

FALL 2019

Syracuse University

arts & sciences



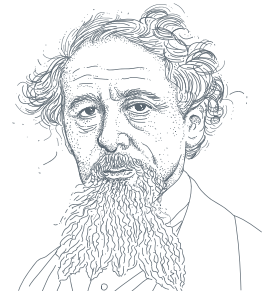
arts & sciences

On the Cover

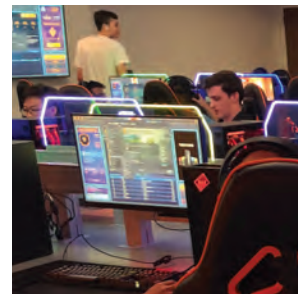
The sciences and humanities come together in the liberal arts, sparking energy and light from intellectual inquiry.

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Syracuse University
College of Arts & Sciences

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From the Dean



Dear Alumni and Friends—

Just as the College of Arts and Sciences (A&S) is Syracuse University's founding college, it is also foundational to our students' lives.

When they walk through our doors, they encounter the freeing power of the liberal arts and an empowering range of experiential learning. Our students and alumni are adaptable, compassionate and reflective, fearlessly building a meaningful life. In this issue, we feature alumni who share their very different experiences, in their own words.

Among them is an essay by faculty member, alumnus and best-selling author, George Saunders G'88. In a personal reflection, he describes the life-changing epiphany he had one night in Singapore, thanks in part to having read—and unknowingly internalized—the works of renowned American authors.

You'll also hear from Dr. Christopher Barley '89 and Professor Erik Sorensen '89. Their worldviews were shaped at A&S by the notions

of equity, ethics and exploration, urging them to make a difference in the world beyond their many professional achievements in medicine and science. I often tell students that the opportunities before them are endless, and we see that through the examples of alumni like Barley and Sorensen.



This year the University celebrates its Sesquicentennial.

Next year will be the 150th anniversary of the College of Arts and Sciences and planning is underway to mark this milestone. So much has changed since the 1870s. But one thing has remained and will remain a constant: the enduring strength of the liberal arts and their capacity to uplift, connect and transform.

Sincerely,

A handwritten signature in black ink that reads "Karin Ruhlandt".

Karin Ruhlandt
*Dean and Distinguished
Professor of Chemistry
College of Arts and Sciences*



The Problem with Being Human

By George Saunders G'88



Editor's Note: Award-winning author George Saunders is a faculty member in and alumnus of the creative writing program in A&S. His most recent novel, Lincoln in the Bardo, won the 2017 Man Booker Prize. He is also well-known for his essays and short stories.

We are grateful to him for sharing his reflections on being human.

The problem with being human is that our minds are made for a certain purpose (staying alive), but we mistake them for absolute arbiters of truth. We assume that the categories “the limits of what my mind can think” and “the truth of the universe” exactly overlap. We think in much the same way that we hear or see, i.e., within a limited range, selected to help us to survive. All that thinking has an unfortunate by-product: ego. Who is trying to survive? “I” am. The mind takes a vast unitary wholeness and selects one tiny segment of it (me, my body) and starts narrating stories from that point of view and - just like that - that entity (George!) becomes real and is (surprise, surprise) located at the exact center of the universe, and everything that is happening is happening in his movie, so to speak; it is all, somehow both “for” and “about” him. And, in this way, moral judgment arises: what is good for him is....good. And vice versa. The bear is neither good nor bad until, looking hungry, it starts walking toward George.



We are navigating, in every moment, through a terrible, beautiful, confusing landscape, with a deeply flawed navigational tool.

When I was training as a scientist, we were taught a version of scientific humility: being a good scientist included striving to be cognizant of the inherent limitations of one's data-gathering approach. So it is, in general, if our goal is to live responsibly. Part of our job is to recognize that the tool with which we think is flawed and limited and therefore apply a modicum of humility to our quest for knowledge, by reminding ourselves that whenever we make a scale model of the world (i.e., think about it), we are making a deficient model, underestimating the complexity and richness of the actual thing.



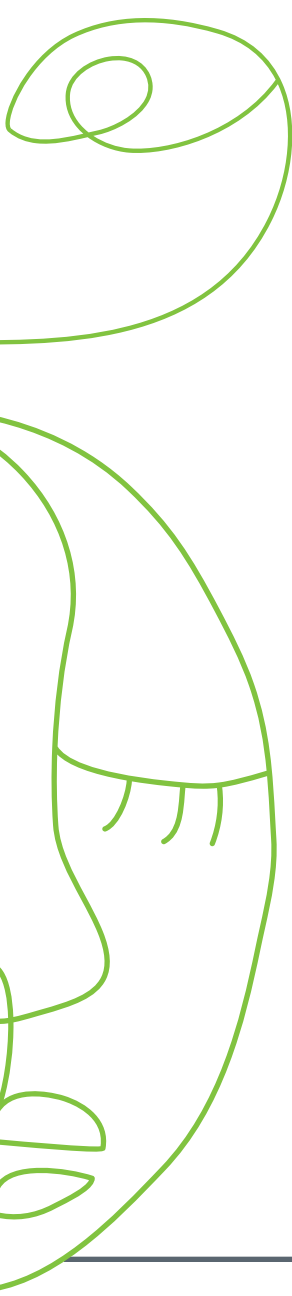
**We are navigating,
in every moment,
through a terrible,
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We can induce the needed humility by observing the vast range of ways of living and thinking that have existed in the world, in the form of its history, its literature, its languages and its cultural traditions. In other words: by studying the humanities. Seeing the many other ways in which human beings have thought about themselves and interacted with one another and used language together and wielded power against one other and solved problems (and created them) helps us understand that our way is not the only way, that our natural feeling of how things should and must be is actually not natural at all, but made, by culture.

The humanities give the student a rich repository of precedent, in the form of two statements: "Things have been like this before" and "Things have been otherwise."

I remember once, working as an engineer in Asia, walking late one night past a foundation being dug for a new hotel in Singapore. Down there, I noticed, something was...moving. As my eyes adjusted, I saw hundreds of elderly Malaysian and Chinese women, clearing the excavations of rocks, by moonlight. It was a surreal scene, but, because even the young lunkhead I was back then had some experience of culture, the moment was instantly swathed in context. *The Grapes of Wrath* came to mind (capitalism using the human body as currency), as did *Monty Python and the Holy Grail* (the king is he who is not covered in feces.) At that time, I was a budding Ayn Rand acolyte, who believed, or wanted to believe, that poverty happened to people who didn't work hard enough. (I'd struggled through engineering school, was just learning some uncomfortable truths about class, and Rand's thinking gave me a way to be victorious and righteous, even while losing.)



So, in that moment, looking down into that excavation, the humanities were at work in me. Which vision came closest to the truth? Who better accounted for those impoverished women in that excavation, Steinbeck/Monty Python, or Ayn Rand? In that moment, my thoughts expanded to take in the circumstances of my own life (certain hard-working family members who, despite their hard work, had been taken down by sheer bad luck) and... my worldview was suddenly clarified, as I realized that the Steinbeck/Monty Python model was more capacious; it accounted more boldly for the data and resulted in a vision of humanity that made a place for empathy and pity.

Well, that was, for me, an early, clumsy example of the humanities in action. We do a heightened version of that sort of work every day in the College of Arts and Sciences at Syracuse: immersing our students in a rich cultural context so that she or he will be able to go out into the world and make a complicated, higher-order sense of it. The skills we are trying to teach are many, and beautifully applicable no matter where life takes us. They address a truth of which I've become increasingly convinced as I've gotten older: "Well, you never know." Entire categories of good-bet careers have, since the time I graduated college, slid off into the ocean of irrelevance; skills that it seemed would be lucrative forever now seem ripe for demonstration in the museum of Old-Tyme Jobs. What never goes out of style, though, is clear thinking; the ability to assess a text for truth (or nonsense); the process of working one's way toward wisdom by attempting to write something or struggling through a difficult swath of prose; learning to assess a series of events for causality; developing one's ability to think creatively and generously about the (so-called) "Other."



