FIRST YEAR SEMINARS

fall 2007

create
talk
analyze
research
publish
learn
build
communicate
teach
write
speak
discover
experiment

UNC
COLLEGE OF ARTS & SCIENCES
Enter Carolina’s Intellectual Life

How can you make the best transition to college and share the excitement of Carolina’s intellectual life? Students and faculty agree: enroll in a First Year Seminar.

A Note from J. Steven Reznick
Associate Dean, First Year Seminars and Academic Experiences

These seminars, which enroll no more than twenty students, are taught by the University’s most distinguished researchers and most skillful teachers. The seminars allow you to work together with your professor and classmates on a shared intellectual problem. All the courses emphasize class discussion, and they will help you learn in creative ways. You might participate in computer projects, fieldwork, artistic performances, class trips, group presentations, or laboratory explorations. For example, students in previous seminars conducted field research at the ocean, wrote a play, built models of ancient cities, animated stories, invented a new evolutionary species, analyzed environmental problems, and created documentaries about current issues in North Carolina. Because the seminars are small, they also will help refine your communications skills and your ability to speak clearly and write persuasively. Most important, you’ll have fun as you participate in the excitement of intellectual discovery.

Interact with Faculty

Faculty share that excitement. One faculty member who taught a seminar reported that she had “a wonderful time teaching the course. It’s enormous fun to have real intellectual debate with such a small number of students in an atmosphere where everyone feels relaxed enough to voice an opinion and freely agree or disagree with others.” A prominent historian, who took his first year students on a field trip to visit Mayan Indians, believes that the First Year Seminar program is “the best thing now going at Carolina. It will provide a base for a whole new invigoration of student-faculty interaction.” Students who enrolled in one of the seminars were just as excited about the new program. “This was an excellent course. I thoroughly enjoyed my teacher; she stimulated thinking about issues that I would have been otherwise unconcerned with. Her knowledge, compassion, and desire to help us gain understanding made each class a privilege to attend — I feel I have gained a wealth of knowledge as well as nine new friends and a mentor. I will take what I have learned in this class with me in the real world.” Another student enthused, “This class was awesome. It took us out of the classroom and into the field where we could learn things first hand instead of studying them in a textbook. Because of this, I actually wanted to learn about geology. It wasn’t the same old lecture-and-test class. The teacher’s enthusiasm and style made learning easy and fun. This is an awesome class — it should always be offered!” The topics, the teachers, and the excitement of learning define the program. “This was one of the best classes I’ve ever taken and is by far my favorite at Carolina. The professor’s pure love for the class accentuates the
pure enjoyment that she brings into the classroom every day. The freshman seminar program is a wonderful aspect of freshman year at Carolina and I hope that more students take advantage of it in the future.”

As one out-of-state student noted, “Entering a large university can be an intimidating experience, socially and intellectually. That wasn’t my experience during my first semester at UNC-Chapel Hill. A large part of my success I attribute to my First Year Seminar. The class allowed me to dive into the intellectual life of the University, through personal attention and small class size. Creative group exercises, speakers, student presentations, and online discussions replaced the typical classroom lecture. And I left the class with new friendships, both with the students and the professor, as well as a new passion for education. I hope every freshman takes a seminar.”

Make your choice

If you would like to follow the advice of these students and take advantage of UNC-Chapel Hill’s First Year Seminar opportunities, look through the wonderful array of fall courses described in this brochure, and come to C-TOPS this summer with a list of your top four or five choices. To be as fair as possible and make sure that students who register later in the summer are not at a disadvantage, two spaces per seminar are reserved for each C-TOPS session. Be adventurous! Enroll for a seminar in a topic unfamiliar, perhaps even uninteresting, to you. You’ll be surprised. And if you can’t find a slot in the fall, don’t worry. You will have priority to enroll in a First Year Seminar this spring, when we will offer more exciting courses.

To learn more, go to the First Year Seminar Program home page for a description of the program, examples of course syllabi, and a list of fall classes (www.unc.edu/fys).

Please consult with an academic advisor in the Academic Advising Program in the College of Arts & Sciences and the General College for assistance in choosing a First Year Seminar or determining how the seminar fits into your overall degree requirements.

We hope you will enroll in a First Year Seminar. It’s a great way to begin your college career.

My First Year Seminar provided me with an enriching small class environment in which conversations stirred my opinions nearly every day. Discussions led to arguments and agreements and we all learned more about ourselves and our new classmates by challenging and teaching each other.

— Fletcher G.
AFRICAN and AFROAMERICAN STUDIES

AFAM 050-001: Defining Blackness: National and International Approaches to African American Identity

Timothy McMillan
11:00-12:15 TR

Social & Behavioral Sciences/Other (SS); US Diversity (US)

We have all heard that America is an increasingly multi-cultural and diverse nation. And yet, the central concept of race is often poorly defined. Blackness and whiteness as racial categories have existed in the United States from the earliest colonial times but their meanings have changed with every generation. What makes a person black in the 21st century is increasingly complex and a subject of much debate. Position papers responding to films and readings, class discussion, and a final project exploring race and society will be used to evaluate your understanding of the concept of blackness in the United States and the larger global community.

Timothy McMillan is an adjunct assistant professor in the Department of African and Afro-American studies. He received a Ph.D. in Anthropology from UNC-Chapel Hill in 1988. McMillan has taught Afro-American studies, African studies, and anthropology classes since 1986 at UNC-Chapel Hill, at NC State, and at Humboldt State University in Northern California. His research has included fieldwork in Kenya, Haiti, Salem, Mass, and Chapel Hill, North Carolina. Tim McMillan is currently working on a book about the ways of remembering (and forgetting) blackness at UNC and often conducts a “Black and Blue” tour of campus. On a personal note, while we have similar names, I am not related to Terry McMillan and have never had the luck to publish a novel.

AFRI 050-001: Kings, Presidents and Generals: Africa’s Bumpy Road to Democracy

Bereket H Selassie
11:00-12:15 TR

Historical Analysis (HS); Communication Intensive (CI); Beyond the North Atlantic (BN)

This is a course designed to introduce first year students to Africa’s modern history and politics. Starting with a brief, recent history of the continent, the course will focus on the variety of systems of government and the challenges facing them. Traditional institutions, juxtaposed with modern institutions, will be discussed with a special focus on the types of leadership involved in such institutions. A major part of the course will pose questions such as the following:

• What has been Africa’s record in the march toward democracy?
• What are the obstacles to democratic transition and how have Africans tried to overcome such obstacles?
• What are the roles of the constitutional systems and the forms of government in advancing democracy?
• What is the role of leadership? What difference does the type of leadership (monarchy, republican etc) make in the march toward democracy?

Professor Selassie is the William E. Leuchtenburg Professor of African Studies and Professor of Law at UNC, Chapel Hill. Having been previously engaged in government, law and diplomacy for over twenty years, Professor Selassie chose university teaching as a career. He has always
enjoyed teaching even when in government, and has been engaged in fulltime teaching for twenty-nine years. While in government service he acted as Attorney General and Associate Supreme Court Justice of Ethiopia, among other positions. More recently he acted as the Chairman of the Constitutional Commission of Eritrea (1994-1997), and has been a senior consultant on constitution drafting in Nigeria and Iraq, among countries.

My First Year Seminar was a great experience because it allowed me to work closely with a faculty member my first semester on campus. Also, the class size was small, so I made friends that I am still in contact with three years later.

–Teige W.

**AMERICAN STUDIES**

**AMST 053-001: The Family and Social Change in America**

Robert Allen  
2:00-4:30 W  
**Historical Analysis (HS); North Atlantic World (NA)**

This course uses changes in the American family over the past century as a way of understanding larger processes of social change. Through reading, film viewing, and discussion, we will consider the complex of changes that, taken together, produced “modern” American society over the 19th and 20th centuries: industrialization and the rise of corporate capitalism, urbanization, the rise of consumer culture and mass media, and the civil rights movements that extended full citizenship beyond white males. We will then consider how changes in the family as a social institution reflect and contribute to these social changes. We will examine changing notions of romance, marriage, parenting, fatherhood, motherhood, and childhood. We will examine scholarly histories of the family, along with diaries and memoirs in the Southern Historical Collection, oral history interviews, and court cases. Finally, we will examine the representation of family life in contemporary Hollywood cinema. Participants will research their own family histories and produce a family “album” that documents and reflects upon the ways that links can be made between change at the level of “society” and change at the level of the family.

Robert Allen is a native of Gastonia, N.C., and is James Logan Godfrey Professor of American Studies, History, and Communication Studies. He has written, co-written, or edited seven books on the history of American cinema, the history of popular theatrical entertainment, soap operas, and television criticism. One of his current research interests is the relationship between the movies and the family at the end of the 20th century.

**AMST 055-001: Birth and Death in the United States**

Timothy Marr  
11:00-12:15 TR  
**Communication Intensive (CI); North Atlantic World (NA); Philosophical and Moral Reasoning (PH); US Diversity (US)**

This course explores birth and death as essential human rites of passage impacted by changing American historical and cultural contexts. Since both remain defining life events beyond experiential recall, studying them in interdisciplinary ways opens powerful insights into how culture mediates the construction of bodies and social identity. Readings and assignments are designed to study changing anthropological rituals, medical procedures, scientific technologies, and ethical quandaries. We will also explore a variety of representations of birth and death in literary expression, film, and material culture as well as in hospitals, funeral homes, and cemeteries.

Timothy Marr is as Assistant Professor in the Curriculum in American Studies, where he has taught courses on Mating and Marriage, Cultural Memory, and Tobacco. He taught in California, Pakistan, and Australia before completing his doctorate in American Studies at Yale University. His research interests include the life and works of Herman Melville and American attitudes towards the Muslim world.
ANTHROPOLOGY

ANTH 054-001: The Indian’s New Worlds: Southeastern Indian Histories from 1200 to 1800
Margaret Scarry
2:00-3:15 TR

By AD 1200, most Southeastern Indians were farmers who lived in societies ruled by hereditary chiefs. After 1500, encounters between Indians and Europeans changed the lives of all concerned, but the changes took place in and were shaped by existing cultures. This seminar uses reading, discussion, and lecture to examine the cultures of Southern Indians and to understand how European exploration and colonization changed those cultures. Students will learn how archaeologists and historians work, both separately and together, to study the past of Native societies. Students will study and analyze archaeological artifacts, Spanish accounts of Southeastern Indians, and other primary materials in class. These activities, along with various role-playing exercises, will directly involve the students in the study of Native people in the period of Mississippian transition. Grades will be awarded for class participation, two short papers and a final essay exam.

Margaret Scarry's fascination with Native American cultures began in high school, when she participated in an archaeological field school on Summer Island, Mich. She pursued her interest through undergraduate and graduate studies at the University of Michigan, where she earned her Ph.D. in 1986. Though her first archaeological experience was in the Midwest, she soon shifted her interest to the Southeast, where she investigates Native American farming practices and foodways. Much of her research has focused on the Moundville chiefdom, which flourished in Alabama from about A.D. 1100 to 1500. After a number of years in Florida and Kentucky, Scarry joined the anthropology faculty at UNC-Chapel Hill in 1995. Among other things, she teaches courses on archaeology, food and culture, and ethnobotany.

ANTH 056-001: The Art of Healing, the Science of Curing
Kaja Finkler
3:30-6:15 T

There has been a burst of interest in alternative healing in the United States, with more and more people going to alternative healers in America. In this seminar, we will ask the question; “Why do 21st century Americans seek alternative healers in light of modern western medicine’s great advancements?” To answer this question, we will learn about different kinds of healing beliefs and practices in the United States and in other cultures, including Africa, Asia, Latin America, and the Middle East, as well as about social, economic, political and ethical aspects of our lives. we will explore how these healing systems are the same and different from Western medical practice and what they tell us about ourselves and about different cultures.

Kaja Finkler has extensive field experience in different cultures (e.g. 8 1/2 years in Mexico alone), as well as in the United States and other parts of the world. She is the author of five books and many articles that deal with healing and curing issues. Finkler has taught medical anthropology at UNC for the last 15 years. She integrates her field experience with her teaching and students find this aspect of her courses especially fascinating. Most recently Finkler has done fieldwork in the United States and addressed issues relating to the ways in which medical concepts influence people’s experience in daily life. Her most recent focus has been on how the new genetics and the new reproductive technologies influence family and kinship in American society. Finkler has also given special attention to methodological issues in medical anthropology. In addition to field research in Mexico and the United States, she had the opportunity to experience other cultures through stays in Brazil, Bolivia, China, Japan, India, Europe and the Middle East. Her current research continues to build upon previously published works dealing with comparative medical systems, biomedical knowledge, bioethics and women’s health.
ANTH 059-001: The Right to Childhood: Global Efforts and Challenges

Patricia Sawin
10:00-10:50 MWF

Social & Behavioral Sciences/Other (SS); Communication Intensive (CI); Global Issues (GL)

Do children have special needs and rights? There appears to be broad international agreement (expressed in the UN Convention on the Rights of the Child) that all children deserve family, identity, education, play, health care, and nutrition and should be protected from exploitation, sexual abuse, military service, and work that is hazardous or interferes with education. In wealthy countries, tremendous resources are devoted to the full development of children’s capacities. Yet millions of children today work dangerous jobs, are deprived of education, are separated from their parents, and are even forced to be slaves, prostitutes, or soldiers. In this seminar we ask: what forces work against ensuring basic rights for all children? to what extent do global connections base privileges for some on deprivation for others? what is being done to improve children’s situation and or heal them from past abuses? how do international efforts like the UN’s figure into local struggles?

