



UNC Charlotte · 235E Fretwell · Charlotte, NC 28223
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2012 Seminar Topics

The Science of NASCAR

Peter Tkacik, Assistant Professor of Mechanical Engineering-Motorsports focus, UNC Charlotte
Stock car auto racing (NASCAR) is arguably the top spectator sport in the US. This seminar will focus on the science of the racing not only NASCAR, but the full range of auto racing worldwide. How does drafting work? What do the pit stop adjustments do to the handling of the cars? Why are race teams spending millions of dollars on computers models of their cars? In this seminar, we'll study these questions and more, visit the research labs and race shops, hear from the experts, and do some race car testing for ourselves. Guided by the questions of the Fellows, we will learn the math and science behind racing and combine that with a hands-on experience in order to take as much as possible back to the classroom.

Reading African American Lives

Jeffrey Leak, English, UNC Charlotte
Zora Neale Hurston, Jean Toomer, Langston Hughes, Alice Walker. These are some of the most well-known names in African American and American literature. Their stories, poems, plays and essays are considered a major contribution to the American cultural tradition. But what about the stories of their lives? What was happening in Hurston's life, for example, when she penned what is now referred to as the first black love story in her novel, *Their Eyes Were Watching God*? In the case of Jean Toomer, who wrote *Cane*, the inaugural text of the Harlem Renaissance, how did he come to define himself as no longer black after its publication? This seminar will explore some of the major work of these writers, along with the biographical exploration of their lives. Teachers will have a chance to learn how to incorporate biographical studies into their pedagogy.

Entertaining with Math

Tim Chartier, Professor of Mathematics, Davidson College
Performing arts such as juggling, music, dance, magic and drama can enrich the mathematics classroom. Beyond entertaining students, such demonstrations can offer new and novel perspectives on mathematical content and engage a class in a fun, educational and interactive activity. This seminar will explore ways to demonstrate and discuss creative ways of teaching and presenting mathematics using techniques generally associated with entertainment and the performing arts. The seminar will explore presenting in different performing styles and also using pre-recorded content available online or through DVDs.

American Political Parties: Their Failures and Their Futures

Susan Roberts, Associate Professor of Political Science, Davidson College
Fellows will explore the origins of American political parties including the patronage system and their legacies. More specifically we will examine exactly what constitutes party identification, especially in the age of ideological polarization. What will be the impact of the so-called Independent voter? What impact will the new campaign finance regulations, or lack thereof, have on the political parties and our candidates? Finally, what does the future hold for the two party system given the recent emergence of the Tea Party, Occupy Wall Street and calls for "A Third Way?"

Reading Media Imagery: Critical Thinking and Literacy

Dan Grano, Professor of Communication Studies, UNC Charlotte

This seminar will focus in the general area of media literacy, or, put another way, approaches to "reading" media texts. More specifically, we will imagine a focus on characteristics of media texts that are particularly prominent in contemporary culture, characteristics that should resonate with teachers and students in the classroom: symbolism, identity and distribution. Breaking these down individually, a focus on symbolism would introduce basic understandings in communication studies about what words, phrases, visual images and other symbolic constructions come to mean within a cultural context; a focus on identity would allow us to discuss how media texts position us as viewers, what they tell us about ourselves, and the kinds of identities they tend to promote; and a focus on distribution would address the ways in which students (and all of the rest of us) encounter and interact with media texts (whether in "traditional" patterns on television or "viral" patterns of new media, for example). This introduction in these three basic areas would cover important bases for learning how to "read" media texts and how those reading practices might be discussed in the classroom. This seminar would be relevant for teachers who find themselves bringing media texts into the classroom, or who are interested in doing so.

"All immigration is local": Exploring the New Geography of Immigration

Heather Smith, Associate Professor of Geography and Director of Urban Studies, UNC Charlotte

Scholarly and popular literature, policy reports and analyses, documentary and fictional film, as well as on-line resources and more than the occasional guest speaker and local field trip will be used to explore the dynamics and experiences of contemporary immigration in the US. With a particular focus on Charlotte-Mecklenburg, this seminar will investigate the framing forces of globalization, the immigrant journey, experiences of arrival and settlement, the spectrum of receptivity, processes of integration and assimilation, trajectories of the one-and-a-half and second generations, as well as the challenges and opportunities immigration presents to both newcomer and receiving communities. The goal is to have seminar participants emerge with a deeper and more complex understanding of their own immigrant hi(stories), of the processes and policy contexts that shape the everyday lives of their immigrant students and neighbors, and of "The Queen City's" vanguard position as a 21st Century Immigrant Gateway.

African American Literature of the Civil Rights Movement

Brenda Flanagan, Professor of English, Davidson College

Fellows will study the Black Arts Movement as well as the poetry and drama that reflected and paralleled the modern Civil Rights movement: 1955 to 2000. This seminar will focus on the study of the poetry of such writers as Sonia Sanchez, Nikki Giovanni, Haki Madhubuti, Naomi Long, Margaret Walker and Amiri Baraka, and plays by Ed Bullins and August Wilson as we explore the ways in which literature and politics intersected.

Environmental Science and Climate Change

Cindy Hauser, Associate Professor of Chemistry, Davidson College

We are an integrated component of the environment, and critical study of environmental issues requires an inherently interdisciplinary approach. Fellows in this seminar will have the opportunity to explore environmental issues from the perspective that is most meaningful to them and their students while providing fundamental knowledge regarding the scientific concepts, principles, processes and methodologies that are required to understand how ecosystems work. We will apply this knowledge to environmental challenges of interest to Fellows, such as climate change, to understand the scientific basis, estimate the risks associated and evaluate alternative solutions for resolving and/or preventing them.