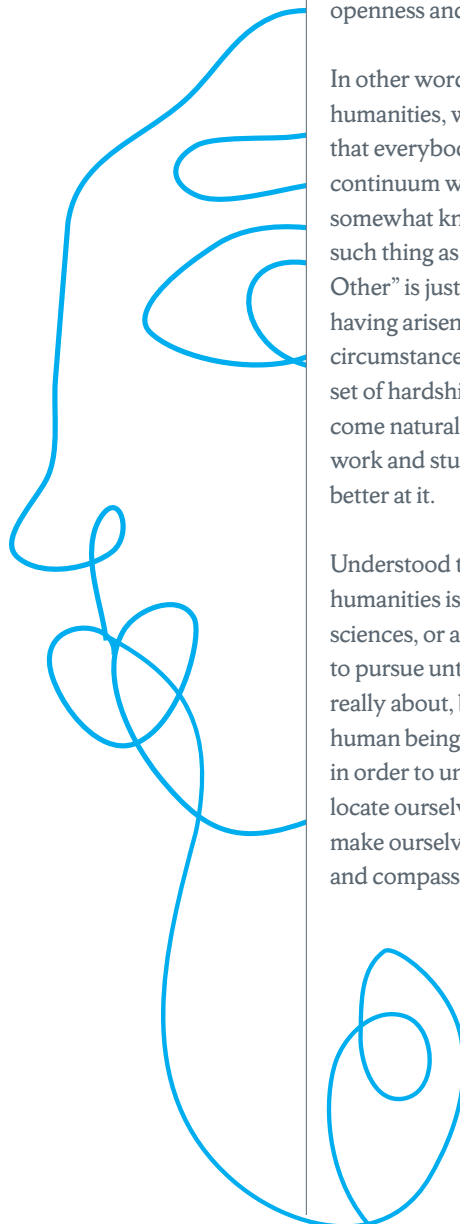
The Other” is just us on a different day, or having arisen from a different set of circumstances, or beset by a different set of hardships.

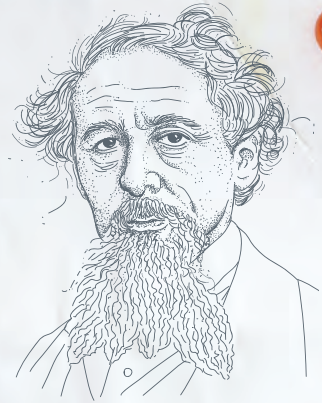


Studying the humanities helps us correct our naturally lazy and approximate habits of projection, by putting ourselves into connection with facts. We become, in essence, more precise and alert receptors of the story the world is telling us. We train ourselves in starting out with an initial projection from within some broad reductive category (Englishman; undocumented worker; oppressor; America; hero) and then moving, through thought and study and writing, toward a more complex, particularized version of that entity. This has the effect of infusing our relation to that entity with increased openness and possibility.

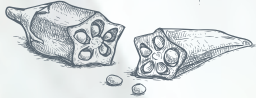
In other words, when we study the humanities, we ritually remind ourselves that everybody in this world is on a continuum with us and is therefore somewhat knowable to us. There is no such thing as “the Other,” really; “the Other” is just us on a different day, or having arisen from a different set of circumstances, or beset by a different set of hardships. This impulse may not come naturally to us, but we can, through work and study, train ourselves to get better at it.

Understood this way, the study of the humanities is not a “weak” version of the sciences, or a nice field for an artsy kid to pursue until she figures out what she's really about, but the essential thing that human beings do: We study the world in order to understand it more fully and locate ourselves more sanely within it; to make ourselves more powerful, confident and compassionate people.





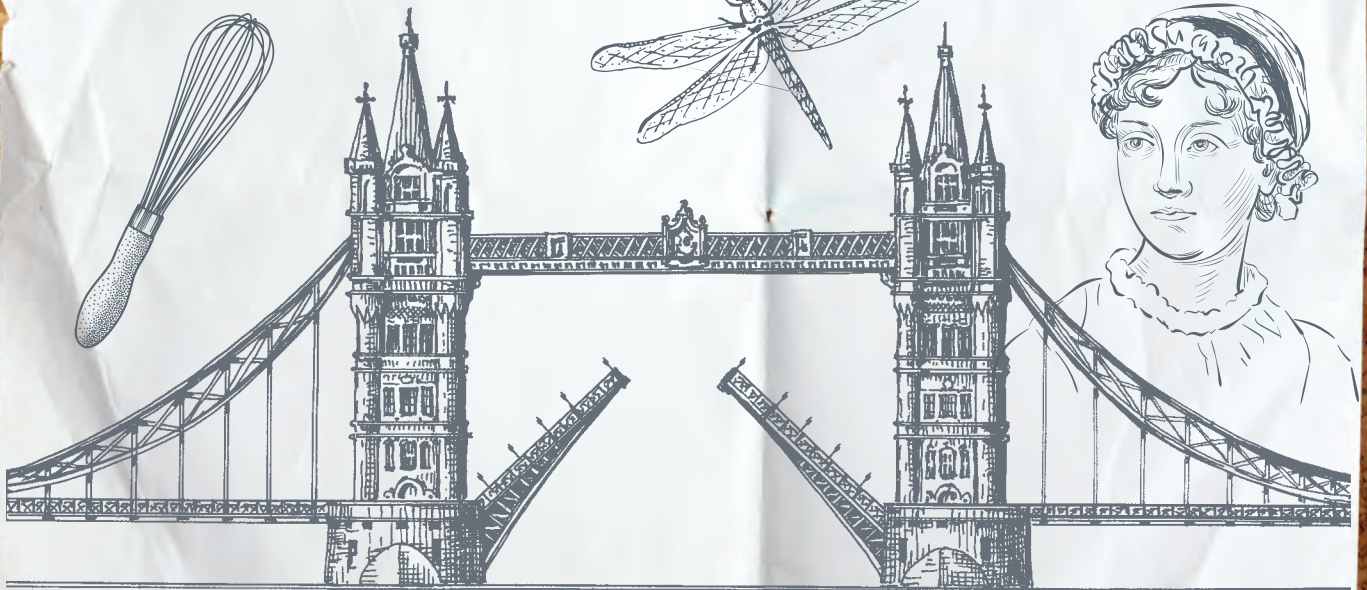
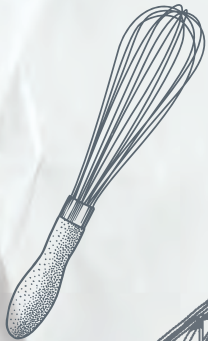
Cheat Sheet
Hot Topics, Cool Classes



Students today study many of the same subjects as earlier generations did. While the subjects remain the same, it's the instructor's approach that has changed. Pedagogy, or the theory behind teaching, now recognizes that the teacher is truly a facilitator, helping the student to guide his or her own learning. So while the classic lecture is still alive and well, A&S faculty continue to develop new ways to bring their specialties alive.



Here is a sampling of the many exciting classes available to A&S students across subjects.



AAS 200: “Say It Loud”: Exploring Identity through African American Foodways



Professor: Kishi Animashaun Ducre, associate professor of African American studies. Her research focuses on environmental racism and injustice (the ways environmental policies disproportionately hurt communities of color) and the intersection of race, class, gender and the environment.

In a nutshell: This course explores African American identity, culture, and memory and the cultural connection of the African diaspora through foodways - the types, rituals and ceremonies of food. Because of the cooking component, it is taught with the David B. Falk College of Sport and Human Dynamics, which offers programs in food studies and nutrition.

What “African diaspora” means: Colin Palmer, the late Jamaican American historian, wrote that “the construction of a diaspora is an organic process involving movement from ancestral land, settlement in new lands, and sometimes renewed movement and resettlement elsewhere.” The African diaspora is unique and complex, given the trajectories of people of African descent in different nation-states in the Americas and the Caribbean.

The cool factor: Food! Students attend culinary labs and learn to cook a full meal, including such dishes as cornbread, gumbo, Charleston red rice, greens and sweet potato pie.

Tell me more: It’s a different way to understand the African diaspora and to understand food is more than what we eat, but a cultural production. It opens a complex conversation about food: What are its roots? Why do we eat certain foods? When do we eat it? What is the role of food in justice and resistance? What is the relationship between black people and hospitality, between economic independence and autonomy from serving food post-Emancipation?



Another perspective: This course offers a broad, nuanced way to focus on African American studies and culture. Because it’s interdisciplinary, there’s room to understand it through popular culture and cookbooks and literary texts. “Hungry for More” (right) for suggestions.

Who knew? Students come from different parts of the country and the world. They discover their commonality may not be language or geography, but food. This course offers students a space to be distinctly different, but connected to each other.

