COURSE SYLLABUS

2nd Semester Academic Year 2017

1. **Integrated General Education Center**

2. **Course code:** 01999213 Course name: Environment, Technology & Life

   Total credits: 3 (3-0)

   Prerequisite: -

   Section: 480 Wednesday **Time:** 15.00-18.00 **Room No:** E 1306

3. **Lecturer(s):**
   1. Dr. Piyapoong Tongdenoak
   2. Prof Dr. Monchan Makethon
   3. Prof. Dr. Chamnong Adivadhanasit
   4. Dr. Nopasom Sinphurmsukskul
   5. Dr. Poonsak Miphokasap
   6. Assoc. Prof. Dr. Sawitri Chuntranuluck

4. **Office hours for consultation with students**

   Head of the course: Sarat Rattana

   Day: Wednesday Time: 10.00-12.00 (Please make an appointment)

   Room: 713, Floor 7, 72th Forestry Building, Faculty of Forestry.

   E-mail address: fforsrr@ku.ac.th

   Corresponding group lecturer Dr. Piyapoong Tongdenoak

   Day: Wednesday Time: 10.00-12.00 AM (Please make anappointment)

   Room: 605, Floor 6, 72th Forestry Building, Faculty of Forestry.

   Telephone 085-722-5979 e-mail address: fforppt@ku.ac.th

5. **Course Objective(s)**
   1. Knowledge and understanding in environment, technology & quality of life.
   2. Their relation and impact.
   3. Learning how to utilize natural resources in a sustainable manner.

6. **Course Description**

   Environment, technology, life and interaction. Evolution of technology and environmental impact. Application of science and technology for quality of life and sustainable natural resource utilization. Field trip required.

7. **Course Outline**

   7.1 Chapter 1: Fundamental of environment

   7.2 Chapter 2: Sciences and technology

   7.3 Chapter 3: Environmental conservation

   7.4 Chapter 4: Environment and quality of life

   7.5 Chapter 5: Case study

8. Student-centered Teaching Method(s)

Lecture, co-operative learning, discussion, homework, field trip.

9. Teaching Aids/Materials

Transparencies, slides, video-audio materials, electronics media.

10. Measures of Achievement

	Percent
10.1 Examinations and quizzes	
- Mid-term examination	35%
- Final examination	35%
10.2 Class attendance	10%
10.3 Field Trip attendance	10%
10.4 Report and Presentation	10%
Total	100%

11. Textbook(s) and Readings (in bibliography style)

Committee of the integrated subject on Environment, Technology and Life. Kasetsart University Press.315 p. (in Thai). Lecture note of Environment, Technology and Life.(in English).

12. Class Schedule 01999213 Environment, Technology & Life

Section 480 Wednesday **Time:** 15.00-18.00 **Room No**: E 1306

Week	Date	Topic	Class Activity	Lecturers
1	10 Jan., 18	**Course introduction** **Chapter 1: Fundamental of environment** 1.1 Fundamental of environment 1.1.1 Definitions and meanings 1.1.2 Properties of environment 1.2 Environmental dimensions 1.2.1 Resources 1.2.2 Technology 1.2.3 Waste and pollution 1.2.4 Human	Lecture, discussion	Dr.Piyapoong Tongdenoak
2	17 Jan., 18	1.3 Ecology and environmental studies 1.3.1 Ecology and ecosystems 1.3.2 Types and characteristics of ecosystems 1.3.3 Balancing mechanism of ecosystem 1.3.4 Environmental studies based on basic of ecosystem	Lecture, discussion	Dr.Piyapoong Tongdenoak

