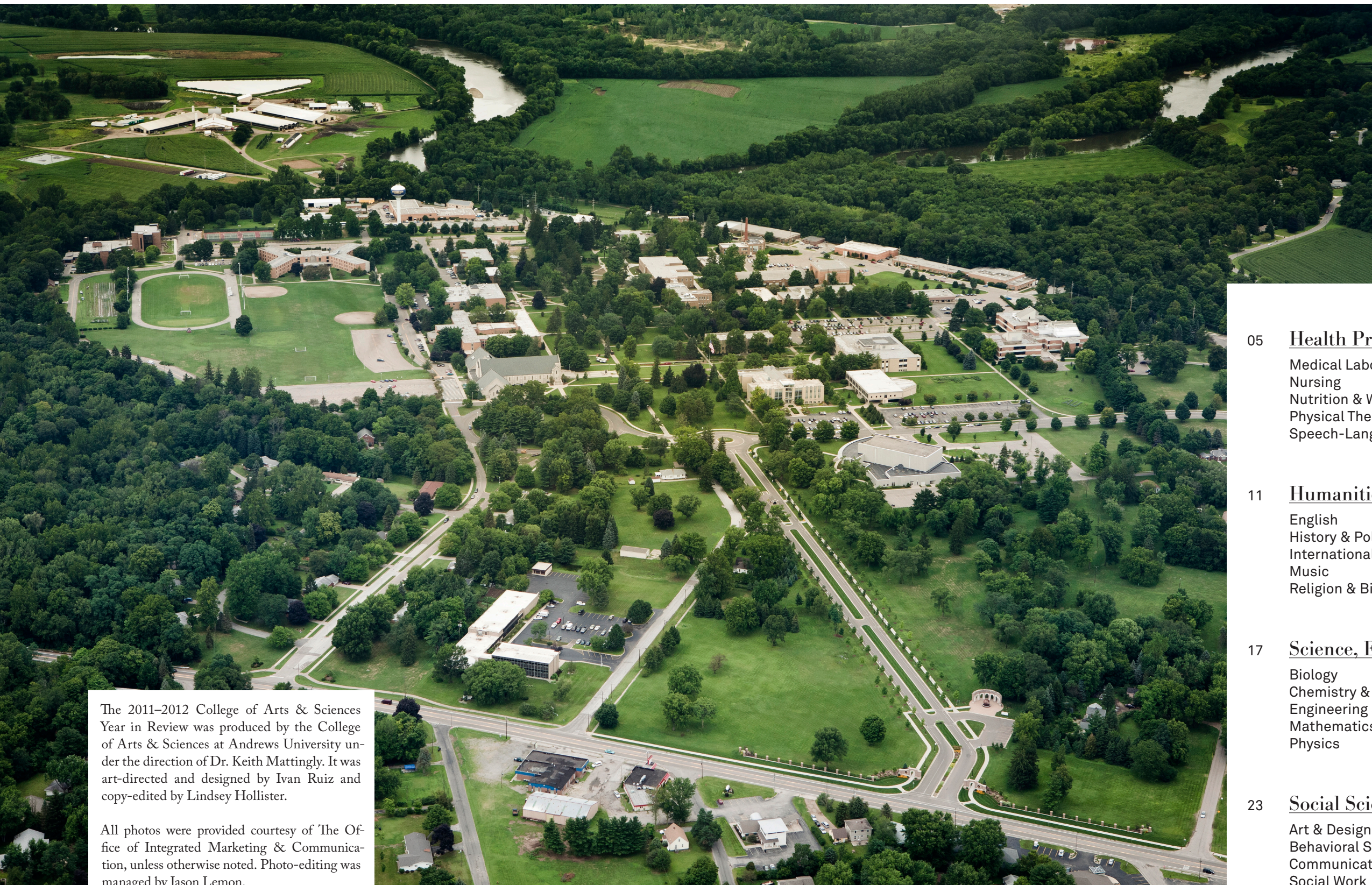


The  
*2011*  
*2012*

College of Arts  
& Sciences

Year in  
Review





The 2011–2012 College of Arts & Sciences Year in Review was produced by the College of Arts & Sciences at Andrews University under the direction of Dr. Keith Mattingly. It was art-directed and designed by Ivan Ruiz and copy-edited by Lindsey Hollister.

All photos were provided courtesy of The Office of Integrated Marketing & Communication, unless otherwise noted. Photo-editing was managed by Jason Lemon.

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## A Message From the Dean

The College of Arts and Sciences (CAS) of Andrews University, home this past year to over 1,700 students, stands at the heart of this flagship institution offering undergraduate and graduate education to prepare students for rewarding careers and positions of leadership in our world. Our faculty are well-known for their excellence in disciplinary and faith-based teaching, as well as for their distinguished contributions in research and creative activity.

