MAT 591 Professional Topics in Mathematical Sciences
August 21, 2020 (Information Subject to Change)

Instructor: Dr. R. A. Renaut

**Time and Place:** Variable in window 4:00-6:30pm Th, Zoom **Linenum:** 85294.

**Email:** renaut@asu.edu

**Course Description:** This is a graduate seminar offered for graduate students in mathematics programs, including all the SOMSS graduate degree programs. We will discuss professional opportunities after the doctorate.

**Scheduling** The seminar will be held throughout the academic year, not just for Fall 2020, and will not be offered every week of the semester. Note that the time slot matches that for the Colloquia and the events will be planned so as not to clash. In some cases we will have speakers who are not able to visit for the Thursday time period, but we hope that a suitable time will be found that still work.

**Target Population** The class is targeted to students that are currently actively planning how to focus their studies and what kind of career they intend to have with a Ph.D from SoMSS. We guess that this makes third year students the typical target of the class.

**Format** The format of the seminar will be that we will announce the topic of the next class on the events section of the webpage. Typically, the seminar is then open to all graduate students. The seminar will not have grades or homework and cannot be used on a iPOS. However, if you think this might interest you and plan to attend a fair number of meetings, it would be good if you sign up for the class in order to show the University administration, that they should support such a class.

**Active Participation** Students attending the seminar for credit should expect to directly participate via presentations and completion of reading assignments. The topics will also be directed in part by the requests of the students. We plan to invite recent graduates of our programs to talk about their early career experiences, and more senior career individuals to talk about opportunities for mathematicians in their professions.

**Exams** None.

**Topics to be covered**

- Career information: SoMSS alumni with careers in industry, government labs, community college teaching and research universities will be invited to talk to us about their careers.
- Academic jobs: (i) research statement, (ii) teaching statement, (iii) Application requirements (iv) Targeted resume
- Different kinds of academic positions: Liberal Arts Colleges, Research Universities and Community Colleges - how do you succeed in these careers? Promotion and tenure.
- What kind of grants are there? How to write a successful grant? Why should you do that?
• Industrial and National Lab Opportunities: What is important in the application process
• Interviewing in general: telephone interviews, interviews at meetings, on campus interviews
• Publishing: what are the criteria to find an appropriate journal for your research? How to you review a paper?
• Work-life balance issues and planning
• Ethics in research and professional positions
• Presentation / Communication skills for your research (elevator speech)