**2021 DINÉ Seminar Topics**

Patterns, Relations, & Functions…Oh My!

Shannon Guerrero, PhD

Professor of Mathematics Education

Researchers have long argued that the concept of function is the “single most important” idea taught in the K-12 curriculum. Functions connect to and build upon many concepts in grades K through 12, including patterns and relations, operations and algebraic structures, and number systems and operations. This seminar will promote a deep, conceptual understanding of functions, focusing on the meaning of functions as a language and model for change rather than a set of procedures and rules. An expanded understanding of the uses and applications of functions can have an impact on mathematical connections, content, modeling, and problem solving in domains such as algebra, geometry, statistics, and number/quantity. Teacher Fellows in this seminar will participate in concrete and technology-based investigations that promote deep, conceptual understanding of the function concept, general function sense, and models for change through the explorations of introductory function families. Developing a unit that applies the function concept in a real-world context will enable fellows to implement a unit that is both culturally relevant and mathematically meaningful.

Forests and Climate Change

Yeon-Su Kim, PhD

Professor of Ecological Economics

The Earth’s changing climate impacts the everyday lives of citizens of Native Nations, especially in rural Indigenous communities that rely more directly on forests and rangeland resources. This seminar will cover topics such as: 1) understanding role of forests in the Earth’s climate processes, carbon cycle, and greenhouse gas effects; 2) climate change impacts on forest conditions, natural disturbance regimes and ecosystem services; 3) relevance of traditional ecological knowledge for modern forest management; 4) economics and policies of managing forests and rangeland resources under changing climate at regional, national, and global scales. Our learning will focus specifically on Indian Country, and we will study examples from diverse Indigenous communities across the globe. This seminar provides ample opportunities for Teacher Fellows to engage active learning strategies aligned to local and state STEM standards across the K-12 grade levels.

From Empathy to Advocacy: Storytelling for Social Justice Education through the English Language Arts

Angie Hansen, PhD

Professor of English

In this seminar, we will discuss how to teach through a framework of social justice education, and we will examine the themes of empathy, resilience, and compassion in multicultural literature. We will begin with the questions: *What is social justice education and how do we teach for social justice? How can we honor the diverse backgrounds of our students and make sure their voices are heard and identities are supported?* Teacher Fellows will explore topics such as ethnicity, race and anti-racist teaching, gender expression and identity, sexual orientation, socio-economics and educational opportunity, immigration, language Identity, (dis)ability, mental health, spiritual belief, appearance/body image, community environment, and intersectionality. We will examine and discuss ways in which teachers can promote social justice in their classrooms, schools, communities, and beyond through curricular materials, teaching activities, modeling civil discourse, and through local, national, and global advocacy and initiatives. Rudine Sims Bishop (1990) stated that multicultural literature can be mirrors, windows, and sliding glass doors for us to see ourselves and to understand others; therefore, as a group we will read and examine texts for young adults (from children’s literature to literature for adolescents) that explore identity and advocacy for social justice. Finally, since you cannot become a social justice educator without self-compassion, we will also take time each meeting to talk about the need to practice and build resilience in our own teaching and take care of ourselves by reading and discussing *Onward: Cultivating Emotional Resilience in Educators* and practicing mindfulness activities for teachers.

Literature of Environmental Justice

Gioia Woods, PhD

Professor of Humanities in the Department of Comparative Cultural Studies

This seminar examines a range of theory, literature, art, and activism within the framework of the “environmental humanities.” The environmental humanities is an interdisciplinary field of inquiry that brings together an international community of scholars, teachers, and activists from disciplines such as literature, history, philosophy, film and media, cultural studies, religious studies, cultural geography, and anthropology—seeking to make sense of “nature” and the human relationship to it. Our special focus in this seminar is the literature of environmental justice. The concept of environmental justice—that nature is not only found in “wilderness,” but also in the places where we live, work, and play—includes both National Parks and nuclear waste sites, wild and scenic rivers as well as mega-dams and levees, food production and human health. We will discuss specific contemporary and historical examples of environmental justice within Indigenous communities and read a variety of environmental justice literature-- nonfiction, fiction, and poetry-- by contemporary and historical Indigenous writers. Teacher Fellows will be encouraged to develop environmental humanities and/or environmental justice units that will foster critical and creative thinking at any grade level.