Patricia Sawin (BA English, Yale University; MA Anthropology, University of Texas; PhD Folklore, Indiana University) is an associate professor in the Department of Anthropology and the Curriculum in Folklore. She teaches classes on approaches to the study of vernacular culture, language use in everyday life, and the impact of globalization on local cultures worldwide. After many years of research in Appalachia, she has recently embarked on a new project on literacy in Guatemala. As the mother of an internationally adopted child, she brings her personal experience as well as her academic interests to bear on this course.

ART

ART 079-001: Meaning and the Visual Arts

Mary Pardo
11:00-11:50 MWF (section 1)
12:00-12:50 MWF (section 2)

Humanities & Fine Arts/Visual or Performing Arts (VP)

Can works of art from different times and places speak to us directly? What does it mean to take a work out of its original context, and warehouse it in a museum? Is the art museum a mausoleum, or an enchanted castle in which other cultures come to life? Is the work of art’s value something assigned to it by art “experts” and financiers? Or is it something that arises from our personal pleasure in beautiful things; or from our personal effort to find meaning in human creativity? How can a knowledge of history improve our understanding of art? Our First Year Seminar will be concerned with these questions, and most especially with the role each of us can play as an informed art-viewer. In the course of the semester, each of us will learn to become an art historian. We will undertake a series of viewing, and research and writing exercises, which will culminate in the production of an exhibition catalogue on world art, titled “In the Eye of the Beholder.” Each student will sign personal contributions to the catalogue, and identify her or his intervention in the introductory essay.
When asked why she studies Italian art, Mary Pardo answers: “Because of Italian cooking”—though she admits the art is pretty amazing too. She is fascinated by all varieties of world art, ancient and modern—perhaps because she feels she grew up “multicultural” (part-Venezuelan, part-French). Prof. Pardo’s specialty is Renaissance art theory, but she has also published work on Giotto, Leonardo da Vinci, and Titian.

**ASIAN STUDIES**

**ASIA 054-001: The American Life of Japanese Women**

Jan Bardsley
9:30-10:45 TR

*Beyond the North Atlantic (BN); Visual and Performing Arts (VP)*

How does the balance of power between Japan and the U.S. affect the creation of identity in both countries? How do notions of gender figure in this process? This course explores these questions by investigating how Americans have portrayed Japanese women through fiction and film, feminist debate, legal reforms, and even VOGUE photographs. At the same time, the course also examines how Japanese women have simultaneously imagined American women in their own popular culture.

Jan Bardsley (PhD, University of California-Los Angeles) spoke with women’s groups and gave public lectures on this topic when teaching in Japan in 1997. She frequently writes about debates in Japanese feminism and has translated essays and fiction by Japanese women writers. She was also a Visiting Scholar at the Women’s Studies Center of Tokyo Christian Woman’s University in 1993.

**CLASSICS**

**CLAS 055-001: Three Greek and Roman Epics**

James O’Hara
12:00-12:50 MWF

*Literary Arts (LA); North Atlantic World (NA); World Before 1750 (WB)*

The course will involve a close reading of Homer’s ILIAD and ODYSSEY and Virgil’s AENEID, and as a transition from Homer to Virgil, we will also read the tragedies of Sophocles from fifth-century Athens. It was epic and tragedy that formulated the bases of Greco–Roman civilization and provided the models of heroism and human values for the Western Tradition—along with raising fundamental questions about the individual’s relationship to society. We will analyze, discuss, and write about these works both as individual pieces of literature in a historical context, and in terms of how they position themselves in the poetic tradition; after reading the ILIAD and ODYSSEY, we’ll see how heroic myth gets reworked for democratic Athens, and then how Virgil combines Homer, tragedy and other traditions to make a new poem for his time. We will look at aspects of structure and technique, questions of overall interpretation and values, and the interplay of genre and historical setting.

Professor James O’Hara grew up near Boston, and received his A.B. in Classics from Holy Cross in 1981, and his Ph.D. in Classical Studies from the University of Michigan in 1986. From 1986 until his 2001 arrival through genetic testing. Students will review the basics of genetics and molecular biology, learn about genetic testing and counseling, discuss ethical issues of testing and treatment, and carry out group research projects on diseases such as cystic fibrosis, breast cancer, sickle cell anemia, and Huntington’s disease. Field trips will include tours of genetic and diagnostic testing laboratories.

Sarah Liljegren investigates the genetics and molecular biology of flower development in the Department of Biology. She grew up in the Pacific Northwest, received her scientific training in San Diego, and is fond of coffee and mystery books.

**BIOLOGY**

**BIOL 057-001: Detecting the Future: Human Disease and Genetic Testing**

Sarah Liljegren
3:30-4:45 TR

*Physical and Life Science (PL)*

This seminar explores the current revolution in our ability to uncover human disease and variability...
in Chapel Hill, he taught at Wesleyan University in Connecticut. At UNC he has just finished a term as Department Chair. His research and teaching interests are in Greek and Latin poetry, with special interests in poetry written just before and during the reign of the emperor Augustus, and in epic poetry. His latest book is on “Inconsistency in Roman Epic: Studies in Catullus, Lucretius, Virgil, Ovid and Lucan” (Cambridge 2007).

COMMUNICATION STUDIES

COMM 051-001: Organizing and Communicating for Social Entrepreneurs

Steve May
9:30-10:45 TR
Social & Behavioral Science/Other (SS)

This first year seminar is designed to show how we can better understand organizational communication through the medium of different metaphors (e.g., machine, organism, culture, political system, psychic prison). More specifically, the course is designed to show how social entrepreneurs—or any other organizational members—can use these metaphors of organizational communication as tools for informing and guiding their entrepreneurial efforts.

The course has four primary objectives. First, the course will introduce students to the theory and practice of social entrepreneurship, with particular attention to successful social entrepreneurs. Second, the course will provide students with a systematic and critical understanding of organizational communication theory and research related to social entrepreneurship, including the factors involved in the functioning and analysis of today’s complex organizations. Third, the course will also show students how this understanding can be used as a practical tool for their own social entrepreneurship. Finally, the course will allow students to explore the ways in which organizations are simultaneously the medium and outcome for social, political, economic, technological, and ideological change in our culture.

Steve May has taught courses in Organizational Communication, Teamwork, and Organizational Ethics. He has also taught several APPLES service learning courses in which students provided consulting services to non-profit agencies. He is currently serving as a consultant for the Kenan Institute for Ethics’s new initiative, Ethics at Work. He also provides facilitation and community problem-solving expertise to the Dispute Settlement Center.

Originally from Indiana, Steve enjoys basketball, hiking, and international travel. He and his wife spent 6 months working and traveling in New Zealand. During that time, they rafted caves, hiked the Milford Track, scuba dived, and went jet boating.

COMM 063-001: The Creative Process in Performance

Madeleine Grumet and Emil Kang
2:00-3:15 TR
Visual and Performing Arts (VP); Communication Intensive (CI); US Diversity (US)

The Memorial Hall Carolina Performing Arts Series sets the stage for this course, and students will be engaged with its multimedia, music, dance and theater performances. We will explore the creative processes and cultural contexts of these performances and compare the arts as a way of knowing the world to the creative processes of academic scholarship. Students will research performance pieces, interview the performers, attend rehearsals and performances, do audience response research, and create their own performance piece as they observe the relationship of preparation and practice to the spontaneity and surprise of performances.

Madeleine Grumet is a professor in the School of Education and in the Performance Studies Strand of the Department of Communication Studies. She has served as Dean of the School of Education here, and at Brooklyn College, CUNY, where she worked with the arts in education programs of Lincoln Center.

Emil Kang arrived in January 2005 as the University of North Carolina’s first Executive Director for the Arts, a position created to help unify and strengthen the performing arts at Carolina. Prior to coming to Chapel Hill, Kang, a violinist, served as President and Executive Director of the Detroit Symphony Orchestra.
### COMM 082-001: Globalizing Organizations

**Sarah Dempsey**  
3:30-4:45 TR  
*Communication Intensive (CI); Global Issues (GL); Social & Behavioral Science/Other (SS)*

“Globalization” is both a hotly contested subject and a central part of contemporary life. In this course, we explore the communication issues that arise within international contexts. Through the analysis of readings and films, we will delve into the contentious debates surrounding globalization and explore the ethical and social issues that arise within global forms of communicating and organizing. The objectives of this course include increasing your awareness and understanding of (1) multinational corporations and global labor flows, (2) international nongovernmental organizations, (3) multilateral lending institutions such as the World Bank and the International Monetary fund, and (4) transnational advocacy networks and social movements. Course requirements include writing an essay in which you reflect upon your own participation in a globalized world and conducting an individual analysis paper in which you examine the communication dimensions and ethical impacts of a global organization of your choosing.

Sarah Dempsey is an Assistant Professor in the Department of Communication Studies. She has taught courses on the topics of organizational communication, globalization, and communication and social change. Her research interests include the intersection of organizational discourse, knowledge, and power, processes of social change and advocacy, and problems of participation and communication within international contexts.

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### COMM 085-001: Think, Speak, Argue

**Christian Lundberg**  
12:30-1:45 TR  
*Communication Intensive (CI)*

The Joseph P McGuire First Year Seminar. Supported by the Jeff and Jennifer Allred Initiative for Critical Thinking and Communication Studies.

This is a course in learning to think more critically, speak more persuasively, and argue more effectively by focusing on practical skill development in reasoning and debate. During your time at Carolina you will obviously sharpen your thinking, speaking and argument skills in the course of your normal coursework, but this will happen more or less indirectly. In this course we will focus directly on improving each of these skills. You will learn to think more critically by reflecting on the work of philosophers who deal with reasoning and informal logic, to speak with conviction and clarity through hands-on learning about the tradition of rhetoric, and to argue more effectively by debating the pressing issues of our day. The skills you will hone in this course will make you more effective as a student, in your chosen vocation, and as a citizen in an increasingly complex global public sphere.

Christian Lundberg is an Assistant Professor in Communication Studies, where he does research on the public sphere, rhetoric, and contemporary American religious discourse. He received his PhD. from Northwestern University’s program in Rhetoric and Public Culture, and currently teaches a class in Globalization and Communication. One of his passions is teaching people how to debate. He coached teams at three universities to national championships in intercollegiate debate and has taught debate classes at Northwestern, Emory University and Georgia State, as well as teaching summer workshops on debate at Northwestern, Dartmouth, Miami University of Ohio, and the University of Kentucky.

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This year I taught my FYS for the sixth time. Every year I learn more about the subject and about teaching. The enthusiasm, insight, and creativity of the students is a continual source of inspiration for me. The opportunity to work with small groups of beginning students who are excited about the subject is very precious.

–Laurie McNeil, Physics
What does it take to launch a successful business? There are some things that have always and will always be needed: a good idea, a solid business plan, and good people to execute the idea. In the twenty-first century, however, there is another necessary dimension: technology. Advertising on the Internet is the most obvious use of technology, but there are other aspects of technology that can also make or break a business. We will look at the fundamental technologies that are important to an entrepreneurial endeavor. Because we learn from studying what has already been done, we will study both successful and failed businesses, exploring the role that technology played or could have played. In support of this work, each student will do an in-depth study of such a company. The final project of the course will give students the opportunity to design a business or a non-profit activity that they would like to start and investigate how technology could help.

Diane Pozefsky received her Ph.D. in Computer Science from UNC and spent twenty-five years at IBM, where she was named an IBM Fellow. She has worked in technologies from networking and mobile computing to software engineering; she especially enjoyed working at the 1998 Nagano Winter Olympics. She is heavily involved in encouraging students to consider careers in science and engineering and is active in wildlife rehabilitation. Her family includes her husband, a daughter in law school, a dog and two cats. One of her passions is travel and her family spent last winter break in Greece and Egypt.

COMP 080-001: Enabling Technology: Computing in the Service of People with Disabilities

Gary Bishop
11:00-12:15 TR

Communication Intensive (CI); US Diversity (US); Experiential Education (EE)

Nearly one in seven Americans has a significant disability; should they be exceptions? Through readings, guest lectures, videos, and projects we will explore the legal, moral, cultural, and technical issues and opportunities raised by this “minority you can join at any time”. We will focus on ways that computer technology can be used to mitigate the effects of disabilities and the sometimes surprising response of those we intended to help. We will work together with teachers, experts and individuals with disabilities to develop ideas and content for new enabling technologies. Previous computer experience is helpful but not required; creativity, ability to think “outside the box”, and the desire to make the world a bit better are more important. This is an Apples Service Learning Course.