For further consideration: African American culinary traditions continue to thrive in the U.S. although some predominantly black communities have less access to fresh, affordable groceries than white communities.

On social media: On Twitter, follow Bryant Terry (@bryantterry), award-winning chef, activist and author; Michael W. Twitty (@KosherSoul), culinary historian and author of *The Cooking Gene* (2017) and Monica M. White (@gardengriot), author of *Freedom Farmers: Agricultural Resistance and the Black Freedom Movement* (2018).

Bonus points: Eat at soul food restaurants in cities like Washington, D.C., and New Orleans. Visit the National Museum of African American History and Culture in Washington, D.C., and eat at Sweet Home Cafe, which offers an array of African American cuisine.



Hungry for more?

Read *The Welcome Table: African American Heritage Cooking* by Jessica B. Harris (1995) and *Black Food Geographies: Race, Self-Reliance, and Food Access in Washington, DC* by Ashante’ M. Reese (2019). Watch the documentaries *Life and Debt* (2001) and *Soul Food Junkies* (2012).

You can also explore the 3,000-plus cookbook collection at Syracuse’s Carnegie Library. Find them at researchguides.library.syr.edu/cookbooks.

ETS 400: The Mysteries of London



Professor: Mike Goode, associate professor of English, who specializes in late 18th and early 19th century British literature and culture.

In a nutshell: This course examines the mystery literature of Victorian London and its continued fascination for contemporary novelists, filmmakers and tourists. Readings include *Oliver Twist* by Charles Dickens, *Lady Audley's Secret* by Mary Elizabeth Braddon and *Sherlock Holmes* stories by Sir Arthur Conan Doyle.



The cool factor: The class spends spring break in London and visits sites from assigned novels: St. Paul's Cathedral, Baker Street, Covent Garden, Old Scotland Yard, Savoy Hotel, the Royal Courts of Justice, Fleet Street, River Thames and more.

The allure of Victorian London: Scotland Yard started in the middle of the 19th century; London's metropolitan police force was founded in the 1820s. Before then, London was a city of nearly a million people without a police force. Students are attracted to the gritty and seedy side of Victorian London.

Tell me more: Even if you don't like reading Dickens, you can appreciate that he created an image of London. He popularized an image of the city and the idea of paying attention to different neighborhoods and sympathizing with the marginalized in the Victorian era.

Insider's tip: London is a sprawling city without a downtown. It has so many different neighborhoods and so many layers of history that are visible if you're looking. There's no substitute for walking around for that kind of serendipity. Charles Dickens was famous for wandering the city. Allow yourself to wander into things.

Who knew? Some neighborhoods retain their medieval roots, with street names denoting trades plied there, like Wood Street and Mill Street. Love Lane was the red-light district of the day.

For further consideration: There are many film and novel and TV representations of the Victorian era, but most of the neighborhoods on which they focus are not preserved. Only recently has England put money into preserving sites like Victorian workhouses and slums.

Yes, dear reader: Goode also teaches Jane Austen in Context - Hers & Ours, which considers the ongoing popularity of Austen's novels and the ways the stories are rewritten.

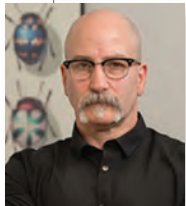
Online resources: Check out jack-the-ripper.org/, which features newspaper archives and other material related to the case, and Republic of Pemberley (peremberley.org), a Jane Austen fan site.

Recommended reading: *Fingersmith* by Sarah Waters (2002), a modern reinvention of *Oliver Twist* and a sensation novel (based on a crime reported in the newspaper); *Jack Maggs* by Peter Carey (1997), a novel about Victorian London featuring an escaped prisoner from Australia; *From Hell* by Allan Campbell and Eddie Moore (2012), a graphic novel about the 1888 serial murderer Jack the Ripper.

Bonus points: In London, visit the creepy, ramshackle Victorian jail cells that survive in the basement of the Viaduct Tavern, or head to Highgate's atmospheric West Cemetery, which inspired many Victorian ghost stories. If you're interested in Austen, visit Bath, a UNESCO World Heritage Site that showcases 18th century architecture and landscape.



Biology 417: Laboratory in Animal Behavior and Evolution



Professor: Scott Pitnick, professor of biology, inaugural Weeden Professor and principal investigator at Syracuse's Center for Reproductive

Evolution. His research interests include sexual selection, speciation and evolution of reproductive and life history traits.

In a nutshell: Students do independent research projects that ask questions about why animals look and behave the way they do. It's a hands-on experience in biology. Students also interpret the data, write papers in the style of a scientific journal and deliver oral presentations.

What is the scientific method? It's a process that begins with observation. The researcher then forms a question, states a hypothesis, runs experiments, analyzes data and draws a conclusion.

The cool factor: Students literally get their hands dirty by collecting specimens from a field and running experiments they design. Independent research projects vary widely; students may look at spiders, earthworms, snails, butterflies, beetles or flies - anything that catches their interest and they want to learn more about.

Tell me more: In another project, the class spends several weeks studying yellow dung flies on a nearby farm. Pitnick and his students have published numerous research projects on this species. The males are large and aggressively compete to mate. Students use large glass tubes to suck the flies off fresh dung. As most of the students have never been on a farm, this often requires some convincing.

Who knew? You can't study evolutionary biology without understanding sperm, the most rapidly evolving cell type. Sperm are the only cells in bodies that are cast away and live in another environment (the female reproductive tract) for weeks or months. You can't understand sperm without understanding the female reproductive tract.

Another perspective: The scientific process is a reasoning process. It's about how you go through the world as a thinking human. People use the scientific method all the time. They're observing things and generating hypotheses and analyzing them.

Can I do this at home? Walk around your yard and look at things. What do you see? What do you think is going on? Look at how spiders build webs. The engineering is sophisticated and beautiful. Look at the bees. Watch the birds. Study squirrels. Put out nuts and different food and observe them. The most important thing is to ask interesting questions about why they look and act the way they do. The starting point is to deeply observe the world around you because it's magnificent.

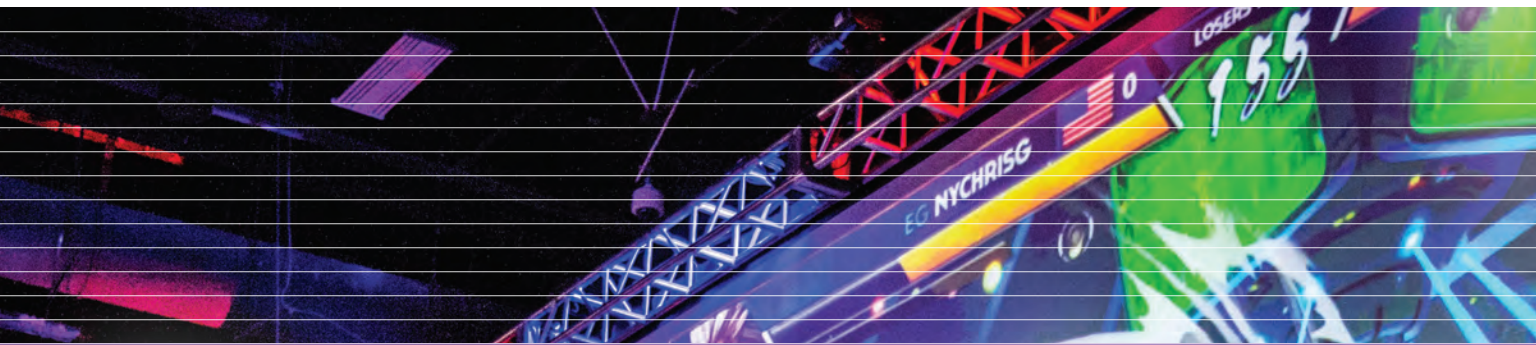


For further consideration: Evolution is all about sex. It's about getting genes into the next generation. Biologists who study animal behavior and natural selection are looking at colors and armaments and things like antlers and peacock feathers. In animal diversity, it's sexually selected traits that evolved. Who isn't interested in that?

If you liked this: Watch *Blue Planet*, the BBC natural history series hosted by Sir David Attenborough, or the PBS shows *Nature* and *Nova*. Read science articles in *The Atlantic* (look for Ed Yong's work) *Natural History*, and *Smithsonian* magazines.

Bonus points: Look at your compost pile. That's where mating is going on, and you can begin thinking about evolutionary biology.





Game On!



