

Briggantine

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LIFE 101 WITH LADUCA • BRIGGS GOES TO THE ZOO • THE LIFE OF GALILEO



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LYMAN BRIGGS COLLEGE

Lyman Briggs College is an undergraduate, residential college founded in 1967 by dedicated individuals hoping to bridge the widening gap between sciences and humanities. The first of its kind, the college has become known as the institution students go to for an excellent foundation in science and mathematics with additional focus on history, philosophy and sociology of science.

MESSAGE FROM THE DEAN

To the average observer, a class at Lyman Briggs College may appear like any other class at Michigan State University. However, those of us who have taught and attended classes at Briggs know the difference.

Our courses are designed by incredibly innovative faculty, incorporate transformative techniques, and draw on the residential framework of the college to provide true experiential learning. Best of all, because the faculty care so much, classes are often simply more fun (see the page 4 feature on Dr. LaDuca).

As alumni and friends of Briggs, you know what makes us different and what makes all the hard work in Briggs classes worthwhile. Because you are a key part of this equation, we want to do better in communicating with you.

In recent years, we have lagged in maintaining reliable connections with our alumni and friends as we went through some major transitions. Now, I would like to reaffirm our commitment to partnering with you to provide the best possible Briggs Experience to all of our students.

With new staff and support in our communication and alumni relations office, it is my hope that we can re-engage with you, our faithful alumni and friends, through our new website and this, the newest edition of the Briggantine newsletter. And we hope that you will want to re-engage with the college and spend time helping our students think about what their futures should look like.

So please take a moment to read the stories in these pages -- and then take a further moment to visit our website, reconnect, and let us know how you'd like to get involved. We have redesigned our homepage and created a news and events page to help keep you better informed; from either page you can also reach our various social media pages. I hope that you will take advantage of these opportunities and stay connected with Briggs.

Looking forward to hearing from (and working with) you!

Sincerely yours,

Elizabeth H. Simmons

Dean, Lyman Briggs College



Elizabeth Simmons came to Lyman Briggs College in 2003 and became dean in 2007. Among other accomplishments, she is credited with leading efforts to increase the faculty by 50 percent and renovate all of the teaching laboratories.

Dr. Simmons is a world-renowned particle theorist, whose research focuses on the origins of mass. She has received numerous prestigious awards in her career, and continues to conduct research in the physics department.

Similar to her dedication to research, Dr. Simmons enjoys teaching physics courses at all levels, and presently teaches a junior level course in mathematical physics.

A central part of her mission as an educator is encouraging more students (especially those from under-represented groups) to consider studies in the physical sciences.

She holds degrees from Harvard and Cambridge, and is well-respected by colleagues and her staff.

LIFE 101 WITH LADUCA

MAKING LEARNING FUN AT BRIGGS

Dr. Robert LaDuca came to Michigan State University in the fall of 2004, to join the faculty at Lyman Briggs College and revitalize the chemistry program.

Among other goals, he was looking for a place that looked at more than just technique. He wanted a place that taught students to become true scientists.

What he found was a home for his incredible energy and drive, and a host of students and friends who were eager to learn from him, work with him, and share in his passion for science and teaching.

Since his start, he has raised test scores across the board, facilitated a multitude of published articles with credit given to undergraduate researchers, and lent his hand to driving innovative teaching methods, a central theme for him and his colleagues.

"Lyman Briggs College is a national treasure," he said in a recent interview. "It is the best-kept secret in higher education, and it is beyond an honor to be a part of it."

Dr. LaDuca chose Briggs because it is more inquiry-based, and because it offered him the chance to help students (especially those from underrepresented groups) realize that they wanted to stay in science-based careers.

And the students are what drive him to work so hard.

"Student response guides the lecture," he said.

You have to take into account where each student is coming from, where they are in life, and then probe down, he said. You have to know when to administer tough-love.

And his formula seems to be working.

In April 2011, Dr. LaDuca was found to have the 'heart-pumping capacity of a 75-year-old'. Five days after winning the State of Michigan's Professor of the Year Award, he found himself in the operating room for open-heart surgery.

"It made me realize that life is fragile and fleeting, and each breath is a gift," he said. And that ideal is something he tries to communicate to his students each and every day.