Gary Bishop is a professor in the Department of Computer Science. His primary research interest is enabling technology: the use of computers to enable people with disabilities. His previous research includes hardware and software for man-machine interaction, 3D interactive computer graphics, virtual environments, tracking technologies, and image-based rendering. He is a winner of the Tanner Faculty Award for Excellence in Undergraduate Teaching, the Class of 1996 Excellence in Advising Award, and three-time winner of the Computer Science Students Association Teaching Award.
I took a FYS on the atomic theory, and I had no idea it was going to be as comprehensive as it was! We basically covered the history of great thought and at the same time looked at mathematics of the atomic theory involving computer programming. Another math FYS on fractals covered topics stretching from physics, to the humanities, to the arts. The flexible, comprehensive curriculum of the seminars has given me a much broader perspective and made me a much more rounded, knowledgeable person.

—Emily E.
Steven Rosefielde (PhD, Harvard) is a professor of economics at UNC-Chapel Hill and a member of the Russian Academy of Natural Sciences. He is an adjunct professor of national security affairs of Southwest Missouri State University, and has been actively involved in economic systems and global security research with the American, Russian, Swedish, and Japanese governments.

**ECON 053-001: The Drug War: Costs and Benefits**

Arthur Benavie  
12:30-1:45 TR  
Social & Behavioral Science/Other (SS)

The basic question examined in this course will be the costs and benefits of the U.S policy of drug prohibition. Does drug prohibition decrease drug abuse? Affect violence in our society? Aid terrorism? Diminish our civil liberties? Affect the public’s health? Corrupt public officials? Should drugs be decriminalized or legalized and if so, how? Should different illicit drugs be treated differently? What is the evidence in the United States and in other countries on decriminalization or legalization? The students will write a paper and present it in class, and prepare an interview with some who are on the frontline of the drug war, such as police or attorneys. As a seminar, the class will consist of discussions and debates.

Arthur Benavie received his Ph.D. in economics from the University of Michigan. He has been at UNC since 1967. His specialty is macroeconomic theory and policy. He recently published a book for the general public entitled Deficit Hysteria: A Common Sense Look at America’s Rush to Balance the Budget. He is currently working on a book entitled Social Security under the Gun. In his former life he was a concert violinist, which pursuit is now his main avocation.

**ENGL 052-001: Computers and English Studies**

Daniel Anderson  
2:00-3:15 TR  
Communication Intensive (CI); Literary Arts (LA)

How do computers change the way we study traditional literary texts? How do computers reshape our definitions of texts and of writing? What skills must scholars possess to work successfully with both literature and technology?

Daniel Anderson directs the Studio for Instructional Technology and English Studies at Carolina. His interests include teaching writing through the use of emerging communication media such as the World Wide Web and guiding students as they work together to investigate and create resources for studying literature.

**ENGL 056-001: Projections of Empire: Colonial and Postcolonial Fiction and Film**

Pam Cooper  
11:00-11:50 MWF  
Global Issues (GL); Literary Arts (LA)

The course examines depictions of empire in twentieth-century fiction and film – specifically, issues of power, identity, and themes raised by British colonialism – which it reconsiders in the frame of the postcolonial. It also explores a part of this project the cultural implications of transforming novel into film. Beginning with “The Man Who Would Be King,” we will investigate modernist portrayals of empire in A Passage to India, Mrs. Dalloway, and Heart of Darkness. Using the latter as a historical lens, we will approach the postcolonial through Pascali’s Island, The English Patient, The Commitments, and Trainspotting. Like Heart, The Remains of the Day will act as a prism, focusing imperialism and its aftermath as deeply influencing our world today.

Pamela Cooper received her B.A. at Witwatersrand University, Johannesburg, where she also taught. She received both her M.A. and Ph.D. degrees from the
University of Toronto. She joined the UNC faculty in 1990. In the English department, she teaches courses on nineteenth- and twentieth-century fiction and theory. Her research interests are the contemporary novel, critical theory, postcolonial and gender studies.

**ENGL 057-001: Future Perfect: Science Fictions and Social Form**

Tyler Curtain
3:00-4:15 MW

*Literary Arts (LA)*

“Future Perfect” is a first year seminar that will investigate the forms and cultural functions of science fiction. We will read authors as diverse as William Gibson, Octavia Butler, and Samuel Delany, to name only three influential practitioners of the genre. Key questions raised by science fiction include: What does it mean to be human? How do we imagine our culture and society to be other than it is? What roles do social categories such as race, gender, class, and sexuality play in our descriptions of the future; and to what extent are these ways of categorizing humans important for making this literature “realistic”? How do we re-imagine human evolutionary biology and to what purpose?

Tyler Curtain was born at Kirkland AFB, just outside Albuquerque, New Mexico, on 13 July 1966, a descendent of nineteenth century atheist, Robert Ingersoll. It is said that Ingersoll was lynched by an angry mob for his opinions about Jesus of Nazareth. This is not true, though it makes for a good family story. Curtain holds a B.Sc. in Computer Science and Computer Engineering from the College of Engineering at the University of Colorado at Boulder, and the Ph.D. in English and American Literature from The Johns Hopkins University, Baltimore, Maryland. In Colorado, he worked at the National Center for Atmospheric Research with the CRAY computers, and with NCAR’s Connection Machine. He was also director of Bioinformatics at Rankin Clinical Research Unit at Duke University Medical Center, and Visiting Scholar in the Department of English at Duke University. Curtain specializes in critical theory of philosophy and queer theory. He has published many essays. The most recent deals with the Clinton-Levinsky scandal and the place of sexuality in the management of our democracy. Curtain is currently Assistant Professor of Critical Theory and Cultural Studies in the Department of English at the University of North Carolina at Chapel Hill. He also sits on the governing board of the Program in Cultural Studies at UNC Chapel Hill.

**ENGL 058-001: The Doubled Image: Photography in U.S. Latina/o Short Fiction**

Maria DeGuzmán
11:00-12:15 TR

*North Atlantic World (NA); US Diversity (US); Visual or Performing Arts (VP)*

For students interested in both visual and written are forms and in ethnic studies an, in particular, sort stories, photography, and Latina/o literature, this is the course for you? This seminar will focus intensively on short fiction by U.S.-born Latina/o writers. We will examine nine short stories that hinge on the theme or device of the photograph, and we will embark on an exploration of how and why Latina/o writers are drawn to this device in the context of an Anglo-U.S. culture that historically has tended to both “disappear” and “hypervisualize” Latinos. This course is designed to engage literature, cultural studies, communication studies, and are
concentrators and will be conducted as a seminar with plenty of lively discussion.

Maria DeGuzmán is assistant professor of Latina/o Literature(s) in the English department. She obtained her BA from Brown University and her MA and Ph.D. from Harvard. Her areas of research range from contemporary U.S. Latina/o literature and theory to visual studies and the relation between photography and other forms of “writing,” that is, between photography and story writing. She is also a conceptual photographer and the photo-text work she produces collaboratively with Dr. Jill H. Casid under the name SPIR: Conceptual Photography has been exhibited internationally.

ENGL 068-001: Radical American Writers: 1930-1960
Thomas Reinert  
9:30-10:45 TR

Literary Arts (LA)

In this course, we will read fiction, plays, and essays by American writers associated with the political left in the 1930s, and we will see how the political notions of leftists shifted during the Second World War and the McCarthy era. Authors will include such classics as John Dos Passos, Edmund Wilson, Mary McCarthy, and Bernard Malamud, as well as lesser-known essayists and journalists like Anatole Broyard and Robert Warshow. Class sessions will be run as discussions; there will be several short papers and a final exam.

Thomas Reinert regularly teaches courses on contemporary American literature and 18th-century British literature and has also written articles and reviews about them. He has been teaching in the UNC English Department since 1996.

ENGL 075-001: Interpreting the South from Manuscripts
Connie Eble  
11:00-12:15 TR

Historical Analysis (HS); Experiential Education (EE)

The Southern Historical Collection of UNC Libraries contains the raw materials of people’s lives - their letters, diaries, business records, scrapbooks, photographs, and other primary sources which allow people of the present to interpret the past. Taking full advantage of these materials requires an understanding of the nature of manuscript collections and of how to access and use them knowledgeably and responsibly in the context of contemporary scholarship and methodologies. Students will learn about and work directly with manuscripts under the guidance of two faculty members, one who makes use of manuscripts in research and one a professional librarian whose expertise is in manuscript resources. The aim of the course is to give beginning university students the requisite research skills to allow them to appreciate and to contribute to an understanding of the past by directly experiencing and interpreting records from the past. Students will actually get to work with historical documents, some more than 200 years old.

Connie Eble, Professor of English, is a specialist in American English and is working on a project on bilingualism in antebellum Louisiana using the Prudhomme Family Papers in the Southern Historical Collection.

ENGL 083-001: Narratives of America and South Africa: In Slavery, In Prison, In Limbo
Trudier Harris  
9:30-10:45 TR

Literary Arts (LA); North Atlantic World (NA)

This course will focus on narratives of enslavement and imprisonment in the United States and South Africa. It will include historical and autobiographical material as well as literary works. Films and speeches will also be key to understanding the impact that confinement has upon creative and literary imaginations. Focusing on key figures in the history of each country, such as Martin Luther King, Jr. and Nelson Mandela, the course will allow students to correspond with political prisoners, produce creative work about enslavement or imprisonment, and think creatively about the consequences of enslavement and imprisonment upon contemporary societies in both countries.
I had a marvelous experience teaching my First Year Seminar on crime and violence in the Ancient World. The enthusiasm the students brought into the classroom made it possible to cover large chunks of primary source material in translation. Whether we read Athenian court speeches or Greek curse tablets, Latin literary sources or papyri, the students showed an amazing degree of historical sensitivity and understanding so that we could even go beyond interpreting Greek and Latin sources and make comparisons between crime in the ancient world and in U.S. society today.

–Werner Riess, Classics

Other writers to be included are James Baldwin, Steve Biko, Andre Brink, Octavia Butler, Frederick Douglass, J. M. Coetzee, and Ernest Gains.

Trudier Harris is J. Carlyle Sitterson Professor of English and Comparative Literature. Author and editor of twenty-two volumes, she teaches courses in African American Literature and Folklore. Her Most recent publication is Summer Snow: Reflections from a Black Daughter of the South, which was used to inaugurate the One-Book, One-Community Reading program in the Chapel Hill area in 2003. During the fall semester of 2006, she was Faculty Director for an Honors Study Abroad Program in Cape Town, South Africa.

GEOGRAPHY

GEOG 054-001: Global Change and the Carolinas

Charles E Konrad
3:00-5:30 M

Physical and Life Science (PL)

How will sea level rise affect your future beach vacation? Does ozone in the urban air make it difficult for you to breathe? Does increased urbanization or the development of a hog farm mean that you had to sell the family farm? Where does your trash go? Will there be a greater frequency of hurricanes? Is the climate really getting warmer in the Carolinas? This seminar seeks to familiarize the participants with some of the major current biophysical issues of Global Change and how these issues relate to the Carolinas. The kind of problems we might explore include 1) sea level rise on Carolina coasts and 2) how carbon dioxide output from Carolina affects global greenhouse gas concentration and how this might lead to global climate warming that, in turn, may affect the Carolinas. Underlying themes of the seminar will be: 1) the importance of distinguishing between natural changes and human-influenced changes, and 2) the necessity of understanding the operation of biophysical systems in order to make sound management decisions. The seminar will seek to teach students how to become familiar with, and critically approach and use, the huge amount of literature and other information on the topic. Class participation will include searching, downloading, and analyzing data from the Global Change Master Data Directory, discussing relevant segments from videos, field trips, and a term paper on a Carolina topic.

GEOG 055-001: Landscape in Science and Art

Peter Robinson
3:30-4:45 TR

Social & Behavioral Science/Other (SS)

Artists look at the land around them and paint what they see or how it makes them feel, sometimes with great attention to exact detail, sometimes altering the view to make it more interesting or dramatic, and sometimes to show a fleeting moment in time. Scientists tend to view a landscape as the result of a series of forces or processes acting to create that particular piece of scenery at that particular place. The views are of the same bit of land, but the results are very different. Or are they? This seminar explores these two ways of viewing landscape, and in class discussions we will seek ways in which using both approaches can enhance our understanding and appreciation of a landscape. Since there are a great variety of landscape types, mountains and plains, forests and deserts, calm or stormy, urban or rural, we shall choose a selection for special study in each class. Some of these we can examine in detail.
during field trips to selected art museums, when the journey will provide opportunities to see the land from a scientific viewpoint, while the museum will provide examples of its artistic representation. Other landscapes, selected to ensure we consider a range of environments around the globe, will be examined using photographs, diagrams and artistic representations. In addition, seminar participants will be required to choose particular landscape types and, through individual and team projects, explore and link the scientific and artistic aspects of their chosen examples.

