



## **The Lowell Civic Collaborative: Creating New Possibilities for Change**

**Dora Ottariano**, Professor of Mathematics  
**Donna Killian Duffy**, Professor of Psychology  
Middlesex Community College  
Lowell and Bedford, MA

**Becky Warren**, Supervisory Park Ranger  
Lowell National Historical Park

Middlesex Community College has formed an innovative partnership with Lowell National Historical Park and Minute Man National Historical Park to design civic engagement opportunities for students and the surrounding communities. In this presentation, a park interpreter and two professors will explain how the needs of the park were matched with course content from a range of disciplines. Materials will be shared and participants will be given ideas that can be translated to park settings in their communities.

This conference provides an opportunity to highlight a unique civic engagement partnership between a community college, Middlesex Community College, and its outstanding community resources, Lowell National Historical Park and Minute Man National Historical Park. Three years ago, the Service Learning Program, part of the Division of Social Sciences/Human Services, received a Learn and Serve Grant. The idea was to not only build enduring relationships between the organizations above, but to also embed civic engagement knowledge and skills into courses at Middlesex Community College. The overall goals were to:

- increase communications about civic engagement with faculty, staff, students and community population
- involve more students in civic engagement and service learning opportunities
- engage students and faculty in civic dialogues, and
- incorporate community residents in planning and implementing projects related to their needs.

To quote from the grant, “Goal: To increase the capacity of Middlesex Community College (MCC) and Lowell National Historic Park (LNHP) to assist community organizations in meeting the needs of their constituents by providing college-age youth, 18-25 years old, with an understanding of the value of civic engagement and an opportunity to practice the skills of civic engagement through participation in a diverse range of initiatives that encourage citizenship and service.”

The session will provide an overview of The Lowell Civic Collaborative Project funded from Learn and Serve from 2003-2006. Participants will be actively engaged in exploring how they might become involved in parks in their geographical area. Through discussion and examples, participants will be able to:

- Describe concrete ways that national parks can provide varied learning opportunities for community college students
- Explain how faculty in all disciplines can incorporate civic learning into their courses
- Formulate ways that they can adapt concrete examples of park-course collaborations into their own settings

We will begin by engaging participants in an interactive activity identifying their local natural and cultural resources. Then we will use the case study of The Lowell Civic Collaborative to explore opportunities and challenges for collaborating with city, state, and federal entities.

Using handouts with many concrete examples, a math professor will explain how work at the park has been incorporated into math courses such as Statistics, Fundamentals of Math, Math Connections, Math Modeling for Liberal Arts and Precalculus for Business and Social Science. As an example, students in Math Modeling are using data collected previously by students in a science class on the effects of grazing on non-native plants in the Minute Man National Historical Park. The students categorize the groups of plants and provide graphs and simple data analysis on the data. A psychology professor will provide products created by students in psychology courses and will highlight work from other disciplines. Since 2003, thirty-one Liberal Arts and Science faculty from a variety of disciplines have incorporated civic engagement topics into their courses. (See the table below and the following list of examples of topics.) Participants will receive samples from The Lowell Civic Collaborative Guidebook for faculty that will be published in the fall of 2006.

### **Courses Supported Through Faculty Institutes 2003-2006**

#### **Humanities**

ESL1205ELS-Advanced

EN2102 College Reading

EN1103 English Composition

HU9111 The American Dream

HU6148 Myths

HU2101 Art Appreciation

HU4126 Writing Plays With Children

HU2121 Drawing II

HU5121 Ethics and Society

### **Math and Science**

MA1113 Statistics  
MA1101 Fundamentals of Math  
MA1107 Precalculus  
MA1129 Math Connections  
MA1135 Math Modeling For Liberal Art  
SC1113 Explorations in Science  
SC2101 General Biology  
SC1106 Environmental Studies (2)  
SC1113 Explorations in Science  
SC3125 Chemistry

### **Social Sciences**

SO5131 Developmental Disabilities  
SO1101 Cultural Anthropology  
SO3123 American Government  
SO5133 Creating Inclusive Learning  
Environments  
SO6101 Introduction to Sociology  
SO3159 Women Leaders of the 20<sup>th</sup>  
Century  
  
SO5109 Childhood Growth and  
Development  
SO1131 World Geography  
CJ 1201 Interpersonal Communications  
in Criminal Justice  
SO 2113 Principles of Microeconomics

### **Computer Science**

CN 1131 Computer Networking  
Technology

## Examples of The Lowell Civic Collaborative Course Projects

- ⊕ Students in a Women Leaders of the 20<sup>th</sup> Century course summarized oral histories of the Lowell Mill Girls and cataloged the histories electronically for research purposes and as public resources.
- ⊕ At Minute Man National Historical Park in Lexington, students assisted staff to assess water quality and to determine invasive plant growth in a sheep grazing project.
- ⊕ A student in the Playmaking in Early Childhood course wrote and directed a play with a group of children at the Woburn Boys and Girls club.
- ⊕ A student in a Biology I class developed and gave lessons on Dental Hygiene to children at the Woburn Boys and Girls Club.
- ⊕ An English Composition course focused writing requirements on local history, especially the history of Mill Girls.
- ⊕ Students in a Math Connections course gathered data from Lowell National Historical Park on immigration and tourism to graph, chart and share with the LNHP staff.
- ⊕ Students in Developmental Disabilities and Creating Inclusive Learning Environments courses assessed handicap accessibility at three Lowell National Historical Park sites and shared findings and suggestions for change with LNHP staff.
- ⊕ A student in the Disabilities course investigated text to speech software, downloaded free software from the web, and scanned an exhibit description into the software. The display description is now available on an IPOD for park visitors.
- ⊕ A student in Play Writing developed and performed *The Mill Girl Monologue*, an original play which was based on student research of mill girl letters.
- ⊕ Students in chemistry courses set up experiments to complete on campus with young girls from Girls Inc.

One of the primary goals of Middlesex Community College is active civic engagement. The mission statement reads, “Through partnerships with schools, businesses, the arts community, and service agencies, Middlesex participates actively in the day-to-day life and ongoing development of its communities.” Even though we are now at the end of the Learn and Serve Grant, the partnerships that were created through this grant will be on-going. There is strong support from the college, faculty, staff and students. Once a project is developed, it can be repeated over again. Faculty that have participated in the grant continue to use the resources of the park and other community organizations in their courses and have shared materials with other members of their departments to ensure continuity and sustainability. There is always room for change and that is part of the whole process, to rethink a way of teaching a course you have been teaching a long time or develop new courses that emphasize civic engagement. The

collaborations can afford the instructors the opportunity to attempt to raise the students' awareness of various aspects of their community and to teach course content as well. The partnerships also fulfill the needs of the community organizations and that, of course, is the primary goal.

As the National Park Service articulates its vision for the 21<sup>st</sup> century, The Lowell Civic Collaborative serves as a significant tool in achieving those goals. Sustaining community relationships, engaging ongoing dialogue, and creating a workforce reflective of society can be attained through this collaborative. The students and faculty at Middlesex Community College will assist in keeping National Parks relevant in the 21<sup>st</sup> century through the investment in intellectual and emotional energy.

