



VILLANOVA
UNIVERSITY
College of Liberal Arts
and Sciences

BOUNDLESS



2014

● **Adele Lindenmeyr, PhD**, appointed Dean of Villanova University's College of Liberal Arts and Sciences.

● Funded by a \$1.67 million National Science Foundation grant, Villanova University's **Virtual Reality CAVE** opens, adding an innovative 3D learning space to the College.

2015

● Fledgling filmmakers, aspiring on-air journalists, budding media producers and performance studies students celebrate as the Communication Department gets a **state-of-the-art studio and multimedia complex**.

● Villanova announces its new **Master of Science in Environmental Science**, designed to produce graduates with an enhanced understanding of environmental systems and their nexuses with society.

2016

● Smarty cats: Since 2014–2015, a total of **112 CLAS students have won Fulbright, Marshall, Truman, Goldwater and Gilman Scholarships**.

● All eyes are smiling as Villanova University receives a **\$1 million commitment from Connelly Foundation to establish Center for Irish Studies**.

● A **\$10 million gift from Albert Lepage '69 CLAS**—the largest donation ever made to the College—establishes the Lepage Center for History in the Public Interest, bringing history to bear upon contemporary issues.

2017

● Faith and culture lead the conversation as CLAS welcomes the **inaugural class of Theology doctoral candidates**.

● **Going global:** CLAS expands major offerings to include Irish Studies, Latin American Studies, Russian Area Studies, Africana Studies, Arab and Islamic Studies, Asian Studies and Cultural Studies.

2018

● CLAS faculty have been awarded a total of **\$18,355,571 in research grants, and eight faculty have won National Science Foundation Faculty Early Career Development (CAREER) grants and Faculty US Fulbright Scholar grants** between June 1, 2014, and May 30, 2019.

● The College launches the **Center for Biodiversity and Ecosystem Stewardship to advance research** focused on the biological principles, components and ramifications of biodiversity and ecosystem science in a changing world.

2019

● **World-class recruiting:** 25% of the College faculty have been hired since fall 2015, hailing from nations all over the world, including Argentina, Ghana, Israel, Japan, Malaysia, Norway, Nigeria, Spain and Taiwan.

Five Years in the Life of the College

I first arrived on Villanova's campus in 1987 for an interview to teach History. Thanks to that very first meeting with the Rev. Kail C. Ellis, OSA, PhD, Dean Emeritus, I have had the inspiring opportunity to be a part of the College of Liberal Arts and Sciences as a faculty member, department chair, Graduate Dean and—for the past five years—Dean.

Here, I witness the extraordinary every day. I see faculty collaborating with students on research that answers important questions and contributes to new knowledge. Genetic factors that lead to cancer? Check. The environmental impact of fracking? Check. Growing food on Mars? Check. New insights on the origins of neurological diseases? Check. The history of black graveyards in Philadelphia? Check. The list goes on.

Whether it's a student soaring through the air on NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) aircraft; or a Creative Writing class studying in Belfast, Northern Ireland; or a faculty member earning an NSF CAREER grant, CLAS is about making an impact. We are a community—one that reaches beyond campus borders and prepares our students to become truly global citizens.

The CLAS of today is not the CLAS of 30, 20, 10 or even five years ago. Here is the College as you've never seen it before. The entire CLAS community is proud to share these accomplishments with you. Enjoy!

Sincerely,



Adele Lindenmeyr, PhD
Dean



FROM AFRICA TO BELFAST—AND BEYOND

From exploring the hopes and hardships of expectant mothers in rural Ethiopia via a documentary, to studying the role of creative writing during conflict in an Irish city with historic sociopolitical struggles, courses with embedded travel experiences bring the curriculum to life. Students hone their intercultural competence in an international setting and learn to approach problem-solving with a global perspective. Examples of these embedded travel courses include a social justice documentary filmmaking course with Hezekiah Lewis, MFA, and an English class, “Writing Through Conflict,” co-taught by Alan Drew, MFA, and Tsering Wangmo, PhD.