→ **Decoding the Esports Phenomenon**

Most people know the thrill of packing into a stadium to see a beloved pop artist in concert, or a favorite team—the thrum of the crowd heightening the excitement way beyond just tuning in at home. But lately, avid fans are flocking to arenas to watch not singers or star athletes, but teams of video game players who come to compete in tournaments. The players sit onstage with their computers, live video feeds of their game vantage points flashing on a wall of screens overhead. There are coaches circling, and everyone is wearing headsets, the better to communicate and strategize. And though keyboards are the instruments of choice here, this is no calm, studious gathering: The crowd erupts wildly at their favorite team’s every score or setback.



On campus, the Barnes Center at The Arch features an esports gaming room along with traditional fitness rooms.

This is the world of esports, competitive video gaming, where players from anywhere in the world can go head-to-head against players from anywhere else in the world. Perhaps more noteworthy, it's currently a business projected to surpass a billion dollars in global revenue this year by Reuters and to have an audience of more than 422 million worldwide. It's exactly this convergence of traits that led Arts and Sciences Associate Professor of



English **Chris Hanson**, (left) who has spent his career analyzing emerging media and video games, and Olivia Stomski, director

of S.I. Newhouse School of Public Communications' Sports Media Center, to believe that a college course on the topic would be in high demand. In fall of 2018, they debuted Esports and Media (COM 300/600) in collaboration with the social video gaming platform Twitch (see sidebar), rounding out the academic analysis with direct access to the leaders in the field.

If you're not of the social media-video gaming demographic, which is largely millennial, you may be scratching your head about what esports even are, let alone fathoming their place on college campuses.

And perhaps finding it incredible that more than 100 major U.S. universities including Columbia, University of Texas at Dallas and Miami University, now have esports teams and offer scholarships to "athletes" who excel at games like Fortnite (see sidebar) and League of Legends. So let's backtrack for some context.

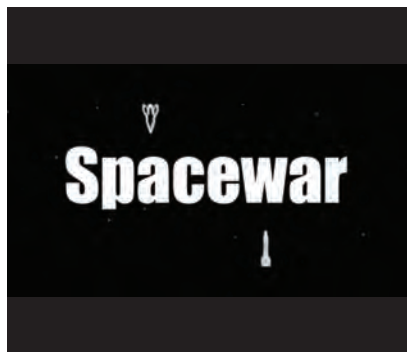
"The earliest incarnations of online gaming were very much linked to the academy," says Hanson. "The first digital games were competitive games, and they were played on these specially built things at universities. One of the earlier

"By 2020, 70 million people will tune in to watch an esports final, a number higher than that of any major sport with the exception of professional football."

instances was made by students at MIT, because it was one of the few schools to have a mainframe computer at that point." In 1972, Stanford hosted a tournament of Spacewar!, a multi-player game of battling rocket ships (thought to be a predecessor to Atari's Asteroids), as it was one of the only universities in the country to have computers advanced enough to run the game.

"Fast-forward to the ways in which online technologies like the internet were becoming more prevalent in colleges in the '90s, facilitating this ability to be able to play competitively against not just someone you're sitting next to, but also on other sides of the world," says Hanson. "And on campuses, computer labs becoming spaces where online games like Doom could become multiplayer."

Despite the name, few esports depict traditional sports; they are simply multiplayer video games, where you might have to save Earth from zombies, or cast spells as a warrior or fight enemies as an expert swordsman with teammates that you find online. But esports are increasingly being consumed like traditional sports, with tech consulting firm Activate projecting that by 2020, 70 million people will tune in to watch an esports final, a number higher than that of any major sport with the exception of professional football. Though the metrics should be thought of a little differently, reminds Hanson, as just a few minutes of streaming on a phone can count as "viewership," television networks like TBS and ESPN now regularly broadcast pro esports competitions, attempting to draw audiences with athlete backstories and in-depth strategic analyses, similar to what you'd expect from traditional sports broadcasting.



SpaceWar!, developed at MIT in 1962, is thought to be the first video game to be played on multiple (mainly academic) computers.



“I imagine that the explosive growth of esports among younger viewers is a great cause of concern for regular professional sports leagues,” says Hanson. “Some of the professional leagues like the NBA have actively sought to either build or form partnerships with esports teams and leagues, leveraging their existing brand and resources (e.g., arenas and local franchises) to find new audiences. By contrast, there was some controversy in 2018 around the popularity of Fortnite among the Boston Red Sox; they proudly showed their players playing the game during off days, but then later reversed course, deeming it ‘counterproductive’ to their on-field success.”

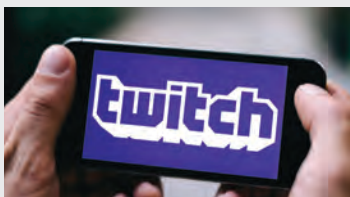
If the thought of watching strangers play video games baffles, Hanson offers a sports analogy: “You might be a fan of basketball or play a little bit yourself. I like to shoot baskets and play basketball, but I’m terrible at it. And there’s a certain joy and pleasure in watching someone who’s really good at it. I think with video games, maybe there’s less of a barrier to getting good at it, but there’s still certainly a pleasure in watching someone who is really good at a game that you play.” And though the demographics for traditional sports skew older every year, esports is largely consumed by the most covetable to advertisers but difficult to reach age group of 18- to 30-year-olds.

Not counting a few campus clubs, Syracuse University Athletics does not have any esports teams—yet. But Hanson sees their development as all but inevitable. “There’s this tidal wave coming of people who are looking at universities now who are interested in esports. I am guessing it will ultimately be in the best interest of the University to support what students are interested in—not just our current students, but our future students.”

Still can’t get your head around competitive gaming?

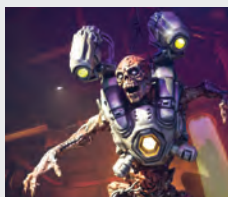
Get a taste for its roots in the 2007 movie, *The King of Kong: A Fistful of Quarters*.

What is Twitch?



Twitch is the most popular live video streaming service. In addition to watching video games, a user can tune in to watch live gambling competitions or music shows. It was purchased by Amazon and other competition includes Microsoft’s Mixer and YouTube Gaming. Google’s esports platform is Stadia; it remains to be seen if it can build enough momentum to dethrone Twitch.

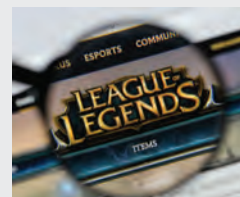
Video Game Glossary:



Doom: In this uber-violent, “first-person shooter” game, the player’s perspective is that of the armed protagonist. Play includes shooting demons and undead humans. It was nominated for inclusion in the Library of Congress as one of the top 10 most influential games of all time.



Fortnite: Fortnite debuted in 2017 and quickly became one of the most popular games today. Play revolves around collecting tools, weapons and resources to survive in a “battle royale,” where the last player left standing is the winner.



League of Legends: Players choose a “champion” to do battle with beasts and enemies in this five-on-five game, collecting gold, weapons and “experience” in the fictional world of Runeterra.

Don't Wait Till You're 50:

On Finding Your Own Way to Make the World Better



ALUMNI ROUNDTABLE



Two (A&S) alumni, **Professor Erik Sorensen** (above, left) and **Dr. Christopher Barley**, both coincidentally from the Class of 1989, have each created their own paths bridging their love of science with doing good in the world.

Sorensen, a member of the Onondaga Nation in Upstate New York, is the Arthur Allan Patchett Professor in Organic Chemistry at Princeton University. His personal mission is to create opportunities for underrepresented minority groups (UMG) in the chemical sciences and STEM fields.

Barley, an internist who practices in New York City, is also president of the nonprofit organization CITTA, which helps Third World countries gain access to better health care and education. CITTA opened a hospital in Sindhuli, Nepal, in response to the 2015 Nepal earthquake.

Interviews were condensed and edited for clarity.

“ What drew you to your major?

ES: I began as a psychology major working to complete my premed prerequisites. I gravitated toward experimental psychology and worked with distinguished teacher Joseph Sturr. He was very active in visual psychophysics research, and we were studying how the visual system changes as we age. That was very appealing, and I thought I would become an ophthalmologist one day. He became my undergraduate advisor and he said, “Erik, if you want to go to medical school, you cannot avoid organic chemistry.” I had the same phobia that unfortunately afflicts many students, but I took it and really loved it!

Who were your mentors?

