THE BRYN MAWR
FACULTY SPEAKER
PROGRAM

JUNE 1, 2017–MAY 31, 2018
THE FACULTY SPEAKER PROGRAM

THE FACULTY SPEAKER PROGRAM PROVIDES AN OPPORTUNITY FOR ALUMNAE/I TO MEET BRYN MAWR’S FACULTY AND HEAR ABOUT THEIR CUTTING-EDGE RESEARCH, ENGAGE IN INTELLECTUAL CONVERSATIONS, AND CONNECT WITH OTHER MAWRTERS AND THE COLLEGE.

GUIDELINES FOR REQUESTING A SPEAKER

- Plan early! Request a speaker at least three to six months prior to the event.
- A club/group’s initial request for a faculty member should be made by completing the Faculty Speaker Request Form. Any club/group that arranges for a speaker directly, without submitting a Faculty Speaker Request Form to the Alumnae Relations Office, will assume responsibility for the faculty/staff’s travel and lodging expenses.
- Provide three speaker choices and three event date choices. Alumnae Relations staff will notify you when a speaker is confirmed.
- Once a speaker is confirmed, please stay in touch directly with the speaker and copy Alumnae Relations staff on all correspondences.

EXPECTATIONS

- Alumnae Relations will arrange and provide for round-trip transportation and overnight hotel accommodations.
- Club/group will pay for ground transportation and meals.
- Alumnae Relations will send one faculty/staff speaker per year.
- Club/group will submit a report following the program along with a list of attendees.

QUESTIONS?

Contact clubs@brynmawr.edu

FACULTY SPEAKER REQUEST FORM

Club/Group Name

Date of Event: *(Please make request at least 12 weeks ahead of event.)*

1st choice

2nd choice

3rd choice

Faculty speaker requested:

1st choice

2nd choice

3rd choice

Type of Event *(e.g., May Day, Annual Meeting, Fall event, etc.)*

Event Location

Event Time

Estimated Attendance

Name of person submitting request form ____________________________ Date ____________________

QUESTIONS?

Email clubs@brynmawr.edu

SUBMIT FORM TO THE ALUMNAE RELATIONS OFFICE

Scan and email to clubs@brynmawr.edu

Fax: 610-526-5228
LECTURE TOPIC

- *Meeting Homo naledi*

In 2015, researchers introduced the world to a new hominin species, *Homo naledi*. Fossilized remains of this small-brained species that shares our genus were found deep in a hard-to-reach cave in South Africa. After an exciting excavation involving squeezing into tight spaces and figuring out how to excavate thousands of fragile bones that also needed to squeeze through tight spaces, a research team was assembled to figure out how these fossils fit into the story of human evolution. Using comparative methods and looking at all parts of the skeleton, anthropologists discovered that these fossils belonged to an entirely new creature.

Professor VanSickle leads the research on this new species’ pelvis, which informs how this species walked, gave birth, and differed between sexes. This pelvis is curious because it resembles the pelvis of an earlier hominin, Lucy (*Australopithecus afarensis*), while the rest of its skeleton looks more like later species. This mixture of features is part of what led the research team to conclude that this was a new species. Professor VanSickle’s research has directly informed these findings, and she continues to work on new findings from the Rising Star Cave.

Professor VanSickle’s research has taken her to museums and universities in England, Spain, Croatia, Germany, France, Israel, and South Africa to look at original fossil materials. She was the first-ever Wittig Postdoctoral Fellow in Feminist Biology at the University of Wisconsin-Madison, where she practiced applying a feminist lens to her research on human evolution, examining how sex differences in the pelvis first evolved in hominins.
Chemistry

SHARON BURGMAYER
Dean of Graduate Studies; W. Alton Jones Professor of Chemistry
Ph.D., University of North Carolina

AREA OF EXPERTISE
Bioinorganic chemistry, chemistry of art

LECTURE TOPICS

• Why 42 is the Answer: The Global Importance of Molybdenum Enzymes
  Professor Burgmayer introduces the area of molybdenum enzymes, enzymes present in every living organism on the planet, and their role in human health, the environment, and her research projects related to understanding these.

• The Stuff of Art: How a Chemist Found Her Calling in Art and What Happened Next
  This talk discusses the background to the development of Professor Burgmayer’s course on Chemistry and Art and the nature of the course and its associated lab component.

