

## Math 3613.002: Introduction to Modern Algebra

**Professor:** Paul Fili

**E-mail:** [paul.fili@okstate.edu](mailto:paul.fili@okstate.edu) (e-mail me with questions at any time)

**Lecture:** MWF 9:30-10:20 in HSCI 004

**Office:** 532 Mathematical Sciences Building

**Office Hours:** Wed. 2:30-4:30 in the MLSC (5<sup>th</sup> floor of Low Library), Tues. 10:00-10:50 am in my office, MS 532, and by appointment

**Website:** We will primarily use the Online Classroom (D2L) at <https://oc.okstate.edu/>. Some information (such as homework assignments) may also be posted at <https://www.math.okstate.edu/~fili/>.

**Prerequisite:** None

**Textbooks:** Abstract Algebra: An Introduction, by Thomas W. Hungerford (required); How to Prove It: A Structured Approach, by Daniel J. Velleman (recommended).

**About this course:** This course will cover an introduction to proofs in mathematics, a study of rings with particular focus on the ring of integers and its quotients (i.e., modular arithmetic), homomorphisms and isomorphisms, and rings of polynomials.

**Homework:** There will be weekly homework in this course. *You should expect the homework to take a significant amount of time each week.* Homework assignments that take 5-10 hours each week to complete are not uncommon in this course. As some of the questions assigned might be rather difficult, I expect each of you to e-mail me, come to my office hours, and talk with each other in order to complete the homework. You are allowed (and encouraged) to collaborate on homework so long as you do not copy each other's work (i.e., you can discuss the ideas and work together to find a solution, but you must write your own solutions without looking at other students' write-ups). *Direct copying of other students' work is an academic integrity violation may result in an F! grade for the course, so be sure to write up your own solutions.*

**Typesetting homework:** Students are encouraged to download and use LaTeX (commonly pronounced "LAY-teck") to typeset their homework. LaTeX is used almost universally for writing in the fields of mathematics, physics, and computer science and is worth learning, particularly for mathematics majors. Therefore, a **10% bonus will be given on each typeset homework**. Templates will be provided to ease learning of LaTeX, and you can easily find answers to many basic LaTeX questions on the web. For more information on typesetting software, visit the LaTeX project at <http://www.latex-project.org>. You will need to download and install first a "distribution" and then download a typesetting front-end which will use that distribution. Common choices for a front-end include Texmaker (cross-platform, what I use on my Macbook), Kile (available for Linux – my personal favorite), and LyX (available for Mac and Linux, as well as Windows under cygwin). LyX in particular is a WYSIWYG editor so it might be easier for first time users.

I am happy to help students set up LaTeX on their computers. Feel free to e-mail me for advice, or to bring your laptop to office hours for help setting up LaTeX.

**Exams:** There will be two midterm exam and a final exam. Students are required to be present for all exams. The exam dates are:

- Monday, September 15, in lecture – Midterm 1
- Monday, November 3, in lecture – Midterm 2

- Monday, December 8, 8 am – 10 am in the lecture room – Final exam

**Grading:** The grading for this course will be as follows:

Midterm 1	10%
Midterm 2	20%
Final exam	30%
Homework, quizzes, any other misc. classwork	40%

**Attendance:** *Attendance is required for this course.* I may at times discuss material that is not included in the textbook. If you will be unable to attend lecture for any reason, you must contact me privately to discuss your situation. Any student with 5 or more recorded absences from lecture without excuse will receive 2% off their final grade for each of those absences (thus, for example, a student with 6 recorded absences without excuse would receive 12% off their final grade).

**Policy on missed work:** Students will be offered reasonable accommodation in the event of a missed major assessment activity for a valid and documented reason. You will be required to notify me and provide me documentation of this reason as soon as is possible.

**Students with disabilities:** If you require any accommodations to assist your learning, you must first register with the Office of Student Disability Services, who will then inform me as to what accommodations to provide.

**Syllabus Attachment:** Please read the OSU syllabus attachment which follows this document.



# OKLAHOMA STATE UNIVERSITY

## SYLLABUS ATTACHMENT

### Fall 2014

<http://academicaffairs.okstate.edu/faculty-a-staff>

**YOUR SUCCESS AS A STUDENT IS OUR TOP PRIORITY.**  
**THIS INFORMATION IS PROVIDED TO ANSWER QUESTIONS MOST OFTEN ASKED BY STUDENTS.**

