

Course Title	()	1	()	Modern Algebra 1
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() Lecturer	()	/ / (Course No. /)	004299/ /3
(/HP) Contact No.		/ (Class Hour/Venue)	15:00-16:15/ 130
(Course Prerequisite)	Number Theory	(Target Student)	3rd, 4th year math. major students
E-mail (E-mail Address)		/Office Hour (Office/Office Hour)	118/ 16:15-17:15

(Objectives)	The object of this course is to study the notion and theory of a group. One should be able to classify groups of up to order 10. Should be able to apply Sylow Theorems to solve various problems about groups.
CQI (Continuous Quality Improvement Plan)	
(Text book & References)	: (J. Fraleigh, A First Course in Abstract Algebra), 7 , : J. Fraleigh, A First Course in Abstract Algebra, seventh Edition
(Assignment book)	J. Fraleigh, A First Course in Abstract Algebra, seventh Edition
(Lecture Methods)	Lecture and problem solving
(Assignment)	1. Section 2, 4, 5, 6 2. Section 8, 9, 10, 11 3. Section 13, 14, 15 4. Section 16, 17, 34 5. Section 36, 37
(Reading Materials)	
가 (Course Grading)	[가] (%) : 30, (%) : 40, 가 (%) : 10, (%) : 20, (30)%, (40)%, 가 ()%, (20)%, (10)%
(Etc.)	

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(Week)	(Course Contents)	(Etc.)	
1	Section 1: Introduction and example, Section 2: Binary operation		
2	Section 2: Binary operation Section 3: Isomorphic binary operation		
3	Section 4: Group		
4	Section 5: Subgroup, Section 6: Cyclic group		
5	Section 8: permutation group, Section 9: Orbit, cycle, alternating group		
6	Section 10: Coset, Theorem of Lagrange		
7	Section 11: Direct sum, Fundamental theorem of finitely generated abelian group		
8	Midterm		

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(Week)	(Course Contents)	(Etc.)	
9	Section13: Homomorphism, Section14: Factor group		
10	Section14: Factor group, Section15: Simple group		
11	Section16: Group action on a set Section17: Application of G-set		
12	Section34: Three isomorphism theorems		
13	Section35: composition series, principal series		
14	Section36: Sylow Theorems		
15	section37: Applications of Sylow Theorems		
16	Final		

<p style="text-align: center;">가 1 (Additional Guide1)</p>	<p style="text-align: center;">()</p> <p>Students who require special assistance (including special needs students) may contact their professors during the first week of the semester to discuss issues related to attendance, lectures, assignments and exams and request learning assistance.</p>
	<p style="text-align: center;">F, 8 FA</p>
<p style="text-align: center;">가 2 (Additional Guide2)</p>	