Research in the Burgmayer labs involves two areas of bioinorganic chemistry. One project is focused on modeling the catalytic site of the molybdenum enzymes. These enzymes are widely distributed throughout nature where they perform redox reactions critical to the health of organisms spanning bacteria to humans. A second project involves the study of ruthenium complexes that bind and can damage DNA. These projects involve both inorganic and organic syntheses, many of which are performed under inert atmosphere environments.

One hundred and thirty undergraduates have done research with Professor Burgmayer since her arrival to Bryn Mawr in 1996, and many of them have co-authored articles with her in such publications as the Journal of Inorganic Biochemistry, Journal of American Chemical Society, and Inorganic Chemistry.

Sociology

VERONICA MONTES
Assistant Professor of Sociology and Co-Director of Latin American, Iberian, and Latina/o Studies
Ph.D., University of California, Santa Barbara

AREA OF EXPERTISE
Migration, Globalization, Gender, Development, and Latinos in the United States

LECTURE TOPIC

• The Act of Solidarity as a Gendered Transformative Process: The Case Study of Las Patronas
  Professor Montes examines the work of Las Patronas, a group of 14 Mexican women who have fed thousands of Central American migrants over the last two decades. She particularly examines how this act, which started as an extension of women’s traditional gender roles of caring for, feeding, and nurturing—confined mainly to the private sphere—has become an unintended political collective action that has transformed these women’s lives and those of their families and community. This study contributes to gender studies in three ways: (1) through their long-standing work, Las Patronas have transformed the kitchen from a woman’s place to be to a woman’s space of being where these women have an opportunity to develop a life project for themselves and their families, (2) it is through daily activities where these women not only find their ways to challenge a variety of hegemonic masculine figures, but it is through the practice of these activities that they transform those quotidian and so-called feminine activities into tools of personal and collective transformation, and (3) by rejecting the commodification and brutal exploitation of migrants’ bodies through the practice of a “politicized spirituality,” Las Patronas not only deny a role of silent bystanders in the pervasive violence in Mexico, but more important, they demonstrate the possibility to recognize our own vulnerability in the other’s. Drawing on ethnographic fieldwork, this study seeks to further our understanding of the interplay between women’s collective mobilization, gender, and the intersection of migration and violence.
**Sociology**

**DAVID KAREN**  
Professor of Sociology  
Ph.D., Harvard University

**AREA OF EXPERTISE**  
Sociology of education; social inequality; social movements; sociology of sports; research methods

**LECTURE TOPIC**

- **Leveling the Playing Field: Sports as a Model of Fairness**  
  In many ways, the sports contest is the ultimate meritocracy. Baseball integrated even before the military integrated. In what ways does sport provide a model of fairness for the larger society? Does it lead (as it did with Jackie Robinson) or does it lag (the dearth of gay current professional players)? What would a fair (overcoming differences in race, class, gender, sexuality, able-ism, etc.) sports structure look like? And what implications, if any, does it have for the rest of society?

*Professor Karen has done research and teaching in sociology of education, political sociology, sociology of sports, and social stratification. With Professor Bob Washington, he has recently published Sociological Perspectives on Sport: The Games Outside the Games (Routledge, 2015). He teaches courses in sociology of sport, sociology of education (and sociology of higher education), social inequality, and social movements.*

**Chemistry**

**MICHELLE FRANCL**  
Professor  
Ph.D., University of California, Irvine

**AREA OF EXPERTISE**  
Theoretical chemistry, structures of molecules that misbehave, history and sociology of science

**LECTURE TOPICS**

- **A Brief History of Water in the Universe**  
  Where did the water on earth come from? How long ago was it made? How do we know? Explore the origins of water in the universe and on earth.

- **Sex in the Citadel of Science**  
  What does a scientist look like? Why do we have a harder time imaging women as eminent scientists? Does this have anything to do with the ways in which we design spaces for doing science?

- **To Boldly Go Where No Woman Has Gone Before**  
  Jeannette Piccard, Bryn Mawr alumna, Class of 1918, was the first woman to pilot a craft into nearspace—reaching the stratosphere in 1934. How did a Bryn Mawr psychology major become a chemist and an explorer? Is Jean-Luc Picard of Star Trek’s Enterprise related to Jeannette?

