Family Weekend 2018 Model Classes

Saturday, October 27, 2018

Model Classes are designed to introduce family members to our faculty, as well as their research and methods of teaching. Classes will be seated on a first-come, first-served basis until maximum capacity is reached.

Session 1: 9:30AM-10:30AM

Arabic Language & Culture
Osama abu-Eledam, Department of Near Eastern Languages & Civilizations
Cobb Hall, Room 409, 5811 S. Ellis Ave (31 seats)
The session will provide visitors with basic facts pertaining to Arabic language and culture. The Arabic script and the sound system of the alphabet will be introduced. Attendees will be able to learn a few expressions in Arabic (greetings and leave taking). Additionally, the session will focus on the Arab American population in Chicago and in the USA.

Beginning French
Nadine Di Vito, Department of Romance Languages & Literatures
Cobb Hall, Room 403, 5811 S. Ellis Ave (30 seats)
This class is a good indication of how we teach our beginning-level French language courses. The textbook and audiovisual materials, newly published by Georgetown University Press, were developed by the instructor and her UChicago colleague and are based in sociolinguistic and foreign language acquisition research.

Chicago Quarter Preview: The City and Its Immigrants
William Nickell, The Department of Slavic Languages & Literatures
Rosenwald Hall, Room 301, 1101-11 E. 58th Street (45 seats)
The Chicago Quarter is a study abroad program at home, offering students the opportunity to take three integrated courses devoted to the city of Chicago. This year the theme of the program will be immigration, a topic of great importance today as it has been in the city’s past. Founded in 1833, at the end of the 19th century Chicago was the 5th largest city in the world—with much of that growth coming through immigration. By that time the majority of the city’s immigrants were coming not from Ireland and Germany, but from southern and eastern Europe. The statue in New York Harbor welcomed these strangers, and in Chicago they found work in factories and created new neighborhoods, but they also faced prejudice, poverty, alienation—and eventually, restrictive quotas limiting their number. In this talk, I’ll give an overview of this history and suggest how it might help us better understand the conflicts we face today regarding immigration.
Child, Youth, and the Future of China  
*Dali Yang, Department of Political Science & Social Sciences*  
**Rosenwald 11, 1101-11 E. 58th Street (60 Seats)**

The true measure of any society is how it treats its children, who are in turn that society’s future. I draw on a forthcoming book *Child and Youth Well-being in China* to offer a look at China’s younger generations, explore how China is changing, and assess the implications for China’s future.

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**Classics and Code: Doing Digital Philology**  
*Helma Dik & Ethan Della Rocca, Department of Classics*  
**Ida Noyes Hall, East Lounge, 1212 E. 59th St. (100 seats)**

This lecture is about the many digital resources developed for students, and casual fans, of the Ancient Mediterranean. In this talk, we'll focus on my extracurricular collaborations with students in the College to build logeion.uchicago.edu, among other projects.

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**Difficult Modern Poetry**  
*Rosanna Warren, Committee on Social Thought*  
**Ida Noyes Hall, West Lounge, 1212 E. 59th St. (80 seats)**

We will consider several obscure poems by Laura Riding and W.H. Auden, and talk about obscurity as a feature of Modernism: its costs, its purposes, and its history.

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**Economics and Literature**  
*Allen R. Sanderson, Department of Economics*  
**Kent Chemical Laboratory, Room 120, 1020 E. 58th Street (174 seats)**

A particular book or movie may have as its focus some aspect of economics and be all about economics. *The Big Short* and *Wall Street* come to mind. But occasionally an author might be “doing economics” without even realizing it. This makes for good lecture fodder and exam questions, and in our hour together we will discover that economics is everywhere as we examine fun intersections in everyday reading.