Traveling abroad enables student filmmakers in Professor Lewis’ course to do authentic storytelling that draws attention to important issues and drives social change. In addition to Ethiopia, students have traveled to Ghana, South Africa and Costa Rica, and their films have won awards at local, regional and national festivals. In 2019, *Sankofa*—which explores slavery and its negative systemic impact on black males across the globe—was the first Villanova film to win a Student Academy Award, earning gold in the Documentary/Domestic Film Schools category. “Writing Through Conflict” includes an exchange program with the Seamus Heaney Centre at Queens University. Students spend a week in Belfast visiting historic sites and participating in an intensive creative writing conference with renowned Irish writers. Prior to the trip, students study American, Irish and other international authors who focus their creative energies on issues of poverty, racism, war and atrocity.

Global Learning



Ballads and Broad Change

In 1979, the Irish Studies program at Villanova started as a cultural and academic connection to Ireland, sponsoring visits from Irish scholars and writers—including Nobel Prize winner Seamus Heaney—and offering diverse study abroad opportunities. Ireland has changed significantly in the past 40 years, and so has Irish Studies at Villanova. Today, the Center for Irish Studies offers a major and courses in seven disciplines, as well as Irish language instruction—preparing students to become global citizens who can apply their understanding of contemporary Ireland and its history to challenges facing industry, government and the arts—here and abroad. The Center’s partnerships with organizations locally and around the world—like the Irish American Business Chamber and Network, Dublin’s Abbey Theatre and the Princess Grace Irish Library in Monaco—provide even more opportunities for scholarly collaboration and experiential learning.

Students Tour Japan as Government Guests

In 2019, Villanova’s Japanese Language and Cultural Studies program celebrated 30 years, and Japan’s Ministry of Foreign Affairs invited faculty and students from the program to participate in the Kakehashi Project Study Tour of Japan. The rare and special honor recognized the program’s excellence. Six Villanova students participated in a nine-day, all-expenses-paid trip designed to promote a global understanding of Japan’s economy, society, history, diverse culture, politics and foreign policy.

SHEDDING LIGHT ON GENETIC SUSCEPTIBILITY TO DISEASE

Biology faculty member Angela DiBenedetto, PhD, researches the role of the Brd2 gene in cell death, differentiation and division. She and her students use freshwater tropical zebrafish as a model system to determine how Brd2 mutations may lead to developmental abnormalities and disease.

About 70% of human genes have close counterparts in zebrafish, which share many physiological attributes with humans. Because of this, many human diseases, including cancer and epilepsy, can be modeled using zebrafish.

As Villanova Undergraduate Research Fellows, Biology majors Isabella Burda '19 CLAS and Alexandra Quatrella '19 CLAS researched Brd2 in Dr. DiBenedetto's lab. Quatrella started working there as a sophomore. Her research focused on the role of Brd2 overexpression in blood cancers, including leukemia. Burda's goal was to gain new insights into how Brd2 influences cell death in the developing nervous system. Both undergraduates presented their findings at the Society for Developmental Biology Annual Meeting.

Connecting the Dots Between Genes, the Brain and Behavior

What role do genes play in producing animal instincts? Troy Shirangi, PhD, assistant professor of Biology, is looking for those answers. Supported by a five-year National Science Foundation Faculty Early Career Development (CAREER) grant, he—along with his student researchers Julia Duckhorn '20 CLAS and Kristen Meeh '22 CLAS—are examining a neurodevelopmental gene called dissatisfaction (*dsf*) in fruit flies.

Even if a male fly is placed in isolation for his entire life, the moment he meets a female, he knows exactly how to court her. The *dsf* gene helps create the fly's instincts to court.

By pinpointing the cells in the fly's brain that express the *dsf* gene, Dr. Shirangi's team will find out how *dsf* builds the neural circuits in the fly's brain that generate male courtship behavior. Their work will provide general insights into how genes create the potential for an animal instinct—which could have major implications for understanding human neurological disease.

Limitless Inquiry



Real-World Wisdom

STUDYING SUSTAINABILITY

When Abraham Lincoln predicted the age of wind power in 1860, he became one of the earliest proponents of alternative energy, says Paul Rosier, PhD, Mary M. Birle Chair in American History.

