Tsuyama College	Year	2020	Course Title	Engineering Ethics

Course Information

Course Code	0107	Course Category	General / Compulsory
Class Format	Lecture	Credits	School Credit: 2
Department	Department of Integrated Science and Technology Electrical and Electronic Systems Program	Student Grade	5th
Term	Year-round	Classes per Week	2
Textbook and/or Teaching Materials	Textbook : "Enguneering Ethics" (Gakujutsu Tosho Syuppan)		
Instructor	INADA Tomomi		

Course Objectives

Learning purposes : The purpose of this class is to deepen the understanding of the impact of science and technology on society and nature, and to develop the ability to recognize the responsibility as an engineer by examining engineering ethics in a case-by-case manner.

Course Objectives :
1.To understand and explain the importance and the social background of engineering ethics.
2.To understand and explain the responsibilities of engineers for society, such as accountability, whistleblowers, product liability, and risk management.
◎3.To be able to respect the uniqueness of others and yourself with a public mind.

Rubric

	Excellent	Good	Acceptable	Not acceptable
Achievement 1	Can very well understand and explain the importance and the social background of engineering ethics.	Can well understand and explain the importance and the social background of engineering ethics.	Can basically understand and explain the importance and the social background of engineering ethics.	Cannot understand and explain the importance and the social background of engineering ethics.
Achievement 2	Can very well understand and explain the responsibilities of engineers for society.	Can understand and explain the responsibilities of engineers for society.	Can basically understand and explain the responsibilities of engineers for society.	Cannot understand and explain the responsibilities of engineers for society.
Achievement 3	Can very well respect the uniqueness of others and yourself with a public mind.	Can well respect the uniqueness of others and yourself with a public mind.	Can basically respect the uniqueness of others and yourself with a public mind.	Cannot respect the uniqueness of others and yourself with a public mind.

Assigned Department Objectives

Teaching Method

Outline	General or Specialized : General Field of learning : humanities Required, Elective, etc. : Must complete subjects Foundational academic disciplines : philosophy/ethics Relationship with Educational Objectives : This subject is equivalent to "(1) Cultivate human creative talent, rich in practical abilities", "(5) Attain a global perspective and understanding of social development", and" (7) Develop communication and presentation abilities". Relationship with JABEE programs : The main goal of learning and education in this subject is "G-1". Course outline : Due to the rapid progress of science and technology, we are facing unprecedented ethical problems that human beings have never imagined. This lecture systematically outlines engineering ethics.
Style	Course method : This class basically develops the contents of engineering ethics while using its textbook. Grade evaluation method: The results of two regular examinations are averaged and evaluated (70%). In addition to the results of the regular examination, grades will be assessed by the result of the assignment. (30%). Each regular examination or report will be an assignment that will allow the student to judge the achievement of the above achievement goals. In principle, there will be no conduct retaking exams.
Notice	Precautions on the enrollment : Students must take this class (no more than one-fifth of the required number of class hours missed) and earn the credit in order to complete the 5th year course. Foundational subjects : Ethics(1st year) Related subjects : Modern Philosophy(Advanced course 2nd) Attendance advice : This is an environmental education course and a course related to the development of nuclear power core personnel. Students who are late for class will be absent from the course, but we will not allow students to miss one class if they are late several times.

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Guidance	General description of attainment targets
		2nd	Scientifc Revolution	Attainment targets 1 and 3
		3rd	Scientific Revolution	Attainment targets 1 and 3
		4th	Descartes and Bacon	Attainment targets 1 and 3

		5th	Descartes and Bacon	Attainment targets 1 and 3
		6th	Philosophy of science	Attainment targets 1 and 3
		7th	Philosophy of science	Attainment targets 1 and 3
		8th	Case studies	Attainment targets 1 and 3
	2nd Quarter	9th	Case studies	Attainment targets 1 and 3
		10th	Case studies	Attainment targets 1 and 3
		11th	Case studies	Attainment targets 1 and 3
		12th	Case studies	Attainment targets 1 and 3
		13th	Case studies	Attainment targets 1 and 3
		14th	Case studies	Attainment targets 1 and 3
		15th	(1st semester final exam)	
		16th	Return and commentary of exam answers	
2nd Semester	3rd Quarter	1st	Environmental ethics	Attainment targets 2 and 3
		2nd	Environmental ethics	Attainment targets 2 and 3
		3rd	Environmental ethics	Attainment targets 2 and 3
		4th	Bioethics	Attainment targets 2 and 3
		5th	Bioethics	Attainment targets 2 and 3
		6th	Business ethics	Attainment targets 2 and 3
		7th	Business ethics	Attainment targets 2 and 3
		8th	Ethical codes	Attainment targets 2 and 3
	4th Quarter	9th	Ethical codes	Attainment targets 2 and 3
		10th	Engineering ethics	Attainment targets 2 and 3
		11th	Engineering ethics	Attainment targets 2 and 3
		12th	Engineering ethics	Attainment targets 2 and 3
		13th	Engineering ethics	Attainment targets 2 and 3
		14th	Engineering ethics	Attainment targets 2 and 3
		15th	(2nd semester final exam)	
		16th	Return and commentary of exam answers	

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Assignment	Total
Subtotal	70	0	0	0	0	30	100
Basic Proficiency	50	0	0	0	0	20	70
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	20	0	0	0	0	10	30