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# Course Descriptions Spring 2021

## SOAR

*lifelong learning in the North Country*

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ROAD SCHOLAR  
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### Note from Chair, Lyn Swafford

Once again, I hope that you and yours are staying safe and well as we all continue our journey into uncharted waters for the foreseeable future because of the COVID crisis. That means, of course, that SOAR cannot have in-person classes for at least one more semester. But fear not! After having a very successful Fall 2020 where we offered 10 online courses via Zoom, your talented and creative Board of Directors heads into our Spring 2021 semester with an exciting and interesting set of 22 courses. We hope these new offerings will entice many more of our current members to take part in our Zoom classes or watch them on our website later if they are recorded. Most will be; some may not be at the request of the presenter.

NEWS BULLETIN: As we did in the Fall, we will not be charging our 2019-2020 registered members any additional SOAR membership fee for the Spring 21 semester. Also, we wish to extend the opportunity to register for courses, at no cost, to family, friends and other members of our community. Folks who have recently expressed an interest in SOAR have been added to our **emailing list**, ensuring that they too will receive our Spring 2021 registration form in January **via email**. Do you know of others who might want to receive our Spring information? If so, please forward this Course Booklet to them. Or they may email SOAR ([soar@potsdam.edu](mailto:soar@potsdam.edu)) or call the office (315-267-2690) so they can be added to our email list. If anyone wishes to be removed from this list, please let us know by email or phone.

To repeat, our Spring 21 courses will be offered via Zoom and may be recorded for later viewing from our website. One more thing - if you would like assistance in using Zoom, please register for Course #1 or Course #2, and you will receive the guidance you will need to join our classes. Give it a try!

In closing, it is a pleasure to work with the SOAR Board of Directors who continue to act diligently to keep SOAR alive. I wish to also offer thanks to our Spring presenters who have agreed to join our virtual world. We're comfortable with our new way of SOARing, and we hope you'll join us.

Stay safe and be well,

Lyn

Happy New Year to all!

### Notes on Procedure

SOAR's second semester of virtual presentations features 22 courses. All will be offered via Zoom and most will be recorded for later viewing on the SOAR website ([soarnorthcountry.com](http://soarnorthcountry.com)).

We hope to increase participation of SOAR members by offering two "Introduction to Zoom" classes during the first week of the Spring semester. To take advantage of this instruction, register for course 1 (One on One Instruction) or 2 (Small Group Instruction). If you register for 1, a tech assistant will phone you to walk you through getting on Zoom. If you opt for 2 you will click a link sent by email to join an interactive session with other novices.

You may register for an unlimited number of courses, and will receive a separate "invitation" to participate in each Zoom session. As Lyn stated above, SOAR is inviting family, friends and other members of our community to join us by enrolling in our courses. To register for any SOAR courses please follow the directions on the website ([soarnorthcountry.com](http://soarnorthcountry.com)) to access the registration form on the web.

1. Fill in your name, email address, mailing address and phone numbers.
2. If you are willing to be an ambassador, please answer "yes" to the appropriate question. For the Spring semester, we are asking ambassadors to help with emailing Zoom invites for the classes.
3. Select the courses you wish to register for by clicking the "yes" box next to the name of each course.
4. When you have completed your selections, click "Submit" and your choices will be sent to the registration committee which will register you.

As always, you can consult the SOAR website ([soarnorthcountry.com](http://soarnorthcountry.com)) or email [soar@potsdam.edu](mailto:soar@potsdam.edu) for updates.

## 1 Introduction to Zoom 1—One on One

**Presenter:** Janet van Weringh

**Description:** A one-on-one introduction to using Zoom. We will start with a phone call from Janet to set a time and then meet on Zoom. The goal is to have you feel comfortable attending a SOAR class.

**Presenter's Background:** Janet worked in the IT Departments at Clarkson University and SUNY Potsdam before retiring and joining SOAR shortly afterwards. She is a member of the SOAR Board and is a Co-Chair of the Tech Committee. When SOAR was forced to cancel in-person classes, she learned Zoom and helped to organize the Fall 2020 Zoom classes.

