

## 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](mailto:squash@ufl.edu)  
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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](#)      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:](#)      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](#)      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](#)      has free tutoring, both in-person and via zoom.  
<https://academicresources.clas.ufl.edu/>
- \* [Writing Studio](#)      2215 Turlington, 352-846-1138.  
<https://writing.ufl.edu/writing-studio/>
- \* The UF [Help desk](#)      352-392-4357.  
<http://helpdesk.ufl.edu/>
- \* [End-of-Semester student evals of professors](#)  
<https://gatorevals.ua.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 2<sup>nd</sup> 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.

**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.

**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, 2<sup>nd</sup>-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.

*Exam dates, next page*

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

Dates for *in-class* PLEX exams for Spring 2023:

EXAM A: Wedn., 15Feb..

MQ: Frid., 17Feb.

EXAM B: Wedn., 08Mar. \*\*This is the Wedn. before Spring-Break.

MQ: Frid., 10Mar.

Spring-Break: Sat.-Sat., 11-18 March.

MQ: Mond., 20Mar.

Passover Eve: 5,6,7 April.

Easter Sunday: Sunday, 09Apr2023

EXAM C: Mond., 10Apr.

MQ: Wedn., 12Apr.

Withdraw-date: Friday, 14Apr.

Last-Day-class and G\*A\*M\*E\*S P\*A\*R\*T\*Y!: Wedn., 26Apr

IOP due: 2PM, Thurs., 27Apr.

Typeset IOP [INDIVIDUAL OPTIONAL PROJECT]:  
 Avail. Thur., 20Apr.. Due Thursday, 27Apr by  
 2PM, slid under my office door, LIT402.

Last day class, Wednesday, 26Apr: *Games Party!*  
 and *Class Photo*, at *Pascal's Cafe*.

*Sincerely, Prof. King*