

## THE BRIDGE: AN ONLINE MARINE EDUCATION RESOURCE CENTER

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**ABSTRACT.** The Bridge is an annotated metasite offering the best marine science education resources available online. Here, you can find educator- and scientist-reviewed material on almost any marine-related topic, from academic programs to zebra mussels.

In addition to information on marine science topics, the site offers links to marine science research data, aquariums and research institutions, lesson plans, career information, teacher professional development, and “*Scuttlebut,t*, an e-mail discussion list for educators and scientists.

## INFORMATION-RELATED COURSES IN A NEW INTERNATIONAL STUDY PROGRAMME IN ECOLOGICAL MARINE MANAGEMENT

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This contribution focuses on some courses that are related to information, in a specialized study programme in ecological marine management, named ECOMAMA.

The ECOMAMA postgraduate specialized study programme is organized mainly in the faculty of science of the Vrije Universiteit Brussel (V.U.B.) in Belgium. It started in 1997. It is international in the sense that many students come from developing countries besides a few students from Belgium. It is an inter-university programme in the sense that the professors come from many universities and scientific institutes in Belgium. Normally it takes two years to obtain the degree.

It is perhaps striking and surprising that this new programme offers such a large portion of courses dealing with scientific information (retrieval, management, organization, presentation,...).

This presentation may be of interest for instance to persons involved in training / teaching / “learning management” / instruction, in the same area(s), to librarians responsible for user education/instruction in their library, and to organizers of study programmes.

Note: we are used to speaking about a “study programme” that consists of various “courses” that consist of several “chapters”.

More concretely, the courses that we focus on are the following:

### **1. Computer use**

This is a course at the start of the programme. Students are guided by members of the staff of the study programme who have some experience with computer applications like word processing and spreadsheets, under the responsibility of the author of this contribution. This course is important, because

- most of the other courses rely more or less on the applications of computers, and in particular of course the following ones discussed here;
- the backgrounds of the students are different, but most come from developing countries and have not much experience in using computers.

### **2. Information: retrieval, management and presentation**

This is a compulsory course building on the preceding one in computer use, in the first year. It is offered by the author of this contribution and deals mainly with information retrieval using computerized information sources. The aspects of management and presentation come in since the students have to organize/manage the information in order to present it finally in a report. The aspect of presenting scientific information is dealt with in more detail afterwards, in the following course.

### **3. Presenting scientific information**

This is a compulsory course in the second study year. It is offered by three lecturers, each one focusing on one of the following aspects:

- Oral presentations
- Written presentations
- Computer-supported presentations

The last part will be offered by the author of this contribution, starting from the academic year 1999-2000. It will deal mainly with specialized application software to develop slide shows and charts (and with alternatives like common software for word processing to make printed transparencies, and for web editing and browsing to make web-based presentations).

#### **4. Information and data networks**

This is a course in the second study year that forms a part of one of the three study options that can be chosen by the students: the one on scientific data management. The author of this contribution is responsible for the largest part of this. Most of the time available for this course during the past academic year has been spent to the development of a WWW site in a scientific environment. As a first case study, the students have developed a second, larger and improved version of the web site that presents the ECOMAMA study programme to the world through the WWW and that can be found probably starting from October 1999, for instance by beginning from the home page of the university [<http://www.vub.ac.be/>] and then further by selecting faculties, faculty of science, biology, and so on.

At the conference the following aspects of teaching and learning can be shown, explained and discussed:

- Documents for the students with an overview of the contents, the aims, and the evaluation procedure for each course.
- Series of slides (presentations) related to the course contents, which support teaching and learning.
- Questions, tasks, problems, and practical exercises for the students.
- A bibliography about the subjects covered in the courses.
- The web pages that are developed to make some of the study materials for the course available to anyone who is interested:  
<http://www.vub.ac.be/BIBLIO/personal/Nieuwenhuysen/courses/>
- Communication with students using electronic mail.

A problem with these courses is the high speed of the evolution of the contents, that makes regular updating a necessity, which is time consuming.