## 2 Introduction to Zoom 2—Small Group

cap: 8

**Presenter:** Mark Coleman

**Date:** Monday 02/01, 10-11:30

**Description:** An Introduction to using Zoom, with only a small group of people present. The group will be limited to 8, so if more than 8 register, we will have multiple sections. We will only cover the basics; the goal is to have you feel comfortable attending a SOAR class.

**Presenter's Background:** Mark has presented many SOAR classes and is past chair of the Board.

## 3 An Alaskan Indigenous Village on the Frontlines of Climate Change

**Presenter:** Jon Rosales

**Classes:** 1 session 1.5 hours

**Date:** Friday 2/26, 10-11:30

**Description:** His session explores the vulnerability of Shaktoolik, AK to increased storm intensity, loss of sea ice, warming temperatures, melting permafrost, and more. This village is in a particularly precarious physical location, on the coast of the Norton Sound, but, being an indigenous village, it also is overlooked and dependent on federal aid.

**Presenter's Background:** Jon's expertise and scholarly focus is on climate change. Threaded through his work is a call to align human institutions within natural limits. Jon was active in the United Nations, working on international climate change policy until 2009 when he switched focus to the Arctic, where climate change is the fastest. His research now focuses on the impacts of climate change on native subsistence villages in Alaska, making their concerns visible, advocating for their assistance, and calling on governments to act on climate change.

**Weblink:** [www.AKSIK.org](http://www.AKSIK.org)

## 4 Animal Metamorphosis: a Larval to Juvenile Transition

**Presenter:** Alex Schreiber

**Classes:** 1 session, 1.5 hours

**Date:** Monday 4/5, 2-3:30

**Description:** How does a tadpole transform into a frog? A larval fish into its adult form? A maggot into a fly? In this lecture you will learn about the spectacular world of animal metamorphosis and the hormones that mediate it.

**Presenter's Background:** Alex is a professor of Biology at St Lawrence University. He specializes in endocrinology and the study of hormones, and works with both animal (frog and fish) and human systems. He is the author of an upcoming university-level textbook called Integrative Endocrinology.

## 5 Assessing Indoor Air Quality and Exposure in Occupied Microenvironments during an Airborne Viral Pandemic

**Presenter:** Andrea Ferro

**Classes:** 1 session 1.25 hours

**Dates:** Thursday 2/18, 3:30-4:45

**Description:** In the United States, we monitor and regulate outdoor air pollutants but spend most of our time indoors. The microenvironments where we spend our time (such as kitchens, living rooms, bedrooms and cabins of vehicles) host a variety of air pollution sources (such as cooking emissions, emissions from use of personal care products, and resuspended dust). As a result, the indoor air quality

is different, and often worse, than the outdoor air quality. There are also higher levels of most microbes indoors, including bacteria, fungi and viruses. In this session, we will discuss major sources of indoor air pollutants & microbes and describe how they accumulate indoors. We will discuss how to use inexpensive sensors to monitor air quality and reduce pollutant exposure as well as how to reduce transmission of airborne microbes, such as the SARS-CoV-2 virus.

**Presenter's Background:** Andrea Ferro is a professor in the Department of Civil and Environmental Engineering at Clarkson University, a registered professional engineer and the immediate past president of the American Association for Aerosol Research. Her technical expertise is focused on indoor air quality and human exposure to particulate pollutants. The overall goal of her work is to improve human health by improving air quality through source control, ventilation & purification strategies, education, and regulatory policy.

**Weblinks:** <https://www.newyorker.com/magazine/2019/04/08/the-hidden-air-pollution-in-our-homes>  
<http://www.epa.gov/iaq/>

## 6 Battery Energy Storage for New York Municipal Electric Departments

**Presenter:** Tom Ortmeyer

**Classes:** 1 session, 1.5 hours

**Date:** Tuesday 3/16, 3-4:30

**Description:** Many of New York's municipal electric departments receive hydro allocations from NYPA. When their load exceeds the hydro allocation, they must purchase energy at market rates. This study examines the potential for the munis to use battery storage to better utilize their allocations.