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**Introduction to Data Science**  
*Dan Nicolae, Department of Statistics*  
**Rosenwald 15, 1101-11 E. 58th Street (60 seats)**

Data science provides tools for gaining insight into specific problems using data, through computation, statistics, and visualization. This is a lecture based on materials from the Introduction to Data Science course (CMSC 11800/ STAT 11800) illustrating how a real-world problem can be approached through statistical and computational reasoning.

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**Molecules that Changed the World**  
*Scott Snyder, Department of Chemistry*  
**Harper Memorial Library, Room 130, 1116 E. 59th St. 5727 S. (78 seats)**

This class will discuss organic molecules isolated from nature that have caused wars, treated human disease, and profoundly altered day-to-day life. Connections to modern pharmaceutical development, traditional medicines, and key areas for future explorations will be presented as well. No knowledge of organic chemistry is expected.
Political Correctness in the Classroom: A Case Study

Larry McEnerney, Collegiate Humanities Division
Biological Sciences Learning Center, Room 001, 924 E. 57th St (138 Seats)
Trigger warnings vs. free inquiry. Classrooms as safe spaces vs. classrooms as sites for the open exchange of views. The University of Chicago has been prominent in championing a commitment to academic freedom—a commitment that has drawn loud praise and fierce criticism. Indeed, the University’s institutional position is deeply controversial right here on campus. In this session, we'll look at this often theoretical debate through the lens of a concrete instance: a class where trigger warnings are given, where students are given the choice to opt-out of assigned readings, and where the very notion of the open exchange of views is itself challenged.

What is Global Microhistory?

Paul Cheney, Department of History
Stuart Hall, Room 105, 5835 S. Greenwood Avenue (75 seats)
This lecture gives one example of how historians go about depicting large structures by placing one carefully selected object under a microscope. In this case, Professor Cheney will discuss his reconstruction of life on one sugar plantation in Haiti (formerly French Saint-Domingue) from the late eighteenth century until the 1830s. One part of this lecture is descriptive: we will examine how plantations manned by slave labor functioned in the context of the rapidly expanding world economy of the period. The other exposes the historian's craft—in particular, the detective work that goes into tracking down the far-flung, sometimes lost sources that go into writing global history from a worm's eye view.

Why Are Scientific Studies So Unreliable?

Anthony Fowler, Harris School of Public Policy Studies
Stuart Hall, Room 101, 5835 S. Greenwood Avenue (75 seats)
Can octopuses predict the outcomes of soccer games? Do people really have ESP? Do shark attacks and college football games really influence elections? This lecture will explain why newsworthy scientific findings are often unreliable. And we will discuss how scientists and consumers can avoid these kinds of misleading results. This is a modified version of a lecture I give in my course entitled "Quantitative Methods for Public Policy."

Why We Vary: The Science of Variation and Evolution

Martin Kreitman, Department of Ecology & Evolution
Cobb Hall, Room 402, 5811 S. Ellis Ave (34 seats)
Intro to the science of population genetics, common ancestry, and forces acting on mutations in populations. Leave with a slightly more informed understanding about your own heritable variation.
Session 2: 11:00AM-12:00PM

Arabic Language & Culture
Osama abu-Eledam, Department of Near Eastern Languages & Civilizations
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The session will provide visitors with basic facts pertaining to Arabic language and culture. The Arabic script and the sound system of the alphabet will be introduced. Attendees will be able to learn a few expressions in Arabic (greetings and leave taking). Additionally the session will focus on the Arab American population in Chicago and in the USA.

