

**MAT 591 Professional Topics in Mathematical Sciences - Fall 2021**

May 20, 2021 (Information Subject to Change)

**Instructor:** Dr. R. A. Renaut

**Time and Place :** Variable in window 4:00-5:30pm Monday, Zoom and in person Wxlr 302

**Linenumber:** 82996.

**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, and will not be offered every week of the semester. In some cases we will have speakers who are not able to visit for the noted 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. All graduate students are encouraged to attend and enroll for the seminar. 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.

**Format** The format of the seminar will be that we will announce the topic of the next presentation 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.

**Active Participation** The success and direction of this seminar is determined by the active participation of the students. We ask you directly participate via attending the presentations and asking questions. 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.

**Example Topics that may be covered** Please see the information on the previous semesters for examples of the topics

- The importance of an internship: internship panel.
- What is a postdoc? Postdoc panel.
- Different kinds of academic positions. Lecturers, Clinical Positions, Tenure-track. (Panel of our faculty)
- 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 proposal? Why should you do that?
- Industrial and National Lab Opportunities : Speakers from labs will present.
- 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)

## Professional Development Seminar

### Spring 2021

Week	Date	
1	01/11	Rosemary Renaut and Dieter Armbruster Introduction and Planning
2	01/18	Martin Luther King Day
3	01/25	Wolfgang Stefan, (Comp Math), 2008, Mayo Clinic <b>Computational mathematicians at a research hospital</b>
4	02/1	Sharon Stefan (Mathematics Education), Estrella Mountain Community College Residential Faculty <a href="https://directory.estrellamountain.edu/person/sharon.stefan">https://directory.estrellamountain.edu/person/sharon.stefan</a> Understanding the Community College Student Population and role of Professors
5	02/8	Iuliia Inozemtseva, Lecturer, School of Mathematical and Statistical Sciences Teaching math around the world : Russia, Ukraine, Hungary, China and US Experiences as an international instructor.
6	02/15	Jorly Chatouphonexay, Early Warning®, Cyber Threat Intelligence Analyst <a href="https://www.linkedin.com/in/jorlychatouphonexay/">https://www.linkedin.com/in/jorlychatouphonexay/</a> A Day in the Life of a Cyber Incident Responder
7	02/22	Ana Kupresanin, ASU PhD Statistics 2008, <a href="https://people.llnl.gov/kupresanin1">https://people.llnl.gov/kupresanin1</a> Deputy Division Leader, Center for Applied Scientific Computing, Lawrence Livermore National Lab My Journey to a National Lab and A Perspective on Data Science
8	03/1	Brady Gilg, ASU PhD Applied Math., 2018, Caris Life Sciences <a href="https://www.linkedin.com/in/brady-gilg/">https://www.linkedin.com/in/brady-gilg/</a>
9	03/8	Qing Huang, ASU PhD Statistics, 2011 Data Scientist, American Family Insurance <a href="https://www.linkedin.com/in/qing-huang-b987b01a/">https://www.linkedin.com/in/qing-huang-b987b01a/</a>
10	03/15	Denny Denker, ASU PhD Applied Math., 2016, Start up <a href="http://www.brava.com">www.brava.com</a>
11	03/22	Deb Agarwal, Senior Scientist, Lawrence Berkeley National Laboratory, Enabling Science Through Data Science at Berkeley Lab, <a href="https://dst.lbl.gov/~deba/">https://dst.lbl.gov/~deba/</a> <b>Joint with the RTG Seminar: 1:25pm</b>
12	03/29	Angie Peace, ASU PhD Applied Math., 2014, Assistant Professor, Texas Tech. <a href="http://www.math.ttu.edu/~anpeace/">http://www.math.ttu.edu/~anpeace/</a>
13	04/5	
14	04/12	Erica Rutter, ASU PhD Applied Math., 2016, Assistant Professor, UC Merced, <a href="https://www.ucmerced.edu/content/erica-rutter">https://www.ucmerced.edu/content/erica-rutter</a>
15	04/19	Karen Devine, Sandia National Laboratories, A Career of Load Balancing <a href="https://cfwebprod.sandia.gov/cfdocs/CompResearch/templates/insert/profile.cfm?kddevin">https://cfwebprod.sandia.gov/cfdocs/CompResearch/templates/insert/profile.cfm?kddevin</a>