**Presenter's Background:** Tom Ortmeyer is a power engineering professor at Clarkson, and taught and conducted research in electric power engineering throughout his career.

## 7 Chronic Pain Self-Management 101

cap: 30

**Presenter:** Leslie Russek, PT, DPT, PhD, OCS

**Classes:** 4 sessions 1.5 hours

**Dates:** Fridays 2/5-2/26, 10-11:30

**Description:** Chronic pain affects millions of people. Self-management is an essential part of pain management, whatever the source of your pain may be. This series of workshops will introduce participants to the current understanding of what causes and perpetuates chronic pain, what you can do to minimize pain, and what you can do to live the fullest life in spite of pain. The workshops will introduce physical, cognitive behavioral and mind-body approaches to managing pain.

**Presenter's Background:** Dr. Russek is a Professor Emeritus of Physical Therapy at Clarkson University and an active physical therapist at Canton-Potsdam Hospital. She has treated patients and studied chronic pain for 30 years. She has published journal articles and a textbook chapter on Chronic Pain used by many PT graduate programs. Dr. Russek runs a Support Group that welcomes people with any form of chronic pain.

**Weblink:** Dr. Russek's web site for her Fibromyalgia/Ehlers-Danlos Syndrome Support Group, which welcomes anyone with chronic pain due to any cause. <https://webspace.clarkson.edu/~lrussek/pfsg.html>

## 8 Close Encounters among Eco-Justice Campaigners & in Neolithic Sacred Landscapes Across Ireland

cap: 20

**Presenter:** Danny & Marianne Dullea

**Classes:** 2 sessions 1.5 hours

**Dates:** Thursdays 3/18 & 3/25, 11-12:30

**Description:** Danny and his partner Marianne have been visiting and studying in Ireland annually since 2015. The course will share stories about people and places they have come to know quite well. Ireland is a land where the past is never very far away, whether struggling to foster peace and reconciliation in the face of centuries of sectarian conflict or attending a pre-Christian Celtic ceremony at a Neolithic passage tomb. Simultaneously the Irish try to put "The Troubles" behind them and look to a future of social and economic justice built on shared values of honoring the land & the past and making life better for future generations. The sessions, although in lecture style, will tell multi-media stories featuring short videos, music and photography.

**Presenters' Background:** Danny Dullea is a performance storyteller, actor and civic media filmmaker. He recently retired from Clarkson University. During his career as instructor and Director of Creative Media for the Communication and Media Department, he taught digital video production, mass media and public speaking. Danny's first extended trip to Ireland was actually a sabbatical to teach a practical distance learning course called *Documenting Social Activism* where he met and participated in events with environmental activists. Twice weekly he shared the experience live (via "Zoom") to students back at Clarkson.

**Information for Participants:** Students will be provided with supplementary online resources.

*Tigh Mo Mháthar': Song of Solidarity, Resistance & Resilience*

<https://www.youtube.com/watch?v=zZKNQjbJWlw&list=PLK7-HNDh9aBMc3LJYOFCsFSHdPbxIEz-&index=11>

*Before McCabe: I Remember Being Young*

<https://www.youtube.com/watch?v=kKAZzP6yLFo>

## 9 Faith and Reason in the 21<sup>st</sup> Century

**Presenters:** Rev. Bryan Stitt, Peter Mueller

**Classes:** 1 session 1.5 hours

**Dates:** Wednesday 2/24, 10-11:30

**Description:** Many people today believe that faith and reason are incompatible and completely opposed to one another, but through the ages, science has learned from religion and vice versa. The presenters will point out some historical examples of the interaction of science and religion in Western culture, examine the limitations of each, and suggest how important it is for cooperation between the two in the present age.

