Please complete this form and attach a copy of the syllabus for new courses. Forward it as an email attachment to the Secretary of the Graduate Council. A printed copy of the form with signatures should be brought to the Graduate Council Meeting. Complete the Coordinator Form on page 2, if changes in this course will affect other units.

Please indicate:  

____ NEW  

____ MODIFY  

____ DELETE

Local Unit: New Century College  

Graduate Council Approval Date:  

Course Abbreviation: NCLC 520  

Course Number: 520

Full Course Title: Conservation Education

Abbreviated Course Title (24 characters max.): CONSERVATION EDUCATION

Credit hours: 3  

Program of Record: 

Repeatable for Credit? 

__ D=Yes, not within same term  

__ T=Yes, within the same term  

__ N=N=Cannot be repeated for credit

Activity Code (please indicate):  

__ Lecture (LEC)  

__ Lab (LAB)  

__ Recitation (RCT)  

__ Studio (STU)  

__ Internship (INT)  

__ Independent Study (IND)  

__ Seminar (SEM)

Catalog Credit Format 3:3:0  

Course Level: GF(500-600) __GF__ GA(700+) ____

Maximum Enrollment: 30  

For NEW courses, first term to be offered: F03

Prerequisites or corequisites: BA or BS; or Permission of Instructor

Catalog Description (35 words or less) Please use catalog format and attach a copy of the syllabus for new courses.:  

Conservation Education - Provides a comprehensive overview of instructional design methodology, management tools, departmental management and funding, current educational techniques and conservation. Prepares educators for leadership through interdisciplinary collaboration and an enhanced appreciation for their important roles within their institutions.

For MODIFIED or DELETED courses as appropriate:  

Last term offered:  

Previous Course Abbreviation:  

Previous number:

Description of modification:

APPROVAL SIGNATURES:  

Submitted by:  

______________________________  email:  ________________

Department/Program:  

______________________________  Date:  ________________
College Committee: ________________________________ Date: __________________
Graduate Council Representative: ________________________________ Date: _______________
GEORGE MASON UNIVERSITY
Course Coordination Form

Approval from other units:

Please list those units outside of your own who may be affected by this new, modified, or deleted course. Each of these units must approve this change prior to its being submitted to the Graduate Council for approval.

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Graduate Council approval: ____________________________ Date: ____________
Graduate Council representative: ______________________ Date: ____________
Provost Office representative: ________________________ Date: ____________
AZA Schools for Professional Development
George Mason University
New Century College

Conservation Education
(NCLC 520, 3 credits)

Name and contact information:

Faculty in Charge: Jackie Ogden, Ph.D. Director of Animal Programs
Disney's Animal Kingdom

Course Administrator: Louise Bradshaw, M.Ed. Director of Education
Saint Louis Zoological Park
One Government Drive
St. Louis, MO 63110
(314) 781-0900 ext. 756
bradshaw@stlzoo.org

Course Instructors:

Candace Bates, Curator of Education
Akron Zoological Park

Mike Chamberlain, Visitor Programs Manager
Monterey Bay Aquarium

Dave Harrelson, Ph.D. Endangered Species Biologist
U.S. Fish & Wildlife Service

Eric Reinhard, Associate Director of Conservation Education
American Zoo & Aquarium Association

Bert Vescolani, Vice President of Aquarium Collections and Education
John G. Shedd Aquarium

Keith Winsten, M. Acting Director of Communications
Brookfield Zoo

Roger Yerke, Manager of Education Programs
Oregon Zoo
Course Description and Learning Objectives (Student Learning Outcomes):

Course Description

Part of the AZA Schools for Professional Development, Conservation Education is a one-week course designed for zoo and aquarium staff who have either direct responsibility for education programs at their institutions, or for those staff who have an interest in, or connection to, education. Zoo and aquarium educators, volunteer/docent coordinators, exhibit design staff, children's zoo staff, librarians, marketing, development and public relations staff will benefit from participation in this course. The course includes education theory, new trends and applied learning through in-class, small-group activities and a comprehensive group project. The topics in this course are organized into three focal areas that are integrated throughout the week: (A) instructional design methodology, (B) management tools and techniques, and (C) conservation. Activities, lecture, demonstration, whole group discussion and team exercises are incorporated.

