

Specific to Env. Sci. Concentration:

5. be able to create and implement scientific investigations

Specific to Env. & Soc. Concentration:

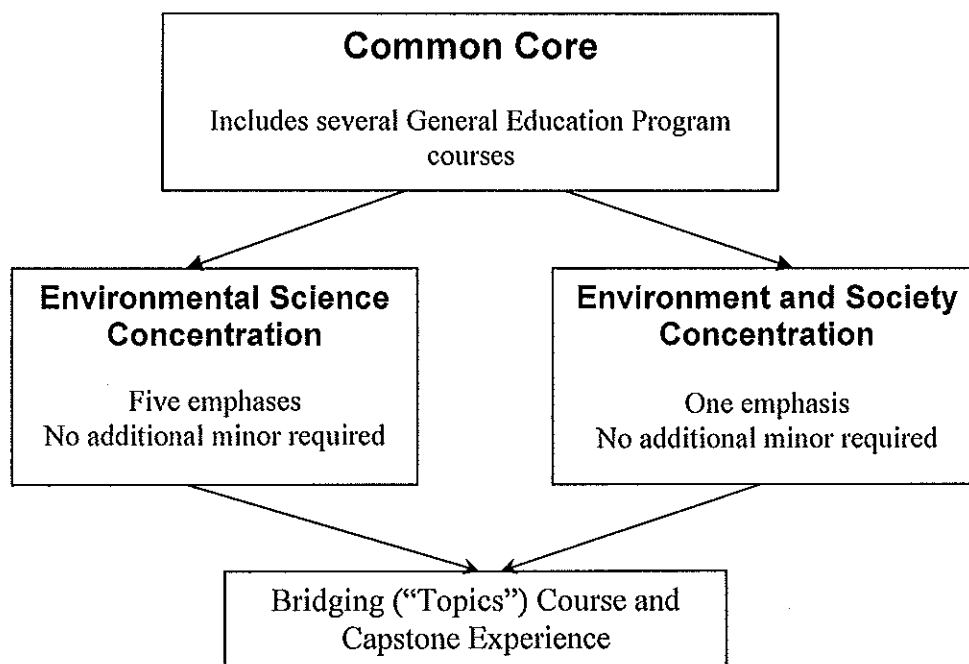
6. demonstrate understanding of the roles and importance of laws, politics and economics in environmental issues.

The program is intentionally interdisciplinary and the development of the program involved several departments in four different colleges. The program is consistent with university and College of Arts and Sciences strategic direction in that it provides practical experience in the form of a capstone experience that enhances learning and helps address community needs through environmental internships or research. The program provides a diverse perspective through the core courses and a bridging (“Topics”) course that brings together students from the sciences, the social sciences, and the humanities to discuss a topic in Environmental Science and Society. The program is consistent with the College of Arts and Sciences goal of internationalization by providing study abroad as an option for the capstone experience.

## B. Program

The Interdisciplinary Environmental Science and Society program can be thought of schematically as shown in Fig. 1. The program consists of a common core made primarily of General Education Program courses and a few additional courses that almost all majors will be required to take. The only exception is that students opting to pursue the Environmental Science concentration must take BIO 110, CHEM 121/122, and ESSC 110 while those not choosing to pursue the Environmental Science concentration can take an alternative to these three courses. All new course proposals appear in appendix C.





**Figure 1.** Schematic of the IESS Program

Required, restricted elective, and elective courses for the Interdisciplinary Environmental Science and Society program are listed below and more concisely in a table in Appendix B:

**Core Courses** (32-34 credit hours) *Environmental Science concentration must take BIO 110, CHEM 121/122, and ESSC 110*

BIO/ESSC 107	Introduction to Environmental Science	3 CH	
BIO 226	Global Ecology and the Environment	3 CH	or
BIO 110	Introductory Biology I	5 CH	
CASI (ENVI) 105	Introduction to Environment and Society	3 CH	** new course
CASI (ENVI) 305	Topics in Environmental Science and Society	3 CH	** new course
CASI (ENVI) 405	Capstone Experience	3 CH	** new course
CHEM 115 and 116	Chemistry and Society and Lab	4 CH	or
CHEM 121 and 122	General Chemistry I and Lab	4 CH	
ESSC 108 and 109	Earth Science for Non-Majors and Lab	4 CH	or
ESSC 110	The Dynamic Earth System	4 CH	
GEOG 276	Principles of GIS	3 CH	
MATH 170	Elementary Statistics	3 CH	
PHIL 229	Environmental Ethics	3 CH	** passed CAC 10/10

**Environmental Science Concentration** (45-58 credit hours depending on emphasis) *Students must complete all the requirements of one of the emphases below.*

*Atmosphere and Climate emphasis (45-47 credit hours)*

Required Courses:

CHEM 123 and 124	General Chemistry II and Lab	4 CH	
CHEM 281	Introduction to Analytical Chemistry	4 CH	or
CHEM 282	Honors Introduction to Analytical Chemistry	4 CH	

ESSC 212	Weather, Climate and the Earth System	3 CH
ESSC 300	Introduction to Hydrology	3 CH
ESSC 324	Weather	3 CH
ESSC 424	Climatology	3 CH
ESSC 485	Remote Sensing	3 CH
MATH 120	Calculus I	4 CH
PHY 221(or 223)	Mechanics, Sound, and Heat	4(5) CH
PHY 222(or 224)	Electricity and Light	4(5) CH

Restricted Electives: (minimum 10 credits)

BIO 120	Introductory Biology II	5 CH	
BIO 310	Ecology	3 CH	
CHEM 270	Survey of Organic Chemistry	4 CH	or
CHEM 371	Organic Chemistry I		3 CH
CHEM 415	Environmental Chemistry	3 CH	or
ESSC 422	Environmental Geochemistry		3 CH ** new course
COSC 120	Computational Principles for Math and Science	3 CH	or
COSC 145	Introduction to FORTRAN Programming		3 CH
ESSC 111	Earth System Through Time	4 CH	
ESSC 320	Oceanography	3 CH	
ESSC 325	Geomorphology	4 CH	
ESSC 327	Soil Science	3 CH	
ESSC 370	Glacial Geology	4 CH	
ESSC 425W	Severe and Unusual Weather	3 CH	
ESSC 448	Hydrogeology	3 CH	
ESSC 497/498/499	Independent Study	1/2/3 CH	
ESSC 567	Paleoclimatology	3 CH	
GEOG 376	Geographic Information Systems Analysis	3 CH	
GEOG 476	Advance GIS	3 CH	
MATH 121	Calculus II	4 CH	
MATH 122	Elementary Linear Algebra	3 CH	
MATH 223	Multivariable Calculus	4 CH	
MATH 325	Differential Equations	3 CH	

*Environmental Biology emphasis (46-50 credit hours)*

Required Courses:

BIO 120	Introductory Biology II	5 CH	
BIO 310	Ecology	3 CH	
BIO 311W	Laboratory in Ecology	3 CH	
CHEM 123 and 124	General Chemistry II and Lab	4 CH	
CHEM 270	Survey of Organic Chemistry	4 CH	or
CHEM 371	Organic Chemistry I		3 CH
ESSC 212	Weather, Climate, and the Earth System	3 CH	
(MATH 105 or 119)	College Algebra or Applied Calculus		
and MATH 107	Plane Trigonometry	5 CH	or
MATH 112	Topics in Precalculus Mathematics		3 CH or
MATH 120	Calculus I		4 CH
PHY 221 (or 223)	Mechanics, Sound, and Heat	4 (5) CH	

Electives: (18 Credit hours; at least 15 in BIO)