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Building Renaissance Italy
Niall Atkinson, Art History
Rosenwald 301, 1101-11 E. 58th Street (45 seats)
This is an introductory course and survey of the major patrons, architects, and building programs that defined the spatial contexts of the Renaissance in Italy and meets the general education requirement in the Humanities Core. Between the 15th and 16th centuries, the political aspirations of governments, popes, princes, and merchants demanded a more articulated architectural environment that would facilitate increasingly complex modes of public and private life. They were aided in this endeavor by the emergence of a newly professionalized class of architects, who turned their eyes towards both a systematic study of the classical past and a critical assessment of their contemporary world. Renaissance urban palaces – both civic and private – and rural villas provided the stages upon which a new art of living could be performed. New inventions in military engineering responded to rapidly advancing technologies of warfare. Urban planning techniques created new topographies of spiritual and political triumph and reform, while treatises on ideal cities laid the foundations for the modern integrated multi-functional city. Between Venice, Florence, Rome and their rural surroundings, this course will focus on a range of important patrons such as Roman Popes, Venetian Doges, princely courts and private merchants, and will explore what made the works of such architects as Filippo Brunelleschi, Giuliano da Sangallo, Leon Battista Alberti, Francesco di Giorgio, Michelangelo, Jacopo Sansovino, and Andrea Palladio, so creative, innovative, and influential well into our own contemporary architectural landscape.
Calculus, Light, and Mechanics: The Story of the Brachistochrone  
*Marco Guaraco, Department of Mathematics*  
**Harper Memorial Library, Room 140, 1116 E. 59th St. (92 seats)**

During the first half of this class, I will tell you the story of one of the earliest questions in classical mechanics: the problem of the Brachistochrone. Although easy to formulate, the problem resisted to be solved for centuries by the Greeks and even by Galileo. However, in the late seventeenth century, Johann Bernoulli claimed to have solved it using a recently invented tool: the calculus. Keeping his solution in secret, he challenged the greatest minds of his time to figure it out by themselves. As a prize, the correct solutions would be published in Acta Eruditorum, one of the first scientific journals, the editor of which was the famous Gottfried Leibniz. Among the names that ended up taking up the challenge were Issac Newton, Jakob Bernoulli (Johann's brother), and Guillaume de L'Hôpital. Each one of them presented an independent solution, exhibiting the richness of calculus and their own mastery of it. During the second half of the class, I will present Johann's solution in its entirety. By far the most beautiful of all, his solution is simple, elegant and based on an unexpected connection between two seemingly disjoint fields: optics and mechanics. His ideas can be understood by any prospective student familiar with calculus at a high school level. They exemplify fundamental values for anyone interested in the pursuit of knowledge. More precisely, they illustrate the flexibility that characterizes good techniques. They show us how exploring outside of our own field, with genuine interest, provides us with a fresh insight into old problems. Finally, and perhaps more importantly, they tell us about the social impact of cultivating the spark of curiosity in ourselves and others.

Child, Youth, and the Future of China  
*Dali Yang, Department of Political Science & Social Sciences*  
**Rosenwald 11, 1101-11 E. 58th Street (60 Seats)**

The true measure of any society is how it treats its children, who are in turn that society’s future. I draw on a forthcoming book *Child and Youth Well-being in China* to offer a look at China’s younger generations, explore how China is changing, and assess the implications for China’s future.

Epidemiology and Population Health  
*Diane Lauderdale, Department of Public Health Sciences*  
**Ida Noyes Hall, West Lounge, 1212 E. 59th St. (80 seats)**

This will be the content part of the first lecture for this fall’s class (BIOS 27819/STAT 22810). This class uses contemporary and historical examples to define the field of epidemiology and explain the fundamental challenge of determining causal relationships about risk factors and health based on observing people in the real world.

Fight for Fifteen: the Pros, the Cons, and the Con  
*Allen R. Sanderson, Department of Economics*  
**Kent Chemical Laboratory, Room 120, 1020 E. 58th Street (174 seats)**

One of the on-going social, political, and economic issues in this country are debates and periodic protests over raising the minimum wage. In our time together we will lay out the basic facts, economic theory, and misperceptions surrounding this public-policy initiative, discuss what other options we have that might address proponents’ goals without as much disruption in the industries and households affected, and also suggest the hidden agendas behind those advocating this change in labor markets.
From Mortal Kombat to the Declaration: Argument in the Little Red Schoolhouse

*Larry McEnerney, Collegiate Humanities Division*

**Biological Sciences Learning Center, Room 001, 924 E. 57th St. (138 Seats)**

The Little Red Schoolhouse is the unlikely nickname of the University's Writing Program. Equally unlikely is the fact that the Schoolhouse analysis of argument seems to apply equally well to historic political documents and to conversations with 8-year-olds. Argument is an essential language not only at the University of Chicago, but in countless fields and communities, and this session we'll take a look at how one analysis of argument can help writers here on campus and beyond the Quads.