Peter Robinson was born and raised in England and was awarded B.Sc. and M.Phil. Degrees, both in Geography, the latter specializing in climatology, from the University of London, Kings College. My Ph.D., again in Geography with a climate specialization, was from McMaster University, Hamilton, Ontario, Canada. Since 1971 he has been a Geography faculty member (and member of the Ecology Curriculum) at UNC. Prof. Robinson’s major teaching and research interests are in Applied Climatology - the use of climatic information and ideas for the benefit of society. With the concern for global climate change, this is usually expressed as investigations of the possible impact of future climates on specific aspects of society.

**GEOG 057-001: Dogs and People: from prehistory to the urbanized future**

Melinda Meade  
2:00–2:50 MWF  
Social & Behavioral Science/Other (SS)

Developing DNA evidence suggests that the first thing people did was to domesticate dogs. We took them with us everywhere. We used them as living tools to occupy and modify the earth, from Arctic transport to sheep guarding and herding, from food supply to means of hunting, from weapon of war to beasts of burden. Soon the majority of humans will live in cities. This necessarily means the urbanization of dogs also. How are we adapting them to our urban needs for companionship, physical assistance, entertainment and social connection? How are we adapting our cities and ourselves to them?

Dr. Melinda Meade is a professor of geography who has taught at Carolina since 1978. Undergraduate at Hofstra she was a history major, but after serving in the Peace Corps in Thailand she decided to become a geographer. Doing her master’s degree at Michigan State University and her doctorate at the University of Hawaii, with two years field work in Malaysia, she specialized in medical geography and population geography as cultural ecology. She teaches medical and population geography, developing world issues, and various aspects of cultural ecology including, now, human relationships to dogs.

If you’re interested in getting to know the people in your classes and putting your ideas out there, then First Year Seminars are for you. I recommend them to any and every first year student.

—Stephen L.

**GEOLOGY**

**GEOL 070-001: One Billion Years of Change: The Geologic Story of North Carolina**

Kevin Stewart  
11:00–11:50 MWF  
Physical and Life Science (PL)

The rocks of North Carolina record over a billion years of earth history. During that time our state has been affected by continental collisions, volcanic eruptions, and raging rivers. In this course, we’ll explore topics such as the origin of the Blue Ridge Mountains, how the barrier islands are shifting, and the ways that the geology of North Carolina has affected the lives of people who live in the state. Much of the class will be conducted outdoors, exploring real geologic problems, during class and on two–day trips to the mountains and the coast.

Kevin Stewart (BS, University of Michigan; PhD, University of California, Berkeley) has taught at UNC-Chapel Hill since 1986. His research specialty, structural geology, is the study of rocks that have been deformed by plate tectonic processes. His research has taken him to the mountains of Italy, New Mexico, and North Carolina. He loves teaching, and received the 1991 James M. Johnston Teaching Award.
GEOL 072H-001*: Field Geology of Eastern California
Drew Coleman
2:00–3:15 TR

*Honors program students have priority in registering for this course.

This seminar will be designed around a one-week field trip to eastern California, where students will study geologic features including active volcanoes, earthquake-producing faults, evidence for recent glaciation and extreme climate change, and how locals deal with living on active geologic features. Before the field trip (which will take place the week of Fall Break and be based at White Mountain Research Station in Bishop, California), the class will meet twice a week to go over basic geologic principles and to work on specific field topics for which student groups will be responsible. During the field trip students will work on specific projects (e.g., making a geologic map of a small area; mapping, measuring, and describing an active fault; observing and recording glacial features on a hike). After the field trip students will write a research paper on a topic of their choice. Grading will be based on the research paper, group work presented on the trip, and on a variety of small projects during the trip (notebook descriptions, mapping projects, etc.). Students will be required to pay some of the costs of the trip (estimated about $500.) This course will require missing three days of classes.

Drew Coleman is originally from the east coast, but have been doing research in California since 1986. His work focuses on determining the rates of geologic processes in an effort to understand how the Earth works. There is no better way to learn about rocks than spending quality time with them - so during this seminar, he will teach you the basics of geology through exercises in the field. The course is centered around a trip to the Sierra Nevada and White Mountains of California during fall break.

GEOL 076-001: Energy Resources for a Hungry Planet
José Rial
9:30–10:45 TR

The course first describes the fundamental sources of energy: oil, natural gas and coal, how and where to find them and the latest statistics on how long the present reserves will last. Then we shall explore earth’s alternative energy resources. Discussions will center on some of the most pressing issues of our time: environmental deterioration and the construction of a sustainable (livable) world during and after the depletion of traditional energy resources. The course stimulates student participation through class debates in which a controversial topic is argued for and against by the students (e.g. can nuclear energy become a viable and safe substitute for oil?)

José A. Rial has a PhD in Geophysics from Caltech and a MSc. in Geology from The University of Michigan. Rial’s expertise includes mathematical modeling of natural systems, seismic wave propagation and climatology. In recent years Rial’s academic interests include the role of science and scientific discovery on global environmental issues, such as global warming, and policy.

GERMANIC LANGUAGES AND LITERATURE

GERM 052-001: Canine Cultural Studies
Alice Kuzniar
2:00–3:15 TR

This seminar uses the dog to explore the philosophical, ethical, and imaginary connections and impasses between the human and animal worlds. We shall historicize and theorize man’s relationship to the canine species, asking such questions as: when were dogs treated more as pets than workers and why? What does it mean to define the best of human traits—love, faithfulness, and empathy—via the animal other? As literature and the visual arts explore, our relationship to the dog tests the limits of language and representation. Over the semester,
in addition to class discussion of materials, students will develop their own research topics.

Alice A. Kuzniar (Professor of German and Comparative Literature) has published widely on German literature, painting, and film and is currently writing a book entitled “My Dog is Greta Garbo” on canines in literature and art. She serves as undergraduate director of the University Program in Cultural Studies. She owns two whippets.

GERM 059-001: Moscow 1937: Dictatorships and their Defenders

David Pike
2:00-3:15 TR

Global Issues (GL); Historical Analysis (HS)

This course offers a novel approach to the study of recurrent problems of enormous consequence: (1) the origins and emergence of dictatorships that engage in grievous practices of repression and mass murder, (2) in what ways these regimes are understood, and by whom, as they develop and “mature” philosophically, ideologically, historically; (3) and how such regimes tend often to be enveloped in justifications by “outside observers” that help keep them in existence. The Soviet Union, particularly during the thirties and the blood purges, serves as the axis. However, a main objective is to use this particular “case study” to branch off into different directions of student inquiry. We will attempt to establish prevalent historical opinion about these phenomena in order to contrast – favorably and unfavorable – contemporary treatments of the Soviet Union during these horrible years of bloodshed.

David Pike received his Ph.D. from Stanford University in 1978 in German Studies with a minor in Russian and has taught at UNC Chapel Hill since 1980. He is the author of three books, The Politics of Culture in Soviet -Occupied Germany, 1945-1949 (1993), Lukács and Brecht (1985), and German Writers in Soviet Exile, 1933-1945 (1982). His research takes him regularly to Berlin and Moscow.

My First Year Seminar, Chinese Food and Culture with Dr. Gang Yue, is one of the best classes I’ve taken at Carolina. The level of knowledge afforded by a senior professor, both in the academic boundaries of the class and in overall University life. I recommend taking a seminar, almost any seminar, to entering freshmen. An all-freshman class has a very open social atmosphere, as well.

–Kirk F.

HISTORY

HIST 070-001: The Cotton States Exposition and the New South

Theda Perdue
3:00-4:15 MW

Historical Analysis (HS); Communication Intensive (CI); US Diversity (US); North Atlantic World (NA)

In 1895 Atlanta hosted the Cotton States Exposition. Like earlier worlds fairs, the Cotton States Exposition encapsulated the values of the organizers and constructed a particular view of the world. Remembered today primarily for the “Atlanta Compromise” speech of Booker T. Washington, the exposition taught other racial lessons. From the Dahomey and Chinese villages on the midway to the Smithsonian’s ethnographic exhibits and Buffalo Bill’s Wild West Show, the exposition categorized the world by race and provided a template that white organizers believed should structure race relations both nationally and internationally. This freshman seminar will explore the world of the 1890s South through the lens of the Cotton States Exposition. Students will develop their skills in oral and written communication, discover the resources of UNC libraries and the internet, and experience the North Carolina state fair as a basis for comparison.

Theda Perdue is a southern historian who writes about American Indians. She has published books that deal with Cherokees, Indians of North Carolina, race, and women. Originally from Georgia, she also has taught at Western Carolina, Clemson, the University of Auckland (New Zealand), and the University of Kentucky. Professor
Perdue is an avid traveler who is particularly interested in the ways in which European expansion has affected indigenous peoples.

HIST 071: Remembering the Holocaust: Diaries, Memoirs, Testimonies
Christopher Browning
2:00–3:15 TR

This course will examine how our images and understanding of the Holocaust have been shaped and transmitted to us through four different forms in which the experience of the victims has been recorded: diaries of victims who did not survive, postwar memoirs of “ordinary” survivors, “classic” novelistic memoirs by preeminent survivor novelists, and testimonies visually recorded by documentary film makers. The focus will not be on a narrative history of the Holocaust as such, though essential background material will be provided for context. Rather the focus will be on the varying experiences of the victims, how they attempted to make sense of and relate what had happened to them, and how their efforts have in turn shaped our understanding of this watershed historical event.

Christopher Browning joined the faculty at UNC Chapel Hill in 1999, returning to the town where he was born but moved away from at the age of one. He has researched, written, and taught about the Holocaust for more than 35 years. He has also served as an “expert witness” at various “war crimes” and “Holocaust denial” trials.

MARINE SCIENCE

MASC 051-001: Global Warming: Serious Threat or Hot Air
Mark Alperin
2:00–3:15 TR

This course is designed to empower students to discover the “truths” underlying the ongoing, heated debate over global climate change. Students will be introduced to the complex interactions between the sun, atmosphere, ocean, and biosphere that ultimately control Earth’s climate. After covering natural processes that influence climate, the seminar will focus on the impact of fossil fuel combustion on the chemical composition of the atmosphere and the Earth’s energy budget. We will examine evidence that human activities have already caused global warming and investigate scientists’ ability to predict future climate. Finally, we will discuss the political and social dimensions of global-scale climate change as well as strategies for mitigating negative impacts. A major goal of the seminar is to provide students with a knowledge base what will enable them to critically evaluate media reports that often distort and polarize the scientific issues.

Marc J. Alperin is an Assistant Professor and Director of Undergraduate Studies in the Department of Marine Sciences. He obtained his doctoral degree from the University of Alaska-Fairbanks in 1988.

MASC 055-001: Change in the Undersea World
Christopher Martens
9:30–10:45 TR

This course provides students with an opportunity to explore changes in marine and linked terrestrial environments caused by the interactions of fascinating oceanographic processes. Introductory presentations and discussions focus on the approaches of active marine scientists who combine their disciplinary training with knowledge from other fields in order to attack research questions that could not be otherwise addressed. We will examine and discuss a series of modern oceanographic research investigations that demonstrate how specific biological, chemical, geological, physical, and processes interact to influence coastal, open-ocean and tropical environments. During these discussions, students will be exposed to field sites and modern oceanographic laboratory research methods through “photo-trips”, demonstrations using state-of-the-art instrumentation in my laboratory and “hands-on” mini-experiments designed to emphasize the importance of the question rather than the technology involved. In preparation for discussions,
demonstrations and experiments, students will read recently published non-technical research papers that focus on specific questions and environments of current interest including nutrient enrichment of coastal waters; exchange of greenhouse gases between oceans, rain forests and atmosphere; contamination of coastal aquifers, fish kills and anoxia in the Neuse; geomagnetic controls on turtle migration; and the accumulation of toxic substances in coastal sediments.

Christopher Martens earned his Ph.D. in Chemical Oceanography from Florida State University in 1972, then moved to Yale to complete two years of postdoctoral study before joining the faculty at UNC in 1974. His research focuses primarily on biogeochemical processes driven by the decomposition of naturally occurring organic matter in marine and estuarine sediments. He publishes widely and has twice been co-recipient of the Geochemical Society’s Best Paper award in Organic Geochemistry. In 1991, he received a “Favorite Faculty” award, recognizing his excellence in undergraduate teaching.

