Department of Teaching and Learning
College of Education
Florida Atlantic University

SCE 6196 Capstone Study in Environmental Education

Catalog Description:
Course content is individualized according to goals and interests. Requirements: readings, directed independent study/internship, poster/media presentation, and research paper linking content in all courses to goals after graduation. Course completed during the last semester of the Master's Program.

Prerequisites:
Graduate Level SCE 6345, SCE 6344, SCE 6644, STA 6113, EDG 6285 and EDF 6481. Permission of instructor is required. Environmental Education majors only.

Course Connection to Conceptual Framework:
As reflective decision-makers, students make informed decisions, exhibit ethical behavior, and provide evidence of being capable professionals by documenting and presenting knowledge, skills and dispositions that demonstrate abilities to effectively design, implement, assess and evaluate environmental education programs for the public k-adult and/or private sectors.

Required Texts:
Hungerford, H., Blum, W., Volk, T. & Ramsey, J. (Eds.). (2005). *Essential readings in environmental education* (3rd ed.). pp. 1-56, 65-196, 235-300, 313-442. Champ, IL: Stipes.
Wiggins, G. & McTighe, J. (2005). Understanding by design. *Association for Supervision Curriculum Development (ASCD).*

Required Evaluation Models (select <u>one</u>):
Boulmetis, J., & Dutwin, P. (2005). *The ABC's of evaluation: Timeless techniques for program and project managers (research methods for the social sciences).* San Francisco, CA: Jossey-Bass.
Ernst, J., Monroe, M. & Simmons, B. (2006). Evaluating your environmental education programs. *North American Association for Environmental Education* (NAAEE).
Marcinkowski, T. (2004). Using a logic model to review and analyze an environmental education program. *North American Association for Environmental Education* (NAAEE).
Stufflebeam, D. (Number 89, Spring 2001). *Evaluation models.* San Francisco, CA: Jossey-Bass.

Required Websites:
Association for Advancement of Sustainability in Higher Education (AASHE) http://www.aashe.org
Department of Environmental Protection (DEP) http://www.dep.state.fl.us/southeast
Environmental Education Training and Partnerships (EETAP) http://www.eetap.org
FAU Graduate Student Association. http://www.fau.edu/sga/gsa.php
League of Environmental Educators in Florida (LEEF) http://www.leef.florida.org
Mission Green, Florida Atlantic University Campus Sustainability http://wwwfau.edu/facilities/sustain
North American Association for Environmental Education (NAAEE) http://www.naaee.org
Purdue Online Writing Lab. http://owl.english.purdue.edu/owl/resource/560/01
Sierra Club http://www.sierraclub.org/

Guidelines Used in Developing Course Objectives: NAAEE/NCATE

North American Association for Environmental Education Standards (NAAEE)
National Council for Accreditation of Teacher Education (NCATE)

Course Objectives: http://www.naaee.org

1. Students will use results of their investigations to plan, carry out, and evaluate action projects designed to address selected environmental issues (2.6).
2. Students will impact learning by selecting and implementing instructional strategies and technologies that meet diverse needs and lead to development of environmental literacy (5.2).
3. Students will develop technology-rich instructional plans that address diverse needs (5.3).
4. Students will impact diverse learning by using assessment data, collected and analyzed with the aid of technology, to inform environmental education instruction (6.2).
5. Students will impact diverse learning by communicating assessment results and achievement to appropriate individuals (6.3).
6. Students will provide accurate, balanced, effective environmental education instruction (7.3).

Written Guidelines (graded acceptable/not acceptable):

- Involvement and participation in all research projects completed by students in the Capstone.
- Written component of your final investigative research project must total no more than 25 and no less than 15 double spaced pages (excluding title page, abstract, reference list and appendices). Two points will be deducted from final grade on project for each page over 25.
- Document results of your investigation by describing methods as studied in STA 6113 Educational Statistics, EDG 6285 Program Evaluation, and EDF 6481 Educational Research.
- Use a #12 Times Roman or equivalent font throughout your written paper.
- Margins must be no more than 1.25" and no less than 1" on all four sides.
- Format all internal citations and reference listings (end of paper) according to the APA.
- Accepted rules of English grammar, punctuation, and spelling must be followed.
- Projects must be clipped or stapled. Please do not submit projects in covers or binders.

