

## COURSE SPECIFICATION

The course information as follows may be subject to change, either during the session because of unforeseen circumstances, or following review of the course at the end of the session. Queries about the course should be directed to the course instructor.

1.	<b>Course Title</b>	Algebraic Graph Theory				
2.	<b>Originating Department</b>	Department of Mathematics				
3.	<b>Course Code</b>	MAT7012				
4.	<b>Credit Value</b>	3				
5.	<b>Course Type</b>	Major Elective Courses				
6.	<b>Semester</b>	Spring				
7.	<b>Teaching Language</b>	English & Chinese				
8.	<b>Instructor(s), Affiliation &amp; Contact</b> For team teaching, please list all instructors	<div style="text-align: center;"> 3    528  : lich@sustech.edu.cn  : 0755-88018755 </div> Caiheng Li, Professor, Department of Mathematics Room 528, Block 3, Wisdom Garden. email: lich@sustech.edu.cn phone: 0755-88018755				
9.	<b>Tutor/TA(s), Contact</b>	To be announced				
10.	<b>Maximum Enrolment</b> (      ) Optional					
11.	<b>Delivery Method</b>	/   /	/	(      )		
		<b>Lectures</b>	<b>Tutorials</b>	<b>Lab/Practical</b>	<b>Other   Please specify</b>	<b>Total</b>
	<b>Credit Hours</b>	45				45



Section 1, Group actions, permutation groups	2H		
Section 2, Transitive actions, bi-transitive actions		7H	
Section 3, Imprimitive groups, and quotient actions;		6H	
Section 4, Quasiprimitive groups, and normal quotient actions			6H
Section 5, Primitive groups and quasiprimitive groups, O'Man-Scott theorem;			O'Man-
Scott	6H		
Section 6, Orbital graphs, arc-transitive graphs and digraphs;			6H
Section 7, Graph embeddings and regular maps;		6H	
Section 8, Spectrum theory of graphs;	6H		

18. **Textbook and Supplementary Readings**

Required : Norman Biggs, Algebraic Graph Theory, 2014; Chris Gosil, Gordon Royle, Algebraic Graph Theory, 2000.
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**ASSESSMENT**

19.

Type of Assessment	Time	% of final score	Penalty	Notes
Attendance				
Class Performance				
Quiz				
Projects				
Assignments		30%		
Mid-Term Test		30%		
Final Exam		40%		
Final Presentation				

Others (The above may be modified as necessary)

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20.

**GRADING SYSTEM**

A.	Letter Grading
B.	/ Pass/Fail Grading

**REVIEW AND APPROVAL**

21.

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This Course has been approved by the following person or committee of authority

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