MATHEMATICS

MATH 052-001: Fractals: The Geometry of Nature

Sue Goodman
2:00-3:15 TR

Quantitative Intensive (QI)

Many natural objects have complex, infinitely detailed shapes in which we see smaller versions of the whole shape appearing throughout. Examples are the fern leaf above, or turbulent weather patterns, mountainous landscapes, clouds, galaxy systems, cell reproduction, our own capillary systems, heart rhythms and nervous systems—even the ups and downs of the stock market. Such a shape is called a fractal. Artists have used fractals to create fantastic images in galleries, on T-shirts and calendars, and imaginary landscapes in movies (the dragon curve in Jurassic Park, a moon modeled for Apollo 13, landscapes in Star Trek). Musicians have effectively modeled music from Bach to the Beatles and have created their own new music. Writers such as Tom Stoppard (Arcadia) have incorporated themes of self-similarity and fractals into their plots. We will study the basic geometric properties of fractals, learn how to design and analyze them, and study their occurrence in a variety of applications. We’ll use website and supplementary material developed by Professor Bob Devaney in his Dynamical Systems and Technology Project, developed with the support of the National Science Foundation. We will read and discuss Tom Stoppard’s play Arcadia, listen to and generate fractal music, and learn some computer applications for designing fractals. Group discussions and projects will play a primary role. A term paper or project gives students an opportunity to investigate more deeply some aspect or application of fractal geometry. The mathematics required for our study is basic high school geometry and algebra.

Sue Goodman has been at Carolina since 1974, since completing her graduate work in topology and dynamical systems at Washington University and St. Louis University in St. Louis. Her personal interests include art, photography, literature, gardening, and hiking. Her favorite hikes were in the hills of Rio de Janeiro, where she was a Fulbright scholar.

I went from comparing Einstein and Picasso to interviewing bilinguals in the community. First Year Seminars motivated me to seek out people and ideas that interest me, and now that they are over, I’m still doing exactly that!

–Katie A.

MATH 056H-001*: Coding and Decoding: From Thomas Jefferson to E-commerce

Karl Petersen
9:30-10:45 TR

Quantitative Intensive (QI)

*Honors program students have priority in registering for this course.

It is common to say that we are now living in the information age. What are the ways in which information is stored, transmitted, presented, and protected? What is information anyway? Topics
for this seminar will be drawn from cryptography (secret writing throughout history, including Thomas Jefferson’s cipher machine, the German Enigma machine, and security and privacy on the internet); image compression and processing (compact disks, MP3 and JPEG, transforms, error correction, noise removal); symbolic dynamics (encoding of symbol streams, like the genetic code, and associated dynamical systems and formal languages); and visualization (how can different kinds of information be vividly and usefully presented, combined, and compared?) These topics are mathematically accessible to anyone with a high school background and offer many possibilities for experimentation and theoretical exploration. Students will undertake individual or group projects using existing software for encoding and decoding messages, enhancing and compressing images, transforming and filtering signals, measuring properties of information sources, and so on. They will report on their work in writing and orally to the seminar. Discussions will be based on readings from a course pack as well as Simon Singh’s The Code Book (Doubleday, 1999), with associated theoretical investigations.

Karl Petersen was born in Tallinn, Estonia, and grew up in East Orange, New Jersey. His degrees are from Princeton and Yale, and he has held visiting positions at universities in Austria, Chile, France, and India. Petersen’s research area is ergodic theory, a fairly new branch of mathematics which applies probability and analysis to study the long-term average behavior of complicated systems, with applications ranging from celestial dynamics through interactions of biological populations to the efficient transmission and recording of information. Favorite activities include tennis and hiking in the Smoky Mountains.

**MATH 058H-001**: Math and Art: Symmetry without Fear

**Thomas Brylawski**

12:30-1:45 TR

Quantitative Intensive (QI)

Honors program students have priority in registering for this course.

I will (with student input) mathematically classify (using only high school geometry) rosette patterns (such as an asterisk or a hubcap), the eight frieze patterns (such as a zigzag or a zipper), and the seventeen wallpaper patterns (such as a checkerboard or a honeycomb). Then, the students will take over exhibiting patterns from various cultures and local instances (e.g., brick patterns on the UNC campus). I will also teach how to create Escher-like patterns and students can create such patterns (using, e.g., The Geometer’s Sketchpad program available for extra credit). The serious student by the end of the course will understand and appreciate how mathematicians classify things: which they consider the same and which different. Also he or she will see how visual beauty gives rise to mathematical beauty and vice-versa.

Thomas Brylawski has been a member of the UNC Mathematics Department since receiving his PhD from Dartmouth and MIT in 1970. His research includes the relationship between math and art. He has given math and art lectures at the Ackland, National Gallery, and Corcoran Gallery, and to such diverse audiences as his nephew’s second grade class, local high schools, course for UNC art and math majors and graduate students, Community Outreach, as well as Peer Learning and Elder Hostel (seniors). His math research specialty is combinatorics (one of his students was Umberto Eco.) He ran with the bulls at Pamplona, participated in the 1963 March on Washington, and directed the cooperative junior abroad program in Bologna (1990-91). He paints and has many collections.
MATH 062H-001*: Combinatorics
Ivan Cherednik
11:00-12:15 TR
Quantitative Intensive (QI)

*Honors program students have priority in registering for this course.

A leading expert in Modern Combinatorics wants to share his vision of the subject with students. The seminar is a perfect background for future specialists in computer science, mathematics, biology, economics, physics, for those who are curious about cryptography and how the stock market works, as well as for everyone who likes mathematics. High school Algebra II is the only prerequisite!

Combinatorics is “the theory of combinations and the science of counting”. Practical and theoretical problems of all sorts – mundane matters like designing a railroad time table, or calculating how many phone numbers a community needs, foundations of computer science, genomics, architecture, nuclear physics, military tactics, and the top priority directions like cryptography and stock market – have all been improved by the discipline of Combinatorics.

In this class, we will learn about Combinatorics by puzzling through (among other things) dominoes, magic square, roulette, and the stock market. Our aim is to understand the ingenious and fascinating methods that have been developed to solve (what mathematicians call) “problems involving finite sets of objects.” Future card sharks, stock brokers, physicists, biologists, engineers, administrators, and anyone else who has to make sense of large numbers of things: this class is for you!

Professor Ivan Cherednik is Austin H. Carr Distinguished Professor of Mathematics. Trained at the Steklov Mathematics Institute of the Soviet Academy of Sciences, and at Moscow State University, his areas of specialization are Representation Theory, Combinatorics, Number Theory, Harmonic Analysis, and Mathematical Physics. Cherednik’s particular affection for Combinatorics is well known: he proved the celebrated Constant term conjecture in Combinatorics. His Math 148 course on Combinatorics is especially popular with computer science majors.

MUSIC
MUSC/PHYS 051-001: The interplay of Music and Physics
Laurie McNeil and Brent Wissick
2:00-2:50 M
2:00-3:40 W
Communication Intensive (CI); Physical and Life Science (PL)

This course is for students who are interested in how music is made, how sound is produced in instruments, and how those sounds have been used in music making from the twelfth century to the present day. Students study the basics of physics and music: wave motion, resonance, the perception of sound, scales, harmony, and music theory. The final project is a public performance of an original composition, a suite written especially for an “orchestra” made up of instruments that the students have constructed.

Laurie McNeil spent her childhood in Ann Arbor, Michigan before going off to study Chemistry and Physics at Radcliffe College (Harvard University) and Physics at the University of Illinois at Urbana-Champaign, where she received her Ph.D. in 1982. After spending two years doing research at MIT, she came to Chapel Hill, where she has taught elementary physics, optics, solid-state physics, and materials science. Her seminar grows out of her life as a choral singer (and, earlier, a violinist and recorder player). When not singing with the Choral Society of Durham,
she can be found in her laboratory using lasers to study the properties of materials.

Brent Wissick is an Associate Professor of Music who specializes in cello, viola da gamba and chamber music. He has a particular interest in performance practices of the 16th-18th centuries and is President of the Viola da Gamba Society of America. He has recorded several CDs with American Bach Soloists and has given concerts and lectures throughout North America, Europe, Asia and Australia.

This semester we have accomplished a great deal in our freshman seminar on short stories by Latina/o writers, that revolve around imagined and textually described or conjured photographs. We have read and analyzed nine incredibly rich stories. We have studied a good deal of semiotic, cultural studies, and literary theory — quite an accomplishment at the first year level. And, each of the seminar participants has written critically and creatively innovative essays and, in some cases, devised mixed media or intermedia projects involving both text and actual photographs. The seminar has provided participants with a multilayered understanding of complex historical and cultural experiences pertinent to the umbrella rubric “Latina/o,” of the parameters of the short story as an art form, and of the pervasive role of photography in our lives.

–María DeGuzmán, English,

MUSC 057-001: Music and Drama: Verdi’s Operas and Italian Romanticism

John Nádas
2:00-2:50 MWF

Communication Intensive (CI); Literary Arts (LA); The World Before 1750 (WB)

Why does opera - this ancient and most artificial of arts - continue to attract growing audiences? Because opera entertains them in a special way. Of course, there are the skeptics who may sneer about the fat sopranos, the preening tenors, and silly plots. The truth is greater than that, however, for opera can touch the soul as few arts can, when the audience is receptive to its magic. Most importantly, unlike musical concerts and spoken plays, opera combines several arts in a unique way. First and foremost, language and music together can do what neither could do alone. Perhaps no better examples of this art form can be found than the stunning operas created during the nineteenth century in Italy, especially those of Giuseppe Verdi. Most important for his career, a distinctive Italian brand of Romanticism was formulated by which Verdi’s artistic tastes were formed and one in which his imagination was nourished, very much stimulated by the Romantic literature of northern Europe. Schiller, Hugo, and especially Shakespeare were the touchstones of his sensibility and encouraged his propensity for boldness and originality of operatic subjects. We will trace Vedri’s artistry from early works such as Nabucco, Ernani and Macbeth, through the brilliance of Triviata, Rigoletto and Trovatore, and finally to one of the sublime masterpieces from the end of the century, Otello. The class will also include weekly reading and listening assignments, class participation in discussions, two brief papers as follow-ups to class viewings of operas, mid-term and final exams, and a final project: interpretative and analytic presentations plus a written paper.

John Nádas (Gerhard L. Weinberg Distinguished Professor in the College of Arts and Sciences) was born in Caracas, Venezuela. He received a B.F.A. in music from Tulane University in 1968; an M.A. from Villa Schifanoia (Florence, Italy) in 1975; and a Ph.D. in musicology from New York University in 1985. He taught at the University of California at Santa Barbara in 1982-83 before joining the faculty of the University of North Carolina at Chapel Hill. He has been a fellow of the Harvard Center for Italian Renaissance Studies (Florence, Italy, 1987-88). He was a Visiting Professor at Harvard University during fall 1998. Professor Nádas is presently Editor-in-Chief of The Journal of Musicology and a member of the editorial boards of Recercare and the series “Ars Nova: Collana di Riproduzioni Fotografiche delle Fonti Italiane del Tre-Quattrocento” (Lucca: Libreria Musicale Italiana). His interests include the music of 14th- and 15th-century France and Italy, Monteverdi, and 19th-century Italian opera.
MUSC 061H-001*: Reverberations

Mark Katz
11:00-11:50 MWF

Communication Intensive (CI); Social and Behavioral Science (SS)

*Honors program students have priority in registering for this course.

The same musical performance can represent different things to different people who experience it. For example, a singular performance of Balinese Gong Kebyar can represent the “authentic” sounds of paradise for the tourist, cultural pride mixed with the feeling of financial security for some of the performers, the cynicism of cultural sell-out for others amongst the performers, and a conundrum for the researcher or student trying to understand all of these perspectives. Class discussions will focus on how we represent music cultures to ourselves and what happens when we take the representations back.

MUSC 063H-001*: Music in Stage and Screen

Anne MacNeil
11-12:15 TR

Visual and Performing Arts (VP); Communication Intensive (CI)

*Honors program students have priority in registering for this course.

Music on Stage and Screen is designed to offer students the tools and techniques for understanding multi-media, staged musical works like opera, musical theater, and film. The goal of the seminar is to develop students’ analytical skills in verbal and non-verbal media and to encourage their visualization of the potential and implications of artistic forms and structures. No ability to read music is required. We will discuss musical, visual, and textual narratives, source materials, and the various means by which such multi-media artworks are transmitted to modern audiences (written scores, LPs/CDs, staged performances, movies, etc.). But analysis does not stop with the examination of existing materials. Seminar participants will also engage in practical issues of design as a way of presenting their analyses of dramatic musical structures. By asking members of the class to work with the material context of scenes, students are encouraged to consider their own creativity as an analytical statement and as an integral part of the historicized life of a work of art.

Music on Stage and Screen is designed to accommodate a continually changing repertory of staged musical works. This approach allows the class to take advantage of live performances by local and regional companies, like the UNC Opera Workshop, Playmakers Repertory Company, the Opera Company of North Carolina, the Washington National Opera, and the National Theatre.