**Human Obesity**

*Matthew Brady, Department of Medicine*

**Cobb Hall, Room 402, 5811 S. Ellis Ave (34 seats)**

The lecture will give an overview of the obesity epidemic from an endocrine point of view, including issues with weight gain/loss.

**Law and Economics: A Guided Tour**

*Jim Leitzel, Department of Public Policy*

**Stuart Hall, Room 101, 5835 S. Greenwood Avenue (75 seats)**

The University of Chicago has been at the forefront of the Law and Economics movement since its modern conception. But what exactly is Law and Economics all about? This model class offers a guided tour through some of the highlights. Fellow travelers will visit the British Museum and a deserted isle, mingle with Vladimir Nabokov and Jeremy Bentham, and return safely to Chicago. No visas and no immunizations are necessary, but a sense of adventure and discovery will help open up the unexpected vistas of Law and Economics.

**Making the Meaning in the American Musical**

*Thomas Christensen, Music Department*

**Classics Building, Room 110, 1010 E. 59th St. (35 seats)**

In this model class, we will be analyzing a few selections from the hit musical "Hamilton," by Lin Manuel Miranda. While much has been made of the iconoclastic use of rap music and hip-hop lyrics in this unorthodox telling of Hamilton's life story, a closer look at these songs suggest there is a surprising affinity to more "classical" musical traditions of the American musical theater that Miranda learned as a protégé to Stephen Sondheim.

**Molecules that Changed the World**

*Scott Snyder, Department of Chemistry*

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This class will discuss organic molecules isolated from nature that have caused wars, treated human disease, and profoundly altered day-to-day life. Connections to modern pharmaceutical development, traditional medicines, and key areas for future explorations will be presented as well. No knowledge of organic chemistry is expected.
Music and Mind

Lawrence Zbikowski, Music Department
Cobb Hall, Room 430, 5811 S. University Ave. (24 seats)
This course explores research on music in the mind and brain sciences as it has developed over the past three decades. During this time, we have come to an increasingly refined understanding of the ways the brain processes sound. It remains the case, however, that not all sound is music, and in this course we will investigate how musical sound is organized to make it musical, and how this organization reflects the capacities of the human mind.

Position of Chinese Civilization Among World Civilizations and its Geographic Basis

Guy Alitto 艾恺, Department of History
Biological Sciences Learning Center, Room 115, 924 E. 57th Street (138 seats)
This class will locate "China" on the historical map and explain some of its unique characteristics through an examination of its geography.

Signal Analysis and Modeling for Neuroscientists

Wim van Drongelen, Department of Pediatrics
Biological Sciences Learning Center, Room 401, 924 E. 57th St (20 seats)
This class will provide an overview of analysis and modeling approaches to examine neural activity.

What is Global Microhistory?

Paul Cheney, History
Stuart Hall, Room 105, 5835 S. Greenwood Avenue (75 seats)
This lecture gives one example of how historians go about depicting large structures by placing one carefully selected object under a microscope. In this case, Professor Cheney will discuss his reconstruction of life on one sugar plantation in Haiti (formerly French Saint-Domingue) from the late eighteenth century until the 1830s. One part of this lecture is descriptive: we will examine how plantations manned by slave labor functioned in the context of the rapidly expanding world economy of the period. The other exposes the historian's craft – in particular, the detective work that goes into tracking down the far-flung, sometimes lost sources that go into writing global history from a worm's eye view.