BIO 410	Limnology	3 CH
BIO 412	Biogeography	3 CH
BIO 413	Wetland Ecosystems	3 CH
BIO 414	Terrestrial Ecosystems	3 CH
BIO 415	Microbial Ecology	3 CH
BIO 455	Plant Evolution and Classification	3 CH
BIO 456	Freshwater Algae	3 CH
BIO 457	Aquatic Plants	3 CH
BIO 458	Trees and Shrubs	3 CH
BIO 480	Natural History of Invertebrates	3 CH
BIO 481	Natural History of Vertebrates	3 CH
BIO 482	Ichthyology	3 CH
BIO 483	Mammalogy	3 CH
BIO 484	Herpetology	3 CH
BIO 485	Ornithology	3 CH
BIO 486	Entomology	3 CH
BIO 488	Biology of Arachnids	3 CH
BIO 497/498/499	Undergraduate Research in Biology	1/2/3 CH
CHEM 281	Introduction to Analytical Chemistry	4 CH <i>or</i>
CHEM 282	Honors Introduction to Analytical Chemistry	4 CH
CHEM 332	Inorganic Chemistry	2 CH
CHEM 411	Toxicology I	2 CH
CHEM 412	Toxicology II	3 CH
CHEM 413	Toxicology Lab	2 CH
CHEM 415	Environmental Chemistry	3 CH <i>or</i>
ESSC 422	Environmental Geochemistry	3 CH ** new course
ESSC 111	The Earth System Through Time	4 CH
ESSC 229	Rocks and Minerals	3 CH
ESSC 250	Introduction to Coastal Processes	3 CH
ESSC 300	Introduction to Hydrology	3 CH
ESSC 325	Geomorphology	4 CH
ESSC 327	Soil Science	3 CH
ESSC 448	Hydrogeology	3 CH
ESSC 450	Lake and Coastal Management	3 CH
ESSC 459	Aquifer Analysis	3 CH
GEOG 376	GIS Analysis	3 CH
GEOG 476	Advanced GIS	3 CH
PHY 222 (or 224)	Electricity and Light	4 (5) CH

*Environmental Chemistry emphasis (47-56 credit hours)*

Required Courses:

BIO 120	Introductory Biology II	5 CH
CHEM 123 and 124	General Chemistry II and Lab	4 CH
CHEM 270 and 271	Survey of Organic Chemistry and Lab	5 CH <i>or</i>
CHEM 371, 372 and 373	Organic Chemistry I and II and Lab	8 CH
CHEM 281	Introduction to Analytical Chemistry	4 CH <i>or</i>
CHEM 282	Honors Introduction to Analytical Chemistry	4 CH
CHEM 332	Inorganic Chemistry	2 CH
CHEM 381	Instrumentation for Chemical Technology	2 CH <i>or</i>
CHEM 481	Instrumental Analysis	4 CH
CHEM 415	Environmental Chemistry	3 CH

ESSC 212	Weather, Climate and the Earth System	3 CH	or
ESSC 300	Introduction to Hydrology	3 CH	
(MATH 105 or 119) and MATH 107	College Algebra or Applied Calculus Plane Trigonometry	5 CH	or
MATH 112	Topics in Precalculus Mathematics	3 CH	or
MATH 120	Calculus I	4 CH	
PHY 221(or 223)	Mechanics, Sound, and Heat	4(5) CH	
PHY 222(or 224)	Electricity and Light	4(5) CH	

Restricted Electives: (minimum 8 credits) maximum 3 CH total from CHEM 488/489/498/499

BIO 305	Cell and Molecular Biology	3 CH	
BIO 306W	Cell and Molecular Biology Lab	2 CH	
BIO 310	Ecology	3 CH	
BIO 311W	Ecology Lab	2 CH	
BIO 410	Limnology	3 CH	
CHEM 351	Foundations of Biochemistry	4 CH	
CHEM 411	Toxicology I	2 CH	
CHEM 412	Toxicology II	3 CH	
CHEM 413	Toxicology Lab	2 CH	
CHEM 451	Biochemistry I	3 CH	
CHEM 452	Biochemistry I I	3 CH	
CHEM 453	Biochemistry Lab	2 CH	
CHEM 488/489	Cooperative Education in Chemistry	2/3 CH	
CHEM 498/499	Undergraduate Research in Chemistry	2/3 CH	
ESSC 228	Mineralogy	4 CH	or
ESSC 229	Rocks and Minerals	3 CH	
ESSC 320	Oceanography	3 CH	
ESSC 327	Soil Science	3 CH	
ESSC 448	Hydrogeology	3 CH	

*Environmental Geoscience emphasis (49-54 credit hours)*

Required Courses:

BIO 120	Introductory Biology II	5 CH	
CHEM 123 and 124	General Chemistry II and Lab	4 CH	
ESSC 111	Earth Through Time	4 CH	
ESSC 212	Weather, Climate and the Earth System	3 CH	
ESSC 228	Mineralogy	4 CH	or
ESSC 229	Rocks and Minerals	3 CH	
ESSC 300	Introduction to Hydrology	3 CH	
ESSC 325	Geomorphology	4 CH	or
ESSC 327	Soil Science	3 CH	
ESSC 330	Sedimentology and Stratigraphy	4 CH	
ESSC 422	Environmental Geochemistry	3 CH	**new course
MATH 119	Applied Calculus	3 CH	or
MATH 120	Calculus I	4 CH	
PHY 221 (or 223)	Mechanics, Sound and Heat	4 (5) CH	

Restricted Electives: (minimum 10 credits at least 2 courses from ESSC)

BIO 310	Ecology	3 CH
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CHEM 270	Survey of Organic Chemistry	4 CH	or
CHEM 371	Organic Chemistry I	3 CH	
CHEM 281	Introduction to Analytical Chemistry	4 CH	or
CHEM 282	Honors Introduction to Analytical Chemistry	4 CH	
ESSC 320	Oceanography	3 CH	
ESSC 324	Weather	3 CH	
ESSC 326	Structural Geology	4 CH	
ESSC 329	Igneous and Metamorphic Petrology	4 CH	
ESSC 331	Paleontology	4 CH	
ESSC 448	Hydrogeology	3 CH	
ESSC 450	Lake and Coastal Processes	3 CH	
ESSC 466W	Global Tectonics	3 CH	
ESSC 485	Introduction to Remote Sensing	3 CH	
ESSC 487	Cooperative Education in Geoscience	3 CH	
ESSC 497/498/499	Independent Study	1/2/3 CH	
PHY 222 (or 224)	Electricity and Light	4(5) CH	

***Environmental Hydrology emphasis (56-58 credit hours)***

**Required Courses:**

BIO 120	Introductory Biology II	5 CH	
BIO 310	Ecology	3 CH	
BIO 311W	Laboratory in Ecology	3 CH	
BIO 410	Limology	3 CH	
BIO 413	Wetland Ecosystems	3 CH	
CHEM 123 and 124	General Chemistry II and Lab	4 CH	
ESSC 111	Earth Through Time	3 CH	
ESSC 212	Weather, Climate, and the Earth System	3 CH	
ESSC 228	Mineralogy	3 CH	
ESSC 300	Introduction to Hydrology	3 CH	
ESSC 320	Oceanography	3 CH	
ESSC 330	Sedimentology and Stratigraphy	4 CH	
ESSC 422	Environmental Geochemistry	3 CH	**new course
ESSC 448	Hydrogeology	3 CH	
ESSC 485	Remote Sensing	3 CH	or
GEOG 376	Geographical Information Analysis	3 CH	
MATH 120	Calculus I	4 CH	
PHY 221 (or 223)	Mechanics, Sound and Heat	4 (5) CH	

**Environmental and Society Concentration (30 credit hours)**

**Required Courses:**

ESSC 495	Environmental Assessment and Planning	3 CH	
GEOG 110	World Regions	3 CH	
HIST 416	American Environmental History	3 CH	**new course
LAW 456	Environmental Law	3 CH	
PLSC 381	Public Policy Analysis	3 CH	

**Electives—choose 5: (15 credits)**

ECON 336	Economics of Environmental and Natural Resources	3 CH	
ENGL 310	Writing and Civic Literacy	3 CH	
PHIL 224	Ethics and Food	3 CH	

PLSC 336	Foundations of the US Nonprofit Sector	3 CH
PLSC 342	International Organizations	3 CH
PLSC 435	Nonprofit Management and Leadership	3 CH

A sample typical program of study that a student would follow in completing the IESS program is given in Table 1 for the environmental hydrology emphasis, which is the largest of the emphases.