Anne MacNeil is an Associate Professor in the Music Department. She holds an MA in Music History from the Eastman School of Music and a PhD in the History and Theory of Music from the University of Chicago. Before joining the faculty at UNC, Professor MacNeil taught at Northwestern University and the University of Texas at Austin. She has been a Fellow of the American Academy in Rome since 1992 and serves on the Academy's Advisory Council. She became a fellow of the American Association of University Women in 2004. Professor MacNeil’s areas of specialization include music of the sixteenth and seventeenth centuries, music and spectacle, commedia dell’arte, opera, performance studies and historiography. Her current research encompasses early-modern laments, operatic settings of tales of the Trojan Wars, and the intersections of music, ceremony, and biography in the lives of the Renaissance princesses Margherita Farnese and Eleonora de’ Medici. Additional information concerning Professor MacNeil’s teaching and publications may be found at http://music.unc.edu/faculty/.

PHILOSOPHY

PHIL 054-001: Thinking About Time

John Roberts
3:30-4:45 MW

Historical Analysis (HS); North Atlantic World (NA)

What is time? Do the past and the future exist, or only the present? Is the “flow of time” an objective feature of reality, or is it just an illusion created by the way we humans experience the world, which is static and changeless in itself?
Is it conceptually possible to change the past, and if not, then why not? Is time travel a logical possibility? In this course, we will examine both historical and contemporary attempts to grapple with these problems (and related ones), and will do some grappling on our own. We will consider philosophical literature from 2500 years ago to the present day, and will briefly consider the impact of Einstein’s theories of relativity on these problems (at a very introductory level). Students will analyze historical arguments concerning these problems, produce arguments on their own, and collaborate in writing philosophical dialogues. Individually, each student will write six short papers, each with a different format. Working in pairs, the students also will write dialogues in which an issue discussed in the reading will be debated. They will present these dialogues in class, and each dialogue will be used as the basis of a discussion.

John T. Roberts is an Assistant Professor of Philosophy (Ph.D., University of Pittsburgh). His primary research interests are in philosophy of science, philosophy of physics and metaphysics. He has published articles on laws of nature and objective chance, and is currently working on problems in the philosophical interpretation of quantum mechanics. He loves contra dancing and traditional Cajun dancing (though he keeps these interests out of the classroom).

PHIL 055-001: Paradoxes
Keith Simmons
2:00-4:30 W

Paradoxes have been a driving force in Philosophy since the 4th Century B.C. They force us to rethink old ideas and conceptions. Aristotle famously said that Philosophy begins in wonder - and he had mind the kind of deep puzzlement that paradoxes generate. In this seminar, we will study a wide range of paradoxes: Zeno’s paradoxes about space, time and motion. Sorites paradoxes about vagueness (e.g. the paradox of the heap), paradoxes of rationality (e.g. Newcomb’s paradox and the Prisoner’s dilemma), paradoxes of belief (including paradoxes of confirmation, and the surprise examination paradox), and logical paradoxes (e.g. the Liar paradox about truth and Russell’s paradox about classes).

As we explore these paradoxes, we will wrestle with some of the most central and important philosophical questions: what is the nature of space, time and motion? Is the world a fully determinate place? What is it to act rationally? When is a belief justified? What is the nature of truth, and what are classes? But the paradoxes are not just important - they are fun, too. The encourage us to think creatively, in new and surprising ways. In this seminar, students will be given the opportunity to tackle the paradoxes themselves, through group discussions, oral presentations, and frequent written assignments. Student assessment will be based on in-class contributions as well as the written assignments. Philosophy is best viewed as a practice, as something one does. By actively engaging with he paradoxes, both orally and in their written work, students will develop the intellectual skills that make philosophical progress possible. My hope, then, is that this course will encourage some independent and original philosophical thinking.

Keith Simmons is from London, England. He has a B.A. in Mathematics and Philosophy from the University of Keele, a M.Phil. in Philosophy from University College, London, and a Ph.D. in Philosophy from UCLA. He is now Professor of Philosophy at UNC Chapel Hill, where he has taught since 1987. He is a lifelong supporter of Tottenham Hotspur Football Club - and still has an English accent! He has won the Tanner Award for Teaching Excellence.

PHYSIOLOGY

PHYI 050-001: Human Physiology
Richard Falvo
2:00-3:15 TR

The goal of this seminar is to provide students with an introductory view of the study of human physiology and how it relates directly to health and disease. This will be accomplished by limiting the number of topics to be covered. The final project will be for students, working in groups of 3, to prepare a final project topic of their choice,
which will take the form of a patient education document[s], which would be suitable for distribution to the audience of their choice. The project will also include a selective and annotated bibliography of the topic chosen. The format of the document can be written, a PowerPoint type presentation or WWW based.

Richard E. Falvo (BS, MS, Biology, Duquesne University; Ph.D., Zoology and Physiology, University of Wyoming) is an adjunct professor in the Department of Cell and Molecular Physiology in the School of Medicine. His interests are in general physiology, endocrine physiology and aging. His is co-organizer of the International Aging Symposia [held every other year in Bregenz, Austria] and edits the proceedings which are published in Experimental Gerontology. He also participates in the Endocrine Society’s outreach program to minority institutions. His previous experience in teaching has been at all levels and he has been very active in directing small group learning activities.

PHYSICS & ASTRONOMY

PHYS/MUSC 051-001: The interplay of Music and Physics

Laurie McNeil and Brent Wissick
2:00-2:50 M
2:00-3:40 W

Communication Intensive (CI); Physical and Life Science (PL)

This course is for students who are interested in how music is made, how sound is produced in instruments, and how those sounds have been used in music making from the twelfth century to the present day. Students study the basics of physics and music: wave motion, resonance, the perception of sound, scales, harmony, and music theory. The final project is a public performance of an original composition, a suite written especially for an “orchestra” made up of instruments that the students have constructed.

Laurie McNeil spent her childhood in Ann Arbor, Michigan before going off to study Chemistry and Physics at Radcliffe College (Harvard University) and Physics at the University of Illinois at Urbana-Champaign, where she received her Ph.D. in 1982. After spending two years doing research at MIT, she came to Chapel Hill, where she has taught elementary physics, optics, solid-state physics, and materials science. Her seminar grows out of her life as a choral singer (and, earlier, a violinist and recorder player). When not singing with the Choral Society of Durham, she can be found in her laboratory using lasers to study the properties of materials.

Brent Wissick is an Associate Professor of Music who specializes in cello, viola da gamba and chamber music. He has a particular interest in performance practices of the 16th-18th centuries and is President of the Viola da Gamba Society of America. He has recorded several CDs with American Bach Soloists and has given concerts and lectures throughout North America, Europe, Asia and Australia.

PHYS 053-001: Handcrafting in the Nanoworld: Building Models and Manipulating Molecules

Michael Falvo
9:30-10:45 TR

Physical and Life Science (PL)

What is nanotechnology anyway? Scientists of all stripes are now actively exploring the wonderful and bizarre world of the nanoscale (one nanometer equals one billionth of a meter). This is the scale of molecules, DNA, carbon nanotubes and a host of other fascinating nano-objects. At this scale, nature has different rules, some of which are beautiful and unexpected. Scientists have only begun to learn

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these rules. We have also only begun applying this new knowledge to technology. Can we make computers using single molecule transistors? How do viruses and other bio systems “assemble” themselves? Can we build molecular machines that cure disease or clean up the environment? In looking at these questions, we will try to distinguishing the true promise of nanoscience from the hype. We will study the strange objects and properties of the nanoworld through class discussion and hands-on activities that include model building (with model kits, Lego etc.), scientific journal composition, and actual nanoscale experiments.

Michael R. Falvo is a Research Professor in the Department of Applied and Materials Science. He received is BS in physics from the University of Illinois at Urbana-Champaign in 1991 and his PhD in physics from UNC-CH in 1997. His interest in nanoscience began after a wrestling match with a tobacco mosaic virus in 1994. Since then he has stretched, squashed, rolled, and electrified nano-objects of all kinds. Though he does this mainly because its fun. He also writes papers describing what these experiences tell him about the properties of the nanoscale. Otherwise, you can find him hanging out playing with Lego, tending to his gardens, and reading board books with his wife and son in Durham.

**PHYS 071-001: Power Down: Preparing Your Community for the Transition from Cheap Oil**

Gerald Cecil  
2:00-4:30 W  
Quantitative Intensive (QI); Physical and Life Sciences (PL)

Cheap domestic oil propelled the USA to world economic and military dominance, and has allowed us to feed and hence boost world population. Now that half of the world’s oil supply has been consumed and the rest is concentrated in unstable nations, prices are expected to rise inexorably. The effects in the first world will be to reduce dramatically the personal mobility and energy consumption that we take for granted, ending suburban sprawl and immigrant driven economic growth. In the developing world, agricultural productivity hence population will shrink. This

**CITY AND REGIONAL PLANNING**

**PLAN 052-001: Race, Sex and Place in America**

Michelle Berger  
11:00-12:15 TR  
Social & Behavioral Science/Other (SS)

This first year seminar will expose students to the complex dynamics of race, ethnicity, and gender and how these have shaped the American city since 1945. It will examine both the historical record as well as contemporary works of literature, film and music to probe the ways race, sex, and ethnicity have contributed to the culture of our cities and popular perceptions of urban life in the United States. It will also explore the different ways women and men perceive, understand, occupy and use urban space and the built environment. Drawing upon the scholarship of several disciplines (sociology, political science, urban planning, women’s studies, and American history), the seminar will examine a
My First Year Seminar experience was one of fascination, curiosity, and collaboration. I participated in an oceanography seminar with Dr. Chris Martens. We discussed wild habitats and natural phenomena. At the same time, we acknowledged the relevance of these habitats to (and of nature’s behavior on) the lives of humans. We traveled around the world on virtual tours. We also took a trip to explore the Outer Banks of North Carolina. I highly recommend taking a First Year Seminar.

–Emily H.

Michele Tracy Berger is an assistant professor in the Curriculum in Women’s Studies at the University of North Carolina, Chapel Hill. In 1999, she received the Distinguished Dissertation Award from the University of Michigan and the Best Dissertation Award (Women and Politics Section), from the American Political Science Association. Her research interests include AIDS activism, health policy, and media representation of female drug use during the 1990s. She is the co-editor of Gaining Access: A Practical and Theoretical Guide for Qualitative Researchers (2003). “Workable Sisterhood: A Study of the Political Participation of Stigmatized Women with HIV/AIDS” is an ethnographic study about the lives of stigmatized women (former drug users and sex workers) with HIV/AIDS who became politically active in Detroit. This manuscript is being published by Princeton University Press in 2004.

PLAN 053-001: The Changing American Job
Nicola Lowe
12:30-1:45 TR
Social & Behavioral Science/Other (SS), Communication Intensive (CI)

What will the U.S. labor market look like four years from now when you graduate from UNC? How will employment opportunities and employer skills requirements differ from those facing your parents a generation or two ago? What types of job seeking support and assistance will you likely need to navigate this fluid labor market environment? This course explores these questions by looking at the changing nature of the American job and the transformative forces—from global trade and outsourcing to corporate restructuring and new skill demands—that have influenced this change in the past three decades. We will consider how these changes are experienced differently by urban and rural residents, by men and women and by members of different socio-economic classes and ethnic groups, including the native and foreign-born. We will also consider local and regional strategies for helping today’s U.S. workers respond to this changing work environment, such as efforts to link competitive-enhancing retraining and industry upgrading programs; the creation of new partnerships between employers and labor market intermediaries, such as staffing agencies, labor unions and non-profits; and finally, community organizing around workplace justice. The course will not only help you think about the larger economic and policy implications of U.S. labor market restructuring, but how the forces behind this change also affect your own job prospects and career advancement opportunities.

Professor Nicola Lowe’s research focuses primarily on local economic development and adjustment in the NAFTA member nations—the United States, Canada and Mexico. She is especially interested in the local support systems that enable firms to engage in innovative activities, particularly during periods of economic volatility. A central concern of her work is the accountability of business assistance and workforce development programs to the larger host community. Her research not only raises questions about the impact of local support systems on firm performance and survivability, but the degree to which supporting actors—both public and private—can shape the upgrading and upskilling path of local firms in ways that reflect and reinforce higher-order developmental goals and
community values. Professor Lowe received her doctorate in 2003 from the Massachusetts Institute of Technology and joined the Department of City and Regional Planning at UNC Chapel Hill in 2005.

**PLAN 054-001: Bringing Life Back to Downtown: Commercial Redevelopment of North Carolina’s Cities and Towns**

Paul Kapp  
9:30-10:45 TR  
Social & Behavioral Science/Other (SS)

The course objective is to understand the current realities of inner-city communities in the context of their historical evolution and the current proposals for revitalization. Each student selects one city or town for case study work. The student is expected to become familiar with 1) the current situation to include redevelopment problems facing the area, the strategies supported by community leaders, the sites under consideration for commercial redevelopment, and the redevelopment plans for those sites; 2) the history of the place with emphasis on the community’s early economic functions, why the area has failed to experience relative prosperity over time, and how current problems came to the fore; 3) plausible explanations of redevelopment problems; and 4) the viability of commercial redevelopment strategies and site-specific proposals. An important skill to be developed in the course is the ability to use scholarly research to understand the issues and to evaluate alternative redevelopment strategies.