ES: I had several excellent teachers who shaped my formative years. First and foremost, Roger Hahn [associate professor emeritus of chemistry, who died in August 2018], piqued my interest in organic chemistry. Roger also gave me an opportunity to work in his laboratory, which I really loved. I took other courses from chemistry professor James Kallmerten. I got hooked on the aesthetics of organic chemistry and structural transformations in his classes.

CB: I was a biology major, and I had some wonderful professors. One in particular, in the genetics department, really took me on as an advisee and helped me. And on the arts side, too. I had taken a class on Southeast Asian religions, and I got to know the professor well. The faculty and people at Syracuse were so embracing and supportive in a way I’ve never had before. Flash forward to my work in India and Nepal, and all that knowledge was extremely useful there.

What inspired you?

ES: Synthesis is a beautiful form of hands-off building. When you build a house, a carpenter touches the materials and actively does the assembly. In chemistry, you set the stage for molecules to encounter each other in precise ways. And how they undergo chemical reactions creates synthesis and structural transformations. I just found that to be endlessly creative.

CB: At Syracuse, I volunteered in every department at Crouse and SUNY Upstate. I was able to walk over and work in the Burn Unit or ICU. I wanted to be around docs and see all the cases I could see. And from living in a small town, I was always dreaming about bigger and better and what else was out there and seeing the world. I also studied abroad in London sophomore year. That was just the beginning for me.

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“We need to show students they can do science. It takes a little initiative, that’s all. If a student sees that you honestly care, that goes a long way.”

-Erik Sorensen '89

FAMILY VALUES

Erik Sorensen is not the only one of his family making a difference. Meet his family members who had the greatest influence on his personal mission:



Leo Nolan III '69 was a Syracuse All-American lacrosse player and first member of Erik’s family to graduate from college. He now works for the Center for American Indian Health at Johns Hopkins University.



Betty Lyons, Erik’s sister, is president and executive director of American Indian Law Alliance.



Sid Hill, Betty’s husband, is Tadodaho, spiritual leader of the Haudenosaunee.



Tonya Gonnella Frichner, Erik’s aunt, was a lawyer and advocate for indigenous peoples.

What inspired you to use your skills in medicine to help in the Third World?

CB: As I was finishing up at Syracuse and going to med school, I started to see what was going on in the world and how bad off many people have it. We didn’t have a lot growing up, but my mother was extremely generous and charitable in a very silent way. It was in my principles to give something back, and when I could combine helping people with seeing the world, it was a great fit for me.

CITTA does more than just build hospitals, right?

CB: In 1997, CITTA built a hospital in a very rural, poor part of India in Juanga, Odisha. The CITTA model is health, education and economic development. So the campus includes a hospital, school and women’s center. Last year we saw our 250,000th patient! In Nepal, following the 2015 earthquake, they lost everything in this one region. We built a hospital there that’s been open two years now. We employ local people, try to build up the community, try to bring in roads and electricity, and whatever we can do to help economically and make the area self-sufficient long term. Also part of what CITTA does is to empower women and young girls. So we’re building the first girls’ school and women’s center in the Jaisalmer, India, area. Women’s rights are an ongoing struggle, so this is a very exciting project.

What drew you to the issue of increasing underrepresented students in STEM?

ES: I’m one-half Onondaga Indian and lived on the Onondaga reservation until I was 7. My family had a big influence on me, and I was always surrounded by people who were closely connected with our culture. There was always the expectation that I should be doing something on behalf of our people. This inspiration later translated into my role of making the chemical sciences and the STEM fields more appealing to students of color.

What do you hope to achieve?

ES: Be more successful at luring and retaining promising Native American students to the STEM fields. It’s becoming increasingly hard to rely on non-U.S. citizens for our science and engineering workforce.

Why is it difficult to attract Native Americans into STEM?

ES: As young Native Americans, you’re raised to have a profound respect for the environment and nature. Most Native students are deeply connected to their families and cultures and the benefit of long and hard fields of study and an advanced degree is not immediately obvious.

What motivates you?

ES: I felt an increasing need to try to make a positive difference for other people. The commitment to UMG and increasing participation in the STEM fields grew with time. I wanted to do something important, beyond organic chemistry. When I retire and look back at my legacy, I want it to be more than just about the papers we publish.

CB: My life has become so enriched and fulfilled by the people in these communities. It has filled parts of my soul in ways I don't think I would ever get just from private practice. I have seen so many beautiful kids grow up. One boy who was in rags 20 years ago, we put him through school, all the way through medical school, and now he's our newest doctor in his village. I can't not help. I wish I had physically more time to spend there. I felt that, one day, when I made it in medicine, I would give back to people who would never be in my life directly, those in the Third World.

Describe what you gained from a liberal arts education.

ES: When I went to college, I did not yet truly love to learn. I discovered this love as an undergraduate at Syracuse, at the College of Arts and Sciences. I was never limited at Syracuse and I really grew up there. The place, the setting and the people had everything to do with that.

CB: I grew up in a small town in Upstate New York. I wanted a university with an arts and sciences program, with great diversity in students, in education and programs, and teachers. All my family was strongly science oriented, but I had a lot of other interests and felt that Syracuse was really the best for me. Liberal arts made me a well-rounded, better person by far. If I had just gone the science route, part of me would be missing. It piqued my curiosity in everything—travel, culture, religion. Exposure to diverse ideas and diverse people was key to my experience.

Can you describe the value of a liberal arts education in today's world?

ES: We need people who know how to think, perhaps more than we've ever needed them in the past. The students with a broad-based liberal arts education are very comfortable thinking about different points of view and enjoy thinking about difficult issues.

CB: The world is wildly polarized. If all the world could have an education of liberal arts and science, it would be a lot better place. It helps create an interest in the world, in things other than yourself, in different kinds of people, and to find commonalities rather than dislikes.

Are there any lessons you pass along to students to become ethically engaged citizens?

ES: At Princeton, this is a big part of the culture, and the expectation is when you leave, you're going to do your part to make the world better. I think students internalize this to varying degrees. Some students become chemists for particular reasons. They know what their career is going to look like. I've been blessed with students who have naturally wanted to go and make a difference.

CB: I believe in the notion that you don't need to be rich or wildly successful to do good in the world. I always felt that if I could leave this earth a little bit cleaner, nicer, more hospitable, kinder I've done something good. When I speak to students, I tell them: Find something and do something. Don't wait until you're 50 years old and making a good income and now you're going to help people. Do it at every level of your life in some way. Yes, it's extra work, but what you get back, is 1,000-fold to what you put in. ”