- **Molecules that Misbehave**  
  Exploring the structures of molecules that don’t follow the rules, from aluminum compounds intent on occupying more space than they should to carbon frameworks that have Moebius topologies—strips of carbon atoms that have only one side and one edge.

*Professor Francl has been named one of nine adjunct scholars of the Vatican Observatory. As an adjunct scholar, Francl will visit Rome regularly and have the opportunity to work with the Jesuit physicists who are the observatory’s full-time staff. She is also a writer whose essays on science, culture, and policy appear regularly in Nature Chemistry and in several collections. Additionally, her regular column, Catholic Spirituality, appears at the Philadelphia Archdiocese’s news site, CatholicPhilly.com, and her reflections on struggling to live a contemplative life in the midst of the everyday chaos that comes with being a working wife and mother can be found in a number of print and online venues.*
**Computer Science**

**RICHARD EISENBERG**  
Assistant Professor of Computer Science  
Ph.D., University of Pennsylvania

**AREA OF EXPERTISE**  
Programming language theory and implementation

**LECTURE TOPIC**
- Don’t Run that Program! How Static Type Systems Prevent Computer Crashes, Close Security Holes, and Make Apps Faster

Professor Eisenberg introduces the audience to the idea of static type systems, a feature in many of today’s programming languages, and how they can be useful in software design and engineering. Static type systems allow a computer to analyze the code for an app, looking for certain kinds of bugs. The presence of a bug prevents the computer from ever running the app. Professor Eisenberg’s research focuses on pushing the envelope of what static type systems can do. His talk explains how this work fits in context and what the future might bring in the world of programming.

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**Graduate School of Social Work and Social Research**

**JAMES (JIM) MARTIN**  
Professor of Social Work  
Ph.D., University of Pittsburgh

**AREA OF EXPERTISE**  
Trauma related issues—loss/grief, interpersonal violence, community violence, military and veteran issues, military family issues, issues broadly related to behavioral health and well being

**LECTURE TOPICS**
- Understanding the Nature and Challenges of Complicated Grief
- What Are the Challenges Facing Our Military Members, Veterans, and Military/Veteran Connected Family Members?

James (Jim) Martin is a tenured professor of social work and social research and a licensed independent clinical social worker with more than 45 years of social work practice. His scholarship, teaching, and public service focus on the well being of individuals, families and communities, and his research and civic engagement address military and veteran populations. A retired Army colonel, Jim had a distinguished military career that included a wide array of clinical, research, and senior program management (command) and policy assignments. He served as the senior social work officer in the Combat Theater during the First Gulf War. He has served as a subject matter expert for numerous Department of Defense and other related federal and state-level policy, program development, and research initiatives.

In addition to teaching Clinical Social Work I & II and Social Work Stress & Trauma at Bryn Mawr, Professor Martin is actively engaged with praxis at Bryn Mawr—in particular supporting undergraduate students who are serving in a variety of human services, non-profit, and government agencies.
**Psychology**

**LESLIE RESCORLA**  
Professor of Psychology on the Class of 1897 Professorship of Science,  
Director of Child Study Institute,  
Director of Thorne Early Childhood Programs, and Director of Child and Family Studies  
Ph.D., Yale University  

**AREA OF EXPERTISE**  
International comparisons of behavioral and emotional problems in children and adults; language delay in children; and screening for autism spectrum disorders

Professor Rescorla is a licensed and school certified psychologist. Her research interests are the epidemiology and outcome of language delay in toddlers; cross-linguistic studies of vocabulary development; empirically based assessment and longitudinal study of psychopathology and competence in children, adolescents, and adults; and screening for autism spectrum disorders. Professor Rescorla’s clinical practice involves psychological assessment, early childhood evaluation, individual and family therapy, and family-school consultation.