*Paul Kapp is the preservation manager at Carolina. He received his architectural education from Cornell University, and a Master of Science in Historic Preservation from the University of Pennsylvania. Prior to coming to Carolina in 2002, he had his own practice as a historical architect in Galax, Virginia where he had the pleasure of working on renovation and restoration work at Colonial Williamsburg and James Madison’s Montpelier. His primary responsibility at UNC is to insure that the rehabilitation of the historic buildings and grounds on campus are performed in a manner that respects the historic, architectural and landscape qualities that are so dear and important to the historic Carolina campus.*

**POLITICAL SCIENCE**

**POLI 055-001: Democracy and the Civic Ideal**

Stephen Leonard  
8:00-9:15 TR  
Beyond the North Atlantic (BN)

“Democracy and the Civic Ideal” explores the development of modern democratic sentiments and values in the history of the civic ideal in the West. We begin by examining the theory and practice of classical Greek democracy, then moving through Roman republicanism, early modern republicanism, the liberal revolutions of the 17th and 18th centuries (England, US, and France), and finishing with contemporary American democratic politics. We will use a variety of approaches and resources: simulations, films, re-enactments, panel discussions, and, of course, texts. Our goal will be to meet the challenge of marshalling good arguments and compelling evidence in political analysis. Students will put these skills to work by developing research projects on democratic politics. (This seminar has been developed with the aid of a William C. Friday Award for Instruction in the Civic Arts).

Stephen Leonard has been teaching at Carolina since 1985. His intellectual interests are in democratic theory and the history of political thought, the history and philosophy of higher education, and the philosophy of social and political inquiry. When he isn’t working, Professor Leonard can usually be found with a wrench in hand and grease on his clothes; his favorite hobby is restoring classic Volkswagens.
The use of political power stands at the center of our experiences in an organized society; yet we know little of how successful leaders exercise their influence. For the most part, leaders carry on the business of power out of the limelight, in controlled circumstances, and away from observation. Students listen to confidential records of presidential bargaining between the administration and member of Congress, and heretofore-secret recordings of phone conversations between the President and other leaders in order to assess their persuasive tactics.

Terry Sullivan (PhD, University of Texas) is a professor in the Political Science Department. His research focuses on developing a better understanding of how Presidents have led in the post-WWII era.

This course will present political institutions as levers of conflict management in ethnically plural, post-conflict national states. To highlight the issues that lie behind constitutional design attention will be focused on a province in turmoil within an established democracy (Northern Ireland), a democratizing state (South Africa), an ethnically divided society in the South Pacific (Fiji), and post war institutional design (either Afghanistan or Iraq). These states will be analyzed in terms of their paths toward democracy, the nature of their internal conflict, and the types of political institutions they have (or are) adopting. Key to the class will be the student's focus on their own case study of a democratizing state. The class will be briefed on the core ‘building block’ choices that go into a new constitution and the importance of rooting institutions in the distinct historical and socio-political characteristics of a nation. Through lectures, videos, and discussions we shall investigate how nations can seek to transform violent conflict into democratic debate.

Andrew Reynolds, Associate Professor of Political Science, received his M.A. from the University of Cape Town and his Ph.D. from the University of California, San Diego. His research and teaching focus on democratization, constitutional design and electoral politics. He has worked for the United Nations, the International Institute for Democracy and Electoral Assistance (IDEA), the UK Department for International Development, the US State Department, the National Democratic Institute, the International Republican Institute, the Organization for Security and Cooperation in Europe (OSCE) and the International Foundation for Election Systems. He has also served as a consultant on issues of electoral and constitutional design for Afghanistan, Angola, Burma, Fiji, Guyana, Indonesia, Iraq, Jordan, Kenya, Liberia, Netherlands, Netherlands Antilles, Northern Ireland, Sierra Leone, South Africa, Yemen, and Zimbabwe; most recently in Kabul reporting on election preparations in Afghanistan and in Rangoon, Burma. He has received research awards from the U.S. Institute of Peace, the National Science Foundation, and the Ford Foundation. Among his books are The Architecture of Democracy: Constitutional Design, Conflict Management, and Democracy (Oxford, 2002), Electoral Systems and Democratization in Southern Africa (Oxford, 1999), Election '99 South Africa: From Mandela to Mbeki (St. Martin's, 1999), and Elections and Conflict Management in Africa (USIP, 1998), co-edited with T. Sisk. He is currently working on a book titled First Do No Harm: Applying the Lessons of Medicine to the Art of Constitutional Design. His articles have appeared in journals including World Politics, Democratization, Politics and Society, Electoral Studies, The Journal of Commonwealth and Comparative Politics, and Political Science Quarterly. He has published opinion pieces in the Washington Post, Chicago Tribune, Christian Science Monitor, and San Diego Union Tribune. His work has been translated into French, Spanish, Arabic, Serbo-Croat, Albanian, Burmese, and Portuguese.
PSYCHOLOGY

PSYC 054-001: Families and Children
Beth Kurtz-Costes
11:00-11:50 MWF
Social & Behavioral Science/Other (SS)

In this First Year Seminar we will consider family as a context for children's development. Contemporary families are highly diverse, and topics covered in class reflect this diversity. We will examine characteristics of traditional, divorced and step families, single parents, gay and lesbian parents, and immigrant families. In addition to taking two examinations, students will interview a family member and write a five-page paper based on that interview. Each student will also give a class presentation on a family-related topic.

Beth Kurtz-Costes (Ph.D., University of Notre Dame) is Associate Professor in the Psychology Department. Her research focuses on family and cultural influences on children's development. Her family includes her husband, who is French, a daughter approaching adolescence, and a very cheerful dog.

PSYC 062-001: Positive Psychology: The Science of Optimal Human Functioning
Barbara Fredrickson
11:00-12:15 TR
Social and Behavioral Sciences/Other (SS); Communication Intensive (CI)

This course invites students to explore the opportunities presented by the vibrant and emerging field of Positive Psychology.

Positive psychology is a movement that challenges the field of psychology to reconsider the positive aspects of life. Instead of drawing exclusively from a "disease model," it encourages research on strengths as well as weaknesses, on building the best things in life as well as on repairing the worst, and on making the lives of normal people fulfilling as well as on healing pathology. Topics of study include happiness, positive emotions, resilience, creativity, finding meaning, and optimism. One basic premise of positive psychology is that human flourishing - a life rich in purpose, relationships, and enjoyment - will not result simply by curing pathology and eliminating behavioral and emotional problems. Rather, flourishing requires building and capitalizing on human strengths and capacities. Another basic premise is that human flourishing involves unlocking or building potential resources, capabilities and capacities at multiple levels - in people, and also within groups and systems. A focus on generative dynamics leads researchers to consider the roles of positive emotions, positive relationships, and positive cognitions as keys to explaining human and collective flourishing.

This course will challenge students to engage with the core topics and foundational research and theories of positive psychology. Coursework will involve reading, group exercises, and personal reflections. My hope is that as you learn about positive psychology, you will also learn about how to enhance your own health and happiness and that of the communities and organizations around you.

Barbara Fredrickson is Kenan Distinguished Professor of Teaching in the Department of Psychology. She received her Ph.D. from Stanford University in 1990. Her research centers on emotions, especially positive emotions. Among other topics, she explores the conditions that promote human flourishing and optimal well-being. Her research and teaching have received multiple awards and international recognition.

PSYC 065-001: Judgment and Decision Making in Everyday Life
Lawrence J. Sanna
12:30-1:45 TR
Social and Behavioral Sciences (SS)

This course focuses on understanding people's judgment and decision making processes in everyday life. Throughout our lives, we make decisions both big (e.g., choosing a career, ending a romantic relationship) and small (e.g., wondering whether we ordered pizza from the best place in town). How do we make decisions such as these? Why do many of our decisions produce very strong feelings and emotions within us? What biases our decisions? How can we make better decisions in the future? What
aspects of judgment and decision making are beyond our control and purview? Social psychologists have become the vanguard in judgment and decision making research, borrowing many ideas from cognitive, personality, developmental, and clinical psychology. Although we will examine judgment and decision making from a social psychological perspective, we will draw upon other areas of psychology and other interdisciplinary approaches (e.g., economics, decision sciences) as well.

Lawrence J. Sanna is an Associate Professor of Psychology and Director of the Social Psychology Program at the University of North Carolina at Chapel Hill. He earned a B.S. at the University of Connecticut and M.S. and Ph.D. at the Pennsylvania State University. Dr. Sanna has published numerous book and articles on the fascinating interrelations between people's motivations, thoughts and feelings, and behaviors as they transpire over time in individual, group, and organizational contexts.

PUBLIC POLICY

PLCY 050-001: Environment and Labor in the Global Economy

Richard Andrews
2:00-3:15 TR

The rapid recent globalization of manufacturing and finance raises important public policy issues concerning impacts on the environment, labor, and communities. Does the globalization of business harm the environment, working conditions, and human rights, or improve them? Under what circumstances, and what public policies are needed to assure that these values are protected? What are the recent anti-globalization protests about, and do their arguments have merit? How do these issues affect us as individuals, and what responsibility do institutions such as universities bear, as well as businesses and governments, in responding to them? This first-year seminar will explore these issues, using as case studies several major companies that manufacture products in less-developed countries for the U.S. market.

Richard N. L. Andrews is Thomas Willis Lambeth Distinguished Professor of Public Policy. He teaches environmental policy, and also co-chaired the chancellor’s advisory committee on labor issues in the manufacture of items with UNC’s name on them. In addition to the United States, he has worked on comparative studies of environmental policy in the U.S. and Europe and on environmental policy problems as a Fulbright scholar in Austria and Bulgaria, with U.S. AID support in the Czech Republic and Thailand, and as a Peace Corps volunteer in Nepal.

PLCY 070-001: National Policy: Who Sets the Agenda?

W. Hodding Carter
11:00-12:30 TR

The United States is governed by democratically elected leaders. According to theory, they both represent the people and lead them, setting and implementing policies to further prosperity and justice at home and security abroad. But who and what actually sets the nation’s policy agenda? The President? Congress? The media? Special interests? Dramatic and unexpected events—9/11, for example—or carefully calibrated long-term plans? Variable public opinion or inflexible ideological zeal? These are some of the questions with which we will wrestle in a freshman seminar that will combine close attention to current events and policies with a deeper look at specific case histories drawn from the past three decades.

Each student will be required to take fact-based positions and defend them publicly. We will be reading extensively and writing regularly. There will be no “right” positions required in this course, but intellectual rigor and an open mind will be prerequisites.

Hodding Carter has been actively involved in local, state and national politics, held high level federal office and reported and commented extensively on public events of the past 47 years as a print and television journalist. As a tenured professor at the University of Maryland, he taught courses on the close relationship between media and government and the failure of both to serve adequately the interests of the people. As State Department spokesman,
he was the public face of the nation's foreign policy. As a private citizen, he has taken leadership and advocacy roles on significant domestic and foreign policy issues.

PLCY 075-001: Two Nations: The Growing Divide in American Society
Joel Schwartz
12:30-1:45 TR
Social & Behavioral Science/Other (SS)

The divisions in American society and politics, those of region, race, religion, and ethnicity, that historically were central lines of conflict are today increasingly less important. They have been replaced by class differences. Furthermore, class status is being transferred intergenerationally, thus making social and economic mobility more difficult to achieve. In the past, an expanding economy, democratization of education, and the struggle against various forms of discrimination created a country of great opportunity although African-Americans were not able to share in this open society. For most however, the United States was the most broad-based middle-class society ever. Despite this growth, the past 25 years have been years of economic stagnation and regression for all but those at the top. Income and wealth disparities have widened. Public school, housing, and health care systems are becoming increasingly separate and unequal. We are becoming two distinct societies—one affluent and the other increasingly marginalized and characterized by many of the attributes of a third world country. In this class we will examine the public policies that first created a broad-based middle class and then the policies that have undermined the existence of this same middle class.

Joel Schwartz has taught at UNC-CH thirty-seven years and received eight teaching awards during this time. He graduated from Harvard College with a B.A. in 1960 and from Indiana University with a Ph.D. in 1965. From 1987-1994 he was the Director of the Center for Teaching and Learning. His teaching interests are in American social and health policy.

RELIGIOUS STUDIES

Ruel Tyson
9:30-10:45 TR
Philosophical and Moral Reasoning (PH)

*Honors program students have priority in registering for this course.

Before the arrival of the entrepreneurs in the contemporary meaning of the term, there were prophets, poets and scientists. The students in this course will identify, characterize, and compare strong cases from each of these types of change agents. In what ways were they all practitioners of that elusive skill and virtuosity we call “charisma”? What does the poet have to say to the prophet, the scientist/philosopher to both? How do the methods and imaginations of each equip students to be entrepreneurial in their own learning, their own ventures while continuing their education at this university?