This graduate level course is a three-credit, six-day course with 47 hours of in-class contact time. Class hours are 8 a.m.-5:00 p.m., Tuesday through Saturday. The course begins with an introductory session on Monday evening, and lunches are working sessions. Group project work continues each evening, with a minimum of eight additional hours of evening work in project teams. Additional project work extends for four weeks beyond the course when a final written project is due.

Relationship to other AZA Schools for Professional Development: Zoo and Aquarium education is a topic in Managing for Success: Organizational Development. For those interested in learning more about zoo and aquarium education, Conservation Education provides a more in-depth course. The Conservation Education course includes topics on budgeting and on developing successful teams. Those who want to expand their understanding of zoo and aquarium management following their enrollment in Conservation Education could then take Managing for Success: Career Development and Managing for Success Organizational Development. A foundation in both the theory and applied practices of conservation education is excellent preparation for two additional courses: Creating Successful Exhibits, and a new course to be offered in 2004, Developing Successful Field Conservation Programs.

Prerequisites, co-requisites, or courses for which it serves as prerequisite, if appropriate: Prerequisite: Participants must be staff members at a zoo or aquarium.

Any skill-level expectations (e.g., familiarity with Netscape Composer, PowerPoint, Excel spreadsheets). There are no skill-level expectations for this course. Participants are employed in a zoo or aquarium, and will have either experience or interest in education. Course content will benefit the novice as well as the experienced educator.
Goals and Learning Objectives:

Goals

(1) To provide zoo and aquarium educators with a comprehensive overview of how to design, develop, implement and evaluate education programs and exhibit interpretive elements.
(2) To prepare educators for leadership through interdisciplinary collaboration and an enhanced appreciation for their important role in their institutions.
(3) To inspire educators to become actively involved in conservation action through on-site programming and local and international education initiatives and partnerships.

Outcomes

By participating in AZA Conservation Education School, zoo and aquarium staff will be able to:

- Apply the ADDIE model of instructional design to assess needs, design and develop education programs, and evaluate programs and exhibits
- Utilize zoo and aquarium industry trends and audience research in program development
- Employ new strategies and activities to convey conservation messages
- Collaborate more effectively with other zoo and aquarium departments
- Enhance management skills of budgeting, team building, strategic planning and establishing partnerships
- Develop the tools needed to participate in local, regional and international conservation/education projects
- Assess the issues related to the use of educational technology to determine its potential for their own institutions
- Work with their institution's staff to develop an institutional policy on the use of animals in education programs.
- Exchange information and ideas on marketing and implementing programs for children, families and adults
- Work with a team of colleagues to develop a program idea and formulate a grant proposal to obtain funding
- Network with other educators and build relationships for future collaboration and information sharing.
- Obtain references and resources
Skill development: Students will learn the sequential elements of creating education programs, including audience analysis and needs assessment techniques, goal setting and program design, program development, using a variety of program implementation techniques, and both formative and summative evaluation. Students will gain budgeting, grant writing, strategic planning and team-building skills through their participation in this course. Conservation Education introduces students to involvement in local and global field conservation projects, enabling students to develop their skills in creating field conservation education programs and in collaborating with AZA Species Survival Plans, Taxon Advisory Groups and Conservation Action Partnerships.

Competency Development: Students engage in activities designed to promote life-long learning skills. In-class discussion, exchange of ideas with education colleagues as well as those from other zoo and aquarium disciplines, small group activities, and question-and-answer sessions all enable students to analyze trends, to think critically and evaluate, to consider problems and propose solutions, to communicate effectively, and to learn their role in their organization. The final project enables students to enhance their competency in working on a team of diverse individuals to accomplish a common goal in minimal time. Active engagement, brainstorming, group dynamics, creativity and mutual support are life-long learning skills.

Textbooks and other course materials:

Students receive a comprehensive course notebook prior to the class, which contains outlines for each section, reference material, and copies of instructors’ PowerPoint presentations. Instructors also provide additional materials during the course; students may add these to the loose-leaf notebook.

