

## Educational Program of Water Science in Graduate School of Advanced Integrated Study in Human Survivability

Yosuke Yamashiki<sup>1\*</sup>, Shuichi Kawai<sup>1</sup>

<sup>1</sup>Graduate School of Advanced Integrated Study in Human Survivability

In Kyoto University, a new Graduate Program entitled as "Graduate School of Advanced Integrated Study in Human Survivability" is being launched since April 2013 seeking for educating talented global leader capable in comprehending current critical status of our planet and in making appropriate decision in every stage in integrated worldwide society.

The target profile for a program graduate is an individual who is willing to assume responsibility as a global leader with a high sense of mission and ethical perspective, is capable of enduring various kinds of pressure and integrating existing disciplines and areas of concern through flexible thinking that stems from a broad spectrum of knowledge and profound expertise, and has acquired the appropriate discernment and ability to act "in the field" through abundant practical training both in Japan and abroad.

In this graduate school, we lead water science based on hydrological basin connected to the ocean as basic unit in comprehending "Positive" and "Negative" perspective of human activity. In the "Mutual Linkage between Human Activity and Nature", we introduce the "Positive" perspective of the hydrological basin through learning mutual linkage among upstream forest, village, river and estuaries connecting with ocean. In the "Global Environmental Risk Management", we introduce the "Negative" perspective of the hydrological basin through learning public pollution events including "Minamata and Itai-Itai" diseases induced by organic mercury and cadmium into the basin and radionuclide transport in the basin. We also introduce the importance of the presence of water in the geophysical history of the earth through "Earth, the Water Planet".

Above education should be accompanied with the field observation activity, on the other hands, there are essential issue which can be learned only through field observation, at the same time, there are always existing "Risks" in educational field. We would like to propose the need in sharing such experiences in field science study.

Keywords: Study on Human Survivability, Water related educational program, Watershed, Material circulation, Pollutants