**Table 1. Sample program for environmental hydrology emphasis**

<b>Year 1 Fall Semester</b>	<b>Credit Hours</b>
Math 120 or placement	4-5
ESSC 110	4
Gen Ed area I	3
Gen Ed area IV	3
<b>Total</b>	<b>14-15</b>

<b>Year 1 Winter Semester</b>	<b>Credit Hours</b>
Math 120 or 170	3-4
BIO/ESSC 107	3
ESSC 111	4
Gen Ed area I	3
Gen Ed area IV	3
<b>Total</b>	<b>16-17</b>

<b>Year 2 Fall Semester</b>	<b>Credit Hours</b>
CHEM 121 and 122	4
BIO 110	5
U.S. Diversity area III	3
Gen Ed area IV	3
Gen Ed area IV	3
<b>Total</b>	<b>18</b>

<b>Year 2 Winter Semester</b>	<b>Credit Hours</b>
CHEM 123 and 124	4
PHIL 229	3
CASI 105	3
BIO 120	5
<b>Total</b>	<b>15</b>

<b>Year 3 Fall Semester</b>	<b>Credit Hours</b>
ESSC 300	3
BIO 310	3
BIO 311	3
ESSC 212	3
PHY 221 or 223	4-5
<b>Total</b>	<b>16-17</b>

<b>Year 3 Winter Semester</b>	<b>Credit Hours</b>
CASI 305	3
GEOG 276	3
ESSC 320	3
ESSC 448	3
ESSC 422 or none	0-3
<b>Total</b>	<b>12-15</b>

<b>Year 4 Fall Semester</b>	<b>Credit Hours</b>
BIO 413	3
BIO 410	3
ESSC 228	4
Math 170 or elective	3
Gen Ed area IV	3
<b>Total</b>	<b>16</b>

<b>Year 4 Winter Semester</b>	<b>Credit Hours</b>
ESSC 330	4
ESSC 485 or GEOG 376	3
ESSC 422 or none	0-3
CASI 405	3
Gen Ed area IV	3
<b>Total</b>	<b>13-16</b>

**Total 120-129 credit hours**

### C. Admission

No additional admission requirements beyond those required for admission to the university are needed for this program. There will be no conditional admissions to the program.

### D. Projections

Environmental Studies programs often consist of hundreds of majors at many of the Michigan Universities listed in Table 2. Given the justification presented in section 2 and the fact that over 10 students from outside of EMU have inquired about the program in the past 4 months with only a brief mention of the development of such a program on the department website, it is reasonable to expect a program of a similar size once it is fully developed. If a more coordinated marketing effort is developed and implemented, the initial enrollment can easily be over 30 students with approximately 50 students a year enrolled within three years.

#### E. Other Pertinent Information

The administration of the program is described in a program input document presented in appendix B. All CASI courses will convert to ENVI courses with the same course number upon acceptance of proposed program.

## II. Justification/Rationale

### A. Evidence of demand for the proposed program

People are becoming more aware of the increasing degradation of our environment and the government has imposed increasingly complex regulations to protect the integrity of the environment. Companies often need to hire consulting firms to help them comply with these complex regulations. The identifications of problems that humans cause to the environment, the solutions to these problems, and the assistance to industry to comply with regulations all require training in the environmental studies. Both the renewed emphasis on environmental awareness and the need for hiring skilled employees have led to an increased popularity of environmental science/studies programs.

Several data sources document the growing student demand for Environmental Studies and Environmental Science programs, with a pronounced increase in popularity during the last five years. According to a 2009 report by the Association for Environmental Studies and Science<sup>2</sup>, program offerings have increased in recent years, but so has student enrollment. A comprehensive survey indicated that 58% of undergraduate programs in environmental science and environmental studies reported enrollment growth between 2003 and 2008 and a further 29% reported stable enrollment. The same survey reported that there are more undergraduate programs called "environmental science" than "environmental studies", but that environmental studies received on average about twice greater student enrollment. A New York Times article from February 2009<sup>3</sup> reports a similar trend of growing enrollment in these two majors at select universities. A 2010 report by the National Association of University Forestry Resources Programs shows for its 69 member universities a strong recent increase in student enrollment in the area of "Natural Resources and the Environment"; undergraduate enrollment in this area rose by about 35% since 2005. Students at EMU often inquire about environmental programs to EMU faculty involved in this proposed program. We had several inquiries about the environmental studies program over the summer of 2010 after mention of the proposed program was made on the Department of Geography and Geology website. This suggests to us that student-interest in our geographic area tracks the reported national trend.

The job outlook for science and technology-oriented occupations related to the environment is believed to be good to excellent. A federal Bureau of Labor Statistics report shows an expected strong growth (faster than average) in employment for environmental scientists between 2008 and 2018. In their current Occupational

<sup>2</sup> "Growth in Environmental Studies and Science Programs," Shirley Vincent, *Association of Environmental Studies and Sciences Newsletter*, July 2009 (available at <http://ncseonline.org/CEDD/cms.cfm?id=1500>)

<sup>3</sup> NY Times February 24, 2009, "Environmental Studies Enrollment Soars" By KATE GALBRAITH

Outlook Handbook<sup>4</sup>, the field of environmental scientists is pegged at 86,000 nationwide employees and “favorable” employment outlook, particularly in state and local government. Total job growth for the category ‘Environmental Scientist and Specialists’ is expected to be 28% over the next decade. Also expected is a stronger than average growth (18% between 2008 and 2018) in the occupational category of geoscientists and hydrologist (a career for which an undergraduate degree in Environmental Science would be a stepping-stone). For the job category of “Conservation Scientists and Foresters” the employment outlook is predicted to be stable. Other job categories that the Department of Labor tracks<sup>5</sup> and that are relevant to the proposed new program include “Soil and Water Conservationist (average projected growth)”, “Water Resource Specialists (above average)”, “Environmental Restoration Planners (much faster than average)”, “Climate Change Analysts (much faster than average)”, “Regulatory Affairs Specialists (much faster than average)”, “Regulatory Affairs Managers (much faster than average)” and “Sustainability Specialists (average)”

In 2009, the Michigan Department of Energy, Labor & Economic Growth (Bureau Of Labor Market Information & Strategic Initiatives) released a special report on growth outlook of “green jobs”<sup>6</sup>. It predicted a strong growth in this job category. However, said report defined “Green occupations” as job titles “commonly utilized by green-related industries to produce products and services for the green economy”. As such, it looked mostly at manufacturing industries, construction industries, and the like. However, the report finds a fairly bright outlook in the surveyed job category “Environmental Scientists and Specialists, including Health” which appears roughly applicable to the environmental science concentration in the proposed EMU program: 33% of surveyed employers predict a likely job expansion for that category and 81% of employers see a need for unique skills for their green projects in that job category, i.e. agree that environmental scientists and specialists need specialized training, such as formal education from a university.