Why We Vary: The Science of Variation and Evolution

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Session 3: 1:00PM-2:00PM

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Osama abu-Eledam, Department of Near Eastern Languages & Civilizations
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Holding Other Things Constant
Allen R. Sanderson, Department of Economics
Kent Chemical Laboratory, Room 120, 1020 E. 58th Street (174 Seats)
One often thinks of economics as having two main branches: microeconomics and macroeconomics. And yet there is a third branch – quantification, modeling and measurement – that often distinguishes the science of economics from other neighboring disciplines. In our hour together we’ll walk through a plethora of contemporary examples of how the general public, business firm, media and public officials make mistakes, either out of ignorance or on purpose, in their reasoning, advocacy and decision-making.

Introduction to Molecular Engineering
Matthew Tirrell, Institute for Molecular Engineering
Stuart Hall, Room 104, 5835 S. Greenwood Avenue (60 seats)
The class will describe UChicago’s innovative approach to engineering education and research.

Medieval Beasts
Daisy Delogu, Department of Romance Languages & Literatures
Cobb Hall, Room 402, 5811 S. Ellis Ave (34 seats)
In fables and bestiaries, animal narratives and tales of transformation, medieval literature is replete with animals. In activities such as warfare, hunting, and sport, as well as in the alimentary, vestimentary, and artisanal use of animals, whether in the context of friendship or exploitation, the lives of humans and animals are intimately and inextricably bound up with one another. In medieval literature the boundary between human and non-human lives and existences is fluid and porous. What distinguishes the human - speech? reason? morality? To what degree might non-human animals provide an ethical model for humans? This course pairs medieval texts with modern critical theory in order to gain a better understanding of the textual, narrative, hermeneutic, spiritual, and ethical roles that animals play in medieval literature. We will also consider our current ethical posture vis à vis the natural world.
Science as a Creative Process  
*Carrie Rinker-Schaeffer, Department of Surgery, Section of Urology*  
**Stuart Hall, Room 105, 5835 S. Greenwood Avenue (75 seats)**  
Although often portrayed as a series of settled facts, science is an *active process* used to gain knowledge about the natural world. From defining problems to conducting experiments, creativity is an essential part of the scientific method. In this course, students learn how to use scientific and creative skills to develop a research proposal on a topic/question of their choice. Students present their projects in a mini-symposium at the end of the quarter.

Self-aware Computing Systems  
*Hank Hoffman, Department of Computer Science*  
**Biological Sciences Learning Center, Room 115, 924 E. 57th Street (138 seats)**  
The class addresses some emerging problems in computing (like energy consumption, security, and accuracy), relate them to the devices that people use or read about in the news, and explain how to address some of these challenges by building "self-aware computer systems." Self-aware computing is a sub-field that Professor Hoffman has developed that makes computers aware of their goals and whether or not they are meeting those goals. Self-aware computers have the ability to modify their own behavior when they detect that they are not meeting goals resulting in much more robust, efficient, and flexible computer systems.

What Does It Mean for the Biological Sciences if Data is the New Oil and AI is the New Factory?  
*Robert L Grossman, Department of Medicine*  
**Stuart Hall, Room 101, 5835 S. Greenwood Avenue (75 seats)**  
We give a historical perspective on the current interest in big data, AI and machine learning and then discuss its impact on biology, medicine and healthcare. We discuss some of the challenges and opportunities as machine learning is beginning to be applied to cancer research.

What Makes Us Human  
*Russell Tuttle, Department of Anthropology*  
**Stuart Hall, Room 102, 5835 S. Greenwood Avenue (60 seats)**  
Humans live in a symbolic niche: virtually everything we say, do, create, and make is consciously or unconsciously dependent upon symbols. Although many other animals probably think about proximate situations, humans have beliefs about phenomena and relationships. Humans have social and moral codes while apes are probably amoral. Their survival and perhaps lives ultimately depends on us.