Sample texts:

Engaging the Public on Biodiversity  A Road Map for Education and Communication Strategies  1998 The Biodiversity Project
Beyond Ecophobia: Reclaiming the Heart of Nature Education.  David Sobel
AZA: 20/20 Trends Report
AZA Conservation Education Committee: Trends Sub-Committee Draft Statements
AZA Multi-Institutional Research Project: Visitor Learning in Zoos & Aquariums
The Ocean Project: Executive Summary

Assignments and Grading Policies:

Measures for assessment are: participation in class discussion and small-group activities (20%), participation in, and contribution to, the final project work group (20%), group presentation (40%) and assessment of the written assignment (20%)

Plan for determining final grades:

Performance in the course is measured through active participation in class discussions and several small group activities throughout the week. In addition, students participate in a comprehensive, team-based project. Teams of six students meet during evening hours to apply to a foundation for a grant award. A written proposal is not expected; however, the team must present its proposal to the foundation “board” (the course instructors) on the
final day of class. Course instructors circulate among project groups during evening hours to assess their progress and ensure they are on target with developing their proposal idea. The presentations are evaluated on how well the students demonstrate their knowledge of course contents, incorporating elements of trends and methodology in conservation education, goal- and objective setting, front-end evaluation, appropriate steps of program instructional design (ADDIE: analysis, design, development, implementation and evaluation), budget development, and working with staff and community groups. Teams then receive verbal evaluation comments on their proposals from the instructors and other students. Students are required to submit to the Course Administrator within four weeks of the end of the course a written and revised “grant proposal” that describes the process the team went through to arrive at their final product. This proposal must demonstrate how the evaluative feedback from the instructors has been used to revise and polish the proposal and its program content.

**Policy on Participation:** Students must participate all five days of the session, and are expected to stay at the Oglebay Resort (rather than commute) so that they can be actively involved in required evening work sessions with their project groups. Students are expected to participate in class discussions, in small group activities, and in the development and presentation of the final project.

**Policy on extra credit:** N.A.

**Policy on late assignments:** Students taking the class graduate credit must submit their follow-up assignment to the Course Administrator within four weeks of the course completion date. Unless prior permission is received from the course administrators late assignments cannot be accepted, and credit cannot be awarded.

**Policy on group grades:** Only individual grades will be assigned to students who elect to take the course for GMU graduate credit.

**Identification/brief description of major assignments:** All students are required to participate in a final group project, working as a team with four to five of their colleagues. Teams of students present their project to the class on the final day. Those students taking the course for graduate credit will be required to submit a written summary of the project elements a new written proposal, which incorporates the instructors’ feedback into the re-worked project.

**Tentative Weekly Course Schedule:**

The tentative weekly course schedule is attached.

**Student Support:**

This course is offered at Oglebay Resort in Wheeling, WV, away from the GMU campus. Therefore, students will not have access to campus support services. Students requiring any assistance should speak with their course administrators who will work with the Board of Regents and AZA staff to accommodate requests.

**NCC’s Homepage at George Mason University:** www.ncc.gmu.edu

**Honor Code**

**Individual versus group work:** Participants are expected to participate as individuals in in-class discussions. Much of the week will be spent in group activity, in both small-group activities in class, as well as participation in the final project team. Project teams will work together outside of class time to complete a course project.
Each student is expected to fully participate in group activities, and to contribute to the final project in a manner equal to that of project partners.

**AZA Board of Regents**  
**AZA Schools Code of Conduct**

"Regents shall make reasonable efforts to disseminate and enforce the following Codes of Conduct, which apply to Regents, Instructors, Students, and staff: The Executive Committee of the Regents shall review cases of infractions and initiate disciplinary action, which may include dismissal from the school. Individuals subject to disciplinary action have the right to written appeal to the Board of Regents.