The 2010-11 year of disruption caused by seven departments being moved back and forth between temporary and permanent quarters has been followed by a year of pleasantly settling in to new or freshly air-conditioned quarters in 2011-12. Buller Hall has exceeded expectations, making an exceptional home for students and faculty alike. Adam Fenner, a History contract teacher currently working on his doctorate at American University noted that Buller classrooms are the nicest he has ever had the opportunity in which to teach. The remodeled offices in Nethery have made for a far more comfortable environment, particularly for the English Department as well as for the CAS Dean's staff.



As of May 1, 2012, the five Health Professions Departments are no longer housed in the CAS but have become housed in the new School of Health Professions with its new dean, Dr. Emmanuel Rudatsikira. Additionally, the Art Department has joined the new school of Architecture, Art and Design under Dean Carey Carscallen. The CAS will continue with the three remaining divisions: Humanities, Social Sciences and Science/Engineering/Math or STEM. These organizational changes allow us to focus our energies on providing a superior liberal arts education.

The liberal arts education we offer is the core of what it means to be educated. Our students develop the skills of communication, reasoning, and analysis necessary to succeed in a rapidly changing technological and global environment. The College provides the liberal arts and sciences coursework for students in the other schools of Andrews University. As an academic community, the College is committed to providing a faith-based liberal arts and sciences education that will enable us to live better lives and enhance our contribution to society.

We invite you to explore this brief review of 2012.

A handwritten signature in black ink that reads "Keith".

Keith Mattingly

 A detailed anatomical illustration of a human heart, showing the major blood vessels (aorta, pulmonary artery, pulmonary veins, and vena cava). The text "Health Professions" is written in a large, bold, serif font across the center of the heart.
 

# Health Professions

# Department of Medical Laboratory Sciences

## The Success of Students

Text by Marcia Kilsby, PhD, and Aileen Hyde

The Medical Laboratory Sciences (MLS) faculty focuses on every student's success. "We're passionate about the success of each student," said Karen Reiner, associate professor of Medical Laboratory Sciences. "We want to help each student reach his/her full potential."

For our department, successful completion of the MLS degree is defined as the student's ability not only to graduate with a bachelor's degree, but also to pass the Medical Laboratory Scientist (American Society for Clinical Pathology) National Certification Examination. National certification is required for employment and validates the high standards of education to which we subscribe.

Particularly inspiring stories of success come from students who some might deem as average in their academic performance. This article celebrates the transformation and successful outcomes of all of our students, not just those with the top grades in the class, into valuable members of the healthcare team. We applaud our students for having first-time pass rates for the National Certification Exam that exceeds the national average.

Because acceptance into the MLS Program is by competitive admissions, some students are not able to enter the program the first time they apply. We rejoice in the success of one of this year's graduates in particular, who was not accepted the first time he applied to the program. Upon consultation with the MLS Program Director and further counsel from the MLS faculty, the student took an additional year to remediate his low science GPA. He was accepted into the program the following year and joined the MLS Class of 2011. His first month in the program was not stellar. "He had a rocky start in my class..." Mrs. Reiner said, "... and wondered if he would make it." He was encouraged and mentored by the MLS faculty to work hard and focus on his studies. He took to the challenge.

His on-campus academic performance continued to be a struggle for him, but he persevered and upon completion of the on-campus courses, he entered clinical practicals. The problem solving and critical thinking skills he had learned were so evidenced in his clinical rotations that he was asked to work at that hospital after graduation, even before he completed his practical training! He took the National Certification Exam and passed it on his first attempt. The Laboratory Director states that he has proven to be a valued employee in that laboratory and they are grateful to have him as part of their team.



# Department of Nursing

## Mission to Montana

Text by Arlene Saliba



While the Andrews nursing students also treated students and community members with acute medical problems, a major thrust of their care were wellness exams of the school children which included measurements of height and weight, vital signs, head lice checks and assessments of ears, throat, lungs and the heart. Students became acutely aware of the challenges in the community regarding obesity, suicide, substance abuse, and unemployment.

After a 22-hour train ride across four states, 30 senior nursing students and 3 faculty members, Arlene Saliba, Gisele Kuhn, and Nancy Carter from Andrews University Department of Nursing arrived in Wolf Point, Montana. For several weeks, they had been preparing themselves to be immersed in the culture of the Assiniboine and Sioux Native American tribes, and to hopefully make a difference in the lives of the members of the Fort Peck Reservation. Students had previously researched the culture and the health challenges of the tribe, but this in no way compared to physically experiencing the culture.

Once settled in their living quarters, the group was driven to the Council Lodge where they had the honor of meeting the Tribal Chief and several of the Tribal Council members. The group was greeted warmly by the Council and thanked in advance for working with their children, their most prized possessions. For the next week, the students rotated through the three school-based clinics in the towns of Poplar, Brockton, and Fraser. They applied their nursing knowledge by teaching a variety of health topics to the children in grades K through 12 including hygiene, the benefits of exercise, good nutrition and adequate sleep, good dental hygiene, interpersonal relationships, sex education, STD prevention, and "Project Alert," a substance abuse prevention program for middle school children.

By the end of the week, almost all of the nearly 1,000 students in the three school systems had experienced some type of contact with the Andrews students. The week concluded with a colorful and lively Pow Wow in the Cultural Center, a gesture of thanks from the community.