Ruel W. Tyson Jr. has been at UNC-Chapel Hill for 33 years, serving as chair of the Department of Religious Studies, founding director of the Carolina Seminars Program, and founding director of the Institute for the Arts and Humanities. He received the Salgo Distinguished Teaching Award and the Chancellor's Award. He is also a member of the Golden Fleece at UNC-Chapel Hill. While he is a native of flat, sandy, and humid eastern North Carolina, he has now cast his roots in the Blue Ridge Mountains of North Carolina.

RELI 069-001: Gender and Sexuality in Contemporary Judaism
Yaakov Ariel
3:30-4:45 TR
Social & Behavioral Science/Other (SS)

In recent decades, issues of sexuality and gender have strongly influenced religious life in America and elsewhere. New understanding of the role of women, and growing choices and freedoms in the realm of sexuality have strongly affected the Jewish
community, reshaping the tradition and the manner in which it is practiced.

The course will offer students an opportunity to study the manner in which social and cultural changes affect religious practices and norms. It will further examine the reactions of Jewish groups to the demands for the inclusion of women and gays in their religious and communal lives. Taking a global perspective, we will compare the manner in which Jewish communities in America, Israel, Europe, Asia and Africa have accommodated themselves to the changing norms in gender and sexuality.

Yaakov Ariel is a graduate of the University of Chicago. He spent many years in Jerusalem where he became acquainted with numerous groups and individuals who were waiting for the arrival of the Messiah. While Ariel did not become convinced that the Messiah was to arrive soon, he has considered messianic ideas to be an important part of contemporary culture and a fascinating topic of study.

REL 073-001: From Dragons and Foxes to Godzilla and Pokemon: Animals in Japanese Myth, Folklore and Religion

Barbara Ambros
3:30-4:45 TR

Literary Arts (LA); Communication Intensive (CI);
Beyond the North Atlantic World (BN)

This course examines the cultural construction of animals in Japanese myth, folklore, and religion. The course will cover various kinds of animals: those that occur in the natural world (insects, snakes, foxes, badgers, monkeys), those that are found in myths (dragons, tengu (goblins), oni (demons)), and those that have appeared in popular media such as science fiction and animation (Godzilla, Pokemon). We will discuss how images of various animals were culturally constructed as tricksters, gods, monsters, or anthropomorphic companions, how animals were ritualized as divine, demonic, or sentient beings in Buddhism, Shinto, and folk religion, and how animals could serve as metaphors that embodied collective ideals or nightmares.

Barbara Ambros (Ph.D. Harvard University) teaches East Asian Religions in the Religious Studies Department.

Her research interests include pilgrimage and sacred mountains in Japan, the religions of Asian diaspora communities in Japan, and animal memorial rites in contemporary Japan. She is particularly interested in methodological issues such as gender, space/place, and the modern construction of religious traditions. Before joining UNC in 2005, she taught at International Christian University in Tokyo, Japan. In her free time, she enjoys walking her dogs, scuba diving and road biking.

Being in a First Year Seminar really helped me to adjust to the new environment. My interactions with the class and the teacher were really great. In fact, I am still in touch with my professor and often visit her. The small class sizes encouraged constant interaction between the students themselves and the teacher. It fostered an atmosphere of positive vibes.

— Ankit T.

ROMANCE LANGUAGES

ROML 050-001: The Art and Science of Language

James Noblitt
9:30-10:45 TR

Social & Behavioral Science/Other (SS)

This seminar provides an opportunity to examine the impact of information technology on language use. Multimedia presentations in class will combine image, sound, and text to demonstrate the expressive uses of language in other cultures. Using the Romance languages for context, students will also examine issues that confront a multi-cultural society, such as the development of standards for oral and written communication as well as the linguistic aspects of power and prestige.

Previous study of a Romance language is not required, since readings are in English, but those who have studied a Romance language will find a new perspective on their previous language study. Students participate in an online discussion forum to create a dialogue on the various issues raised and to engage in collaborative learning. Readings for the course provide three focal points:
• Language & Evolution: What are the biological determinants of language?
• Language & Technology: How does writing differ from speaking?
• Language & Thought: Why does literacy lead to science?

Students are asked to explore the links between Arts and Sciences as they examine a variety of texts, from popular music to scientific prose. Particular emphasis is placed on the contribution of recent developments in the cognitive sciences to our understanding of human language.

The course grade will depend on an understanding of primary text readings, contributions to class discussion, and weekly submissions to the online discussion forum. In addition, students prepare a multimedia presentation for their class project consisting of research on actual language use. This seminar stresses critical thinking, originality, and creativity.

James S. Noblitt is Research Professor of Romance Languages and Director, Foreign Language Resource Center. He earned his B.A. and M.A. degrees at the University of Virginia and his Ph.D. at Harvard University. His academic training is in Linguistics and Romance Philology. The seminar combines the aesthetic analysis of language with insights from the cognitive sciences. Students use modern information technology to explore the broad range of issues raised by language study. Professor Noblitt’s recent honors include the 1996 Modern Language Association/EDUCOM medal for research and development in the use of information technology for language teaching and learning.

ROML 52: The Value of Language in Identity, Hispanics in the United States
Julia Mack
10:00-10:50 MWF

Social & Behavioral Science/Other (SS)

This course explores the cultural challenges for Spanish speaking immigrants in the United States, particularly the importance of language in culture and identity. Students are encouraged to consider news reporting and public policies regarding the Hispanic community and the importance of linguistic identity in artistic expression. Knowledge of Spanish is useful, but not essential, since readings will also be available in English. Class members will be encouraged to form personal ties with organizations and individuals from the Spanish speaking community. Students who plan to continue studying Spanish will have the opportunity to practice their Spanish language skills.

Julia Mack is passionate about language, which she considers magical, and “definitely an essential part of an individual’s identity,” a predictable opinion from the mother of three bilingual children. She experienced immigration and language issues first hand in Spain, Chile, Germany, Austria, her native Puerto Rico and the US Virgin Islands. With an M.A. in Linguistics, French and German from the University of Southern California and a Ph.D. from the University of Puerto Rico in Linguistics and Hispanic Studies, she considers herself an “intellectual migrant worker”.

SOCIOLGY

SOCI 058-001: Globalization, Work, and Inequality
Ted Mouw
9:30-10:45 TR

Global Issues (GL); Social & Behavioral Science/Other (SS)

This course will present a comparative and multidisciplinary perspective on how globalization affects labor markets and inequality. The course will consist of two parts. First, we will discuss basic sociological and economic models of work and globalization, and then students will apply these models to three case studies: 1) “sweatshops” and the question of international labor standards, 2) industrialization and development in China and Indonesia, and 3) immigration and economic integration between the U.S. and Mexico. The course will be taught in a seminar format and students will prepare research papers on one of the three case studies. Course format will be supplemented by the teacher’s current research on two questions:
1) What are conditions actually like for workers in Nike plants in Indonesia? (Interviews and a photo-narrative.)

2) How does the labor market work for undocumented Mexican workers? (Interviews from Carrboro, NC, part of my personal research project.)

Ted Mouw is a sociologist who studies social demography, labor markets, and inequality. He received his PhD (in sociology) and MA (in economics) in 1999 from Michigan. He is currently working on a project on globalization and low-wage labor markets. There are three components to this project: 1) Longitudinal evidence on “dead end jobs” and working poverty in the U.S., 2) immigration and the labor market for Mexican migrants, and 3) industrialization and labor conditions in Mexico and Indonesia. He has also researched the use of job contacts to find work and racial friendship segregation in schools. After college he lived in Indonesia for two years, where he taught English, studied Indonesian and Javanese, and climbed volcanoes.

SOCI 059-001: The Advocacy Explosion: Social Movements in the Contemporary U.S.
Kenneth Andrews
1:30-3:00 Thursdays
Social & Behavioral Science/Other (SS)

This course investigates the origins, dynamics, and influence of social movements in American society. We will examine why people join movements, how movements work, and the way that movements are able to affect broader changes in our society. We will focus on four movements that have led to major social, political, and cultural changes over the past several decades — the civil rights, women’s, environmental, and conservative movements. Over the semester, we draw on the ideas and research of sociologists, historians, political scientists, and others to provide a deeper understanding of social movements, and we will develop a more critical understanding of how society and politics have changed in recent years.

Kenneth (Andy) Andrews is Assistant Professor of Sociology. He received his PhD from SUNY-Stony Brook in 1997. His recent book - Freedom is a Constant Struggle - examines the influence of the civil rights movement on electoral politics, school desegregation, and social policies. His current research examines the growth and influence of contemporary social movements including the environmental movement in North Carolina.

SOCI 064-001: Equality of Educational Opportunity Then and Now
Karolyn Tyson
2:00-3:15 TR
Social & Behavioral Science/Other (SS)

Brown v. Board of Education Topeka, Kansas centers on one of the most significant and controversial issues in American public education: ensuring equality of educational opportunity. In commemoration of the 50th anniversary of the Brown v. Board of Education Supreme Court ruling on school segregation, students in this course will examine in-depth the social conditions that led to the case and the educational landscape since that time, including school segregation and other factors associated with equality of educational opportunity. Students will read historical and contemporary accounts and research reports on equality of educational opportunity, school segregation, tracking, and the achievement gap, view films related to these topics, and conduct interviews with classmates and individuals who experienced segregated schools during the pre-Brown era.

Karolyn Tyson is Assistant Professor in the Department of Sociology. She earned her doctorate in sociology in 1999 from the University of California at Berkeley. Her main fields of interest are sociology of education, social psychology, and social inequality. Dr. Tyson’s publications have addressed such topics as how schools reproduce social inequality and the role of the schooling experience in the development of attitudes toward school. Her overall program of research centers on understanding how cultural, structural, and individual-level factors affect school achievement and contribute to unequal educational outcomes.
Did you know the following? Among 40 randomly chosen people, it is very likely that two of them will have the same birthday. A test for a certain disease may be 99 percent accurate, and yet if you test positive, your chance of having the disease may be only 10 percent. There is a simple gambling system that guarantees you will win 90 percent of the time. But if you gamble repeatedly with this system, you will surely lose all your money. It is possible for baseball player A to have a higher batting average than player B for the first half of the season, and also for the second half of the season, but for player B to have a higher average for the season.

The theory of probability offers one approach to the uncertainty and chance that exist in the world. It leads, as you see above, to some surprising conclusions, and understanding these surprises adds to our understanding of how randomness works. In this seminar we will look at these and other seeming paradoxes, and learn how we can explain them. Each one will lead us to one or more of the basic concepts of probability theory. We will study these paradoxes using simple chance experiments with objects like dice and cards, or by computer spreadsheet calculations.

Douglas G. Kelly has taught statistics, operations research, and mathematics at UNC-CH for over thirty-five years, and is now a full-time faculty member in the Department of Statistics and Operations Research. Previously he served as Chair of the Department of Statistics and later as the Senior Associate Dean for the Sciences in the College of Arts and Sciences. His research interests have centered on the concept of randomness, and on how the study of random phenomena can shed light on other areas of science. He has worked in recent years as a collaborator with neuroscientists, and currently is interested in studying models of the evolution of cooperative behavior. Outside his professional life he is interested in, among other things, music and baseball.

Chuanshu Ji joined the UNC-Chapel Hill statistics faculty after getting his Ph.D. in 1988 from Columbia University. Ji’s research involves using statistics to quantify uncertainty and randomness in various problems in natural and social science. One example is to understand patterns of stock markets and predict their behaviors, where it becomes useful to present financial data graphically and run related computer simulation. He also teaches statistics and probability courses at undergraduate and graduate levels.
STOR 072-001: Unlocking the Genetic Code

J. Scott Provan
3:00-3:50 MWF

Quantitative Intensive (QI)

This seminar introduces students to the world of genetics and DNA, and in particular, the use of computers and operations research to organize and make use of the complex combinatorial, probabilistic, and statistical systems associated with understanding the structure and dynamics of DNA and heredity. The students will discuss the importance that knowledge of the structure of DNA can have on improving human life, the complexity of the related problems associated with understanding and using this information, and hands-on use of the computer to model and solve some of these complex problems. Grades will be based on class discussion, exams, and problem-solving assignments. No previous computer skills or mathematics beyond basic algebra are required.

J. Scott Provan obtained his Ph.D. in Operations Research from Cornell University in 1977. He taught at the State University of New York at Stony Brook from 1977 through 1982, and he spent 1980-82 as an NRC Postdoctoral Associate at the National Institute of Standards and Technology. He has been at the University of North Carolina since 1982. He held the Paul Ziff Term Professorship at the University of North Carolina and is a former chair of the department.
First year seminars go beyond lectures and discussions. They invite students to work together and become active learners. Engage with challenging issues, explore new and old ideas, and work with world-class professors. First year seminars go beyond discovery and action. Dr. J. Steven Reznick, Associate Dean, FYSB@unc.edu