

## Autumn 2021: Syllabus for Plex

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### For all of my courses

[Info specifically for [Complex Vars](#) starts on the next page.]

**Who?** Prof. King      **Address:** [squash@ufl.edu](mailto:squash@ufl.edu)  
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Due to COVID, most office-hours will be via Zoom. As I am a senior citizen and my wife is a caregiver for our 103-year-old neighbor, we are especially cautious concerning COVID.

Teaching will take place in our classroom (not remotely), with the hope that most folks are vaccinated and mask-wearing. For in-class exams, if necessary we may use multiple classrooms, so that students feel comfortable with social distancing. *Class attendance is required, and is part of a student's CP, Class participation, grade.*

If UF changes policy about Zoom-teaching from home, then this will change how exams are administered and CP.

2<sup>nd</sup>-day Rosh Hashana is on Sept.8, 2021. We will *not have class* that day; rather, I will make a Zoom-async (you can view at your leisure) available sometime on Sept.9.

While unlikely, I might need to replace a class day by an async later in the semester.

**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 address** 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 most office-hours will be via Zoom, students will need Zoom-capability.

### Prof.K's clickable links:

- [Teaching Page](http://squash.1gainesville.com/teaching.html) <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.

- [Course Page: Plex](http://squash.1gainesville.com/course.Plex.2021t.html) <http://squash.1gainesville.com/course.Plex.2021t.html> has links to previous versions of our course, which contain all of my previous exams for your studying pleasure!

- [Prof. King's page at @UF](http://people.clas.ufl.edu/squash/) <http://people.clas.ufl.edu/squash/> has has a link to a description of the *Robert Long essay competition*. However, for coursework, I use the above Teaching Page and Course Page.

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

- [Math Dept. homepage](http://www.math.ufl.edu/) <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/) <https://people.clas.ufl.edu/squash/univ-syllabus-policy/>
- \* [Accommodation for students with disabilities](https://disability.ufl.edu/students/get-started/) <https://disability.ufl.edu/students/get-started/>
- \* [UF Teaching Center](https://teachingcenter.ufl.edu/) <https://teachingcenter.ufl.edu/> Broward Hall:  
352-392-2010, 352-392-6420.
- \* [Writing Studio](https://writing.ufl.edu/writing-studio/) <https://writing.ufl.edu/writing-studio/> 2215 Turlington,  
352-846-1138.
- \* The UF [Help desk](http://helpdesk.ufl.edu/) <http://helpdesk.ufl.edu/> 352-392-4357.
- \* [End-of-Semester student evals of professors](https://gatorevals.aa.ufl.edu/students/) <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 30points. These will never occur on religious holidays; please **email** 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 Arhcive, 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.

**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 good on a CV.

**Office hours.** [These may *change* during the semester.]

My OHs will start **Monday, 30Aug2021**; before that, I will be available immediately after class to help students.

Currently: OHs are

via Zoom: Mondays, 10<sup>th</sup> period [17:10-18:00];

via Zoom: Thursdays, 9<sup>th</sup> period [16:05-16:55];

in LIT402: Wednesdays, 5<sup>th</sup> period [11:45-12:35];

as well as **by appointment, via Zoom**.

I will email the **Zoom-OH-link** to students, on **Monday, 30Aug2021**.

### 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:** **Complex Variables and Applications**, 9th edition by **Ward Brown** and **Ruel Churchill**.

Further text info at

**Course Page: Plex**

<http://squash.1gainesville.com/course.Plex.2021t.html>

Our goal is to cover a subset of chapters 1-7, including elementary applications of the *Residue calculus*.

**Course/Room/time.** The two course-names are MAA4402 8436 (15961) Functions Complex Var. MAA5404 8442 (15579) Intro Complex Var.

The class meets in **Little Hall room 223** [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 Sept., Oct., Nov. has a **CP**, **Class participation**, 45pt grade based on speaking in class, attending OHs (probably 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.*

**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 Autumn 2021:**

Class-V: **Wedn, 06Oct2021**. [Exam V was moved due to Prof.K testing positive for COVID.]

Class-W: **Wedn., 27Oct**.

Class-X: **Wedn., 17Nov**.

Individual Optional Project (**IOP**): Due by **2PM** on **Thursday, 09Dec**, slid *completely* under my office door, **LIT402** (Northeast corner, top floor). The IOP *must* be typed, with the project-sheet as its first page. I will give an *estimate* of current course-grade by the withdraw date of **Monday, 22Nov2021**.

*Sincerely, Prof. King*