

# What's Balance de Ocean?

"Balance de Ocean" is an educational program that aims to cultivate future marine scientists. The program provides conventional classroom lectures and practical training, as well as online materials for reinforcement and enrichment, and to help students establish and develop their understanding of the ocean. The program also aims to contribute to the internationalization of the university through use of the online format.

To promote sustainable programs when resources are limited, universities must balance research and education. The program name "Balance de Ocean" reflects the importance of this balance in marine science. As the program develops, it will build an educational system that allows students to freely navigate the "oceans" of different research fields.

Specifically, we are developing online teaching materials using the Moodle learning platform, which will make them available worldwide via the Internet. This will allow people in Japan and around the world who want to study the ocean to pursue this interest. Current students at the university as well as those who wish to become students in the future can pursue independent study and research activities that transcend the limitations of place and time and grow beyond the barriers of discipline and class year. We seek excellent minds to grow together and educate, thereby paving the way for Hokkaido University students to contribute to the cultivation of a better society.

The Moodle system, named after "Learning and Study by Balance de Ocean System" (LASBOS), is called "LASBOS Moodle".

Balance de Ocean offers a variety of online educational material in several languages ranging from undergraduate introductory courses to experiments, practical training, professional education, and frontline research. You can freely navigate an "ocean" of educational material to help you deepen your knowledge of sustainable fisheries sciences and forge a path through research and initiatives to help solve the problems we now face.



TAKAGI Yasuaki, Dean

## **■ LASBOS Moodle**

Website https://repun-app.fish.hokudai.ac.jp/



LASBOS Moodle hosts e-learning materials that include both research-level content and basic academic content needed to build your foundational knowledge. Other e-learning materials include electronic versions of books, columns, and other information.

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#### e-learning materials



"Introduction to practical training on the Oshoro-maru Training Ship" course



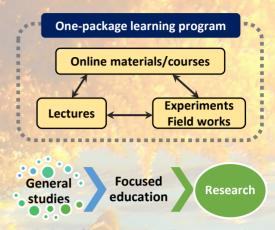
Introduction to research: "Research themes in Marine Science"



"Pushing the limits of organic gas production" short column

## ■ Progression from General Studies to Research

Through LASBOS Moodle, we aim to create a system that allows Hokkaido University students to learn about marine sciences in a way that goes beyond the boundaries of their academic field and vear. Our learning materials are linked by taking advantage of the functionality of the web format. Students can follow the links to chart their own educational path and develop their own research interests. Course materials include an introduction to research, analytical exercises using research data (online materials in Moodle), and the academic basics necessary to understand these topics. In addition, we are also developing online teaching materials with video content to enhance the traditional experimental-method and practical courses. By showing students what they learn in their general studies coursework and how it is connected to their major studies and their future research, we aim to foster an awareness of research activities from their first year of university instruction and to discover and cultivate their research orientation at an early stage.

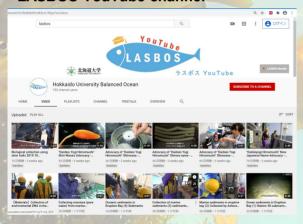


Pathway from general studies to research

## ■ Learning and Communication through Video Materials

Balance de Ocean videos can be viewed by the public on the "LASBOS YouTube" channel. We have also created collectible LASBOS cards to broadly share information from the videos. The LASBOS cards are available at the Fisheries Science Museum (Hakodate) and Hokkaido University Museum (Sapporo). We will continually create new videos and cards.

### LASBOS YouTube channel



On the LASBOS YouTube channel, there are also videos that allow you to simulate experiments and practical training.



Example of video materials

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## LASBOS card



One side of the card has a photo, and the other has explanations and links to video materials. The cards are available at the university's museums, as well as at aquariums, museums, and tourist attractions throughout Hokkaido. We encourage you to collect the cards as you travel around Hokkaido.

## **Multilingual Support**

Our learning materials are written in Japanese and English, so they are available to students both in and outside Japan. This is also an excellent way encourage and prepare international students who one day hope to study in Japan.

#### Example of multilingual learning materials























■Balance de Ocean--

LASBOS: Learning and Study by Balance de Ocean System repun: "ocean" in the Ainu language.

Moodle: The e-learning system/platform adopted by Balance de Ocean.

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