

Spring 2023: Syllabus for Plex

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For all of my courses

[Specific [Complex Vars](#) info starts on the next page.]

Who? Prof. King **Address:** squash@ufl.edu
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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 ed-dress** 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 $\text{T}_{\text{E}}\text{X}/\text{L}^{\text{A}}\text{T}_{\text{E}}\text{X}$.

The Teaching Page also has an extensive list of:

Usually Useful Pamphlets.

- [Our Plex Webpage:](#) <http://squash.1gainesville.com/course.Plex.curr.html> Info for the current semester, as well as links to previous versions (see [Nostalgia](#)) of Plex, containing previous exams and micro-quizzes, 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://www.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). □

Class Archive. We will all use our **Plex 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 **Plex 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.

Possible End-of-Semester Games Party! If COVID diminishes significantly, we *may* have an *End-of-Semester Games Party*. 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.

Office hours. My current [weekly schedule](#). (OHs may change slightly during the semester, and other days/times may be available by appointment, sometimes [via Zoom](#).)

Specific Plex information:

Complex Analysis is a lovely subject, in which both algebraic and geometric thinking interact.

We’ll define \mathbb{C} , the complex plane (Argand plane), and build the machinery to prove that differentiability-on-open-sets in \mathbb{C} , implies that the fnc can be described via a power series (Taylor series). This is much stronger than the corresponding differentiability property in \mathbb{R} .

We’ll develop the technique of contour-integration, working our way to the calculus of residues.

Textbook: *A First Course in Complex Analysis*, a PDF made freely available by its authors, professors Matthias Beck, Gerald Marchesi, Dennis Pixton & Lucas Sabalka

Further text info at

Course Page: [Plex](#)

<http://squash.1gainesville.com/course.Plex.curr.html>

Our goal is to cover a subset of chapters 1-8, as well elementary applications of the *Residue calculus* in chapter 9. NOTE: We will introduce power-series (Taylor series) much earlier than the text will.

Course/Room/time. MAA4402 2838 (13781) Functions Complex Var.

The class meets in **Little Hall room 221** [North side of the West wing, 2nd-floor] on MWF at **6th period**, 12:50-13:40, i.e 12:50PM to 1:40PM.

CP grades. Each of Jan., Feb., Mar. (and a part-score for Apr.) has a **CP, Class participation, 45pt** 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 **30pts** 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 class day 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 class day before, and the class day after, Spring Break.

Plex Exams. There will be 3 in-class exams, and an end-of-semester take-home Individual Optional Project.

Dates for *in-class* exams for Spring 2023: *To-be-scheduled*.

Sincerely, Prof. King