In sum, our analysis points to a strong potential for student enrollment in the program at EMU that is driven by increased societal awareness and a favorable anticipated employment situation.

The program will support working relationships that members of the faculty have with their network of alumni at community environmental organizations and consulting firms. Faculty also have several grant programs that could utilize students in environmental studies such as the Coupled Remote Sensing and Biological Monitoring of Invasive Plant Species and their Impacts on the Detroit River International Wildlife Refuge grant (NOAA \$633,350), the Grassland Ecosystems and Societal Adaptations Under Changing Grazing Intensity and Climate on the Mongolian Plateau, 2009 – 2012 grant (NASA \$458,298), and the Brownfield Redevelopment in Michigan grant (Michigan Department of Environmental Quality \$295,000) to name a few. This new program can help provide student research support and has the potential to assist faculty in obtaining future environmental research grants.

#### B. Similar programs in Michigan and uniqueness of the proposed program

**Table 2 Universities in Michigan that have similar environmental programs**

<i><b>Universities</b></i>	<i><b>Programs</b></i>	<i><b>Concentrations</b></i>
<b>Central Michigan University</b>	Coordinate major in Environmental Studies (second major must be chosen)	Environmental Science and Environmental Policy
<b>Grand Valley State University</b>	B.S. Natural Resource Management	Environmental Science
<b>Northern Michigan University</b>	B.S. Environmental Conservation	

<sup>4</sup> Bureau of Labor Statistics, Occupational Outlook Handbook (OOH), 2010-11 Edition, available at <http://www.bls.gov/oco/>



<b>Oakland University</b>	B.S. Environmental Science	Occupational Safety and Health, Public Health, Environmental Resource Management, Toxic Substance control
<b>University of Michigan</b>	B.A. or B.S. in the Environment	
<b>University of Michigan-Dearborn</b>	B.S. Environmental Science or B.A. Environmental Studies	
<b>Wayne State University</b>	B.S. Environmental Science	
<b>Western Michigan University</b>	Coordinate major in environmental studies (second major must be chosen)	

A number of similar programs in the state of Michigan are presented in Table 2. While several other Michigan universities have environmental studies programs, occupational demand, societal need, and student-interest in environmental programs justify the creation of additional programs in the state. The EMU program is unique in that it is intentionally interdisciplinary. The proposed program features several classes that will be team-taught by faculty across different departments, a common core between the two concentrations, a bridge course ("Topics in...", ENVI 305) attended by students in both concentrations, and an intentionally interdisciplinary capstone experience. This unique breadth of knowledge and ability to communicate across disciplinary boundaries prepare students for the type of interdisciplinary jobs for which they will be competing upon graduation.

C. Letters of support for the program are attached as an appendix to this proposal

### III. Preparedness

#### A. Qualifications of Faculty

Most of the courses in the IESS program are pre-existing and will be taught by faculty vetted by the departments that controls those courses. The new proposed courses that will start out as CASI courses (later, ENVI) will be team-taught by faculty from various departments who are qualified by virtue of their experience in teaching and/or research in the topic area. CASI 1xx, (ENVI 105) Introduction to Environment and Society will be taught by two faculty members from different departments in the area of social sciences/humanities, e.g. Political Sciences, History/Philosophy or Geography. CASI 3xx (ENVI 305), Topics in Environmental Science and Society, will be team-taught by 2-3 faculty members from departments in the natural sciences and from social sciences/humanities. A good example for this topics course is an interdisciplinary course that is taught this semester, (PHY 179/PLSC 120/PHIL 279) Global Energy Resources: Physics, Philosophy, and Policy; it is being taught by Ernest Beringer from the Physics, Margaret Crouch from History/Philosophy and Rhonda Longworth from Political Science. The Capstone Experience course (CASI 4xx, ENVI 405) will be taught/organized by the program coordinator or by a faculty affiliate in the program.

#### B. Library Resources

Halle Library has been acquiring new material for the field of environmental science and environmental studies at a moderate pace. Since 2006, the Library has bought about 310 new titles, mostly books. There is a small collection of videos and DVDs (about 25 titles), some of which are a bit outdated. In addition, science librarian Paula Storm has drawn up a research guide for ecology and the environment and a further one about sustainability is under construction. These research guides lists relevant data indices and web resources. The library has sufficient databases for scholarly and general media sources, among them Web of Science, GEOBASE, Green FILE, BioAbstracts, and BioOne. The recommendation is that the library allocates an additional \$2000-\$3000 during the first year to acquire further material in consultation with the faculty that

develops the new courses in the program to adequately supply the program with media, e.g. for \$3000 the video collection could be expanded by about 20 titles.

### **C. Adequacy of Existing Facilities/Equipment**

Since the majority of classes in the program are housed in departments, it is largely the responsibility of the departments to assure adequacy of facilities/equipment for the courses. Fortunately, the university is in the process of investing \$90 million in the construction and renovation of science facilities, which will be tremendous boost to the IESS program. In addition a proposal has been submitted to the Provost office for an Above-baseline Budget Proposal of \$96,000, some of which is slated to help cover emerging equipment needs, such as a new van to allow expanded field-based courses. The IESS courses that will be housed in the college will not have a laboratory component and thus depend only on adequate classroom space, which will be available once the Mark Jefferson and Pray Harrold renovations are completed.

### **D. Not applicable to this proposal**

### **E. Marketing Plan for the New Program**

Student helpers will be hired to assist in developing a website that provides information and explains the requirements of the new major. The website will also describe career opportunities, job openings, and typical starting salary ranges. Information about IESS will also be provided to other websites such as internet networking sites (e.g. [www.zinch.com](http://www.zinch.com)). High schools will be identified that are candidate feeder schools for the departments that are participating in the new major. Pamphlets will be prepared and sent to these schools. The program coordinator will visit a number of these schools on special 'college nights' to discuss the new program with guidance counselors, environmental studies-related (Biology, Earth Science, Environmental Science, Social Science) teachers, and interested students. A demonstration booth will be prepared to market the program to current and prospective EMU students at university-sponsored programs such as 'Explore Eastern'. This marketing campaign will begin as soon as the program is approved. Since the timing of the new program will fit well with the opening of the new LEED-certified Mark Jefferson Science Complex, media outlets will be notified of the "ribbon cutting" for both the new science building and the new IESS program. The slogan for the new program will be "Say YES to IESS!".

## **IV. Assessment/Evaluation**

The guiding principles in developing this Assessment Plan were the following:

- \* Establish procedures and timelines to ensure success of the assessment program
- \* Create assessment vehicles that provide data that can verify if IESS Program Learning Outcomes are achieved
- \* Develop benchmarks for declaring Program success

### **A) Student Learning Outcomes**

Upon graduating from the IESS program, students will...