In CLAS, sustainability is not limited to reusing and recycling—but woven into the entire interdisciplinary curriculum. Students can earn a minor in Sustainability Studies, choosing from courses in humanities, policy, science and technology. Dr. Rosier teaches courses in American and environmental history, tracing the origins of today's sustainability ethic—including its deep roots within Catholic social teaching—and exploring its emergence in the US and countries like China and India. Theology and Religious Studies offers "Faith, Reason and Culture," a course designed to help students use religious and ethical traditions to live for the common good—including living sustainably. Students explore the consequences of consumerism on the earth and the implications of consumer culture on issues like environmental degradation, poverty and human rights.

The College also is studying urban sustainability. Two Geography and the Environment professors, Peleg Kremer, PhD, and Kabindra Shakya, PhD, were awarded a National Science Foundation grant to examine the relationship between urban structure, air pollution and noise pollution in Philadelphia. They also are conducting a multi-dimensional urban structures classification and comparative analysis of relationships between urban structures and surface temperatures in seven US cities. Villanova undergraduate and graduate students are using mobile monitoring units and GPS to collect data and investigate the spatial distribution of air pollution and noise pollution across the landscape of Philadelphia neighborhoods.

"We hope the project will contribute to a more nuanced understanding of how air and noise pollution are distributed across the city—to support the work of urban planners, environmental scientists and health professionals," Dr. Shakya says.

Clearing the Air on Cancer

John Schmidt, PhD, assistant professor of Biology, gives students the opportunity to examine various aspects of cancer—what it is; what causes it; how it's studied and treated; as well as its impact on individuals, families and society—in his course "Cancer Chronicles." On the first and the last days of class, Dr. Schmidt asks students to write down three words they associate with cancer on an index card.

"Often on the first day of class, I see words like 'death' and 'scary,'" he notes. "At the end of the course, I see words like 'complex,' 'prevention' and 'progress.'"



Sharing Knowledge

THE HOUSE IN THE CEMETERY

Nestled amidst the bustling streets of West Philadelphia, sits a 54-acre rolling landscape offering respite for busy city-goers. This green oasis, known as The Woodlands, is the original estate of William Hamilton, a Philadelphia native born to a wealthy colonial family in 1745. Today, the land still retains two of Hamilton's 18th-century buildings—including a mansion in the middle of a cemetery. The cemetery was built around the house in 1840 in order to preserve Hamilton's estate as green space for the urban environment. Whitney Martinko, PhD, associate professor of History, and her students explain in their podcast, "The House in the Cemetery," the history of The Woodlands before it became a cemetery.

"We hope this podcast series engages people, such as runners, who already use The Woodlands as a green space but might not be aware of its history," says Madison Bastress '19 MA.

Bastress was among six graduate students and one undergraduate student who researched, wrote and recorded the episodes, under the guidance of Dr. Martinko. The podcast explores the ways Hamilton and others made the estate an architectural and botanical showpiece, and delves into the lives of those who worked and lived at The Woodlands—including indentured and free servants, laborers, craftsmen, visitors and Hamilton family members.

"So much academic research stays in academia," says Bastress. "We need to make sure that history gets out to the public."

Riveting Resource

For the Albert Lepage Center for History in the Public Interest, historical scholarship is the key to understanding contemporary issues. By creating impactful resources and programming, the Center brings historical relevance to current challenges. It has created space for historically-minded conversations on the Civil War in Syria, the state of American Democracy, the meanings of monuments and more; offered an op-ed writing workshop with a frequent *New York Times* and *Washington Post* contributor; and helped history students learn how to put their degrees to work. The Center also launched a podcast miniseries, "1968: In Hindsight," diving into questions from 50 years ago that still matter today. In 2019, the Center launched a partnership with The Lenfest Institute for Journalism to help infuse more historical scholarship into local journalism.



Research Partners

STARSTRUCK

Joe Michail '19 CLAS worked in the largest flying observatory in the world, uncovering secrets of the cosmos, and Jadyn Anczarski '20 CLAS worked with the team that captured the first image of a black hole in space. Both collaborated closely with their respective faculty mentors, Physics professors David Chuss, PhD, '95 CLAS and Joey Neilsen, PhD.