#### IMPORTANT DATES

Last day to add a class (without instructor permission)	8/25/2014
Last day to drop a course with no grade and 100% refund	8/25/2014
Last day to add a class (requires instructor & advisor permission)	8/29/2014
Last day to drop a course or withdraw from the University with an automatic "W" and receive a partial refund (requires advisor signature)	8/29/2014
Last day to post 6 week grades	9/30/2014
Last day to file diploma application (for name to appear in Fall Commencement program)	11/3/2014
Last day to drop a class or withdraw from the University with an automatic "W"	11/7/2014
Last day to withdraw from all OSU classes with an assigned grade of "W" or "F"	11/21/2014
Pre-Finals week	12/1 – 12/5/2014
Final examinations	12/8 – 12/12/2014

*Note: Outreach, internet, and short courses have unique drop/add and refund deadlines; lookup the specific deadlines for these courses on the Short, Internet and Outreach Class Schedules page of the Registrar's website.*

#### Fall Semester Holidays

University Holiday	9/1/2014
Students' Fall Break	10/24/2014
First day of students' Thanksgiving break (no classes)	11/26/2014
University Holiday	11/27 – 11/28/2014

#### DROPPING A COURSE AND WITHDRAWING FROM THE UNIVERSITY, students often confuse these terms.

**Dropping a Course** (or courses) may occur during the first twelve weeks of the semester. This means, however, that you are still enrolled in at least one other OSU course. Exceptions to the deadlines above may only be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdraw Petition and the Petition for a Refund of Tuition and Fees forms are available on the Registrar's [website](#).

**Withdrawing** from the university means that you are dropping *all* of your courses and *are no longer enrolled for the current semester*. This may occur until the Friday before pre-finals week. The withdrawal process is initiated with your academic advisor in your student academic services office. For additional information and dates, go to: <http://academicaffairs.okstate.edu/policies-a-procedures/35-adding-a-dropping-policy>

#### ALERTS AND RESCHEDULING

If the OSU campus officially closes due to inclement weather or other emergencies, alerts are provided to local news media and are posted on the OSU website. Exams, classes, or assignments that are missed in these circumstances may be rescheduled at times that are outside the normal meeting schedule for the class. If valid, documented circumstances prohibit students from attending the rescheduled classes, instructors should provide reasonable alternative means for makeup.

#### ACADEMIC INTEGRITY POLICY

Oklahoma State University is committed to the maintenance of the highest standards of integrity and ethical conduct of its members. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and fraudulently altering academic records) will result in an official academic sanction. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge. Contact the Office of Academic Affairs, 101 Whitehurst, 405-744-5627. Go to <http://academicintegrity.okstate.edu/> for a video on OSU's academic integrity policy and additional information.



#### COPYRIGHT & FAIR USE POLICY OF COURSE MATERIALS

Course materials may not be published, leased, sold to others, or used for any purpose other than appropriate OSU-related individual or group study without the written permission of the faculty member in charge of the course and other copyright holders. This paragraph grants you a limited license giving you access to materials for this course, including PowerPoint slides, audio/video recordings, written, or other materials, for appropriate OSU-related educational use only. Lectures should not be recorded without permission from the faculty member and must not be further disseminated or shared.

#### CLASS ATTENDANCE

Class attendance is a critical component of learning; therefore, you are expected to attend and participate fully in all scheduled class meetings. Many instructors consider attendance so essential that your grade may be affected by your absence. *SOME DEPARTMENTS AND PROFESSORS HAVE MANDATORY ATTENDANCE POLICIES*. If no written attendance policy is provided before the last day to add a class without instructor permission, no penalty may be assessed for class absences although you may not be permitted to make up certain in-class activities. If you are required to participate in official university-sponsored activities or military training, you should receive an excused absence unless the written course attendance policy indicates otherwise. If you will be absent from class for sponsored activities, you must provide prior notification of the planned absence to the instructor. You may be required to submit assignments or take examinations before the planned absence.

#### PRE-FINALS WEEK POLICY

Final examinations are scheduled at the end of each semester and are preceded by pre-finals week, which begins seven days prior to the first day of finals. During pre-finals week, all normal class activities will continue; however, no assignment, test, or examination accounting for more than 5% of the course grade may be given; and no activity or field trip may be scheduled that conflicts with another class. This excludes makeup and laboratory examinations, out-of-class assignments (or

projects) made prior to pre-finals week, and independent study courses. No student or campus organization may hold meetings, banquets, receptions, or may sponsor or participate in any activity, program, or related function that requires student participation. For additional information, contact the Office of Academic Affairs, 405-744-5627, 101 Whitehurst.

### **FINAL EXAM OVERLOAD POLICY**

In the event that you have three or more final exams scheduled for a single day, you are entitled to arrange with the instructor of the highest numbered course (4 digit course number) or two highest, if you have four finals on one day, to re-schedule that examination(s) at a time and place of mutual convenience during final exam week. If the final exam overload includes a common final exam, the common final exam is excluded from rescheduling unless multiple common exams are scheduled at the same time. You should submit this request in writing, with a copy of your class schedule, at least two weeks prior to the beginning of final exam week. The instructor has one week prior to the beginning of final exam week to arrange a mutually convenient time and place for administration of the final exam. After one week, if an agreement cannot be reached, take the request to the department head.

