Course No.	430.329	Lecture No.	001	Course Title (Subtitle)	Introduction to Algorithms	Credit	3

Representative Instructor				
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Interview Time/Place :	By appointment (email)			

Prerequisite Course	Digital Computer Concept and Practice, Programming Methodologies

1. 수업목표	When programming to solve problems in computer science, algorithms are developed before coding. This course various algorithms that are essential to analyze and solve complex problems systematically. By completing this course, it is expected that students can have the ability of formulating problems and proposing acceptable solutions. In this course, we will cover computation of time and space complexity of algorithms, divide-and-conquer, dynamic programming, greedy algorithms, and randomized algorithms. In addition, we will cover algorithms and theories on graphs. Finally, we will cover NP-Completeness and approximate algorithms.

2.Materials and Reference	Introduction to Algorithms by Thomas H. Cormen, Charles E. Leiserson, Ronald L. Rivest and Clifford Stein

3. Evaluation Method								
Attendance	Homeworks	Midterm	Final	Random Evaluation	Attitude	Others	Total	
5%	25%	30%	40%	0%	0%	0%	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 :	This policy can be adjusted during semester							

4. Lecture Plan

Week	Contents	Remarks
1	Growth of Fuctions	Online Lecture (non-face-to-face)
2	Divide&Conquer and Heapsort	Online Lecture (non-face-to-face)
3	Quicksort	Online Lecture (non-face-to-face)
4	Sorting in Linear Time and Medians and Order Statistics	Online Lecture (non-face-to-face)
5	Dynamic Programming	Online Lecture (non-face-to-face)
6	Dynamic Programming	Online Lecture (non-face-to-face)
7	Greedy Algorithms	Online Lecture (non-face-to-face)
8	Data Structure for Disjoint Sets	Online Lecture (non-face-to-face)
9	Elementary Graph Algorithms Midterm Exam	Online Lecture (non-face-to-face)
10	Elementary Graph Algorithms	Online Lecture (non-face-to-face)
11	Minimum Spanning Trees	Online Lecture (non-face-to-face)
12	Single-Source Shortest Paths	Online Lecture (non-face-to-face)
13	All-pairs Shortest Paths	Online Lecture (non-face-to-face)
14	NP-Completeness	Online Lecture (non-face-to-face)
15	Approximation Algorithms Final Exam	Online Lecture (non-face-to-face)

5. References to Course Registration	

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
	Remark	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 () or Support Center for Students with Disabilities (02-880-8787).