Star formation is linked to the formation of planets, with stars providing energy essential for supporting life. Dr. Chuss' Villanova research team has played a key role in developing High-resolution Airborne Wideband Camera Plus (HAWC+), a new camera for NASA's Stratospheric Observatory for Infrared Astronomy (SOFIA) which measures the polarization of radiation from clouds of interstellar gas and dust from which stars emerge in the Orion Nebula, the massive star formation region closest to Earth.

Michail, who double majored in Astronomy and Astrophysics, as well as Physics, worked on the team for three years. He flew on two SOFIA observation flights and assisted with calibrating data and with the resulting research paper.

Dr. Chuss spent 11 years as an astrophysicist with NASA Goddard Space Flight Center. "Having him as a mentor since my freshman year provided me with the kind of research experience I could not have found anywhere else," Michail says.

Working on behalf of the Event Horizon Telescope Collaboration, Anczarski and Dr. Neilsen contributed analyses of X-ray observations, which reveal energetic radiation from matter close to the event horizon—the invisible "edge" of the black hole. The team, including Anczarski, Dr. Neilsen, and 345 others, won the Breakthrough Prize in Fundamental Physics, recognizing the world's top scientists.

Scholarship Takes Center Stage

Scholarship takes center stage with Villanova's *Youth*—a play about what happens when a self-proclaimed nonbeliever joins a Church youth group and miracles begin to happen. Playwright James Ijames, MFA, assistant professor of Theatre; director Edward Sobel, MFA, associate professor of Theatre; and dramaturg Adrena Williams '19 MA collaborated on Villanova's production of this new play. As the dramaturg—sometimes called a theatrical researcher—Williams researched youth groups today, the songs in the script and references for all the Bible verses in the play, compiling her findings into an online resource guide for the cast and audience.

"James is part of the reason I applied to this program. I'm always excited to have an opportunity to work with him," she says.

Ijames is a Barrymore, Whiting and Terrence McNally Award-winning playwright. He weaves together magical realism and rousing, gospel-inflected songs in *Youth's* heartfelt exploration of what it means to live and love.

Fresh Perspectives



HEROINES IN HABITS

She stumbled upon her research passion by chance—and in the process, uncovered a little-known piece of America's Catholic past. As a graduate student, Shannen Dee Williams, PhD, the Albert R. Lepage Assistant Professor of History, came across a news item from 1968 reporting on the formation of a federation of black nuns committed to fighting racism in the church and wider society. Though a Catholic herself, Dr. Williams had been unaware of the existence of black nuns in the church. Intrigued, Dr. Williams went in search of the organization's founders. In response, "Letters and phone calls started pouring in with current and former sisters stating, 'We've been waiting on someone to tell this story,'" she recalls.

And tell it she has. In her forthcoming book *Subversive Habits: The Untold Story of Black Catholic Nuns in the United States*, Dr. Williams charts the epic journey of the nation's black women religious. Her book provides the first full survey of black sisters' lives and labors in the US, and first examination of their efforts in the fight against racial segregation and exclusion.

As educators, black nuns molded generations of black Catholics. Beginning in the 1920s, black sisters also desegregated several Catholic colleges and universities. Villanova was one of the first institutions to accept black nuns, says Dr. Williams. There are three American black nuns under consideration for sainthood. The most contemporary is Sister Thea Bowman, who transcended racism to leave a lasting mark on US Catholic life in the late 20th century. Her photo hangs in Dr. Williams' office, and a stained-glass portrait of her, designed by the late Rev. Richard Cannuli, OSA, MFA, '73 CLAS, is now in Corr Chapel.

"Church in the Wild"

Transcendentalists have long been credited with transforming American religious life by finding God not in church but in forests, fields and streams. Brett Malcolm Grainger, ThD, assistant professor in the Department of Theology and Religious Studies, challenges this long-held notion and argues it was evangelical revivalists who spiritualized the natural environment in his new book *Church in the Wild: Evangelicals in Antebellum America*. From riverside baptisms to private contemplation to mesmerism, Dr. Grainger articulates that in the years preceding the Civil War, revivalists went to the woods not to free themselves from the constraints of Christianity but to renew their ties to God.

Faculty on the Front Lines

STORM CHASER

Most people run from tornadoes. He runs toward them.

