

Tsuyama College		Year	2021		Course Title	Trans Exercise of All Program I
Course Information						
Course Code	0041		Course Category	Specialized / Compulsory		
Class Format	Seminar		Credits	Academic Credit: 4		
Department	Department of Integrated Science and Technology Electrical and Electronic Systems Program		Student Grade	3rd		
Term	Year-round		Classes per Week	2		
Textbook and/or Teaching Materials	The books designated by each teacher, articles on the Internet, textbooks and reference books used in class, friends, etc., are all teaching materials.					
Instructor	MINATOHARA Tetsuya					
Course Objectives						
Learning purposes : To acquire engineering design and teamwork skills by grasping the purpose of the theme, recognizing what needs to be prepared, utilizing one's own expertise and communicating with other specialties to solve problems that have arisen, and devising ways to solve them.						
Course Objectives : ◎1. To be able to recognize what you need to prepare and proceed with your studies. ◎2. To be able to understand the issues to be solved and be able to learn autonomously. ◎3. To be able to proceed systematically with an awareness of the goal. ◎4. To be able to be creative while being aware of the role of other members. ◎5. To be able to make a presentation in the final presentation in a way that is easy to understand and devise, and be able to debate accurately.						
Rubric						
	Excellent	Good	Acceptable	Not acceptable		
Achievement 1	<ul style="list-style-type: none">• The student can grasp the current situation and goals, find issues in the deviations, understand the causal relationship and priority of the issues, try to find out the main causes, and propose action to solve them.• The student can summarize, organize, and structure the essence of complex events.	<ul style="list-style-type: none">• The student can grasp the current situation and goals, find issues in their discrepancies, and understand the basic methods for collecting, analyzing, and organizing information necessary for solutions.• The student can understand the essence of events objectively and logically, and choose the best option.	<ul style="list-style-type: none">• The student can grasp the current situation and goals, find issues in the gap between them, and understand the basic methods for collecting, analyzing, and organizing information necessary for solutions.• The student can understand the essence of events objectively and logically, and be able to select almost appropriate options.	Has not reached the required standards.		
Achievement 2	<ul style="list-style-type: none">• The student can demonstrate his or her own ability to improve the situation in his or her group.• The student can manage daily life and make every effort to maintain good conditions.	<ul style="list-style-type: none">• The student can understand the importance of independent action and take action on his or her own initiative.• The student can manage his or her daily life and act responsibly.	<ul style="list-style-type: none">• The student can understand the importance of independent action and perform mostly satisfactory actions.• The student can manage daily life and behave responsibly in general.	Has not reached the required standards.		
Achievement 3	<ul style="list-style-type: none">• The student can listen to the opinions of the group, express his or her own opinions, and form a consensus for the purpose.• The student can act with an awareness of being a member of a society.• The student can understand the necessity, rules, and manners of teamwork, control his or her own emotions, respect the opinions of others, communicate appropriately, and collaborate with others with a sense of ownership.• The student can set a good example of conduct ahead of others. The student can explain verbally, encourage appropriate cooperative behavior in others, and promote collaborative work and research.	<ul style="list-style-type: none">• The student can listen to the opinions of the group, express his or her own opinions, and understand his or her individual role in the group.• The student can understand the importance of a sense of responsibility and take basic actions.• The student can understand the items necessary for teamwork to help the organization function effectively.• The student can understand the role of leaders for the effective functioning of the organization.	<ul style="list-style-type: none">• The student can respond to the opinions of the group, express his or her own opinions, and generally understand his or her individual roles in the group.• The student can understand the importance of responsibility and can take basic actions.• The student can generally understand the items necessary for teamwork for the organization to function effectively.• The student can understand the role of leaders for effective functioning of the organization.	Has not reached the required standards.		

Achievement 4	<ul style="list-style-type: none"> The student can use ICT, ICT tools, texts, etc. for basic information gathering and dissemination. 	<ul style="list-style-type: none"> The student can handle ICT, ICT tools, texts, etc. for information gathering and dissemination, and to understand the application and future potential of ICT. 	<ul style="list-style-type: none"> The student can handle ICT, ICT tools, texts, etc. for information gathering, utilization, and transmission. 	Has not reached the required standards.
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Assigned Department Objectives