### **INFORMATION TECHNOLOGY**

**Student Email** - OSU uses your OKSTATE.EDU email address as a primary form of communication. Students are expected to check their OSU email on a frequent and consistent basis to remain informed of their official university business. If you do not use the OSU email system you must redirect your okstate.edu email using the Orange-Key System ([www.okey.okstate.edu](http://www.okey.okstate.edu)). Failure to maintain an accurate email address may result in missed or lost university communications. For email assistance contact the IT Helpdesk at 405-744-HELP (4357).

**Computer Labs** - A complete description of computer labs and hours of operations are available at their website: <https://it.sharepoint.okstate.edu/TechnologySupport/DeskSide/default.aspx>. Lab information is also available by calling the Information Technology Help Desk, 405-744-HELP (4357).

### **LIBRARY HOURS**

**Edmon Low Library (405-744-6812)**

**Digital Library Toll Free: (1-877-744-9161)**

Monday-Thursday	7:00 a.m.-2:00 a.m.
Friday	7:00 a.m.-10:00 p.m.
Saturday	9:00 a.m.-10:00 p.m.
Sunday	9:00 a.m.-2:00 a.m.

\*For holiday and intersession hours, check

<http://www.library.okstate.edu/services/hours.htm>

\*Contact the following for information on hours of operation:

Architecture Library	405-744-6047
Curriculum Materials Library	405-744-6310
Veterinary Medicine Library	405-744-6655

Library web address: [www.library.okstate.edu](http://www.library.okstate.edu)

### **GENERAL EXPECTATIONS OF STUDENTS**

By enrolling at Oklahoma State University, you accept responsibility for complying with all University policies and contracts, and for local, state and federal laws on- or off-campus that relate to the University's mission. **The Student Rights and Responsibilities Governing Student Behavior** document explains the standards of behavior expected of you, processes in place for enforcing the rules, and the University's response to violations <http://studentconduct.okstate.edu/>

In general, the University expects you to respect the rights of others and authorities, represent yourself truthfully and accurately at all times, respect private and public property, and take responsibility for your own actions and the actions of your guests. Call 405-744-5470 for more information.

### **SEEK ANSWERS TO YOUR QUESTIONS**

The OSU faculty and staff want you to be successful in your educational pursuits. If you have questions or concerns, seek help EARLY. We are here to assist you.

### **WHERE TO GO FOR HELP**

**Instructor** - If you have questions regarding your class, talk to your instructor. Faculty members usually include their office hours and/or phone number in the class syllabus. If you cannot locate this information, set a time to meet with your instructor by speaking with him/her prior to or immediately following your class session or check with the departmental office on when the instructor may be available.

**Academic Advisor** - All students will benefit by conferring with an advisor on a regular basis. If you do not know your advisor, or are unhappy with your advisor, talk to the Student Academic Services Director for your college.

**Academic911.okstate.edu** - Your online resource for academic and personal success, sponsored by Student Affairs.

### **Mathematics Learning Success Center**

5th Floor, Edmon Low Library/405-744-5818

<http://www.math.okstate.edu/>

Tutors are available to answer questions for classes ranging from Beginning Algebra through Calculus II. Tutoring for Differential Equations and Linear Algebra is offered at specific times.

### **Writing Center**

440 Student Union/405-744-6671

<http://osuwritingcenter.okstate.edu>

The Writing Center helps writers throughout the composing process; you should plan to visit early and often throughout the semester, not just the day before an assignment is due. Tutors will work with you to improve your brainstorming, organizational, and composing techniques.

### **Learning & Student Success Opportunity (LASSO) Tutoring Center**

021 Classroom Building/405-744-3309

<https://lasso.okstate.edu/>

LASSO offers free individual tutoring for a variety of courses.

### **University Counseling Services**

320 Student Union/405-744-5472 or 405-744-7007

<http://ucs.okstate.edu/>

Professional counselors offer confidential personal and/or career counseling.

### **Office of Student Disability Services**

315 Student Union/405-744-7116

<http://sds.okstate.edu/>

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from the Office of Student Disability Services. Please advise the instructor of your disability as soon as possible, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process during which the existence of a qualified disability is verified and reasonable accommodations are identified.

### **Office of Equal Opportunity**

408 Whitehurst/405-744-9153

Oklahoma State University policy prohibits discrimination based upon gender, race, color, ethnicity, age, religion, national origin, veteran's status, disability, or sexual orientation. If you believe that you are being discriminated against, please contact this office.