**Presenters' Background:** Fr. Bryan Stitt is a former engineering student who realized that he was missing some of the big picture of life, switched to studying philosophy and theology, and eventually was ordained as a Catholic priest. He is currently the pastor at St. Mary's Church in Canton. Peter Mueller studied Great Books and theology at the University of Notre Dame and now serves as the Catholic campus minister for St. Lawrence University and SUNY Canton.

## 10 Golden State Killer and Genetic Genealogy

**Presenter:** Liz Brown

**Classes:** 1 session, 1.5 hours

**Date:** Monday 3/29, 2:30-4

**Description:** The Golden State Killer was one of the most prolific serial killers operating in California over an extended period of time. The book, *I'll Be Gone in the Dark*, addresses the crimes, the investigation and the tools used to link the cold cases. We will be covering the Golden State Killer case and discussing how the case was finally solved through the use of genetic genealogy and what this means for its future as an investigative tool.

**Presenter's Background:** I have been teaching at SUNY Canton in the Criminal Justice Department for 13 years. One of my passions when joining the department was researching serial killer cases and understanding the forensics associated with solving the crimes. I developed a class "Serial Murderers & their Victims" which addresses the Golden State Killer and many other fascinating cases.

**Information for Participants:** Please read *I'll Be Gone in the Dark* by Michelle McNamara prior to the presentation.

## 11 History of Ocean Exploration

No Recording

**Presenter:** Antun Husinec

**Classes:** 1 session 1.5 hours

**Date:** Wednesday 3/31, 1-2:30

**Description:** The history of ocean exploration has much influenced human history. From ancient navigators to modern-day submersibles and satellites, the many discoveries have helped us answer critical questions about the Earth's evolution.

**Presenter's Background:** Dr. Antun Husinec is Professor of Geology at St. Lawrence University and an avid diver. His research focuses on the sedimentary record of sea-level, oceanic, and climatic changes.

## 12 How Can Math Be Used to Understand Cancer Growth and Spreading, and How Can It Be Used to Define/Refine Treatment Protocols?

**Presenter:** Diana White

**Classes:** 1 session 1.5 hours

**Date:** Tuesday 3/9, 10-11:30

**Description:** I will discuss how mathematics can be used to understand cancer growth, progression, and treatment. I will present some of the types of math that can be used to describe how solid tumors grow, as well as how cancer spreads through vascularization (i.e., how it forms a secondary tumor by connecting to the blood stream). I will also describe some of the mathematical work that had been done, trying to understand how we might define better treatment protocols (to offer more effective treatments in terms of reducing cancer load, all while having the least amount of negative effects on the patient).

**Presenter's Background:** I'm a mathematical biologist (originally from Newfoundland, Canada), who uses mathematical modeling to understand many different types of biological systems (cellular and ecological). Aside from studying problems related to cancer, I'm also interested in studying invasive species growth, spread & control (similar types of math tools can be used!).

## 13 The Intersectional Activism of Rosa Luxemburg as a Resource for Today

**Presenter:** Dr. Axel Fair-Schulz

**Classes:** 1 session, 1.5 hour

**Date:** Thursday 4/8, 1-2:30

**Description:** Rosa Luxemburg (1871-1919) is remarkably relevant to our rising climate of racism, right-wing authoritarianism, inequality, and environmental meltdown. As a woman, a Jew, and a Pole, she experienced intersecting forms of oppression and discrimination early on. Luxemburg was one of the first to critically examine the nexus between capitalist industrialization, environmental degradation, and the racialization of indigenous peoples in what today is referred to as the "Global South." My presentation will clarify how she explored these issues, while helping to build social and political movements that challenged exploitative power structures.

**Presenter's Background:** Professor Fair-Schulz, a Native German, has taught European history at SUNY Potsdam since 2006. He is the author and editor of 5 books and many articles.