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**English**

**LINDA-SUSAN BEARD**  
Associate Professor of English and Director of Africana Studies  
Ph.D., Cornell University  

**AREA OF EXPERTISE**  
Contemplative intelligence, post-colonial literatures, post-apartheid South African literature, Toni Morrison, Bessie Head, the long view of race in America that leads up to Ta-Nehisi Coates

**LECTURE TOPICS**  
- The Long View of Race in America that Leads up to Ta-Nehisi Coates  
- 21st Century Post-Apartheid Literature  
- Toni Morrison’s Re-education Project  
- Bessie Head and one of Africa’s Largest Epistolary Collections

Professor Beard negotiates between and among the worlds of African-American, South African, and post-colonial literatures. She teaches courses on post-apartheid literature, literary and historical reimaginings of transatlantic slavery such as “Toni Morrison and the Art of Narrative Conjure,” as well as introductory courses in English and African literatures that examine the dynamics of canon formation. She is editing the first comprehensive volume of the letters of Bessie Head, about whom she has written essays and given conference papers for 25 years. She is also involved in the new area of contemplative intelligence, having been in the first group of Contemplative Fellows chosen by the ACLS and funded by the Cummings and Fetzer Foundations. Professor Beard wears yet another hat as co-foundress of Emmaus Monastery, a contemplative, monastic community headquartered on an 80-acre farm in rural Michigan.
**Mathematics**

**WILLIAM DUNHAM**
Research Associate in Mathematics
Ph.D., The University of Ohio

**AREA OF EXPERTISE**
History of mathematics

**LECTURE TOPIC**
- **Bertrand Russell at Bryn Mawr**

  Bertrand Russell (1872-1970) was a mathematician, philosopher, social activist, anti-war protestor, devout atheist, and winner of the Nobel Prize for Literature in 1950. For most of the 20th century, he was recognized as the world’s foremost public intellectual. More to the point, he had a long and deep connection to Bryn Mawr College. In this talk, Professor Dunham describes that connection, focusing especially on Russell’s controversial 1896 visit to campus, when he managed to shock the staid Quakers who had founded the College a little over a decade before. His story provides a glimpse of the Bryn Mawr College of long ago.

  NOTE: This talk is entirely math-free!

William Dunham is a math historian who has recently taught a class on this subject at Bryn Mawr. Over the years, Dunham has written four books on the history of mathematics and is featured in the Teaching Company’s DVD course, “Great Thinkers, Great Theorems.” After retiring from a 22-year career at Muhlenberg College, Dunham has held visiting positions at Harvard, Princeton, Cornell, and the University of Pennsylvania. In retirement, he has enjoyed being a research associate in Mathematics at Bryn Mawr College.

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**Physics**

**XUEMEI MAY CHENG**
Associate Professor of Physics
Ph.D., Johns Hopkins University

**AREA OF EXPERTISE**
Nanoscience and nanotechnology, especially fabrication and characterization of nanomaterials with possible applications in data storage and biomedical field.

**LECTURE TOPIC**
- **Tuning Magnetic Skyrmions in Multilayers with Perpendicular Magnetic Anisotropy**

  Professor Cheng’s research focuses on the fabrication, characterization, and application of nanoscaled materials. Current projects include: spin dynamics in nanoscale magnetic materials and Spintronics; imaging of nanomagnetic materials by PEEM, MOKE microscopy and MFM; X-ray magnetic circular dichroism (XMCD) study of multiferroic materials and interface magnetism; and synthesis of magnetic nanostructures for biological applications. She has received an NSF CAREER award, NSF Major Research Instrument Awards, and several other NSF DMR awards. She has also been awarded access to DOE user facilities at national laboratories. In addition to nanoscience research, Professor May is interested in exploring and reflecting on K-12 education and liberal arts education.
Physics

DAVID SCHAFFNER
Assistant Professor of Physics
Ph.D., University of California, Los Angeles

AREA OF EXPERTISE
Study of plasma physics with the focus on the physics of fusion energy research and of astrophysical (space) plasma in a laboratory setting.

LECTURE TOPIC
• Fusion and the Heliosphere: How Plasma Affects Our Lives Now and In the Future

Professor Schaffner discusses the basics of plasma physics and why it is a relevant forum for developing nuclear fusion energy as well as how the plasma generated by the sun affects us on a daily basis.

