

Course : M2794.008500 Cryogenic Engineering								
Credits	Department			Representative Instructor				
				Position		Name		Email
3	Mechanical Engineering Major			Professor		Kim, Min Soo		minskim@snu.ac.kr
Attachment(Korean)				Attachment(English)				
Prerequisite Course								
Consult Time	After the class, at lecture room							
1. Goals	This course will examine the basic theories and applications of cryogenic systems. We will have an overview of cryogenic system design and analysis techniques based on our general understanding of the fundamental principles of thermodynamics, fluid mechanics and heat transfer. Topics that will be covered are as follows; the components of cryogenic systems and their performance, the diverse examples of cryogenic systems, several cryogenic refrigeration systems, liquefaction systems, storage/tranfer systems, etc.							
2. Texts and References								
3. Evaluation	Attendance(%)	Task(%)	Medium(%)	Final(%)	Random Evaluation(%)	Attitude(%)	Others(%)	Total(%)
	0%	10%	40%	40%	0%	0%	10%	100%
	Attendance Policy : Students who are absent for over 1/3 of the class will receive a grade of 'F' or 'U' for the course. (Exceptions can be made when the cause of absence is deemed unavoidable by the course instructor.)							
	Remark of Others :							
4. Lecture Plan	[1 Week] Low temperature material properties [2 Week] Production of low temperatures [3 Week] Gas-liquefaction systems [4 Week] Components of liquefaction systems [5 Week] Properties of Mixtures [6 Week] Properties of Mixtures [7 Week] Mid-term examination [8 Week] Cryogenic refrigeration systems (Ideal system, Joule-Thomson system) [9 Week] Cryogenic refrigeration systems (Stirling, VM, GM system) [10 Week] Measurement systems for low T [11 Week] Cryogenic fluid storage/transfer system [12 Week] Vacuum technology [13 Week] Presentation of term projects [14 Week] Presentation of term projects [15 Week] Low temperature material properties							
5. Guideline for Students								
6. Support Services for Students with Disabilities	For Lectures	◦ Visual Impairment: Make textbooks(digital textbook, braille textbook, enlarged textbook etc.), Allow note takers ◦ Physical Disability: Make textbooks (digital textbook), Allow note takers and assistants ◦ Hearing Impairment: Allow note takers and translators, Allow lecture recording ◦ Health Impairment: Excuse absence due to health problems, Allow note takers ◦ Learning Disability: Allow note takers ◦ Intellectual Disability / Autism Spectrum Disorder: Allow note takers and mentors						
	For Assignments & Evaluations	◦ Visual Impairment / Physical Disability / Hearing Impairment / Health Impairment / Learning Disability: Extend assignment deadlines, Offer alternate assignment submission and response method, Extend testing period, Offer alternate testing method, Offer different testing room ◦ Intellectual Disability / Autism Spectrum Disorder: Offer individualized assignments and alternative evaluations						
	Others	Students who take this course can get appropriate level of support service including the support listed above depending on the students' individual characteristics and needs through consultation with professors and the Support Center for Students with Disabilities. If you have any questions concerning support service for students with disabilities you can contact Professor Kim, Min Soo(02-880-8362) or Support Center for Students with Disabilities (02-880-8787).						