

Tsuyama College		Year	2022		Course Title	Graduation Thesis	
Course Information							
Course Code	0172			Course Category	Specialized / Compulsory		
Class Format	Experiment			Credits	School Credit: 9		
Department	Department of Integrated Science and Technology Communication and Informations System Program			Student Grade	5th		
Term	Year-round			Classes per Week	9		
Textbook and/or Teaching Materials	Textbooks : all textbooks , Reference books : consult with supervisor						
Instructor	TAKETANI Hisashi						
Course Objectives							
Learning purposes : To acquire the capability to research a problem and design a solution, To plan, investigate and execute a solution. To acquire the ability to present a result using writing, formulas and programs. To acquire oral-presentation skills. To understand and consider engineering ethics							
Course Objectives : 1. The students can express their opinions and ideas to others using effective communication methods in Japanese and English. 2. The students can propose an approach from observation, establish the problem and execute research effectively. 3. The students understand engineering problems and can design solutions using systems, components and processes.							
Rubric							
	Excellent		Good		Acceptable		Not acceptable
Achievement 1	Graduation thesis is well-written including research objective, basic terms of research method and research results. The graduation thesis is high readable for most engineers.		Graduation thesis is well-written including research objective, basic terms of research method and research results. The graduation thesis is readable for most engineers.		Graduation thesis is written including research objective, basic terms of research method and research results.		Graduation thesis is written including research objective, basic terms of research method and research results.but not enough.
Achievement 2	Graduation thesis is well-written according to style sheet. The graduation thesis is very easy to read.		Graduation thesis is written according to style sheet.		Almost parts of graduation thesis are written according to style sheet.		Graduation thesis are not written according to style sheet.
Achievement 3	At the graduation research presentation, the students keep presentation time and contents is very clear. The students can give suitable answers for questions.		At the graduation research presentation, the students keep presentation time and contents is clear. The students can give suitable answers for questions.		At the graduation research presentation, the students keep presentation time and present their research. The students can answer for questions.		At the graduation research presentation, the students can not keep presentation time and can not present their research. The students can not answer for questions.
Achievement 4	The students submit report concerned with engineering ethics. The contents of the report are enough and include their opinion.		The students submit report concerned with engineering ethics. The contents of the report are enough.		The students submit report concerned with engineering ethics.		The students do not submit report concerned with engineering ethics.
Assigned Department Objectives							
Teaching Method							
Outline	General or Specialized : Specialized Field of learning : All fields Foundational academic disciplines : Integrated Disciplines/Informatics Relationship with Educational Objectives :This class is equivalent to "(3) Acquire deep foundation knowledge of the major subject area", "(4) Develop multi-disciplinary ability", "(6) Develop problem solving ability" and "(7) Develop communication and presentation abilities". Relationship with JABEE programs : The main goal of learning / education in this class are "(D) D-1" also "A-2 and 3", "C-1 and 2", "D-2", "E-1, 2 and 3", "F-1 and 2" and "G-1 and 2" are involved. Course outline : The students solve specific research challenges themselves. The students solve research problems using comprehensive learning experiences from this institute. This course is final subject in a sequence.						
Style	Course method : The students are assigned to laboratories based on a questionnaire and spend one year trying to reach their goals. The students submit their results as a graduation thesis and also give oral presentations. Grade evaluation method : The students are evaluated on the achievement of the following educational objectives based on graduate thesis evaluation form provided separately. The students who satisfy the evaluation criteria obtain the credit: 1. Submitted graduation thesis 2. Oral presentation at thesis defence <ul style="list-style-type: none">Submitted graduation research plan and its presentationSubmitted midterm report and its abstractSubmitted graduation research result reportSubmitted report concerned with engineering ethics						

Notice	<p>Precautions on the enrollment : This course is practical subject and the student need to the reedit of this course to complete this school year. This is a class that requires study outside of class hours. Another 45 hours of study is required outside class time. Follow the instructions of the instructor regarding study outside of class hours.</p> <p>Course advice : The students who go on advanced course may continue to study the same research subject.</p> <p>Attendance advice : It is important that the students choose interest subject and work on a problem positively. The passive student may not obtain result. This is a important thing at this course. If you come your laboratory after checking attendance, then you are late. 2 lateness is treated as one school hour missed.</p>
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Characteristics of Class / Division in Learning

<input checked="" type="checkbox"/> Active Learning	<input checked="" type="checkbox"/> Aided by ICT	<input type="checkbox"/> Applicable to Remote Class	<input type="checkbox"/> Instructor Professionally Experienced
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Required subjects

Course Plan

			Theme	Goals
1st Semester	1st Quarter	1st	Guidance	
		2nd	Consulting with supervisor, the students proactively execute active s such as deciding thema, bibliographic survey, resource acquisition, planning, experiment, reviewing result and so on.	The goal is to obtain basic knowledge of research.
		3rd	Continuing research	The goal is to obtain basic knowledge of research.
		4th	Continuing research	The goal is to obtain basic knowledge of research.
		5th	Continuing research	The goal is to obtain basic knowledge of research.
		6th	Continuing research	The goal is to obtain basic knowledge of research.
		7th	Submitting plan of graduation study	The students can explain their research and control their schedule.
		8th	1st semester mid-term exam	
	2nd Quarter	9th	Continuing research Submitting report concerned with engineering ethics	The students understand study and ethics and know importance of ethics.
		10th	Continuing research	The student manage research progress and communicate with others to conduct research.
		11th	Continuing research	The student manage research progress and communicate with others to conduct research.
		12th	Continuing research	The student manage research progress and communicate with others to conduct research.
		13th	Continuing research	The student manage research progress and communicate with others to conduct research.
		14th	Continuing research	The student manage research progress and communicate with others to conduct research.
		15th	(1st semester final exam)	
		16th	Preparation to write mid-term report	The student can make document about their reserch progress.
2nd Semester	3rd Quarter	1st	Making mid-term report	The student can make document about their reserch progress.
		2nd	Making and submitting mid-term report	The student can make document about their reserch progress.
		3rd	Making abstract for pre final defence. The abstract includes research progress for plan.	The students can explain their research progress.
		4th	Rre final defence.	The students can explain their research progress.
		5th	Checking research progress and continuing research	The students look buck their research progress objectively and decide policy for future work..
		6th	Continuing research	The student manage research progress and communicate with others to conduct research.
		7th	Continuing research	The student manage research progress and communicate with others to conduct research.
		8th	2nd semester mid-term exam	
	4th Quarter	9th	Continuing research	The student manage research progress and communicate with others to conduct research.
		10th	Continuing research	The student manage research progress and communicate with others to conduct research.
		11th	Continuing research	The student manage research progress and communicate with others to conduct research.
		12th	Continuing research	The student manage research progress and communicate with others to conduct research.
		13th	Submitting graduation thesis according to style sheet.	The students can make documents about their research results.
		14th	Submitting abstract of graduation thesis and graduation research result report	The students can make documents about their research results.
		15th	Preparation to final defence	The students can make briefing paper about their research results.
		16th	Final defence	The students can make briefing paper about their research results.

Evaluation Method and Weight (%)

	Examination	Presentation	Mutual Evaluations between students	Behavior	Portfolio	Other	Total
Subtotal	0	0	0	0	100	0	100
Basic Proficiency	0	0	0	0	0	0	0
Specialized Proficiency	0	0	0	0	0	0	0
Cross Area Proficiency	0	0	0	0	100	0	100