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facing page-



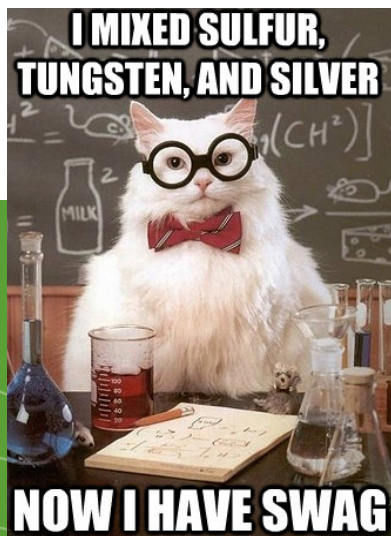
Dr. LaDuca currently lives in Zeeland, MI with his two teenage sons (Tony, 16, and Andrew, 14) and a dog named Bruford.

After growing up in Queens, NY, he attended Cathedral Preparatory Seminary in New York City, where his class consisted of 25 students (all male). He remains in touch with many of them today.

He went to Yale for his undergraduate degree, followed by Cornell for Master's and doctoral work. Upon graduating, he took a position at King's College in Pennsylvania.

Dr. LaDuca is credited as lead-author on more than 150 published articles in approximately 17 years, nearly all with undergraduate student researchers.

One of his articles (with a high school student co-author) was the first-ever reported example of molecular chains that weave.



QUICK FACTS ABOUT DR LADUCA

- born in June 1968
- grew up in Queens, NY
- favorite food is Connie's pizza (a restaurant in Queens)
- is, in fact, a Junior
- has a dog named 'Bruford' (after the YES drummer)
- favorite color is dark blue
- drives 90 miles to MSU each day (in 80 minutes - Pb foot)
- applied to Yale as a "yeah, right" and got in
- believes aliens are 'theoretically possible'
- was broken up with once for lack of interest in Harry Potter

“Find work that is meaningful and significant enough that you want to be there on the last day of your life.”

- Dr. Robert LaDuca

Dr. Elizabeth Simmons, Dean of Lyman Briggs College, was involved in the interview process when Dr. LaDuca first applied at MSU.

“He was the complete package,” she said. “Extensive experience in teaching and research, and he clearly knew how to engage undergraduate students.”

Now a friend and mentor, Simmons recognizes his extraordinary ability to not only connect to students, but to motivate them and push them to succeed.

He sets high expectations and demands, but always speaks to them as people and communicates with them in their own individual way, she said.

One way Dr. LaDuca enjoys communicating with students is via memes (see photo, lower left). He also pioneered electronic office hours at Briggs.

An avid Facebook user and computer junkie, he is very much the forward-thinking professor.

“He puts on the persona of the cool guy in the Hawaiian shirt, but he is actually a very cultured person as well,” Simmons said.

Dr. LaDuca shows his culture through his love of music, especially progressive rock.

Citing YES and Genesis, he says progressive rock interests him the most because it requires so much instrumental skill. Words are optional.

Co-founder of the NorthEast Art Rock Festival (NEAR Fest), Dr. LaDuca has demonstrated his love of the genre through numerous fundraising and event coordination efforts over the years.

Honored throughout the years with titles like co-founder and professor of the year, he has continued to show his drive and dedication in everything he does.

To his students at Briggs, he always says, “Life is short; follow your passion.”

To those who have graduated and gone on to advanced degrees or careers, “Find work that is meaningful and significant enough that you want to be there on the last day of your life.”

When you start something new, his advice to students and recent graduates alike: “When you start a new class, always RTFS.” If you know what that means, then you know Dr. LaDuca.

As for his plans for the future, when asked how long he plans to continue teaching, he responds with a witty comment about teaching a class at 77. In all seriousness, he amends his comment to say he plans to never stop.

“When it stops being fun, I’ll retire.”

Dr. Robert LaDuca is a professor of chemistry at Lyman Briggs College. You may contact him by emailing laduca@msu.edu, or find him on Facebook.

UNDERGRADUATE RESEARCH WITH AMY POCHODYLO



“I came to MSU as a freshman with a professorial assistantship from the Honors College. Dr. LaDuca was assigned to me as my mentor, and for the past four years has been my research advisor.

I have worked closely with him researching metal-organic frameworks, and he is awesome to work with for a myriad of reasons. He is a very caring person, and he is also incredibly funny so it’s hard not to have a good day.

Working in his lab showed me the power of undergraduate research, and how much that can shape a college career. My work with Dr. LaDuca led to multiple articles published in scientific journals, as well as the Goldwater Scholarship.”

Amy Pochodylo is a senior this year at Briggs, and will graduate in May with a bachelor’s of science in chemistry.

Greg Farnum is a former Briggs student, and is currently working on a Master’s degree in biochemistry at MSU.