## Fall 2020

Week	Date	
1	08/24	Rosemary Renaut and Dieter Armbruster Introduction and Planning
2	08/31	
3	09/07	Labor Day Preparing for Career Day: with Career Services and Math Club: <b>Wednesday evening 09/09 and 09/16 6:30pm</b>
3	09/09	How to create your resume and elevator pitch (60-min presentation)
4	09/16	How to navigate the Handshake platform for a virtual career fair (30-min presentation)
5	09/21	Postdoc panel: Samantha Dahlberg, (Michigan State, 2016), <a href="https://math.la.asu.edu/~dahlberg/">https://math.la.asu.edu/~dahlberg/</a> Jason Yalim (ASU 2019): <a href="https://mathpost.asu.edu/~jyalim/assets/CV.pdf">https://mathpost.asu.edu/~jyalim/assets/CV.pdf</a> Steffen Eikenberry (USC, 2014, MD. 2016) <a href="https://math.asu.edu/node/3245">https://math.asu.edu/node/3245</a>
6	09/28	Academic Positions: how to apply and interviewing online, at meetings and in person. Current and Incoming School Directors. Professor Al Boggess and Prof. Donatella Danielli: <a href="https://www.math.purdue.edu/~dgarofal/">https://www.math.purdue.edu/~dgarofal/</a>
7	10/05	<b>2pm</b> Discussion on Summer internships-joint with RTG: Penny Wu, IMA Math to Industry Bootcamp <a href="https://www.ima.umn.edu/2019-2020/SW6.22-7.31.20">https://www.ima.umn.edu/2019-2020/SW6.22-7.31.20</a> Bryce Barclay Data Science Summer Institute LLNL, <a href="https://data-science.llnl.gov/dssi">https://data-science.llnl.gov/dssi</a> Nikolay Krantsevich, Foundation Medicine in Boston. <a href="https://www.foundationmedicine.com/">https://www.foundationmedicine.com/</a> Andrew Herren, Arize AI <a href="https://arize.com/">https://arize.com/</a>
8	10/12	
9	10/19	Career Trajectories in Academia: Susanna Fishel, Marko Samara and Iuliia Inozemtseva
10	10/26	Nicole Infante, Associate Prof, Mathematics, (Math Ed) West Virginia University <a href="https://mathematics.wvu.edu/faculty-and-staff/faculty-directory/nicole-engelke-infante">https://mathematics.wvu.edu/faculty-and-staff/faculty-directory/nicole-engelke-infante</a> Mathematics and Country Roads: My non-linear journey
11	11/2	
12	11/9	Katherine Irimata, (Statistics) 2018 Mathematical Statistician, Centers for Disease Control and Prevention, National Center for Health Statistics (NCHS) in the Division of Research and Methodology Title: From “I never want to work in government” to becoming a federal employee
13	11/16	Youzuo Lin, (Comp Math), 2010, Staff Scientist, Los Alamos National Laboratory. <a href="https://sites.google.com/site/youzuolin044/">https://sites.google.com/site/youzuolin044/</a> Demystifying a Career in a National Lab
14	11/23	
15	11/30	

## Fall 2021 (tentative)

Most of the sessions of the Professional Development Seminar will take place by Zoom during Fall semester. Most sessions will be Monday 4-5pm. For joint events with other seminars, time changes will be posted in advance.

Week	Date	
1	August 23	
2	August 30	
3	September 6	Labor Day
4	September 13	
5	September 20	
6	September 27	
7	October 4	
8	October 11	Fall Break
9	October 18	Kyle Irimata (Statistics), 2018
10	October 25	
11	November 1	
12	November 8	
13	November 15	
14	November 22	
15	November 29	

## Spring 2021

The Professional Development Seminar will take place by Zoom during Spring semester, unless there are changes in the ASU requirements. Most sessions will be Monday 4-5pm. For joint events with other seminars, time changes will be posted in advance.