1. be able to effectively communicate on topics relating to the environment in written and oral forms
2. be able to use scientific reasoning and methodology
3. demonstrate an understanding of the importance of ethics and diverse worldviews in the public discourse on environmental issues
4. demonstrate an understanding of the major environmental issues and their potential solutions

(Specific to Environmental Science Concentration)

5. be able to create and implement scientific investigations

(Specific to Environment & Society Concentration)

6. demonstrate understanding of the roles and importance of laws, politics and economics in environmental issues

### B) Curriculum Mapping

Table 3. Student Learning Outcomes and places in the core curriculum where they are specifically addressed

<b>Student Learning Outcomes</b>	<i>ESSC BIO 107</i>	<i>ENVI 105</i>	<i>PHIL 229</i>	<i>BIO 110</i>	<i>CHEM 116/ 122</i>	<i>ESSC 109/ 110</i>	<i>LAW 456</i>	<i>HIST 4xx</i>	<i>Topics ENVI 305</i>	<i>Capst, ENVI 405</i>
1. Communicate effectively			A						A	S
2. Use scientific reasoning and methodology	K			A	A	A				
3. Importance of ethics and worldviews			K,A					A	S	
4. Environmental issues and solutions	K	K					K	A	S	S
5. Create and implement scientific investigations				A	A	A				
6. Roles and importance of laws, politics and economics		A					K	A	S	S

Explanation of abbreviations: K= Knowledge/Comprehension level, A= Application Level, S= Synthesis/Evaluation Level (based on Bloom's taxonomy of learning)

W= writing-intensive course, LBC- may qualify for learning beyond the classroom credit

### C) Monitoring Program Objectives Through Assessment Data

The following describes the methodology for assessing how well program-level SLOs are being met in the program. The responsible party for carrying out the monitoring plan is the program coordinator under

guidance from the program steering committee. Instructors are expected to collect student data and share this information with the program coordinator. An electronic file will be created for each student who has declared his/her major in the new program. In this file, information for monitoring student progress will be collected. These data will be used by the steering committee in annual reviews to monitor if program-level SLOs have been met and what adjustments need to be made to the program.

Data collection will be mainly restricted to classes in the common core: ESSC 107, Intro to Environment & Soc., Environmental Ethics, ENVI 305 (Topics Course), Capstone Experience (ENVI 405). To track student success in SLO 2 and SLO 5, final grades and lab reports will be collected in some of the natural science courses (see Table 4 below). Other assessment vehicles include using writing assignments and/or final reports to evaluate the student's mastery of key learning objectives. For SLO 4 ("students will understand major environmental issues and their potential solutions"), a specific ungraded assessment test will be developed that will be repeatedly administered throughout the core courses (e.g. before the ESSC/Bio 107 course as a pre-test and after the capstone seminar as a post-test) to monitor student progress. The content of this test will be developed by gathering input from focus groups of faculty that teaches the core courses.

Table 4. Assessment tools used for evaluating students' attainment of SLOs

Class	SLO 1	SLO 2	SLO 3	SLO 4	SLO 5	SLO 6
<i>ESSC/ BIO 107</i>				Assessment test Section of exams		
<i>ENVI 105 Environment &amp; Society</i>						
<i>ENVI 305 Topics</i>	Final Report (oral/written)		Final Report	Assessment test		
<i>PHIL 226 Env. Ethics</i>	Main writing assignmen		Section of exams			
<i>BIO 110/120 CHEM 116/122</i>		Section of exams			Lab reports	
<i>LAW 456  ENVI 405 Capstone seminar</i>	Final Capstone Report, (oral/written) reflective journals			Assessment test		Section of exams

#### D) Timeline for Monitoring Program (projected)

The following timeline is a projection. Since some of the courses in the program haven't been taught yet, we can't know exactly which data are going to be collected when.

Activity	FA 2011	WI 2012	FA 2012	WI 2013	FA 2013	WI 2014
<b>Data Collection</b>	Assessment test admin. In ESSC 107. Assignments in Envtl. Ethics.	Assessment test in more classes. Gather assignments in ENVI 305	Common rubric for exam sections applied in several classes	TBD	TBD	TBD
<b>Evaluation of Data</b>	Program coordinator to collate report	First-year report goes to steering committee	Program coordinator to collate report	2nd-year report goes to steering committee	Program coordinator to collate report	3rd-year report goes to steering committee

## **E) Developing Program-level Outcomes**

The program coordinator will form a focus group with faculty affiliates and interested external parties (e.g. local employers in the environmental field) to develop program-level outcomes and define benchmarks for the program's success. Part of the focus group's task will be to suggest common rubrics for some assignments so all assessments graded in different sections of the course are evaluated fairly.

The program coordinator will report the findings of the focus group to the steering committee. Benchmarks may include 5-year graduation rate of majors, % of graduates that go on to grad school or find relevant employment etc.

## **V. Program Costs**

A. FACULTY/LECTURERS/or SUPPORT STAFF: The program will require a Program Coordinator with a ½ time course release for Fall and Winter AND 20% of base salary for Spring-Summer semesters. It is essential to have a Program Coordinator available for Spring and Summer due to the number of students who seek information and advice during that time span. The actual \$ cost will be determined when this person is selected.

B. No additional space for the program is needed.

C. EQUIPMENT NEEDED: For lab courses taught within a specific department, a budget for replacement equipment and supplies for resources used by Interdisciplinary Environmental Science and Society courses needs to be established. The amount involved will depend on program enrollment and actual use of the lab equipment and supplies.

D. ASSISTANTSHIPS/FELLOWSHIPS: Initially the program will need a part-time graduate student assistant to help with the work of the Program Coordinator.

E. LIBRARY RESOURCES: Initially: \$3000 for start up costs and then \$500/ year thereafter to support acquisition of necessary publications and/or databases.

F. MARKETING AND RECRUITING COSTS: Suggested budget of \$4000/year for the first three years to cover High School recruitment, University Fairs, brochures, travel expenses and other related promotional costs.

G. OTHER COSTS NOT COVERED ABOVE: Additional sections or courses as program enrollment increases will require additional instructional staffing.

H. Total of all financial requirements for implementation of proposed degree: Total costs can not be determined until the Program Coordinator is selected, courses are offered and enrollment numbers are available, and recruitment plans are established.

I. Continuing Education: Not applicable.

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## VI. Action of the Department/College

### 1. Department/School (Include the faculty votes signatures from all submitting departments/schools.)

Vote of faculty: For 12 Against 5 Abstentions 0  
 (Enter the number of votes cast in each category.)

I support this proposal. The proposed program can ☒ cannot ☐ be implemented without additional College or University resources.

\_\_\_\_\_  
 Department Head/School Director Signature

11-5-2010  
 Date

### 2. College/Graduate School (Include signatures from the deans of all submitting colleges.)

#### A. College.

I support this proposal. The proposed program can ☒ cannot ☐ be implemented within the affected College without additional University resources.

\_\_\_\_\_  
 College Dean Signature

12/7/10  
 Date

#### B. Graduate School (new graduate programs ONLY)

\_\_\_\_\_  
 Graduate Dean Signature

\_\_\_\_\_  
 Date

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## VII. Approval

\_\_\_\_\_  
 Associate Vice-President for Academic Programming Signature

4/27/11  
 Date

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## VIII. Appendices

### Appendix A: Curriculum Table

Table A.1. Table of required courses and restricted electives along with credit hour counts for each concentration and emphasis.