Recommended Readings:

Elder, J. (2003). A field guide to environmental literacy. *North American Association for Environmental Education (NAAEE).*

Jacobson, S., McDuff, M. & Monroe, M. (2006). *Conservation education and outreach techniques.* Oxford, NY: Oxford University Press.

Louv, R. (2008). *Last child in the woods: Saving our children from nature-deficit disorder.* Chapel Hill, NC: Algonquin Books.

Madfes, T. (Ed.). (2004). What's FAIR got to do with it? Diversity cases from environmental educators. *Environmental Education and Training Partnership (EETAP), North American Association for Environmental Education (NAAEE).*

Simmons, B. (Ed.). (2005). Preparing effective environmental educators. *North American Association for Environmental Education (NAAEE).*

Smith, G. & Sobel, D. (2010 or 2004). Place-based and community-based education in schools (sociocultural, political, historical studies in education). Great Barrington, MA: *Orion Society.*

Tomlinson, C. & McTighe, J. (2006). Integrating differentiated instruction. Understanding by design. *Association for Supervision Curriculum Development (ASCD).*

Wiggins, G. (1998). *Educative assessment: Designing assessments to inform and improve student performance.* San Francisco, CA: Jossey-Bass.

Course Requirements: D=Directed Independent Study and I=Internship

Using a logic model, analyze your program and evaluation.	**Points**	**% of Course Grade**
Written Paper:		
• Title Page: Letter prefix/number/title of course, your name, name of D/I facilitator, name of course instructor, and title of your project.	0	0%
• Abstract: Clearly state your question for investigation and provide a brief overview of your research plan, including method of documentation (collection); i.e., survey, data, analysis of student achievement, needs assessment, etc.	Up to 3	3%
• Review of Literature (a minimum of 24 sources must be included in the body of your paper. All readings must be linked to your topic. What ***others*** have created and accomplished.		
○ 12 selected in consultation with your D/I facilitator (~1/2p ea)	Up to 12	12%
○ 11 EE readings (3 assigned in Capstone, 8 previously, ~1/3p ea)	Up to 11	11%
○ 1 book review/comparison (2-4pp)	Up to 5	5%
• Work with Approved FAU Faculty/DEP Staff (≥ 25 hours). Results of your work will be what ***you*** have created and accomplished (10-15pp):		
○ Create a new environmental education program.	Up to 10	10%
○ Select the evaluation model (p.1) that best suits your project.	0	0%
○ Use this model to evaluate your program and delivery, including your method(s) of assessing effectiveness for classroom (formal) or community (non-formal) education.	Up to 5	5%
○ Compare your results with those of at least 2 other programs focused on the same objectives.	Up to 5	5%
• Results: Include visual (graphs, etc.) and narrative representation of your methods of documentation (collection), as stated in your abstract, as well as results (analysis) of your investigation (evaluation).	Up to 10	10%
• Interview the Executive Director or Administrator of an EE Center: Prepare a minimum of 6-8 specific questions and summarize responses.	Up to 12	12%
• Professional Organizations: Select 3 listed (p. 1). How do the missions of these organizations support your environmental education goals?	Up to 6	6%
• Your Contribution after Graduation: Consider what you have learned in all of your classes, from your review of literature; research, collection, analysis, and evaluation of documentation. State the contributions you intend to make, after graduation, based on the results of your project.	Up to 10	10%
• Reference List: APA format.	0	0%
Participation in Graduate Student Research Day: Poster presentation.	Up to 5	5%
Interactive Presentation:		
• Open with a 5-minute overview (purpose of research, significant points from interview, documentation style, results of investigation).	Up to 2	2%
• Move on to an activity, directly related to your investigation and poster, in which all class members can participate.	Up to 2	2%
• Close by relating the class activity to your project and summarizing significant investigation results.	Up to 2	2%
TOTAL	100	100%

Grading Scale: Scores are cumulative. Grade scale represents percentage of total points earned.