## 14 Introduction to Mesopotamian Mathematics

No Recording

**Presenter:** Duncan J Melville

**Classes:** 1 session, 1.5 hours

**Date:** Tuesday 3/16, 10-11:30

**Description:** I will provide an overview of Mesopotamian mathematics from the earliest records around 3200 BCE to the Old Babylonian period ca. 2000—1600 BCE, and perhaps briefly sketch later developments. Mesopotamia covered roughly the area of modern Iraq. The surviving records make it one of the only societies where we can trace the early development of mathematical reasoning. The brief flowering of Old Babylonian mathematics was the most sophisticated of its time.

**Presenter's Background:** I am Martha E. '62 and Gregg E. Peterson Professor of Mathematics at St. Lawrence University. My research field is the history of mathematics, especially the mathematics of early Mesopotamia.

## 15 Invasive Plant Research in the North Country

**Presenter:** Dr. Jessica Rogers

**Classes:** 2 sessions 1.5 hours

**Dates:** Wednesdays 3/17 & 3/24, 3-4:30

**Description:** Dr. Rogers has been doing research on invasive plants in the St. Lawrence Valley since 2017. Specifically, she's been examining the spread of purple loosestrife and its biological control agent, a *Galerucella* beetle. Purple loosestrife is found in wetlands and in roadside ditches throughout the area. In 2019, her research expanded to include raising her own beetles to release at large infestations, and using drones to map larger areas. This lecture will discuss invasive plants and the methods for control and eradication as well as specifics about Dr. Rogers' research.



**Presenter's Background:** Dr. Rogers is a native of the North Country. She completed her PhD at Columbia University in 2011, examining deforestation in protected areas in Central Africa using satellite images. She has been teaching at SUNY Potsdam in the Department of Environmental Studies since 2016. She is President of the board of the St. Lawrence Land Trust and works with local environmental groups to connect students to volunteer opportunities.

**Weblink:** [http://nyis.info/invasive\\_species/purple-loosestrife/](http://nyis.info/invasive_species/purple-loosestrife/)

## 16 The Life and Work of Maurice Kenny

**Presenter:** Derek C. Maus

**Classes:** 1 session, 1.5 hours

**Date:** Thursday 4/15, 3-4:30

**Description:** Maurice Kenny (1929-2016) was one of the most influential and prolific literary figures associated with the North Country. Born and raised around the Watertown area, Kenny's later wanderings took him all around the world, and his six-decade career as a poet, editor, essayist, and teacher made him into one of the most influential figures in American literature. Although his full awakening into his Mohawk identity only came near the midpoint of his life, Kenny's poetic expression thereof and his active support for indigenous writers made this the central theme of the second half of his life.

**Presenter's Background:** Derek C. Maus is Professor of English and Interdisciplinary Studies at SUNY Potsdam. He specializes in contemporary literature, particularly African American fiction. He is also the legal executor of Maurice Kenny's literary estate and edited Kenny's posthumously published memoir *Angry Rain* (SUNY Press, 2018).

**Information for Participants:** Although neither of them is required reading, having a copy of either *Wild Daisies from the Side of the Road* <https://wildroadsidedaisies.wordpress.com/> or *Angry Rain* <https://www.sunypress.edu/p-6604-angry-rain.aspx> would not go amiss.

## 17 Overview of Substance Use Disorder

**Presenter:** Deborah Norris, DO

**Classes:** 2 sessions, 1.5 hours

**Dates:** Mondays 3/15 & 3/22, 10-11:30

**Description:** A look into substance use disorder: history, causes, prevention, effects and treatment. We will discuss signs & symptoms, theories of cause and theories that affect treatment of the disease and those who suffer from it (politics, statistics, Narcan Training, harm reduction). Stigma, Why?

**Presenter's Background:** Background in emergency medicine, surgery and most recently, addiction medicine. I am fascinated by people and never stopped asking, "Why?"