Common Core		Required		Required		Required		Electives		Electives	
ENVIRONMENT AND SOCIETY		ENVIRONMENTAL SCIENCE		ENVIRONMENTAL SCIENCE		ENVIRONMENTAL SCIENCE		ENVIRONMENTAL SCIENCE		ENVIRONMENTAL SCIENCE	
		Atmosphere & Climate		Envl. Biology		Envl. Chemistry		Envl. Geoscience		Envl. Hydrology	
		Climate emphasis		Envl. Biology emphasis		Envl. Chemistry emphasis		Envl. Geoscience emphasis		Envl. Hydrology emphasis	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
		79-81		80-84		81-90		83-88		90-92	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
		79-81		80-84		81-90		83-88		90-92	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
		79-81		80-84		81-90		83-88		90-92	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
		79-81		80-84		81-90		83-88		90-92	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
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		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
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		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)		0	
		79-81		80-84		81-90		83-88		90-92	
		34		34		34		34		34	
		35-37		28-32		39-48		39-44		56-58	
		10		18 (15 from BIO)		8		10 (2 courses from ESSC)			

## Appendix B: Program Input Document

# Program Input Document Interdisciplinary Environmental Science and Studies

### Preamble:

The following are definitions of governance structure and roles of individuals within the Interdisciplinary Environmental Science and Society Program:

1. *Faculty Affiliate* – A tenured or tenure-track faculty member who demonstrates commitment to the mission of the Interdisciplinary Environmental Science and Society Programs through teaching, research or service, and who has been elected to Faculty Affiliate status by the Faculty Affiliates. Faculty Affiliates have voting privileges in Interdisciplinary Environmental Science and Society Faculty meetings. Faculty affiliate status will initially be extended to those members teaching any required course.
2. *Program Coordinator* - Faculty Affiliate recommended by the Interdisciplinary Environmental Science and Society Steering Committee, and elected by the faculty affiliates. The Interdisciplinary Environmental Science and Society Program Coordinator is responsible for reporting issues related to the Interdisciplinary Environmental Science and Society Program to the Interdisciplinary Environmental Science and Society Program Administrator. Serves as chair of the Interdisciplinary Environmental Science and Society steering committee.
3. *Program Administrator* - Department head of a department affiliated with the Interdisciplinary Environmental Science and Society Programs, or an Associate Dean of CAS, or an assistant to the Dean of CAS. This person will be appointed by and report to the Dean of CAS for the purposes of administrative oversight. Serves as a nonvoting member of the Interdisciplinary Environmental Science and Society Steering Committee. Program administrator must be in a different department from the program coordinator.
4. *Steering Committee* - Membership consists of one Interdisciplinary Environmental Science and Society Faculty Affiliate from each affiliated department, the program coordinator, and is chaired by the Program Coordinator.
5. *Affiliated Departments* - Departments with commitments to participation in the Interdisciplinary Environmental Science and Society Programs. Initially, the affiliated departments are Biology, Chemistry, Geography and Geology, History and Philosophy, Mathematics, and Political Science. Departments may be affiliated with the program on the recommendation of the steering committee by vote of Faculty Affiliates.



## Body

### I. Faculty Affiliation

- A. An Interdisciplinary Environmental Science and Society program Faculty Affiliate is a tenured or tenure-track faculty member who demonstrates commitment to the mission of the Interdisciplinary Environmental Science and Society Programs through teaching, research, or service, and has been elected to affiliate status by the Interdisciplinary Environmental Science and Society Faculty Affiliates.
- B. The procedure for affiliation is as follows:
  - i. The candidate affiliate should request affiliation from the Interdisciplinary Environmental Science and Society Steering Committee.
  - ii. The Steering Committee will then forward a recommendation (either positive or negative) regarding the affiliation of the candidate to the Interdisciplinary Environmental Science and Society Faculty Affiliates.
  - iii. The Interdisciplinary Environmental Science and Society Faculty Affiliates will then vote on the affiliation as specified in the section on the Interdisciplinary Environmental Science and Society Faculty Meeting in section III.
- C. To retain Faculty Affiliate status, an Interdisciplinary Environmental Science and Society Faculty Affiliate must reassert their affiliation with the Interdisciplinary Environmental Science and Society Programs by the first faculty meeting of the academic year.
- D. A faculty member whose Interdisciplinary Environmental Science and Society Faculty Affiliate status has lapsed may inform the Steering Committee of their reaffiliation at any time. Reaffiliation does not require vote by the Interdisciplinary Environmental Science and Society Faculty Affiliates.

### II. Departmental Affiliates

- A. Initial affiliated departments are Biology, Chemistry, Geography and Geology, History and Philosophy, Mathematics, and Political Science. Other departments may be affiliated by vote of the Interdisciplinary Environmental Science and Society Faculty Affiliates on the recommendation of the Interdisciplinary Environmental Science and Society Steering Committee.
- B. Department affiliation means that the affiliated department may elect a representative to the Interdisciplinary Environmental Science and Society Steering Committee. If an affiliated department fails to elect a representative, the department will not be considered in the determination of quorum for steering committee meetings.

### III. Interdisciplinary Environmental Science and Society Faculty Meeting

- A. The Interdisciplinary Environmental Science and Society Faculty meetings will be held at least once each Fall and Winter semester, and may coincide with the meetings of the Interdisciplinary Environmental Science and Society Steering Committee meeting. The meeting will be open to

all interested faculty, students, and staff, but voting will be restricted to Interdisciplinary Environmental Science and Society Faculty Affiliates as indicated above.

- B. The Interdisciplinary Environmental Science and Society Faculty Meeting will serve as the approving body for the following issues: election of faculty members to Interdisciplinary Environmental Science and Society Faculty Affiliate status, and, upon recommendation of the steering committee, approval of new programs and changes to existing programs.
- C. The Interdisciplinary Environmental Science and Society Faculty Meeting will serve as an advisory body to the Interdisciplinary Environmental Science and Society Steering Committee on other issues relating to curriculum, budget requests and allocation, scheduling and other issues identified by the Steering Committee that may require Interdisciplinary Environmental Science and Society Faculty Affiliate consensus and approval.
- D. The Interdisciplinary Environmental Science and Society Program Coordinator will chair the meeting. In the absence of the program coordinator an attending Interdisciplinary Environmental Science and Society Faculty Affiliate will be elected to serve as *pro tem* chair.
- E. Quorum will be a simple majority of Interdisciplinary Environmental Science and Society Faculty Affiliates. All votes will be by simple majority of attending Interdisciplinary Environmental Science and Society Faculty Affiliates.
- F. The Program Coordinator shall have the authority to call meetings, and prepare agenda. In addition, the Program Coordinator must call a meeting upon receipt of a written request from five Faculty Affiliates of the program. Normally, notice of meetings shall be distributed to all faculty or staff affiliates at least four days in advance of the meeting. Items shall be placed on the written agenda at the request of any Faculty Affiliate; additionally agenda shall include an opportunity for any faculty affiliate to bring a matter before the meeting.
- G. A secretary shall be designated by the Program Coordinator at each Interdisciplinary Environmental Science and Society Faculty Meeting, and shall record the minutes of that meeting, and shall provide copies for distribution to the Faculty Affiliates. A copy of the minutes shall be kept on file by the current Interdisciplinary Environmental Science and Society Program Coordinator.

#### IV. Special Voting

- A. The Interdisciplinary Environmental Science and Society Steering Committee may present issues for special vote by the Interdisciplinary Environmental Science and Society Faculty Affiliates outside of an Interdisciplinary Environmental Science and Society Faculty Meeting. Issues must also be forwarded for a special vote on signed petition by three Interdisciplinary Environmental Science and Society Faculty Affiliates.
- B. Special votes must be held no less than five working days after the vote is announced, and may be preceded by discussion on any suitable electronic medium (for instance, listserv or web-based discussion group).
- C. Special votes may be held by paper, email, or other electronic balloting mechanism.
- D. The issue will pass if supported by a simple majority of responding Interdisciplinary