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1	01/11	Rosemary Renaut and Dieter Armbruster Introduction and Planning
2	01/18	Martin Luther King Day
3	01/25	Wolfgang Stefan, (Comp Math), 2008, Mayo Clinic <b>Computational mathematicians at a research hospital</b>
4	02/1	Sharon Stefan (Mathematics Education), Estrella Mountain Community College Residential Faculty <a href="https://directory.estrellamountain.edu/person/sharon.stefan">https://directory.estrellamountain.edu/person/sharon.stefan</a> Understanding the Community College Student Population and role of Professors
5	02/8	Iuliia Inozemtseva, Lecturer, School of Mathematical and Statistical Sciences Teaching math around the world : Russia, Ukraine, Hungary, China and US Experiences as an international instructor.
6	02/15	Jorly Chatouphonexay, Early Warning®, Cyber Threat Intelligence Analyst <a href="https://www.linkedin.com/in/jorlychatouphonexay/">https://www.linkedin.com/in/jorlychatouphonexay/</a> A Day in the Life of a Cyber Incident Responder
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10	03/15	Denny Denker, ASU PhD Applied Math., 2016, Start up <a href="http://www.brava.com">www.brava.com</a> A Math Graduate's Experience in Silicon Valley
11	03/22	Deb Agarwal, Senior Scientist, Lawrence Berkeley National Laboratory, Enabling Science Through Data Science at Berkeley Lab, <a href="https://dst.lbl.gov/~deba/">https://dst.lbl.gov/~deba/</a> <b>Joint with the RTG Seminar: 1:25pm</b>
12	03/29	Angie Peace, ASU PhD Applied Math., 2014, Associate Professor, Texas Tech. <a href="http://www.math.ttu.edu/~anpeace/">http://www.math.ttu.edu/~anpeace/</a> Navigating the Early Years: My Path from PhD to Tenure
13	04/5	No presentation
14	04/12	Erica Rutter, ASU PhD Applied Math., 2016, Assistant Professor, UC Merced, <a href="https://www.ucmerced.edu/content/erica-rutter">https://www.ucmerced.edu/content/erica-rutter</a> Lessons Learned from the Academic Job Search
15	04/19	Karen Devine, Sandia National Laboratories, A Career of Load Balancing <a href="https://cfwebprod.sandia.gov/cfdocs/CompResearch/templates/insert/profile.cfm?kdevin">https://cfwebprod.sandia.gov/cfdocs/CompResearch/templates/insert/profile.cfm?kdevin</a> Zoom: <a href="https://zoom.us/join/zoom/register/tJIsf-tqj8iGdU8lsaqbpPiPOBNK70CGimB">https://zoom.us/join/zoom/register/tJIsf-tqj8iGdU8lsaqbpPiPOBNK70CGimB</a>

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14	11/23	
15	11/30	

## Fall 2019 (Organized by Don Jones)

Week	Date	
1	08/28	Don Jones and Dieter Armbruster: Introduction and Planning
2	09/04	
3	09/11	Applying for a Job Part I Rhonda Olson (Career Fair) Panel - Lydia Tolman (BlueCross), Karen Garrity (Dorsey Consulting)
4	09/18	
5	09/25	Applying for a Job Part I Al Boggess Postdoc Panel
6	10/02	Karyn Sutton Senior Research Scientist, Institute for Disease Modeling
7	10/07	Summer Internships in the Mathematical Sciences, Part I: Hosted in conjunction with RTG Panelists: Chelsea Kennedy - Oak Ridge National Laboratory, Miandra Ellis - Amazon Camille Moyer - Graduate-level Research in Industrial Projects for Students (GRIPS), Berlin, Germany Elpiniki Nikolopoulou Health Services Advisory Group
8	10/16	Luis Gordillo, Utah State University Associate Professor
9	10/23	
10	10/30	Jennifer Cason Graduate College : Student Support Resources, Director
11	11/06	Veteran's Day
12	11/13	Summer Internships in the Mathematical Sciences, Part II
13	11/20	
14	11/27	Thanksgiving Eve
15	12/04	

## Spring 2020 (Organized by Don Jones, messed up by covid)

Week	Date	
2	1/22	Matt Smith      Clinical Performance Analyst, Banner Health
4	2/5	Andrew Jennings      Bar Coders, Self employed
5	2/19	David Tello      Esperanza Analytical Solutions
6	2/26	Dan Marthaler      Applied Math, StitchFix