If it has to do with hurricanes, hail, blizzards, wind, thunderstorms or any kind of severe weather, Stephen P. Strader, PhD, is the one to talk to. A meteorologist whose research includes storm chasing in “Tornado Alley” each spring, Dr. Strader is a highly knowledgeable source on severe weather, global warming’s effect on storms and increasing disaster potential due to an enlarging development footprint and population density in storm vulnerable areas. In fact, according to research by Dr. Strader and his colleagues, the root cause of the country’s escalating number of weather- and climate-related disasters is not necessarily a rise in the frequency or intensity of these events, but in the increasing exposure and vulnerability of populations in their paths.

“This process of population and development growth that influences disaster frequency and magnitude is known as ‘expanding the bull’s-eye effect,’” he says. “It isn’t just the population increase that is important in raising the disaster potential, but also how the population and built environment is distributed across a landscape. As the targets—people, homes and businesses—become more numerous and spread out, so does the likelihood that they will be hit by a tornado or hurricane, for instance. And that expanding pattern determines the severity of the disaster.”

In 2017 Dr. Strader was named principal investigator on a National Oceanic Atmospheric Administration research grant, and his work has been featured in *Scientific American*, the *New York Times*, *Philadelphia Inquirer*, *USA Today* and *Forbes*, as well as in academic journals.



Words that Wound

Words matter. No one understands that better than rhetorical activist scholar Billie Murray, PhD, associate professor of Communication and Faculty in Residence, Center for Peace and Justice Education. Dr. Murray’s research explores the timely topic of community responses to hate speech. She is in the midst of a nearly five-year, in-depth research project on hate speech, where she doesn’t just study the academic literature, she studies protest movements at the street level.

The impetus for her interest in this issue was the famous proclamation by Justice Louis Brandeis in *Whitney v. California*. He stated that in response to harmful speech, “...the remedy to be applied is more speech.” This mantra is common in the US. Dr. Murray seeks to answer what does it mean to engage in “more speech?” And when does it work? She’s been cited in numerous media outlets including the *Chronicle of Higher Education* and *WHYY*.

Of Mice and Meds: New Insights into SSRIs

The most widely prescribed medications to treat anxiety and depression are known as selective serotonin reuptake inhibitors (SSRIs). These drugs aim to correct an imbalance of serotonin in the brain, but it’s a bit of an oversimplification to say depression is caused by serotonin deficiency, according to Benjamin Sachs, PhD, assistant professor in the Psychological and Brain Sciences department.

While SSRIs are considered safe and effective for most individuals, for others they can increase suicidal thoughts and lead to aggressive behavior. The causes of these adverse reactions to SSRIs are not known. Dr. Sachs is studying mice that carry a mutant version of the serotonin synthesis gene to understand if impaired brain serotonin production explains the connection between SSRIs and impulsive-aggressive behavior. The results of his research may help develop better treatments for patients who respond inappropriately to SSRIs.

Celebrating Difference

CULTIVATING AN INCLUSIVE COMMUNITY

Diversity celebrates difference—of race, gender, ethnicity, gender identity, sexual orientation, age, ability, political beliefs and more. Inclusion promotes a sense of belonging that empowers others—valuing and practicing respect for the talents, beliefs and backgrounds of all its members. And equity engages everyone—allowing people with marginalized identities an equal opportunity to grow, contribute and develop.

That's how Edward García Fierros, PhD, the College's first associate dean for Diversity, Equity and Inclusion, defines the terms that name his office.

"In my role, I see DEI as set of interrelated goals that are embedded in the University's Augustinian mission. In the College, I think of DEI in three areas—first, the diversity of our students, staff, faculty and administration; second, the environment we cultivate inviting others to be a real part of our community; and third, the courses, programs and professional opportunities we offer that provide the students, staff, faculty and administration an intercultural experience."

Dr. Fierros chairs the College's DEI committee, supports the department diversity committees in their goals and collaborates with colleagues across campus on University initiatives. From the College's Social Justice Champion award given to Sean Camoni '99 CLAS for his senior thesis that inspired the first-year student orientation diversity skit to the Department of Chemistry's inaugural diversity event "It's Elemental," Dr. Fierros strives to elevate individual, group and departmental diversity efforts across the College.

"The highlights of my role thus far have been many—including being part of a team of individuals that are committed to making the College a more inclusive and equitable community."