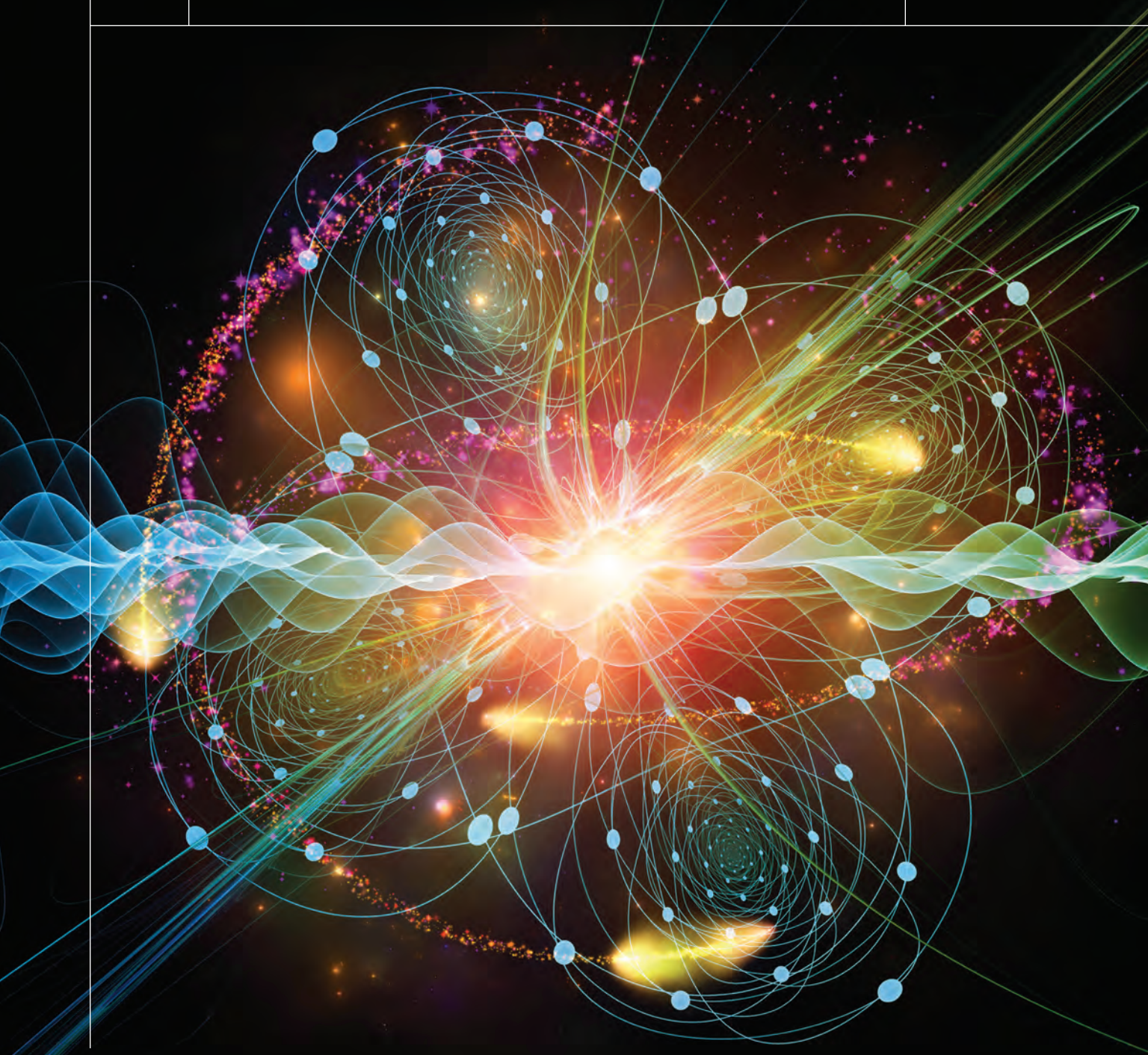
“You don't need to be rich or wildly successful to do good in the world.”

-Christopher Barley '89



ON THE CUTTING EDGE

Rising Physics Faculty Earn Career Honors for Research





Pictured from left: Professors
Lisa Manning, Christian
Santangelo and Jennifer Ross



Physics is the latest department in A&S to gain nationwide recognition. Two of its faculty members were recently named Fellows of the American Physical Society.

Lisa Manning, professor of physics and founding director of BioInspired Institute, and **Christian Santangelo**, professor of physics, earned the honor, given to just half of 1 percent of the professional organization's membership. In addition, **Jennifer Ross**, physics professor, was also named an APS Fellow last year. The three are among 23 Syracuse APS Fellows since 1949.

"The string of recent honors and accomplishments reinforces both Syracuse's status as an R1 university and the caliber of the department," says Alan Middleton, associate dean of research and scholarship in A&S. "As a member of the physics department myself, I know how outstanding it is to have two members of an institution named APS fellows in one year," says Middleton, a 2010 APS Fellow. "Our physics faculty are some of the most accomplished in the discipline."

Manning's APS citation notes her work in microscopic theory of flow and rigidity in disordered and biological materials. Her current

research includes investigating when materials like glass will fail. "This is an honor typically received later in your career," she says. "It's exciting and humbling."

Santangelo's citation notes his work using geometry and topology to understand the elasticity of soft materials. Recent work focuses on designing materials that can be controlled by conditions such as heat and creating tiny self-folding structures. "As a theoretical physicist, the extent to which people pay attention to my work is really all I have to gauge its impact," he says. "To me, this means that maybe I have advanced the field a little."

Manning has earned several more awards recently. In early October, she received the Emerging Leader Award from the University of California at Santa Barbara, where she earned a Ph.D. in physics in 2008.

That award came on the heels of a trip to Beijing, where she delivered a plenary talk at the 2019 International Workshop on Glass Physics, hosted by the Institute of Theoretical Physics, Chinese Academy of Sciences. Her Sept. 27 talk addressed her research on predicting when materials will fail.

Manning also co-chaired the highly selective, international Gordon Research Conference on Soft Condensed Matter Physics—to attend, conference guests must apply and be accepted—in August 2019 at Colby-Sawyer College in New London, New Hampshire. In 2021, Manning will chair the event, and in 2023 Ross will be chair.

The recent recognitions reflect "the success of the research we have going on at the BioInspired Institute," Manning says of the center that supports research by life sciences, engineering, physics and chemistry faculty. Ross and Santangelo are research directors of teams working on two of the institute's three focus areas: development and disease, and smart materials.

"These are real signs that we are right on the cutting edge with some of the best in the world in this area," Manning says. "We want to take areas where we are world-class and build upon them."

Other Syracuse physicists continue to draw accolades as well for groundbreaking research. You can read more recent physics highlights at thecollege.syr.edu/noteworthy.html.

→ OTHER RISING STARS OF STEM



Yasir H. Ahmed-Braimah
Assistant Professor, Biology
Specializations: Evolutionary genetics and computational genomics
Previous Position: Postdoctoral research associate at Cornell University

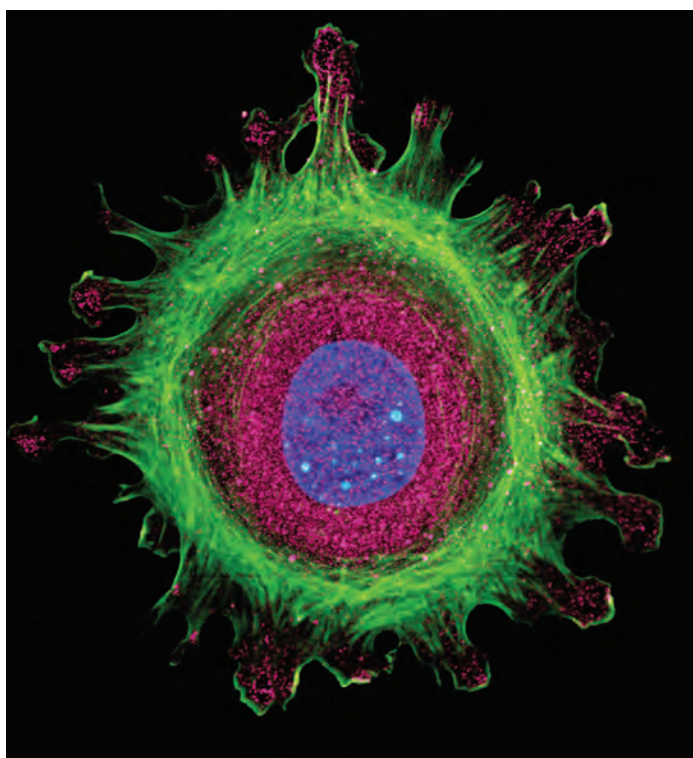


Bridget Hier G'12, G'14
Assistant Professor, Psychology
Specializations: Academic intervention for children with or at risk for learning disabilities
Previous Position: Assistant professor of counseling, school and educational psychology at the University at Buffalo



Stephanie McMillen
Assistant Professor, Communication Sciences and Disorders (CSD)
Specializations: Language development in bilingual children and language disorders
Previous Position: Visiting research scholar in CSD at Temple University

→ What is the BioInspired Institute?



