

Autumn 2022: Syllabus for Abstract Algebra (Alg)

Prof. Jonathan L.F. King
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For all of my courses

[Specific Abstract Algebra info starts on the next page.]

Who? Prof. King Eddress: squash@ufl.edu

Office: 402Little Tel: 352-294-2314

Math Dept: 3rd floor Little Dept.Tel: **352-294-2350**

To find my office (402 Little Hall; Top floor, NE corner) just “[Maximize x, y and z.](#)” (Note: I do *not* pick up tel. messages remotely, but do read email multiple times a day. It is almost always better to email me first, before telephoning my office.)

[Class attendance is required, and is part of a student's CP](#), Class participation, grade.

Contacting Prof.K. If you need to get an important message to me (e.g. you'll be missing an in-class exam), it is *particularly important* that you [email me from your UF eddress](#) as soon as possible; preferably several weeks or days before the exam; several hours before, if you didn't know in advance.

I do *not* pick up office phone messages remotely, so it is important that you email me. If urgent, you should also tel. the math dept, **352-294-2350**, and they can contact me at home. The secretaries can also put a note in my mailbox if you request it. [All these tel.numbers are *wired phones*; they do not take text-messages.]

IMPORTANT: I will primarily use **email** for contacting students, *not* Canvas-mail. I ask that students read email *at least* twice a day morning/evening (excepting for religious observance).

IMPORTANT: Students will be typesetting solutions to problems and will need a real **computer**; a cellphone does not suffice. Also, students will need access to a **printer**, as some of the typeset assignments will need to be handed-in on paper (not electronically).

As some office-hours will be via Zoom, students will need Zoom-capability.

Prof.K's clickable links:

Teaching Page

- <http://squash.1gainesville.com/teaching.html> Has important info for *all* my courses. Gives links to *Putnam competition*, *Robert Long essay competition*, links to the free mathematical typesetting language **TeX/LaTeX**.

The Teaching Page also has an extensive list of:

Usually Useful Pamphlets.

Our Alg Webpage:

- <http://squash.1gainesville.com/course.Alg.curr.html> Info for the current semester, as well as links to previous versions (see

[Nostalgia](#)) of Alg, containing previous exams and microquizzes, for your studying pleasure!

- Prof. King's page at UF <http://people.clas.ufl.edu/squash/> has a link to the *Robert Long essay competition*.

- Prof.K schedule & office hours <http://squash.1gainesville.com/info.jksched.html>

- Math Dept. homepage <http://math.ufl.edu/>. Searchable. A wealth of information on applying to grad school, seminars, conferences, faculty, staff, grad listings, tutors for hire.

University resources, clickable:

- * UF syllabus policy <https://people.clas.ufl.edu/squash/univ-syllabus-policy/>

- * Accommodation for students with disabilities <https://disability.ufl.edu/students/get-started/>

- * UF Teaching Center <https://academicresources.clas.ufl.edu/> has free tutoring, both in-person and via zoom.

- * Writing Studio <https://writing.ufl.edu/writing-studio/> 2215 Turlington, 352-846-1138.

- * The UF Help desk <http://helpdesk.ufl.edu/> 352-392-4357.

- * End-of-Semester student evals of professors <https://gatorevals.aa.ufl.edu/students/>

LOR: Letter-of-recommendation. I base LORs substantially on how a student “thinks on his/her feet”

I require **two** courses with me, at least one of which is *proof-based*, as well as the student actively participating in class. (Occasionally, one course may suffice if it is a **graduate course** or a **Special Topics** course, e.g., my **MATHEMATICAL CRYPTOGRAPHY** course.)

Microquizzes. There will be some number of “pop” (unannounced) microquizzes (**MQ**), each worth **30** points. (Just handing-in the MQ with name and ordinal earns **5** points.)

MQs never occur on religious holidays; **email me** of all such religious dates by the first Wedn. after Add/Drop.

Usually, a pop-quiz has a single, easy question. I use them partly for attendance, and checking that an idea from the previous class caught on.