**Students**

The following types of conduct are prohibited at the AZA Schools and may lead to disciplinary action, up to and including removal or expulsion:

- Cheating, including using written notes or other reference materials during the final examination or copying from a classmate’s answer sheet.
- Reporting to classrooms under the influence of alcoholic beverages and/or illegal drugs or the use, sale, dispensing, or possession of alcoholic beverages and/or illegal drugs during classroom sessions.
- Engaging in any form of sexual harassment, including but not limited to unwelcome sexual flirtations, advances or propositions; verbal abuse of a sexual nature; verbal comments about an individual’s body; sexually degrading words used to describe an individual; or the display/use of sexually suggestive objects, pictures, and/or jokes.
- The use of profanity or abusive language.
- The possession of firearms or other weapons on the premises.
- Fighting or assault.
- Theft, destruction, defacement, or misuse of the premise’s property or of any individual’s property at the school or on the premises.
- Threatening or intimidating instructors, supervisors, Regents, Oglebay employees, or classmates.

**University Statement:**

*Quoted with Permission from the George Mason University*  
**Honor Code and Academic Integrity**

"The integrity of the University community is affected by the individual choices made by each of us. This is especially true in New Century College. GMU has an Honor Code with clear guidelines regarding academic integrity. Three fundamental and rather simple principles to follow at all times are that: (1) all work submitted be your own; (2) when using the work or ideas of others, including fellow students, give full credit through accurate citations; and (3) if you are uncertain about the ground rules on a particular assignment, ask for clarification. No grade is important enough to justify academic misconduct. If you feel unusual pressure or anxiety about your grade in this or any other course, please talk with us or to a trusted friend or counselor to get your situation in perspective. The University provides a range of service to help with test anxiety, writing skills, study skills, and other related concerns. Some projects are designed to be undertaken individually. For these projects, you may discuss your ideas with others or ask for feedback; however, it is not appropriate to give
your paper to someone else to revise. You are responsible for making certain that there is no question that the work you hand in is your own. If only your name appears on an assignment, your professor has the right to expect that you have done the work yourself, fully and independently.

As in most learning communities and in many other classes, your final integrated group project in this unit is designed to be completed by a study group. With collaborative work, names of all the participants should appear on the work. Over the course of the six weeks you may find that it is necessary for different group members to take the lead on various assignments leading up to the integrated final group project. However, the faculty do expect that all group members will contribute equally and that the pieces will be conceptually integrated in the final end product. Using someone else’s words or ideas without giving them credit is plagiarism, a very serious offense. It is very important to understand how to prevent committing plagiarism when using material from a source. If you wish to quote verbatim, you must use the exact words (including punctuation) just as it appears in the original and you must use quotation marks and page number(s) in your citation. If you want to paraphrase ideas from a source, that is, convey the author’s ideas in your own words—you must still cite the source, using MLA or APA format.

The re-use of papers, presentations, etc., from one course in another course is not appropriate. In every NCC course, faculty expect that work that is submitted has been done only for that class. An exception is made for materials included within course and year-end portfolios.

**Learning Community Principles:**

**How this course is a learning community**

From the George Mason University Web site for New Century College (www.ncc.gmu.edu):

"In New Century College's Integrative Studies program, students and faculty collaborate as learners and teachers in specially designed courses called learning communities. The teacher Peter Senge defined a learning community as:

A diverse group of people working together to nurture and sustain a knowledge-creating system...The members of a learning community are thus stewards of a knowledge-creating process, helping one another enhance their capacity for effective action and reflecting on and conceptualizing their evolving understanding.

In NCC, learning communities are:

- interdisciplinary - they combine subjects generally taught as individual courses into one integrated course
- team-taught - they integrate two or more faculty and their disciplinary perspectives
- theme-based - they tackle a complex contemporary intellectual inquiry from several different perspectives
- collaborative - they offer both faculty and students the chance to learn from, and teach, each other"

Conservation Education is a learning community. It is interdisciplinary in that it emphasizes the relationship of education with other departments in a zoo or aquarium, and the role of education within the institution as a whole. Conservation Education is team taught by a group of instructors, who team teach most of the topic sessions in the course. This AZA School is theme based, focusing on the strands of instructional design methodology, management tools and techniques, and conservation. Colleagues from other zoo and aquarium departments join us during the week for presentations or lunch-time discussions. Conservation Education is collaborative. We seek to
model the underlying premise of the course: to succeed at our institutions, we must collaborate with our colleagues in different disciplines. And in order to accomplish our mission of conservation and educating the communities of people we serve, zoos and aquariums must also model collaboration with partners. In Conservation Education, students learn from a team of instructors, and they learn from each other through discussion, group work and networking. While sharing their knowledge, instructors also learn from each other, and from the wealth of experience that students bring to the course.