WINNING NATIONAL AWARDS WITH GREG FARNUM

“I was in Dr. LaDuca’s freshman chemistry course, and was intrigued by his enthusiasm in the classroom. I asked if I could work in his lab over the summer and quickly discovered that he brought the same attitude to his work in the lab.

Since then, Dr. LaDuca and I have published 21 articles together, and were honored in August 2012 at the American Chemical Society conference, where we received the national ACS Division of Inorganic Chemistry Award for Undergraduate Research.

I think the most important influence Dr. LaDuca had on me was to demonstrate the power of an enthusiastic mindset, not only as an engine for success, but as a factor of happiness.”



NEWS BRIEFS

BRIGGS FRESHMEN VISIT POTTER PARK ZOO; AN HPS EXPERIENCE

Twenty-three freshmen toured Potter Park Zoo in Lansing this week as part of their first HPS class, a class all Briggs students take in their first year to begin the exploration of history, philosophy, and sociology and how they relate to the physical sciences.

"Each year I take my students to Potter Park Zoo at the end of our unit on the history of zoos as places for science, conservation, education and recreation. Students read articles on the history of zoos and synthesize that material with the field trip for a paper," said Georgina Montgomery, assistant professor in Briggs and the history department.

Students consistently say the field trip is great fun and a great learning experience, and many engaged in conversation with Potter Park Docent and Volunteer Coordinator Jennifer Horvatin (who led the tour) about the history of Potter Park Zoo and the exhibits found there.

"I've been really looking forward to going to the zoo since I found out about it on the first day of class, because I'd love to work at a zoo one day," said Briggs freshman Natalie Rasmussen.



"This field trip was a great experience and I enjoyed every minute of it."

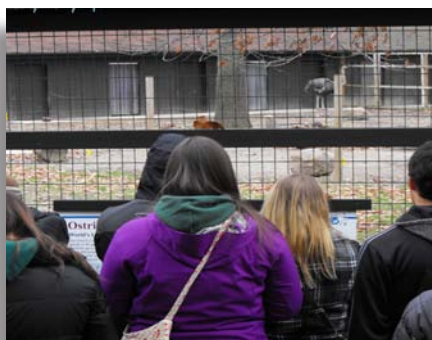
Among other things, the field trip was designed to talk about considerations that went into the history of exhibits. Topics of discussion included concepts such as enrichment (how the exhibits are set up) and barriers (how they have changed over time to make both the animal and visitor safer without negatively

impacting visibility for zoo guests.

Additionally, a zoo was defined as a place that not only houses animals (which could be a farm or a shelter), but one that exhibits them with the purpose of education.

Other topics discussed by students included ensuring natural habitat, identifying the proper types of food and water, social planning, and enrichment.

For more photos of the field trip, including pictures of the animals, please visit our Facebook page.



NEW WEB PAGES FOR ALUMNI AND FRIENDS

As part of the recent website redesign, which included the creation of a news and events page and a donation guide, Briggs is proud to announce new web pages for alumni and friends. Now you can stay connected

and choose preferences that will allow the staff at Briggs to help you take advantage of opportunities to connect with students, attend events, etc.

Visit www.lbc.msu.edu/alumni.cfm to see the new pages.

DISNEY GRANT WILL AID IN ENDANGERED SPECIES RESEARCH

With a recent \$25,000 grant from the Disney Worldwide Conservation Fund, Dr. Gerald Urquhart (assistant professor of biology at Lyman Briggs College and in the department of fisheries and wildlife) will be able to take a closer look at an endangered species long thought extinct in the Caribbean region of Nicaragua.

"The overall implication is working in human-dominated ecosystems," he said. "We need to find a way to help endangered species survive."



This new grant will be used to educate locals about the Baird's tapir, a species that Urquhart calls the 'cow of the rainforest', and to place GPS collars on tapirs that have been found in the region.

Working with co-PI Chris Jordan, a Ph.D. candidate in the fisheries and wildlife department, Urquhart hopes to learn enough about the habits of the Baird's tapir to give it a fighting chance in the dynamically altered ecosystem of today.

"The main threat is changes to environment as a result of globalization," he said.

Along with Dr. Daniel Kramer, associate professor in James Madison College, Urquhart and Jordan rediscovered the tapir as part of a 'camera trapping' project supported by funding from the National Science Foundation and spanning 2008-2014. For more information, visit the Briggs website.