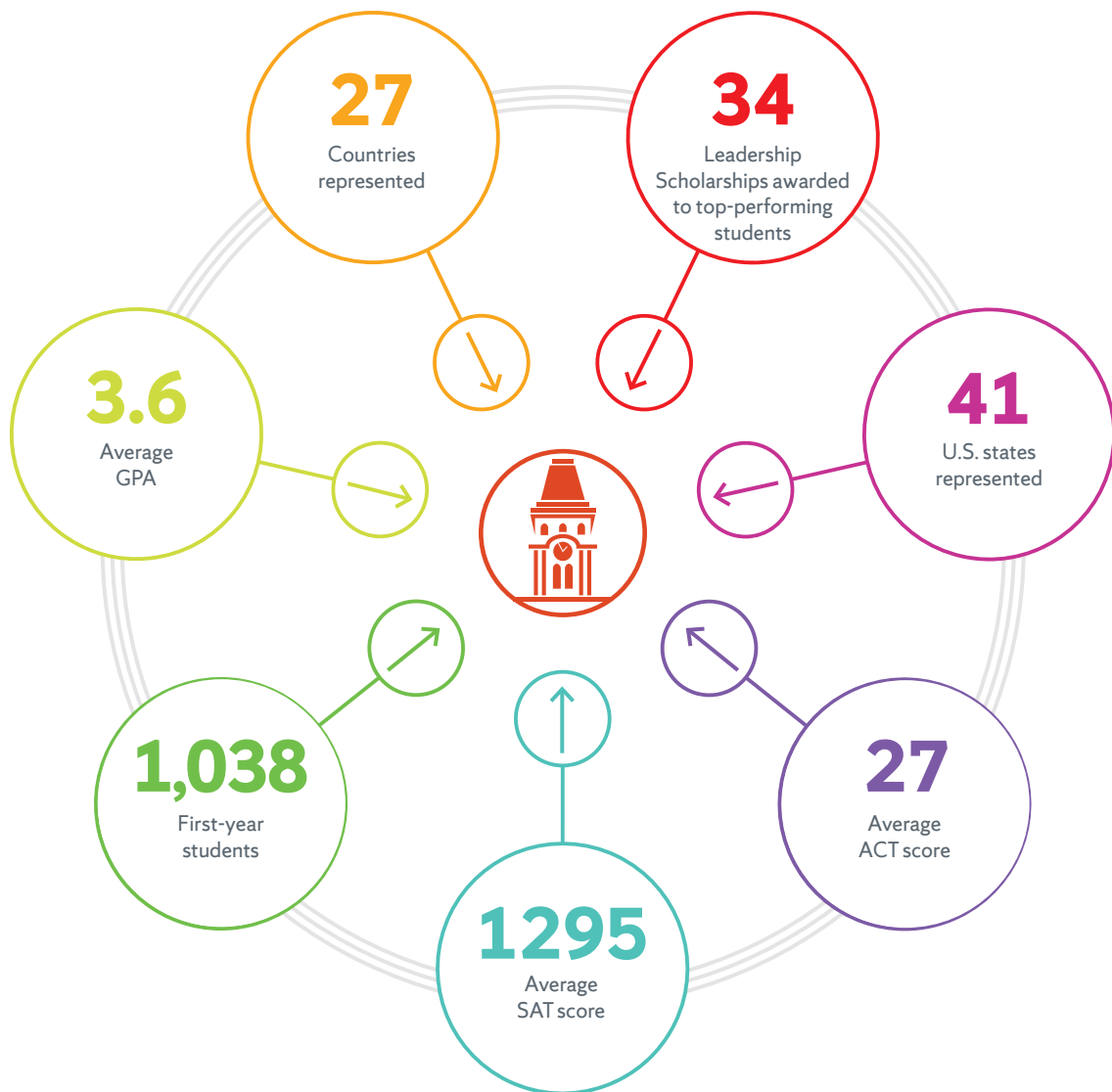
BioInspired Syracuse supports research into complex biological systems, developing and designing programmable smart materials to address global challenges in health, medicine and materials innovation. It is an institute for material and living systems, focusing on three key areas: drug discovery, smart materials, and development and disease. BioInspired involves faculty from life sciences, engineering, physics and chemistry. Learn more at bioinspired.syr.edu.





NEW UNDERGRADUATE STUDENT SNAPSHOT

A&S' incoming students bring a world of perspectives
and an ambitious intellect to campus.



CLOCK-WATC

As Dean Karin Ruhlandt n letter this issue, the Colleg and Sciences will begin ce its 150th anniversary nex One part of the Hall of Lai is already prepared for its the clock. Over the summ removed and restored to l more accurately. It was rei mid-October.



A Space for Success

As Syracuse University's first building, the Hall of Languages has been a landmark to generations of students since 1873. Its stately limestone exterior appears unchanged through the years. But while the outside stays true to its origins, the interior continues to evolve. Today, the third floor of the Hall of Languages is home to a new landmark of A&S student life—the enlarged and reimagined Office of Undergraduate Academic and Career Advising.



The new 2,600 square-foot suite, dedicated during Family Weekend, underscores A&S' commitment to advising excellence. Steve Schaffling (left), assistant dean of student success in A&S, notes, "This new space is an example of how we are actively combining career and academic advising. Academic decisions affect career decisions, and vice versa."

Schaffling, who came to Syracuse in 2018, leads more than 30 advisors who manage more than 17,000 student appointments a year. The advisors do more than help students register for classes. They are sounding boards and resources, ready to share information about internships, immersions, research opportunities and career exploration. "Our advisors are willing guides, so students can navigate their choices," Schaffling says. "We encourage them to come back as often they need."

To accommodate the advising office's larger footprint, Dean Ruhlandt and much of her leadership team moved from Hall of Languages to the Tolley Humanities Building. "This creative investment in the advising space allows us to better serve our students and help them achieve success both on campus and post-graduation," Ruhlandt says.

Alumni on campus can visit the advising office at 328 Hall of Languages.



“ This creative investment in the advising space allows us to better serve our students and help them achieve success both on campus and post-graduation.”

-Karin Ruhlandt, Dean



About Advising



17,000 student appointments were conducted during 2018-19.



31 advising staff members.



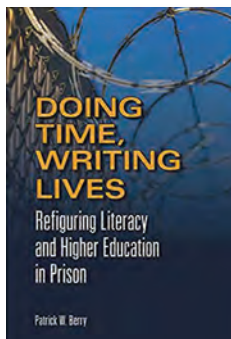
Integrated model brings academic and career advising together in one office, so students can get seamless guidance from first year to Commencement and beyond.

Bookshelf

Are you looking for something new to read? With so much great content published every day, it can be hard to know where to start. To help you choose, Bookshelf will present works of interest to a general audience written by A&S faculty, alumni or students.

In this issue, Eric Schiff, chair of the physics department, and Vivian May, director of the Syracuse University Humanities Center and the Central New York Humanities Corridor, suggest these works as a start. Happy reading!

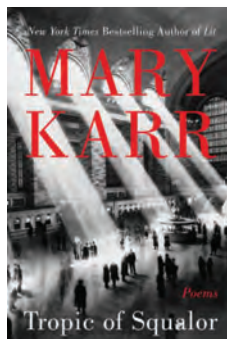
In the Arts



Patrick W. Berry

***Doing Time, Writing Lives: Refiguring Literacy and Higher Education in Prison.* (2017)**

Can higher education improve the lives of the incarcerated and their families? Berry delivers a nuanced analysis through combining case studies and interviews with his own experiences teaching writing in prison. Berry is associate professor in and chair of the writing studies, rhetoric and composition department.



Mary Karr

***Tropic of Squalor.* (2018)**

Nominated for a Pulitzer Prize, *Tropic of Squalor's* poems are a powerfully rendered meditation on human suffering and the divine hiding in everyday life. Karr is Trustee Professor and Peck Professor of Literature in the Department of English.



**Silvio Torres-Saillant
Nancy Kang**

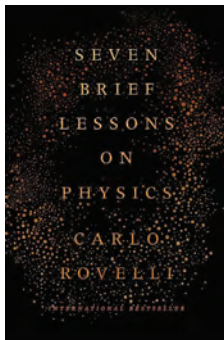
***The Once and Future Muse: The Poetry and Poetics of Rhina P. Espaillet.* (2018)**

Dominican-born Rhina P. Espaillet, the youngest poet ever inducted into the Poetry Society of America, remained out of the spotlight for many years until her poetry won accolades. Her story also illustrates the effect of the 1960s on readers and writers. Torres-Saillant is a professor of English and Dean's Professor of the Humanities.



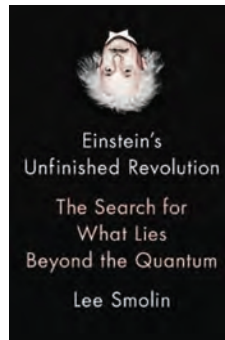
Vivian May is a scholar of Black feminist intellectual history and professor of women's and gender studies. She leads the Syracuse University Humanities Center, home to humanities research and a wide range of programming, such as its annual University-wide Books in the Humanities celebration, from where the titles above are drawn. May is also director of the Central New York Humanities Corridor, a consortium of more than 10 universities and colleges, supported from an award by the Andrew W. Mellon Foundation, which fosters collaborative research, teaching, and programming across the region.