## Spring 2019

Week	Date		
1	01/10	Louis DiBiasio	Miami University, Ohio
2	01/17		
3	01/24		
4	01/31	<i>Colloquium</i> 4:30-5:30	Jinfa Cai, University of Delaware
5	02/06	Google 2:30-4pm	<b>NOTE THE DAY</b>
6	02/14	<i>Colloquium</i> 4:30-5:30	Gail Wolkowicz, McMaster University
7	02/21	Block Grants, Mathematics Papers Presentation	Profs Armbruster and Renaut How to Write a Paper
8	02/28	<i>Colloquium</i>	Christiane Rousseau, University of Montreal
9	03/07	Spring Break	
10	03/14	Pi Day	5k Race 5:00pm
11	03/19	Jennifer Cason Graduate College Student Support Resources, Director	
TUESDAY	3:30-4:45	<b>Peak Performance for Graduate Students in Mathematical and Statistical Sciences</b>	
11	03/21	<i>Colloquium</i>	<i>Sutanu Sarkar</i> University of California San Diego
<b>Canceled</b>		Ana Kupresanin Deputy Division Leader, Lawrence Livermore National Laboratory	
13	04/04	Clint Mason	University of Utah, School of Medicine
14	04/11	Jodi Mead	Professor Boise State University
		Pursuing your passions in the academic world	
15	04/18	3:30-4:30 Robert Alvarez	Head of Data Science at Podium Education
Experience	Senior	Data Scientist: Metis, Data Scientist: Tamr Inc., Supply Chain Data Scientist: Intel	
		Presentation: Robert Alvarez	
<b>Canceled</b>		<i>Daniel Marthaler</i>	Data Scientist: Stitch Fix
16	04/25	<i>Colloquium</i>	Jingyi Chen, UBC

## Fall 2018

Week	Date		
1	08/16	No Meeting	
2	08/23	Round Table Discussion	Graduate Summer School Experiences
3	08/30	John Stufken	Academic Careers
4	09/06	<i>Colloquium</i> 4:30-5:30	Anna Mazzucato, Penn State
5	09/13	Nura Patani Pizza 5pm	Segal Consulting Senior Actuarial Analyst, LinkedIn
6	09/20	Planning for Career Day 3:45-4:15	Rhonda Olson and Rosemary Renaut
6	09/20	<i>Colloquium</i> 4:30-5:30	Ruian Ke, Los Alamos National Laboratory
7	09/26	Chris Severs Prof. Dev. Seminar Wxlr 206. 3:45-5:00, A9.com Affiliated with Amazon	
	09/27	Chris is available to meet Coffee Break and WxLR A305 from 10:30-11:30am <i>Career Day: Memorial Union - Ventana A (room 241) 1 to 5pm</i>	
8	10/04	Amylou Dueck and Todd DeWees	Mayo Clinic
<b>Clinical Trials and Tribulations: True Tales of Being a Biostatistician at Mayo Clinic</b>			
	10/05	Carrie Diaz Eaton 11am to 12:00pm Wxlr 206 Bates College	
<b>No one way is the only way: Liberal Arts Colleges, Motherhood, and Scholarship</b>			
9	10/11	Victoria Horan Goliber	D-Wave Systems Inc. Research Scientist, LinkedIn, CV
		AWM Luncheon 11:30-1pm and Professional Development seminar 3:45-5pm	
10	10/18	<b>Applying for a Faculty or Postdoc Position, Al Boggess, Dieter Armbruster</b> <b>Where, how, timing, referees, research, teaching, interviews?</b> Experiences: Asst Profs Dan Chen, Petar Jevtic and PDs: Evan Dummit, David Kaspar	
11	10/25	<i>Colloquium</i> 4:30-5:30	Patricio Herbst, University of Michigan
12	11/01	<i>Colloquium</i> 4:30-5:30	Volkmar Welker, University of Marburg/MSRI
13	11/08	Richard Archibald Presentation Slides	Oak Ridge National Lab
14	11/15	Craig Thalhauser 2:45-4:15 Wxlr 206 Presentation Slides <i>Colloquium</i> 4:30-5:30	Bristol Myers Squibb, Research Fellow, LinkedIn David Madigan, Columbia University
15	11/22	Thanksgiving	
16	11/29	Wrap up meeting - Feedback and planning	