## Environmental Science and Society Faculty Affiliates.

### V. Interdisciplinary Environmental Science and Society Steering Committee

- A. The committee shall be composed of one elected Interdisciplinary Environmental Science and Society Faculty Affiliate from each affiliated department plus the Interdisciplinary Environmental Science and Society Program Coordinator. The mechanism for election of Interdisciplinary Environmental Science and Society Faculty Affiliates to the Interdisciplinary Environmental Science and Society Steering Committee is to be determined by each department's input mechanism.
- B. Quorum for the meeting will be a simple majority of current representatives of affiliated departments.
- C. Each committee member will serve a term of three years. An alternate with a one-year term shall be appointed/elected by each department to serve in cases of absence due to leave or absences caused by temporary conflicts of interest. Terms of committee membership will begin on the first day of the Fall term.
- D. The Interdisciplinary Environmental Science and Society Program Coordinator will serve as the Interdisciplinary Environmental Science and Society Steering Committee chair. Both the Interdisciplinary Environmental Science and Society Program Administrator and Interdisciplinary Environmental Science and Society Program Coordinator have authority to call meetings and prepare agenda. Normally, the agenda will be distributed to committee members at least four days in advance of the meeting.
- E. Unless modified by bylaws, Robert's Rules of Order shall provide the guidelines for conducting Interdisciplinary and Environmental Science and Society steering committee meetings.
- F. The Interdisciplinary Environmental Science and Society Steering Committee will meet as needed. Special meetings may also be called at the request of any committee member, and must be called if two members request a meeting. In addition, meetings must be called upon the request of five Interdisciplinary Environmental Science and Society Faculty Affiliates of the program. Items will be placed on the agenda at the request of any committee member or affiliate of the program.
- G. The responsibilities of the Steering Committee include, but are not limited to, the following:
  - i. The committee will make recommendations to the Interdisciplinary Environmental Science and Society Faculty Affiliates regarding new Faculty Affiliate status for a faculty member, as well as affiliation of a department. The committee will track faculty affiliation for the purposes of computing quorum at the Interdisciplinary Environmental Science and Society Faculty Meetings. The committee will review affiliation before the first Interdisciplinary Environmental Science and Society Faculty Meeting of the academic year, and remove any Interdisciplinary Environmental Science and Society Faculty Affiliate not reasserting their status by that time. The committee will restore affiliate status to any previous Faculty Affiliate who requests it. The Interdisciplinary Environmental Science and Society Steering Committee will determine the procedures to be followed for applying for, reasserting, and applying for restoration of Interdisciplinary Environmental Science and Society Faculty Affiliate status.

- ii. The committee will have the opportunity to make recommendations to the Interdisciplinary Environmental Science and Society Program Coordinator and Interdisciplinary Environmental Science and Society Program Administrator concerning both the size and character of program budget requests, and the distribution and expenditure of moneys awarded to the program.
- iii. The committee will review and make oral or written recommendations to the Interdisciplinary Environmental Science and Society Faculty Affiliates or the Interdisciplinary Environmental Science and Society Program Coordinator concerning, but not limited to:
  - a. Proposed curricular developments and changes.
  - b. New programs.
  - c. Requests to departments for coordinated course scheduling.
  - d. Policies concerning participation in distance learning, continuing education courses, off-campus programs, and all courses accepted in the Interdisciplinary Environmental Science and Society Programs.
- H. The members of the steering committee will elect with a majority vote a secretary. The secretary will keep minutes of the committee meetings that will be kept on file by the current Interdisciplinary Environmental Science and Society Program Coordinator.
- I. The Interdisciplinary Environmental Science and Society Steering Committee, including the Interdisciplinary Environmental Science and Society Program Coordinator and Interdisciplinary Environmental Science and Society Program administrator may appoint *ad hoc* committees for any purpose.

## VI. Program Coordinator

- A. The Interdisciplinary Environmental Science and Society Program Coordinator is an Interdisciplinary Environmental Science and Society Faculty Affiliate recommended by the Interdisciplinary Environmental Science and Society steering committee and elected by the Interdisciplinary Environmental Science and Society faculty affiliates. This person may not also be the representative of their department to the Interdisciplinary Environmental Science and Society Steering Committee if an affiliated department has more than one Interdisciplinary Environmental Science and Society Faculty Affiliate.
- B. The Interdisciplinary Environmental Science and Society Program Coordinator is responsible for reporting issues related to the Interdisciplinary Environmental Science and Society Program to the Interdisciplinary Environmental Science and Society Program Administrator.
- C. Appointment of the Interdisciplinary Environmental Science and Society Program Coordinator
  - i. The Interdisciplinary Environmental Science and Society Steering Committee will provide a recommendation of the Interdisciplinary Environmental Science and Society Program Coordinator to the Interdisciplinary Environmental Science and Society faculty affiliates.

- ii. The Interdisciplinary Environmental Science and Society Faculty Affiliates will then vote on the appointment of the Interdisciplinary Environmental Science and Society program coordinator as specified in the section on the Interdisciplinary Environmental Science and Society Faculty Meeting in section III.
  - iii. The term of the Interdisciplinary Environmental Science and Society Program Coordinator will be two years, with no limit on reappointment.
  - iv. The Interdisciplinary Environmental Science and Society Steering Committee will provide a recommendation regarding the reappointment of the Interdisciplinary Environmental Science and Society Program Coordinator to the Interdisciplinary Environmental Science and Society faculty affiliates.
- D. The responsibilities of the Interdisciplinary Environmental Science and Society Program Coordinator include, but are not limited to, the following:
- i. The Program Coordinator will chair the Interdisciplinary Environmental Science and Society Faculty Meeting. The Program Coordinator will have the authority to call meetings and prepare agenda.
  - ii. The Program Coordinator shall bring curricular changes within the concentrations of the Interdisciplinary Environmental Science and Society program to the appropriate department affiliates. Changes to the Environmental Science concentration must first be approved by each of the science affiliated departments (initially Biology, Chemistry, Geography and Geology, and Mathematics). Changes to the Environment and Society concentration must first be approved by each of the non-science affiliated departments (initially Geography and Geology, History and Philosophy, Political Science). Changes to the core, including interdisciplinary courses housed under the College of Arts and Sciences, or to the entire program must first be approved by all department affiliates. The program coordinator can assume that any department that provides no input within 25 Fall or Winter academic days (when classes are in session, Monday through Friday) of receiving a request to approve a change, approves the change.
  - iii. The Program Coordinator will determine both the size and character of program budget requests, and the distribution and expenditure of moneys awarded to the program.

- VII. Courses included within Interdisciplinary Environmental Science and Society curricula that are affiliated with a particular department, as indicated by the course prefix, shall remain under the sole control of the host department. Although input from the Interdisciplinary Environmental Science and Society program may be considered, it will not be controlling as to issues concerning course staffing and course revision.
- VIII. Procedure for Amending this Document
- A. Motions to amend this document must be made by signed petition of five Interdisciplinary Environmental Science and Society Faculty Affiliates presented at an Interdisciplinary Environmental Science and Society Faculty Meeting. The motion must be tabled, and voted on at either the next Interdisciplinary Environmental Science and Society Faculty Meeting, or by Special Vote provided no less than two weeks of electronic discussion of the changes are allowed before the vote is taken.
  - B. On approval by the Interdisciplinary Environmental Science and Society Faculty Affiliates, the amended document will be submitted to the appropriate AAUP and EMU bodies for approval according to the procedures specified in the Faculty Participation in Governance Article (Article XIII) of the Collective Bargaining Agreement.
- IX. This document shall not serve to alter, modify or otherwise supersede any provision of the EMU-AAUP Agreement between Eastern Michigan University and the Eastern Michigan University Chapter of the American Association of University Professors nor shall any provision therein detract from any right(s) or function(s) retained by or granted EMU or EMU-AAUP through the parties' Agreement.

Appendix D: Departmental Support Letters

***Eastern Michigan University***  
***Department of Mathematics***

October 19, 2010

Dear Professor Thomas Kovacs:

I am pleased to write a letter in support of the Environmental Studies program. This really does look like an exciting opportunity for Eastern Michigan University.