Professor Schaffner’s research focuses on measuring and understanding the turbulent nature of hot ionized gases called plasmas. After using strong electrical discharges to form a magnetized hydrogen plasma called a spheromak, he studies the resulting fluctuations in magnetic field, density, and velocity of these structures. His main interest lies in comparing the turbulent nature of these laboratory-based plasmas to astrophysically-relevant versions such as that found in the solar wind (a plasma ejected by the sun at Mach 10 out into the solar system) or in the magnetosphere (the plasma which surrounds the Earth and is confined by the Earth’s magnetic field). While much of his work will center on the new laboratory to be built at Bryn Mawr, he is also heavily involved with continuing work at Swarthmore College on the Swarthmore Spheromak Experiment (SSX) and at UCLA on the Large Plasma Device (LAPD). He has also been actively forming collaborations with space plasma physicists and has recently begun analyzing data from satellites which are imbedded within the solar wind and magnetosphere and which directly measure the turbulent properties of these space plasmas. Much of the information gathered from this work has implications on space weather and fusion energy.

Mathematics

ERICA GRAHAM ‘04
Assistant Professor of Mathematics
Ph.D., University of Utah

AREA OF EXPERTISE
Applied mathematics, mathematical biology, mathematical endocrinology

LECTURE TOPIC
• Pathways to Dysfunction: Mathematical Modeling in Endocrinology

Type 2 diabetes and polycystic ovary syndrome have a lot in common. Both are caused by hormone dysregulation. Both are associated with insulin resistance and increased susceptibility to additional health complications. Both reflect systems of complex cross-talk between various tissues in the body. Both have a multifactorial (genetic and environmental) and incompletely understood pathogenesis. As a result, neither has a definitive cure. Mathematical modeling can help elucidate the underlying processes contributing to the establishment of these increasingly prevalent disorders and their clinical manifestations.

Professor Graham is an applied mathematician who focuses on biological problems; the goal of her work is to develop mathematical models motivated by biological phenomena. Practical limitations in experimental procedures leave gaps in our understanding of important scientific questions, and mathematical models help to fill these holes by providing additional insights. She employs a variety of mathematical tools and techniques to accomplish this, including nonlinear dynamical systems, stochastic processes, and numerical simulation. Her current projects include modeling physiological mechanisms underlying type 2 diabetes and ovulatory dysfunction.
Museum Studies

MONIQUE SCOTT
Director of Museum Studies
Ph.D., Yale University

AREA OF EXPERTISE
Researches and curates exhibitions about Africa in museums; issues of representation; museums and all arenas of museum work.

LECTURE TOPIC
• Representing Africa in Museums—from Artifact to Art

In this lecture, Scott considers how African objects were first represented in 19th-century museums as anthropological objects. However, in the last century, there have been interesting contemporary exhibitions on Africa in art museums that merge (or disrupt) conventional conceptions of “artifact” and “art.”

Scott specializes in how diverse museum visitors make meaning of race and culture in museums, as well as how diverse audiences experience traditional anthropology and natural history museums as a whole. The basis for her 2007 book Rethinking Evolution in the Museum: Envisioning African Origins. Her recent research focuses on the representation of Africa in contemporary art and anthropology exhibitions—exploring the dense tension between African objects as art and artifact. At Bryn Mawr College, Scott teaches about museums in the History of Art and Anthropology Departments and is building a new interdisciplinary Museum Studies program, a model of engaged liberal arts.

Philosophy

ROBERT DOSTAL
Rufus Jones Professor of Philosophy and Religion
Ph.D., Pennsylvania State University

AREA OF EXPERTISE
Environmental ethics (with possible focus on China, Germany, or USA); interpretation theory (hermeneutics); philosophy of technology; history of philosophy; phenomenology

LECTURE TOPICS
• Cultural Background for Environmental Ethics—Christianity, Buddhism, and So On
• China’s Predicament and What They Are Doing
• Germany’s Approach—Political and Ethical
• The Concept of Nature
• Interpretation Theory (Debates in literary theory and philosophy about interpretation over the last few decades. Connects these debates to consideration of science and realism.)
• How To Think of a World Without Work
• Technology and Globalization

Robert Dostal is the Rufus M. Jones Professor of Philosophy and Religion. He has taught at Bryn Mawr since 1980 and served as provost from 1994 to 2002. He is chair of the department of philosophy. Though his research has focused on the German intellectual tradition, he has broad interests that include China. Among other things, he teaches the history of philosophy, ethics, and environmental ethics. He has helped lead a 360° study trip concerning the environment with students to Germany in 2015 and again in 2017. In recent years, he has become interested in contemporary China and China’s cultural and intellectual history. He has visited China many times, including a 360° study trip in 2015 about the environment with other faculty and a group of students.