Week	Date	Topic	Class Activity	Lecturers
3	24 Jan., 18	**Chapter 2: Sciences and Technology** 2.1 Application of sciences and technological innovation 2.1.1 Definitions and meanings of sciences and technology 2.1.2 Relationship between sciences and technology 2.1.3 Innovation and future of sciences and technology in Thailand	Lecture, movie, discussion	Prof.Dr.Monchan Maketon
Kaset Fair: 26 Jan.-3 Feb. 2018				
4	7 Feb., 18	2.2 Technology and country development 2.2.1 Importance of technology to country development 2.2.2 Forms of implication of technology for country development 2.2.3 Obstacles, success, and failure of technological development of a country 2.2.4 Status of governmental support on research and development 2.2.5 Future goals of research and development of technology 2.2.6 National science and technology policy 2.6.7 Strategies on strengthening science and technology	Lecture, movie, discussion	Prof.Dr.Monchan Maketon
5	14 Feb., 18	2.3 Evolution of technology 2.3.1 Limitations of technology 2.3.2 Evolution rate of technology 2.3.3 Evolution of technology	Lecture, movie, discussion	Prof.Dr.Monchan Maketon
6	21 Feb., 18	2.4 Interaction of science and technology 2.4.1 Roles of technology on changing the environment 2.4.2 Roles of environment on shaping technology 2.5 Technology and environmental impact 2.5.1 Global environmental impact 2.5.2 Thailand environmental impact 2.5.3 Conclusion	Lecture, movie, discussion	Prof.Dr.Monchan Maketon
Midterm exam on 25 Febuary, 2018 (12.00-14.00 p.m.)				

Week	Date	Topic	Class Activity	Lecturers
7	7 Mar., 18	**Chapter 3: Environmental conservation** 3.1 Principle and method 3.1.1 Meaning and principle of conservation 3.1.2 Methods of conservation 3.2 Environmental conservation by science and technology 3.3 Sustainable natural resource utilization	Lecture, discussion	Dr.Piyapoong Tongdenoak
8	14 Mar., 18	3.4 Environmental conservation by education and ethics 3.4.1 Education for life and environment 3.4.2 Building environmental moral and ethics 3.4.3 Conclusion	Lecture, discussion, homework	Prof.Dr.Chamnong Adivadhanasit
9	21 Mar., 18	**Chapter 4: Environment and quality of life** 4.1 Evolution of life and adaptation to the environment 4.1.1 Life on earth 4.1.2 Human evolution and adaptation	Lecture, discussion	Dr.Poonsak Miphokasap
10	28 Mar., 18	4.2 Environment and quality of life 4.2.1 Quality of life 4.2.2 Natural environment and quality of life 4.2.3 Social, economics, and environment, and quality of life 4.2.4 Urban quality of life 4.2.5 Sustained quality of life 4.2.6 Indicator and quality of life assessment	Lecture, discussion	Dr.Poonsak Miphokasap
11	4 Apr., 18	4.3 Sustainable development for quality of life 4.3.1 Meaning of sustainable development 4.3.2 Sustainable development 4.3.3 Socio-economic development for quality of life 4.3.4 The Ninth national social and economic development plan	Lecture, discussion	Dr.Poonsak Miphokasap
12	11 Apr., 18	3.5 Environmental Economics 3.5.1 Causes of Market Failure 3.5.2 Economics for sustainable resource utilization 3.5.3 Sustainable resource utilization 3.5.4 Sustainable development 3.5.5 Existing and Optimal Stock 3.5.6 Natural Resources and Resilience of Economic System	Lecture, discussion	Dr.Nopasom Sinphurmsukskul

Week	Date	Topic	Class Activity	Lecturers
13	18 Apr., 18	**Chapter 5: Case study** 5.1 El ninno 5.2 Green house effect	Lecture, discussion, movie	Assoc.Prof.Sawitri Chuntranuluck
14	25 Apr., 18	**Chapter 5: Case study** 5.3 Biodiversity 5.4 Development and environment 5.4.1 Type and size of development project subjected to study of environmental impact assessment (EIA) 5.4.2 Environmental decision making 5.5 National environmental policy	Lecture, Presentation, discussion	Dr.Piyapoong Tongdenoak
15	2 May., 18	Term Paper Presentation and Discussion	Presentation and Discussion	Dr. Piyapoong Tongdenoak
Final exam on 13 May, 2018 (12.00-14.00 p.m.)				

Field Trip (Please see an official announcement)

Signature.....

(Sarat Rattana)

Date 4 Jan., 2018