A	96-100	A-	91-95	B+	87-90	B	83-86
B-	80-82	C+	77-79	C	73-76	C-	70-72
D+	67-69	D	64-66	D-	60-63	F	Below 60

Attendance Policy:
According to University policy, "Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of nonattendance" (p. 53) Reasonable accommodations are made for religious observances.

Students with Disabilities:
In Compliance with The Americans with Disabilities Act (A.D.A.), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca in the Student Support Building, (SU 80) in Room 133 (561-297-3880), in Davie, LA 240 (954-236-1222); in Jupiter, SR 117 (561-799-8585); or at the Treasure Coast, JU 312 (772-873-3441) - and follow all OSD procedures.

Honor Code:
Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see http://www.fau.edu/regulations/chapter4/4.001_Honor_Code.pdf.

Course Outline: Everyone becomes involved and contributes to everyone else's research.

Weeks	Topics for Discussion	Assignments Due
1	**Reunion**, expectations, proposals, timelines, how course will move you toward your environmental education goals.	Full D/I proposal and timeline. FAU Faculty/DEP Staff. Employment plan.
2	Comparing Four Environmental Problem Solving Models and at least one article or website on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your research project?	*Essential* . . . critique pp. 161-172, review pp. 1-56, critique article or website related to your topic. Meet with D/I (FAU Faculty or DEP Staff).
3	Outcome Research in Environmental Education and at least one article or website on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your research project?	*Essential* . . . critique pp. 235-252, review pp. 65-104, critique article or website related to your topic. Meet with D/I (FAU Faculty or DEP Staff).
4	Educational Interventions that Improve Environmental Behaviors and at least one article or website on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your research project?	*Essential* . . . critique pp. 253-264, review pp. 105-160, critique article or website related to your topic. Meet with D/I (FAU Faculty or DEP Staff).

5	**Progress Report:** D/I, readings, draft of paper and poster. Share progress, and critique each other's work.	1st draft of research paper and poster. Prepare to discuss D/I research.
6	The Pros and Cons of Research in Environmental Education and at least one article or website on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your research project?	*Essential* . . . critique pp. 329-348, review pp.173-196, 295-300, 313-328, critique related article or site. Meet with D/I (FAU Faculty or DEP Staff).
7	Diffusing Environmental Education and at least one article or website on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your project?	*Essential* . . . critique pp. 387-398, review pp. 349-386, critique related article/site. Meet D/I Faculty/Staff.
8	At least two articles or websites on your topic. How do these and articles reviewed in *Essential Readings in EE* specifically link to your research project?	*Essential* . . . review pp. 399-442, critique 2 related articles or websites. Meet with D/I Faculty/Staff.
9	**Progress Report:** D/I, readings, draft of research paper and final poster. Share progress, and critique each other's work.	2nd draft of research paper and poster. Questions? Problems?
10	At least two articles or websites on your topic. How do these articles or websites specifically link to your research project? Which evaluation model are you using? How? Why?	Critique 2 related articles or websites. Review your evaluation model (p.1). Meet with D/I Faculty/Staff.
11	At least three articles or websites on your topic. How do these articles or websites specifically link to your research project? How are you using *Understanding by Design* in your environmental education program?	Critique 3 related articles or sites. Review *UbD.* Confirm that you have applied this framework to your project. Meet with D/I Faculty/Staff.
12	**Progress Report:** D/I, readings, final draft of research paper. Share progress, critique each other's work. SPOT.	Final draft of research paper, including completed review of literature.
13	Last minute questions, problems, requests for assistance. Submit signed log for ≥ 25 hours with D/I Faculty/Staff.	Meet with D/I Faculty/Staff. Get signature for ≥ 25 hours together.
14	Your favorite book on EE: Why is it your favorite? What contribution does it make? How does it compare to other books you have read on environmental education?	Book review: critique, analyze, compare and/or contrast to at least one other book on EE. Finish final paper.
15	**Final project presentations:** Link all course content completed in the EE Program to your goals after graduation.	Interactive presentations and congratulations on a job well done.