In the Sciences



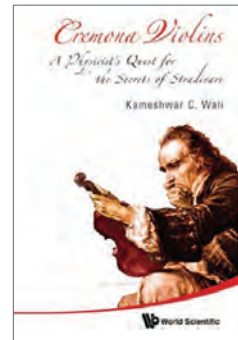
Carlo Rovelli
***Seven Brief Lessons on Physics.* (2016)**

A heady, fascinating introduction to the great thinkers and theories in physics, in 80 elegant pages. Rovelli was a postdoctoral student in the physics department and is now head of the quantum gravity group at the Centre de Physique Théorique of Aix-Marseille Université.



Lee Smolin
***Einstein's Unfinished Revolution: The Search for What Lies Beyond the Quantum.* (2019)**

Smolin takes us through the basics of quantum physics and the classic experiments long used to explain it. He also presents the mysteries brought on by quantum physics, along with potential solutions. Smolin was a physics professor at A&S and is now a researcher at Canada's Perimeter Institute for Theoretical Physics.



Kamesh Wali
***Cremona Violins: A Physicist's Quest for the Secrets of Stradivari.* (2010)**

The Cremonese art of violin-making has fascinated and mystified musicians and scientists alike. This book chronicles painstaking research done by William F. "Jack" Fry, who, in isolating the physics behind violin acoustics, has come closer than anyone before in reproducing the tonal qualities achieved by Cremona's master instrument-makers. Wali is an emeritus professor in physics.



Eric Schiff chairs the physics department. He is also a researcher, focusing on semiconductor physics and on sustainable energy technologies. He is dedicated to the ideas that college science courses must help students recognize when ideas are wrong as well as when they are right. Despite being an English major in college, he has yet to write a book for the general public. He admires the scientists who have.

A Weekend to Remember



Alumni returned to campus in full force Sept. 12-15 for the University's annual Orange Central homecoming and alumni weekend. The College of Arts and Sciences (A&S) was well represented during the festivities, and its alumni enjoyed special programming, such as stargazing at Holden Observatory, a science of ice cream presentation and a breakfast panel discussion with the Maxwell School. It was a great time to reconnect with old friends, and meet new ones, too.

If you were part of Orange Central 2019, please share your favorite memory or photo by emailing asnews@syr.edu. If you couldn't attend this year, there is always next year. Planning for 2020 is already underway.

Syracuse University Alumni Awards

The highlight of Orange Central is the Alumni Award Ceremony. Of the eight Syracuse alumni honored at this year's gala event, four had ties to A&S.

They are:



Dr. Alicia Carroll '88 (Biology), an ophthalmic plastic and reconstructive surgeon. George Arents Award recipient. The Arents Award is Syracuse University's highest alumni honor and recognizes alumni who have excelled in their fields.



Joshua Aviv '15 (Economics), G'17, an entrepreneur and founder and CEO of SparkCharge. Generation Orange Award recipient. The Generation Orange Award recognizes graduates of the last 10 years for their continued commitment to Syracuse University.



Ronald Goldfarb '54 (English), L'56. Attorney, author and literary agent. Melvin A. Eggers Senior Alumni Award recipient, along with his wife, **Joanne Goldfarb '57**. This award is presented to those alumni who graduated more than 50 years ago and have demonstrated loyalty and service to Syracuse University.



Don Waful '37 (Political Science), G'39. On the eve of having Syracuse's inaugural Military/Veteran Award conferred on him, Don Waful died after 103 noteworthy years. An Army veteran and a prisoner of war during World War II, Waful maintained a strong connection to the University throughout his life. Indeed, he attended most of SU's home football games after 1945. Along with the rest of the campus community, A&S will miss Don's presence.



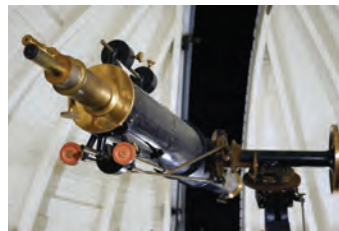
Dean Ruhlandt and husband Ulrich English, a chemist and research assistant professor in A&S' forensics program.

The Science of Ice Cream

Students, staff and alumni were treated to a fascinating display—complete with super-chilled liquid nitrogen—as Dean Karin Ruhlandt and representatives of the physics and chemistry departments explained the molecular changes transforming milk and sugar into a tasty treat.



Alumni enjoy a night on campus.



The telescope in Holden.

Stargazing at Holden Observatory

Despite cloudy skies, visitors to Holden Observatory were able to see Jupiter and Saturn intermittently through the haze. Guests also heard a brief history of Holden and how its telescope works.

To see a student-guided tour of Holden, visit our Instagram page, [@artsscienceusu](https://www.instagram.com/artsscienceusu). Look for the story “Observatory” on our main screen.



An alumnus asks a question of the panel.

Breakfast Panel Discussion with the Maxwell School

A panel of faculty members led an engaging discussion of the practical and policy implications of the rise of autonomous systems. Guests also participated in this timely discussion, asking many questions of the panel and the deans.

CAREER CONVERSATION

While on campus, Dr. Alicia Carroll '88 visited with students during a career conversation. The students—part of the SUSTAIN program, which supports the success of underrepresented students in the STEM disciplines—enjoyed a lively discussion and practical advice on building a career path. We thank Dr. Carroll for sharing her time and expertise with our students, complementing their classroom learning with your insight.

Are you interested in participating in a Career Conversation? Email asgiving@sy.edu for more information.



Dr. Alicia Carroll and students

ALUMNA HONORED

In 1969, Rubye Torrey G'69 became the first African American woman to earn a Ph.D. in analytical chemistry from Syracuse. Dean Karin Ruhlandt commemorated the 50th anniversary of her pioneering accomplishment with a plaque dedication, attended by Torrey's son Michael.



Trusted Sources: Media Turn to A&S Faculty

With more than 300 faculty members in 16 departments, A&S researchers are consistently the go-to resource for reporters across the country looking for expert analysis and opinion on today's trending topics. Their commentary provides readers and viewers with a more nuanced understanding of complex, contemporary issues in science, health, culture and the environment.

"States Target Vaping with Bans. In California, the Action is Local."

Ana Ibarra, CaliforniaHealthline, September 27, 2019.

Featuring: Joseph Ditre, associate professor of psychology.

"What's Intersectionality? Let These Scholars Explain the Theory and Its History."

Arica L. Coleman, *Time*, March 29, 2019

Featuring: Linda E. Carty, associate professor African American studies, and Chandra Talpade Mohanty, distinguished professor of women's and gender studies and Dean's Professor of the Humanities.

"North Atlantic Right Whale Mamas Whisper to Their Babies to Keep Them Safe."

Jason Daley, *Smithsonian Magazine*, October 11, 2019.

Featuring: Susan Parks, professor of biology.

"The Secondhand Harms of Drinking Impact 1 in 5 Adults, Study Says."

Jacqueline Howard, *CNN Health*, July 1, 2019.

Featuring: Aesoon Park, associate professor of psychology.

"China Claims Lunar Rover Found a Gel-Like Substance on the Moon."

Jason Daley, *Smithsonian Magazine*, September 3, 2019.

Featuring: Walter Freeman, assistant teaching professor of physics.

"Agriculture Department Cuts Program Tracking Bee Declines."

Adam Allington, *Bloomberg Media*, July 10, 2019.

Featuring: Kari Segreaves, associate professor of biology.

"Using Blood, Saliva, Urine to Detect Cancer: Scientists' 'Holy Grail.'"

Jacqueline Howard, *CNN Health*, April 3, 2019.

Featuring: Liviu Movileanu, professor of physics.

"New EPA Water Rule Attempts to Deliver Safer Drinking Water."

Tanzina Vega, *The Takeaway* (NPR), October 15, 2019.

Featuring: Christa Kelleher, assistant professor of earth sciences.

"Porgy and Bess' Can Offend. Now Try Translating It Into Spanish."

Eric Grode, *The New York Times*, October 3, 2019.

Featuring: Ana Méndez-Oliver, assistant professor of Spanish literature and culture.

"Milky Way Black Hole Emits Mysterious Light Flare."

CBS News, August 15, 2019.

Featuring: Duncan Brown, the Charles Brightman Endowed Professor of Physics.



*“Proudly
stands our
Alma Mater
On her
hilltop high.”*



As Syracuse University's founding college, the College of Arts and Sciences is proud to be one of the first members of the Orange family.

We congratulate our alma mater for 150 years of exceptional scholarship, teaching and discovery, and look forward to another century of success together.

Syracuse University
College of Arts & Sciences

Syracuse University

College of Arts & Sciences

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