**Information for Participants:** Bring your ideas, opinions, questions and thoughts for discussion.

## 18 Quakerism: An Overview

cap: 15

**Presenter:** Laura Rediehs

**Classes:** 1 session, 1.5 hours

**Date:** Tuesday 2/16, 2-3:30

**Description:** The Religious Society of Friends (Quakers) arose in England in the 1600s as part of the Radical (or Second) Reformation. The Quakers have often been described as having had an influence out of proportion to their small numbers. We will explore the history of Quakerism as well as Quakerism in the present world, with special attention to the Quaker Peace Testimony and the unique way that Quakers have integrated science and religious thought.

**Presenter's Background:** Dr. Laura Rediehs is associate professor of philosophy and coordinator of peace studies at St. Lawrence University. She has been a member of the Religious Society of Friends (Quakers) since 1984, and researches the philosophical history of Quaker thought.

## 19 Racism and Sexism in Comics/Jews in Comics

**Presenter:** Zvi Szafran

**Classes:** 2 sessions 1.5 hours

**Dates:** Wednesday 3/3 & Monday 3/8, 1-2:30

**Description:** Comic books have always reflected the broader society they are part of. The Racism and Sexism in Comics portion of this talk will discuss how minorities and women were portrayed and treated in comic books. While many of the depictions included disturbing stereotypes, there were also always comics that were ahead of their time in treating minorities and women as equals. The Jews in Comics portion of the talk will discuss how many of the best known comic books and characters were created by Jewish editors, writers, and artists. Despite this fact, until recent times, very few characters in comics were portrayed as being Jewish. What are the reasons behind both of these facts?

**Presenter's Background:** Dr. Zvi Szafran is the president of SUNY Canton. He is a chemist by professional background, has co-authored several books on microscale chemistry, and co-founded a national center devoted to that area. He has also been an avid comic book collector for more than 50 years. He and two colleagues were featured in an Archie comic book story on the subject of microscale chemistry and laboratory safety.

## 20 Small Wind Turbines: The Basics to the Latest

**Presenter:** Ken Visser

**Classes:** 1 session, 1.5 hours

**Date:** Monday 3/1, 10-11:30

**Description:** An overview of small wind energy will be presented including key factors to consider about adopting this technology. Current turbines in the marketplace are presented along with the latest advances being developed at Clarkson for commercialization.

**Presenter's Background:** Ken has been teaching aircraft design and performance courses at Clarkson University for 20 years. His research focuses on applied aerodynamics and renewable energy concepts, including wind turbine design, drag reduction of ground vehicles and design of aircraft wings. He holds several patents and has worked at NASA Langley, Boeing in Seattle, and the DLR in Braunschweig Germany.

## 21 World of Robots and Artificial Intelligence

**Presenter:** Dana Barry

**Classes:** 1 session, 1.5 hours

**Date:** Monday 2/8, 1-2:30

**Description:** The current status of robots (ex. serving as nurses in Japan) and artificial intelligence (ex. using 3-D printers to make meat) will be described along with their predicted uses for the future (examples: Robots will take over the classrooms, explore Mars, and serve as soldiers to fight our wars).

**Presenter's Background:** Dana has 5 graduate degrees and is a Research Professor in the Department of Electrical & Computer Engineering at Clarkson University and also works at SUNY Canton. She has experience and publications on a variety of topics. In 2019 she was an invited Keynote Speaker in Budapest where she talked about Robots and Artificial Intelligence.

## 22 Young Adult (YA) Literature for Old(er) Adults

cap: 20

**Presenter:** Laura Brown

**Classes:** 2 sessions 1.5 hours

**Dates:** Tuesdays 2/23 & 3/2, 3-4:30

**Description:** This course is designed to immerse you in the world of YA literature. We will focus on personal reading interests as well as those of the young people in your lives in an effort to discover YA books you can read together, buy as gifts, or keep for yourself! Numerous topics, genres, and themes will be discussed.

**Presenter's Background:** I am an Associate Professor at SUNY Potsdam and program coordinator for the Adolescence English Education program. I regularly teach (and love!) YA literature. I have co-authored two books on YA authors and am currently writing a book on school shootings in YA literature.

**Information for Participants:** Participants need only paper and a writing utensil.