IMPORTANT: I *drop* the lowest microquiz score. AND: There is **No makeup** for the first missed MQ, regardless of reason; that is what the dropped-score is for.

If a 2nd MQ is missed, I may give a make-up, if there was an emergency or if I knew in advance (e.g, you are giving a talk at a conference, and you let me know well in advance). \square

Class Archive. We will all use our **Alg Archive**, a LISTSERV, to communicate to the whole class.

Once Add/Drop has ended, I will email out how to post-to/read-from our **Archive**, which plays the role of a **Alg Wikipedia** that students build during the semester, acting as a reference for everyone in class.

Students will be posting problem-solutions to the Archive, as part of their **CP** (Class Participation) grade.

Canvas. Canvas will be used for recording grades, but not much else. We will primarily use *email* and our class Archive (a LISTSERV) to communicate with each other outside of class.

End-of-Semester Games Party! If COVID *et al* stays low, then we will have an *End-of-Semester Games Party*. (We might also have a “team building” *Games Party* mid-semester.) In the past, the Games Party has been on the last date of class, at Pascal’s Cafe, in the

Christian Study Center of Gainesville
112 NW 16th Street

Abbreviations. **MQ**, Microquiz. **OH**, Office-Hour. **CP**, Class participation. **IP**, Individual Project. **IOP**, Individual Optional Project. **RLEC**, Robert Long Essay Competition.

RLEC. Each year, students who like to write short essays may enter the *Robert Long Essay Competition*. The RLEC has a monetary prize and, more importantly, looks great on a CV.

Specific Alg information:

Alg is an introduction to algebraic Groups, with a focus on finite groups. We will cover a subset of chapters 1–11 of Gallian’s text:

Text: The 9th edition of Joseph Gallian’s **Abstract Algebra: Theory and Applications**.

Course/Room. MAS4301 3249 (14949) MWF7 Lit235 Abstract Algebra 1

The class meets in **Little Hall room 235** [North side of the East wing, 2nd floor] on MWF at **7th period**, 13:55–14:45.

CP grades. Each of Jan., Feb., Mar. (and a part-score for Apr.) has a **CP**, **Class participation**, **45**pt grade based on speaking in class, attending OHs (sometimes via Zoom), and *especially* posting solns to non-trivial problems to our **Archive**. A typical grade is **20**. For *exceptionally* active students, I may give a grade a bit higher than **45**.

MQ grades. Each microquiz is **30**pts. Typically, MQs are not announced. A MQ usually has a single routine question. The *lowest MQ score* is dropped; **there is no makeup for the first missed MQ**.

The classday following an in-class exam often has an *MQ with a slight variation of a question from the exam*.

NOTE: There will be a MQ the classday before, and the classday after, Spring Break.

(continued...)

Alg Exams, Fall 2022. We'll have 3 in-class exams, and an *optional* IOP [Individual Optional Project]

(Note: Occasionally an exam needs to be moved a class-day later. Since that is a class-day, I do *not* [baring extenuating circumstances] if you miss class and the exam that day.)

There will be a microquiz on the classday before *Thanksgiving Break*, and on the classday after *Thanksgiving Break*, 21Nov and 28Nov. (The dates of ThBr are November 23–26.)

Hurricane Ian closed UF for 3 days; Class-V moved.
Class-V: ~~Wedn, 28Sep~~ Monday, 03Oct.

Class-W: Wedn, 26Oct.

Class-X: Wedn, 16Nov.

Mond, 21Nov. (Withdraw date): Canvas will have an *estimate* of current course-grade, the evening before this date.

Typeset INDIVIDUAL OPTIONAL PROJECT: Avail. ~~Tuesday, 29Nov.~~ If you choose to: Due ~~Fri., 09Dec2022~~, slid under my office door, LIT402.

I will give an *estimate* of current Algebra course-grade by the withdraw date of ~~Monday, 21Nov.~~

Wedn, Dec. 7 (Pearl Harbor Day): Last day class. Class photo. *Possible Games Party!*

Sincerely, Prof. King