THE LIFE OF GALILEO: A STUDY ABROAD

Fifteen students from Lyman Briggs College got to experience a lifetime this summer when they went to Italy for a month to look at the life of renowned scholar Galileo Galilei.

"It's one thing to talk about it in the classroom; but to live it..that's powerful," said trip leader Mark

Waddell, an assistant professor of history, philosophy and sociology of science (HPS) at Briggs.

His first time leading a study abroad program, Waddell was impressed with the eagerness of the students, and how excited they were to see the history of Galileo and his impact on science and religion.

Students in the program spent two weeks in Galileo's hometown of Florence before traveling to Rome for an additional two weeks of site visits and tours, all set amongst the amazing art and architecture that make Rome so popular with international visitors.

Cassie Wieckhorst, Briggs senior and HPS major, said "Catholicism played such a huge role in science today." Shocked to learn how different history was from what she was taught, Wieckhorst was excited to learn more and to draw parallels with modern-day scientific research.

Historic Catholic-endorsed science versus non-endorsed is like private versus public sector research today, she said.

"You come back, you see things differently," said Waddell. "To study abroad is to see a different culture, but more importantly, you find a new way to look at the United States," he said.



MSU HOMECOMING BRINGS TOGETHER MORE THAN 100 ALUMNI AND FRIENDS

For the first time ever, the three residential colleges at MSU (RCAH, James Madison, and Lyman Briggs) co-hosted a homecoming event, bringing together more than 100 faculty, staff, students, and alumni.

Along with food and refreshments, participants at the event also enjoyed folk music from the Bard Owls, scientific demonstrations from Science Theater, and a quick set from the a cappella group, RCAHppella.

Though the weather was a bit wet, participants stayed warm with hot cocoa, coffee, and breakfast sandwiches;

as well as great conversation.

Watching a student from Science Theater break a brick with a sledgehammer while it was sitting on the chest of another student- a student who was lying on a bed of nails- was the highlight for

many of those who attended, said Briggs' Assistant Dean Philip Strong.

"Entertainment was excellent, the food was great, and the cooperative atmosphere really set the tone for future collaboration with the other residential colleges," Strong said about the event.

Having all three residential colleges represented by faculty, staff, and current students, as well as an appearance from President Simon herself, was a great way to show our alumni how important they are to us, which is what homecoming is all about, he said.

Details are currently being discussed for a similar event to be held next fall, and other potential events including all three residential colleges in the spring and summer.

For more information, visit the Briggs event calendar.

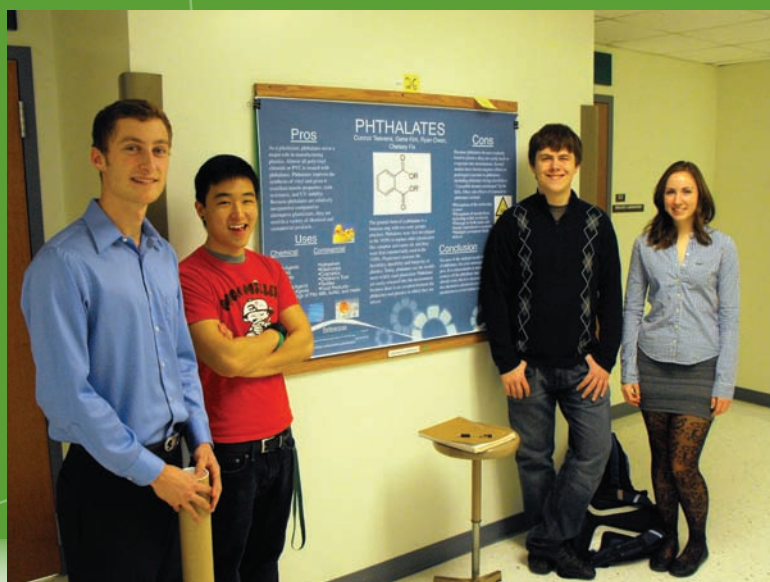


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BRIGGS 7TH ANNUAL RESEARCH SYMPOSIUM

The 7th Annual Lyman Briggs College Research Symposium will take place April 22 and 23 in 2013. This is an excellent opportunity to learn about the exciting research projects being conducted both at the college and in partner colleges across campus.

Biology, chemistry, physics, and mathematical research papers and projects will be presented by students in the lounges of both East and West Holmes Hall. Guests are encouraged to stop by from 9 a.m. to 7 p.m. both days.

The complete schedule and opportunities to meet the students behind the research will be found on the Briggs website.

Special thanks for
financial support:



Visit www.lbc.msu.edu
for more information.