Competencies to be Emphasized:

Conservation Education is organized into the following three streams:

A. Instructional Design Methodology (ADDIE)

Analysis: Identify audiences, recognize their characteristics and different learning styles. Use front-end analysis techniques to determine audience needs. Examine case studies. How do visitors construct meaning from their experiences at zoos and aquariums?

Design: Develop goals, objectives and outcomes, analyze available resources, determine age- and audience-appropriate content, outline the steps of instruction. Practice design of formal and non-formal programs. Apply these concepts to the design of exhibits and graphics.

Development: Develop the program content using a variety of resources and media. Determine effective uses of distance learning technology including Web-based education. Examine the messages we convey and what we know about the messages zoo and aquarium visitors take away. Explore the benefits and challenges to working with program and contact animals.

Implementation: Discuss a variety of program implementation and marketing strategies in the breadth of zoo and aquarium programming including fee-generating programs, school programs, teacher training outreach and youth programs.

Evaluation: Learn and practice formative and summative evaluation techniques for education programs, exhibits and graphics.

B. Management Tools and Techniques

Topics and activities in this area are designed to help education professionals establish and maintain effective working relationships with staff in other departments, plan for future program expansion, obtain and manage
financial resources, explore their role within their organization, and become actively involved in AZA activities. Topics and activities include: grant writing, effective teams, education strategic planning, budgeting, working with AZA, and informal lunch discussions with staff from other AZA disciplines.

C. Conservation

Topics in this area will provide educators with opportunities to examine case studies of institutional, community and collaborative conservation education initiatives at zoos and aquariums. Sessions on *in situ* conservation education will explore working locally and internationally through SSPs, TAGs and CAPs. With a representative of the U.S. Fish & Wildlife Service, we'll discuss how to implement regional conservation education projects. Informal lunch discussions will provide opportunities for exchange of information with zoo and aquarium colleagues.

Competency Development in this Course:

**Experiential learning:** Conservation Education engages students in group activities and discussions.

**Group work:** Students will work in a variety of small groups on course activities. In addition, students will be assigned to a project team. Teams will present their final projects on the last day of class.

**Collaborative teaching:** Many sections of Conservation Education are team taught. In addition, instructors remain for the entire week. When not instructing, their role will be to assist teaching instructors as needed (especially with small group exercises) and serve as resources for student project teams.

**Student Learning Assessment:**

A survey is sent to each student prior to the course to assess students' level of knowledge in several areas, and to learn from them what they most want to get from the course. Instructors use this feedback to refine their presentations as needed.

Instructors will assess student learning through students' participation in class discussions and small-group activities, through written papers and individual oral questions, and through a team oral presentation on the last day of class. The whole instructor team will provide verbal feedback to each team following its presentation. Course administrators will assess learning by reviewing the written final project that must be submitted two weeks following the end of the course. During the week, open discussion is encouraged. Students may present their experiences or situations, and receive feedback from instructors and fellow students.

During the course week, instructors hold a very brief, informal "check in" with students at the end of each day. This is to resolve any logistical concerns (the room is too cold) as well as assess what students think of the pace of the course, and what could improve the student experience. These formative course corrections are used each evening by instructors to plan for the following sections.

**Course Evaluation:** An extensive informal evaluation is held at the end of the course (an open discussion between students and teachers) to assess the course's overall strengths and weaknesses, and to solicit feedback from students that will shape the following year's course. In addition, students complete a written evaluation form, in which students rate each presentation using a scale. Students may also provide written narrative comments.

The Student Grading Scale:

**Written Grant Proposal incorporating feedback (8 pages)** 30%
Group Oral Presentation (individual grade) 30%
Written reflection on course processes, directed questions 20%
Daily formative assessment (evening coaching sessions) 20%