Teaching Method

Outline	<p>General or Specialized : Specialized Field of learning : Interdisciplinary subjects and others Foundational academic disciplines : Subjects studied in 1st and 2nd year</p> <p>Relationship with Educational Objectives : This class is equivalent to "(4) Develop multi-disciplinary ability", "(5) Attain a global perspective and understanding of social development", "(6) Develop problem solving ability" and "(7) Develop communication and presentation abilities".</p> <p>Relationship with JABEE programs : Advanced Science Program : The main goal of learning / education in this class is "(D)". Mechanical Systems Program : The main goal of learning / education in this class is "(A), (A-3)", also "(D-1)" and "(F-2)" are involved. This is a course with university equivalent content and is related to the JABEE Programs. Electrical and Electronic Systems Program : The main goal of learning / education in this class is "(D), (D-1)", also "(F-1)" are involved. This is a course with university equivalent content and is related to the JABEE Programs. Communication and Information Systems Program : The main goal of learning / education in this class is "(D), (D-2)", also "(F-1)" are involved. This is a course with university equivalent content and is related to the JABEE Programs.</p> <p>Course outline : Teams of several people from different disciplines work on a theme presented by the instructor or set up by themselves, discover the problems to be solved to realize the goal, and experience how to solve the problems practically as a team. In this exercise, the student can deepen the skills and knowledge he or she have already acquired, or acquire new skills and knowledge outside his or her field of expertise.</p>
Style	<p>Course method : The student is surveyed to determine the theme of his or her choice of assignment based on the themes proposed by each faculty member. The student works on the theme for a year, and at the end of the year, they make a presentation on his or her work. The student works on the theme as a team of several people (or more than 10 people depending on the situation) with different specialties, discover the problem to be solved to realize the goal, discuss how to solve the problem as a team, and implement the problem systematically.</p> <p>Grade evaluation method : Group discussion and poster presentation, and submission of the report by the deadline are prerequisites for evaluation in accordance with the following. <ul style="list-style-type: none"> Evaluation of the seminar plan, interim and final reports by the supervisor (30%) Evaluation of the status of exercises by supervisors (40%) Evaluation of the poster presentation by the judges (30%) The supervisor's evaluation of the status of the exercises, etc. includes an evaluation of the status of voluntary efforts (including tardiness and absenteeism) and the status of efforts for technical guidance and communication, including outside the timetable. A similar evaluation through questions and answers will also be included as part of the assessment by the judges.</p>
Notice	<p>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 3rd year course. This is a class that requires study outside of class hours. A total of 45 hours of study is required per credit, including both class time and study outside class time. Follow the instructions of the instructor regarding study outside of class hours.</p> <p>Course advice : As a preparatory study to be done beforehand, do some research on the topics you are interested in. The objectives of this course are to develop engineering design skills to solve problems under limited conditions (by cooperating with the whole team), and to develop the ability to create new problems and solve them.</p> <p>Foundational subjects : Introduction to Science and Engineering (1st year), Fundamental Challenge Seminar (Advanced Science Program 2nd), Subjects studied up to 2nd year, etc. Related subjects : Trans Exercise of All Program II (4th year), Interdisciplinary subjects (5th), etc.</p> <p>Attendance advice : To share problems with teammates in other fields of specialization (to improve communication skills) so that you can learn with an awareness of your own specialization (to enhance your own expertise), and at the same time, to find points of contact between other fields of specialization and your own (to improve interdisciplinary skills) and to devise ways to solve problems.</p>

Characteristics of Class / Division in Learning

<input checked="" type="checkbox"/> Active Learning	<input checked="" type="checkbox"/> Aided by ICT	<input checked="" 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, explanation of subject matter and coordination of assignment	To understand the educational objectives, learning content and assessment methods.

		2nd	Investigate and review the content of the theme, and develop a plan for exercises	Learning and practice of general-purpose skills, attitudes and orientations, integrated learning experiences and creative thinking skills as interdisciplinary skills. Investigate and review the content of the theme, and develop a plan for exercises.
		3rd	Investigate and review the content of the theme, and develop a plan for exercises	Same as above.
		4th	Investigate and review the content of the theme, and develop a plan for exercises	Same as above.
		5th	Investigate and review the content of the theme, and develop a plan for exercises	Same as above.
		6th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		7th	(1st semester mid-term exam)	Same as above.
		8th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
	2nd Quarter	9th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		10th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		11th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		12th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		13th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		14th	Participation in the final debriefing session of the Trans Exercise of All Program II	Same as above.
		15th	(1st semester final exam)	Same as above.
		16th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
	2nd Semester r	3rd Quarter	1st	Work towards the realization of each theme, including learning, production and experimentation Preparation for group meetings
2nd			Group meetings (reports and discussions in multiple topic groups)	Same as above.
3rd			Summary of interim results (preparation and submission of interim report), discussion of problems and plan revisions	Same as above.
4th			Work towards the realization of each theme, including learning, production and experimentation	Same as above.
5th			Work towards the realization of each theme, including learning, production and experimentation	Same as above.
6th			Work towards the realization of each theme, including learning, production and experimentation	Same as above.
7th			Work towards the realization of each theme, including learning, production and experimentation	Same as above.
8th			(2nd semester mid-term exam)	Same as above.
4th Quarter		9th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		10th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		11th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		12th	Work towards the realization of each theme, including learning, production and experimentation	Same as above.
		13th	Preparing a poster presentation (making a poster)	Same as above.
		14th	Poster presentations	Same as above.
		15th	(2nd semester final exam)	Same as above.
		16th	Summary of results (preparation and submission of the final report)	Same as above.
Evaluation Method and Weight (%)				

	Report	Status of Exercises, etc.	Presentation	Total
Subtotal	30	40	30	100
Basic Proficiency	0	0	0	0
Specialized Proficiency	0	0	0	0
Cross Area Proficiency	30	40	30	100