Please be assured that the Department of Mathematics will work closely with you as far as scheduling MATH 170: Elementary Statistics. We are confident that we can meet the demand for this course and offer any additional sections for students in this program. We look forward to working with you on this.

Let me know if I can be of further assistance.

Sincerely,

Carla Tayeh  
Interim Department Head

To: whom it may concern:

Re: Proposed Creation of a program in *Environmental Science*

Date: October 22, 2010

The proposal for the creation of a program in Environmental Studies/Science was reviewed by the Chemistry Department's Instruction Committee. They had significant input into the Chemistry track for the program. This input was all incorporated into the program; the Committee recommended approval of the revised program; and the revised program was presented to the Chemistry Department Faculty on October 8, 2010. After discussion of the proposed program, the department faculty approved two motions. (1) By a vote of 19-0, a motion was approved that the program name must clearly specify that it is a degree in Environmental Science (and that the Chemistry track be specifically identified as the concentration for those students following that track. Hence, the ideal choice would be a major in Environmental Science with a concentration in Chemistry). (2) By a vote of 19-0-1, a motion passed stating approval for the proposed content of the program (and the Chemistry track in particular). It was understood that minor changes in some of the proposed tracks may still occur. There was substantial concern expressed that there was no definite structure in place for how the program would be administered. The department would like the opportunity for input on the administrative structure once a model has been developed. I am in agreement with the faculty recommendations. If there are any questions, please let me know.

Ross Nord, Ph.D.  
Professor and Head  
Department of Chemistry



EASTERN MICHIGAN UNIVERSITY  
MEMORANDUM

TO: Jack Kay, Provost and Executive Vice President  
Tom Venner, Dean of the College of Arts & Sciences

FROM: Marianne Laporte, Head of the Department of Biology

RE: Support for Proposed Program in Interdisciplinary Environmental Sciences & Society

DATE: October 28, 2010

I am writing to express the support of the Biology Department for the proposed new undergraduate program in Interdisciplinary Environmental Sciences & Society. The proposal was reviewed by our curriculum committee and presented to the faculty on October 15, 2010. The proposal was approved by a vote of 11 for - 0 against - 3 abstentions with the caveat that we may want to consider adding additional biology electives to our sub-track either prior to its final approval or by way of a program change at a later date. The faculty understand that the other tracks may undergo minor changes as well. We understand that the administrative structure of the program is still under discussion and would like to be involved in those discussions as they occur. I agree with the recommendations of the faculty. The Biology Department is looking forward to participating in this exciting new program. Please let me know if you need any additional information.



DEPARTMENT of POLITICAL SCIENCE  
*emich.edu*

DATE: October 28, 2010  
TO: curriculum reviewers  
FROM: Arnold Fleischmann/  
Department Head, Political Science  
RE: proposed Environmental Studies Program

I am writing to add our department's support to the Environmental Studies proposal. Two of our faculty (Professors Longworth and Rosenfeld) participated in developing the proposal.

We are prepared to participate in the team-taught introductory course and ENVI 300. Within the "Environment and Society" track, the required PLSC 381 is offered every fall. The electives in that track are offered regularly. During this academic year, for instance, PLSC 336 and 342 are offered in the fall, and PLSC 435 is scheduled for winter.

The proposal was reviewed by our Instructional Committee, which received feedback after the proposal was vetted electronically with our faculty following their October meeting. The committee and our faculty are enthusiastic about this proposal, and I am pleased to lend our support to this effort.

## MEMORANDUM

TO: College of Arts and Sciences FAC  
FROM: Anne L. Balazs, Ph.D., Head, Department of Marketing  
RE: Support of LAW 456  
DATE: November 4, 2010

I am writing in support of including Law 456-Environmental Law as a required course in the Environment and Society track of the newly proposed interdisciplinary program in Environmental Science and Society. I understand the proposal will be reviewed by the College of Arts and Sciences FAC soon.

The Department of Marketing (and Law) has been instrumental in providing innovative course work to several interdisciplinary programs on campus. With respect to the Law curriculum, courses in Employment Law, Sports Law, International Business Law, Legal Environment of Nonprofit Organizations, and Law for Financial Professionals all support non-COB majors on EMU's campus. Our faculty has been especially creative and cooperative in scheduling and delivering the courses required (and deemed valuable) by other areas.

Environmental Law (Law 456) was developed by Daryl Barton and was taught most recently last Spring in an online format. It attracted students from the College of Arts and Sciences, the College of Technology and the College of Business. I can assure you that it has widespread appeal and will be an outstanding addition to your program. I sincerely hope you agree that this course is an important component of the new major. Feel free to contact me with any questions.

cc: Daryl Barton, Associate Professor, Law  
Dr. Ulrich G. Reinhardt, Associate Professor, Biology  
Dr. Tom Kovacs, Associate Professor, Geography and Geology

Greetings,

On behalf of both of the History and Philosophy instruction committees in my department, I am please to endorse our department's participation in the proposed Environmental Studies Program. Both committees unanimously support the proposed program.

Thank you for this initiative, and please forward this endorsement to any appropriate recipients.

Sincerely,  
Kate Mehuron

Department Head  
History and Philosophy  
Eastern Michigan University



## EASTERN MICHIGAN UNIVERSITY

To: Dean Tom Venner

Re: Proposed Creation of the Interdisciplinary Environmental Science and Society program

Date: November 5, 2010

I am writing to express the support of the Geography and Geology Department for the proposed new undergraduate program in Interdisciplinary Environmental Science & Society. Several faculty members in the department had significant input throughout the development of the entire program. The proposal was reviewed by our curriculum committee and presented to the faculty on November 5, 2010. The proposal was approved by a vote of 12 for, 5 against, and 0 abstentions. The concerns against the program largely focused on the large size and complexity of the program. However, most faculty felt that the concerns were minor and that the program will evolve and improve with time. The Geography and Geology Department is looking forward to participating in this exciting new program and we feel that this program will be a real asset to Eastern Michigan University. Please let me know if you need any additional information.

Richard Sambrook  
Professor and Head  
Department of Geography and Geology

## Appendix E: External Letters of Support



JENNIFER M. GRANHOLM  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF NATURAL RESOURCES & ENVIRONMENT  
LANSING



REBECCA A. HUMPHRIES  
DIRECTOR

November 1, 2010

Dr. Richard Sambrook  
Eastern Michigan University  
Department of Geography and Geology  
205 Strong Hall  
Ypsilanti, Michigan 48197

Dear Dr. Sambrook:

SUBJECT: Interdisciplinary Environmental Science and Society Program Proposal

I have reviewed the Interdisciplinary Environmental Science and Society Program Executive Summary. I am also familiar with the curriculum in the Department of Geography and Geology at Eastern Michigan University (EMU). Since there is a growing public concern world wide regarding changes to the Earth's environment and the human impact to the environment, I anticipate a growing need for education in Environmental Science. Eastern Michigan University is uniquely positioned to provide this Interdisciplinary Environmental Science and Society curriculum with the combination of geography, geology, atmospheric, biology, chemistry, and hydrology programs in existence today. Students from this program would qualify for employment with the Michigan Department of Natural Resources and Environment as Environmental Quality Analysts. I also anticipate a growing need in the future for employees with this background in industry and environmental protection consulting firms.

If you have any questions, please contact me at DNRE-ERMD, Jackson State Office Building, 301 East Louis Glick Highway, Jackson, Michigan 49201; by telephone at the number below; or by e-mail at [beanl@michigan.gov](mailto:beanl@michigan.gov).

Sincerely,

Lawrence E. Bean  
Jackson District Supervisor  
Environmental Resource Management Division  
517-780-7920

cc: Dr. Steve LoDuca, EMU, Geography and Geology