

# Spring 2015

## Math 421 - Algebraic Structure

MWF 9:10 - 10:00 am

TODD 334

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**Instructor:** Sheng-Chi Liu

**Office:** Neill 207

**Email:** [scliu@math.wsu.edu](mailto:scliu@math.wsu.edu).

**Phone number:** (509)335-8648

**Office Hours:** MWF 10:00 -11:00 am and by appointment.

**Textbook:** *A First Course In Abstract Algebra*, 7th Edition, by John Fraleigh.

**Instructor's web page:** <http://www.math.wsu.edu/faculty/scliu>

**Number of credits:** 3

**Prerequisites:** Math 301.

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**Course Description:** Groups and Subgroups; Groups of Permutations; Homomorphisms; Rings; Fields; additional topics as time permits. We plan to cover as much of the textbook as time permits.

### Grades and Exam schedule:

Assessment		Date
Midterm Exam	30 %	February 27 (Friday), in class
Final Exam	40 %	May 4 (Monday), 8:00 - 10:00
Quiz	20 %	
Homework	10 %	

Any appeals of grades on the exams or homework must be made within one week of the graded exams being returned to the class. Your letter grade will be determined as follows:

%	Grade
[90, 100]	A
[87, 90)	A-
[83, 87)	B+
[80, 83)	B
[77, 80)	B-
[73, 77)	C+
[70, 73)	C
[67, 70)	C-
[63, 67)	D+
[60, 63)	D
[0, 60)	F

**Homework:** There will be regular homework assignments. It is fine for students to work together on finding solutions for these problems. However, each student must write up the solutions on his or her own. Consulting web sites or other problem solution sources (other than the textbook) is not allowed.

**Learning outcomes:** Students will be able to present abstract mathematical proofs and classify objects with algebraic structures. Students will prepare background for further applications in number theory, cryptography and computer science.

**Absences:** Making up missed work (including exams, homework, etc) will be arranged for prior approved arrangements or illness. However you will need to provide some form of written verification such as a doctor's note. If you miss a lecture, you are responsible for obtaining lecture notes from another student. You are also responsible for determining if any announcements were made.

**WSU Disability Statement:** Reasonable accommodations are available for students with a documented disability. If you have a disability and need accommodations to fully participate in this class, please either visit or call the Access Center (Washington Building 217; 509-335-3417) to schedule an appointment with an Access Advisor. All accommodations **MUST** be approved through the Access Center. For more information contact a Disability Specialist at 509-335-3417, [Access.Center@wsu.edu](mailto:Access.Center@wsu.edu) or visit the website <http://accesscenter.wsu.edu>.

**Academic integrity:** Academic integrity will be strongly enforced in this course. Any student caught cheating on any assignment will be given an F grade for the course and will be reported to the Office Student Standards and Accountability. Cheating is defined in the Standards for Student Conduct WAC 504-26-010 (3). It is strongly suggested that you read and understand these definitions.

**WSU Safety and Emergency:** Washington State University is committed to enhancing the safety of the students, faculty, staff, and visitors. It is highly recommended that you review the Campus Safety Plan (<http://safetyplan.wsu.edu/>) and visit the Office of Emergency Management web site (<http://oem.wsu.edu/>) for a comprehensive listing of university policies, procedures, statistics, and information related to campus safety, emergency management, and the health and welfare of the campus community.

## Tentative Schedule

Week	Date	Sections
1	January 12 - 16	1 - 2
2	January 19 - 23	No class on 1/19, 3 - 4
3	January 26 - 30	4 - 5
4	February 2 - 6	6, 8
5	February 9 -13	8 - 9
6	February 16 - 20	No class on 2/16, 10
7	February 23 - 27	11, Midterm (2/27)
8	March 2 - 6	13
9	March 9 - 13	14
10	March 16 - 20	Spring Vacation
11	March 23 - 27	15 - 16
12	March 30 - April 3	16 - 17
13	April 6 - 10	18 -19
14	April 13 - 17	19 -20
15	April 20 -24	20 -21
16	April 27 - May 1	22 -23