

## **Specific details of Ph.D. program in Environmental Science**

### **1. Philosophy, importance and objectives of the program**

#### **1.1 Philosophy**

Human resource development in environmental science at Doctoral degree who capable in create new knowledge, theory, idea, technology and product using the fundamental natural and social science knowledge deeply, in the process, integrity and systematically via the environmental science process and principles incorporate with ecological process of environmental system as the tools for environmental harmonizing in local, region nation and international sustainable.

#### **1.2 Importance**

The changes in environmental and life qualities showed the decline trend and spread out continuously. Therefore, the human resource development in environment who is knowledgeable and experienced in create innovation on environmental science and technology at Doctoral degree is an urgent needed for all of the counter party. Thai and global community start to face the environmental crisis which is the main reason for develop and improve the environmental science program in all level to strengthen the human skill in environmental science to be the part of the quality and well-aware community in environmental and life quality.

#### **1.3 Objective**

1.3.1. Develop human resource who is skillful in natural and social science capable in initiate the new knowledge in environment in order to fulfill the nation environmental knowledge

1.3.2. Develop human resource capable to apply environmental science knowledge in the integrated environmental management efficiently

1.3.3. Develop human resource capable to apply environmental science knowledge and innovation to solve environmental problems in local, nation, region and international level sustainably

**1.4 Curriculum**

**1.4.1 Total number of credits** a minimum of  
48 Credits

**1.4.2 The curriculum consists of the**

A. Major courses not less than 12 Credits

- Seminar 4 Credits

- Major required courses 3

Credits

- Major elective courses a minimum of 5

Credits

B. Thesis a minimum of 36

Credits

**14.3 Courses**

A. Major courses a minimum of 12

Credits

- Seminar 4 Credits

01662697 Seminar

1,1,1,1

- Major required courses 3

Credits

01662691\*\* Advanced Research Technique in Environment

3(2-3-6)

- Major elective courses a minimum of 5

Credits

Student can should the courses as following

01662611\*\* Environmental Philosophy

3(3-0-6)

- 01662612 Change of Global Environmental Systems  
3(2-3-6)
- 01662613 Systematic Environment  
3(3-0-6)
- 01662621 Waste Control and Design  
3(2-3-6)
- 01662622\*\* Environmental System Modeling  
3(2-3-6)
- 01662623 Environmental Instruments and Installation  
3(2-3-6)
- 01662624 Techniques and Instruments for Trace  
Environmental Analysis 3(3-0-6)
- 01662625 Ecotoxicology in Tropical Zone  
3(2-3-6)
- 01662631 Management of Resources Potential  
3(2-3-6)
- 01662632 Resources Conservation Ecology  
3(2-3-6)
- 01662633 Environmental Information and Network  
3(3-0-6)
- 01662641\*\* Environmental Education for Tourism  
3(2-3-6)
- 01662642 Advanced Environmental Education Management  
3(3-0-6)
- 01662696 Selected Topics in Environmental Science  
1-3
- 01662698 Special Problems  
1-3

**B. Thesis**  
Credits

A minimum of

36

01662699 Thesis

1-36