Professional Development - Summer 2008

Field Study in Natural Sciences
and
Methods in Teaching Natural Sciences to Children

(3 Graduate Credits)

Field Study in Natural Sciences, EDP 571, will focus on content (see below), field research, and applications to classroom activities. (SCN 571 Methods of Teaching Natural Science to Children for the licensure programs)

Activities, content, and materials are consistent with elements of the National and Massachusetts Standards for and Science. Participation in the course is open to undergraduates with the approval of the instructor.

Whale Net

www.whalenet.net

When: July or August, Sunday through Saturday (Quebec), M through F (Mass.)
Tuition: $293 per Master level credit hour (3 credits) **plus** location class fees, or $229 per Undergraduate level credit hour (3 credits) **plus** location class fees
(Class fees are dependent on location (Massachusetts or Quebec) and have yet to be finalized (10-9-07).

Endicott College is accredited by
the New England Association of Schools and Colleges.

www.endicott.edu

Course Description:

Learn, hands-on, about ecology, life sciences, and physical sciences using the coastal marine ecosystem, marine mammal biology, the organisms that inhabit the coastal environment and techniques related to marine field research. Food chains, Life and Physical Science, basic oceanographic concepts, animal behavior, general research methods, data assimilation and analysis, and technological applications to education will be studied.

Participants will also have the opportunity to learn elements of navigation, bathymetry, and wildlife photography while participating in a long-term study in marine mammal research with an established research organization. No prior knowledge in marine sciences is needed -- just the desire to learn.

Students in Massachusetts will spend Monday through Friday participating in established research program; at least 3 days will be aboard a 100-ft. U.S. Coast Guard approved vessel in Massachusetts Bay. Students participating in the program with the Mingan Island Cetacean Study will be in Longue Pointe de Mingan, Quebec, Canada on the Gulf of St. Lawrence.

Students will:

- complete pre-project readings with an annotated bibliography,
- participate in a 5or 7-day project (dependent on location), and
- complete a Final Product which relates directly to the focus of the program (Due by Oct. 1). The Final Product may be one of the following: a teaching unit based on the readings and research experience, a research paper, an article based upon the experience submitted to a professional publication in its specified format.

Room and board, if needed, is the responsibility of the student and will be a cost in addition to the tuition.

For Information and registration materials contact:

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Field Study Information (pdf file: http://www.whalenet.net/2008FieldStudy.pdf)

Overview (all) **Field Study in Natural Sciences**	**Overview (graduate/educator)** **Methods in Teaching Natural Sciences to Children**
General Information Water analysis techniques - Physical Properties of water Biological concepts and processes - Food chains Intro. Oceanography and Marine Biology Marine Environments Marine Mammals in the North Atlantic Ocean Human Interaction and Influences on the Marine Environment Other skills include: Navigation methods Data collection methods Photographic techniques Current research methods Intro. to Water analysis techniques **Introduction to telecommunications in data and information assimilation** Internet and Research Email	**General Information** Classroom and Field Methods of teaching the following concepts to grade K-9 children will be integrated into and emphasized in this session. Hands-on and inquiry related activities will be stressed. Activities, content, and materials are consistent with elements of the National and Massachusetts Standards for Math and Science. See web page for more detail: http://whale.wheelock.edu/whalenet-stuff/Class2008/ or http://whale.wheelock.edu/whalenet-stuff/Class2008/2008FieldStudy.pdf