Smashing Stereotypes about Disabilities

Ability privilege is the societal advantage people have because of their abilities, according to Christa Bialka, EdD, associate professor of Education and Counseling. In her "Introduction to Disability Studies" class, every student partners with a student in LEVEL, a Villanova student group formed to bridge the gap between students with various abilities and disabilities. This partnership not only applies class theories, but also fosters friendships between Dr. Bialka's students and their LEVEL peers.

Also focused on understanding ability privilege and disability is English instructor Mary Ellen Fattori's course "Portraying Disability in Literature." Through close readings of fiction, drama and poetry written throughout history, students study literary characters exhibiting physical, mental, emotional and social disabilities. The course helps students make connections between literary portrayals and real-life situations, and gain understanding of the varied experiences of people with disabilities.

Lifelong Success

FROM THE WHITE HOUSE TO CITY HALL, SHE'S IGNITING CHANGE

Katarina Luz Mayers '11 CLAS remembers the two most important lessons she learned as a student at Villanova—first, as an individual she is capable of changing the world, and second, every day it is important to give instead of take. Those lessons have guided her as she builds an impressive career at the intersection of policymaking and communications, and kept her engaged with her beloved alma mater.

Originally from Los Angeles, Mayers graduated *cum laude* from Villanova with a major in Communication and minors in Spanish, Theatre, and Gender and Women's Studies. She served as a Rotary Foundation Ambassadorial Scholar in Santiago, Chile, and then spent three years in the Obama Administration—first in the White House Communications Office and then at the US Department of Commerce as its Deputy Press Secretary. After moving to New York, Mayers pursued a master's degree in Public Administration at Columbia University.

Today, Mayers serves as Director of Strategic Planning and Executive Affairs in the newly created Office of the Census for New York City. This is a demanding role, but she doesn't let that stop her from giving time to Villanova. She is a member of the New York City leadership committee of the Villanova Alumni Communication Network and serves on the Alumni Association's taskforce on Diversity and Inclusion.

"Villanova made me who I am today. My enthusiasm, my passion and my sense of service all come from my experiences on campus, and the amazing students and faculty who helped shape my life," says Mayers.

Career Assist

"There is nothing more rewarding than having the opportunity to share my knowledge and give students a helping hand toward their professional future" says Joyce Hunter '76 CLAS.

Many alumni agree. CLAS offers several opportunities to make this connection—on campus, online and in regions across the country.

The Public Policy Advisory Council raises funds to support students who have taken unpaid summer internships and also hosts Villanova on the Hill, a weeklong immersive experience for students to meet influential alumni and friends in the Washington, D.C., policymaking ecosystem. "We wanted each student pursuing a career in Washington, to arrive with a strong alumni network already in place," says Brett Loper '95 CLAS.

On campus, the College's Alumni in Residence program brings outstanding graduates to meet with students and faculty and share their Villanova stories and career trajectories. BRIDGE Society events give students the opportunity to interact with alumni in their fields of interest—so they can connect, forge mentoring relationships and continue to network with those they meet via a robust online tool.



Fast Facts

OUTCOMES

- **96.9%** successful placement rate for class of 2018
- **60+** graduate students present at academic conferences each year
- **25** Fulbright scholars from CLAS in 2019–2020
- **77.3%** of the class of 2018 completed an internship
- **46%** of the class of 2019 studied abroad

ACADEMIC PROFILE

- **43** majors
- **24** master's programs
- **42** certificate programs
- **14** combined bachelor's and master's programs
- **2** doctoral programs in Philosophy and Theology



Mission and Tradition

The College of Liberal Arts and Sciences seeks to promote intellectual curiosity and rigor within the University; to instill the fundamentals of critical insight, mature judgment and independent thinking; and to strengthen our students' senses of their moral responsibilities for others and for the betterment of society.

We draw inspiration from the dynamic legacy of St. Augustine, the great teacher and scholar, and his restless, passionate pursuit of wisdom and truth. Committed to our Christian intellectual and moral foundations, the College respects the beliefs of all the members of its diverse community. We believe that it is the inalienable right of all individuals to participate in creation, to seek truth and to apply such truth to enrich their personal lives and advance their communities.

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