The Andrews University senior nursing students learned valuable lessons in their week on the Fort Peck Indian Reservation in Montana. This included how to work and cooperate with each other in close quarters, how valuable the education and information they have obtained thus far as student nurses truly is, and about the health care needs of the Native American Indian as a whole. Students and faculty alike developed a love and appreciation for the people of that region and several students expressed a desire to serve in areas of need after graduation.



# Department of Nutrition & Wellness

## New Level of Health & Fitness

Text by Lindsey Hollister  
Photo by Alicia Fry

In the past three and a half years, the Department of Nutrition and Wellness has gone through many changes, including the addition of the Fitness and Exercise Studies program, as well as a new minor in fitness education, and changing the general education fitness education curriculum. In 2009, the department started the annual Fitness Fun Run and Expo, which includes the university and community. It has been increasing in attendance every year since it started, and this year looks to be no different.

The newest change to the department is the addition of a new certification. Starting in 2012, the department has added the Health and Fitness Ministry Certification, which incorporates ministry with health and fitness so people such as pastors can incorporate health and nutrition into their ministries.

The department also hosted its first Health and Fitness Symposium in May 2012 on campus with the theme “connect & inspire to share.” It included



“an amazing line-up off keynote speakers and a great array off seminars about health and fitness. Prepare to be inspired to connect the concepts off health, fitness and ministry to share with the world!” according to the brochure, including presentations from keynote presenters Monica Reed MD, Ernie Medina, Jr., DrPH, Don Morgan Ph.D., Katia Reinert, RN, MSN, FNP-BC, PHCNS-BC, FCN, and Fred Hardinge, DrPH, RD. The symposium also included seminars, practical workshops, poster presentations, a catered Sabbath lunch and dinner, and much more. Professionals, students, and enthusiastic and passionate people about health and fitness were all encouraged to attend.

One other new thing that happened this past year was the launching of the first in-house professional internship for Nutrition and Wellness majors, as well as an initiative for general students, called “The Edge.” Majors came up with designs in spring 2011 for the student wellness program, which is designed to improve the overall wellbeing of the undergraduate student population at Andrews University.

Located in the FitZone, interns provide the content, services, and educational workshops for students, including diet workshops and fitness classes, for example. Dominique Wakefield, the director of Fitness and Exercise Studies as well as the assistant chair of the Nutrition and Wellness Department, said, “It’s a great opportunity for students to intern on campus.” It is free for students, and has an incentive program where students earn points by participating in small group personal training classes. When it was first opened, over 70 people signed up. Alicia Fry, the student managing The Edge, said, “It was a really good turn out.”



# Department of Physical Therapy

## Physical Therapy Updates

Text by Lindsey Hollister  
Photo by Diana Kim

It has been a busy year for the Physical Therapy department with 33 entry-level students graduating with their Doctor of Physical Therapy (DPT) degree and nine postprofessional students graduating with their Doctor of Science in Physical Therapy (DScPT) degree. Faculty presented posters at the Physical Therapy Combined Sections Meeting (a national convention in Chicago) while students participated in service projects. The department also said farewell to two faculty members and gained two new faculty members to their team.

After saying goodbye to Dr. Lynn Millar and Dr. John Banks, two long time faculty members, the department welcomed Dr. Mioara Diaconu and Mr. Leslie Samuel in July 2011 as new faculty members. Dr. Diaconu is the new Research Coordinator, with a background in social work, theology, and community and international development. Kim Coleman, the DPT assistant director, said, “We look forward to the knowledge and skills she will bring to our program as well as the benefits of collaboration across disciplines.” Mr. Samuel is the new Foundation Sciences Coordinator, with a background of biology and neurobiology, he desires to make a positive change in students’ thinking about biology. One of his specialties is integrating technology into the classroom, even maintaining a



Mioara Diaconu



Leslie Samuel

website he designed, [www.interactive-biology.com](http://www.interactive-biology.com). “We are very excited to have Mr. Samuel join our faculty and look forward to the integration of technology to enhance our students’ learning experiences in the foundational sciences,” Coleman said.

Students were involved in Operation Christmas Child during the holiday season, thanks to Administrative Assistant Esther Jones presenting the project of packing shoeboxes to the Class of 2013 and 2014. “They embraced the project, and many chose to participate as one of their community service projects for their Doctor of Physical Therapy portfolio,” Jones said. The students assisted in packing 65 boxes with items they donated themselves. Coleman said, “We are proud of their willing spirits and cheerful giving!”

Several faculty members presented physical therapy poster presentations at the national Physical Therapy convention in Chicago in February 2012, including Dr. Lee Olson, Dr. Lynn Millar, Dr. David Village, and Dr. Wayne Perry, chair of the department.

The department has also been approved by the Andrews University Board to be part of the formation of a new School of Health Professions, which will include four other departments: Nursing, Nutrition and Wellness, Medical Laboratory Science, and Speech-Language Pathology and Audiology. The launch date for the school is Summer Semester 2012. Coleman said, “We are looking forward to the opportunity to collaborate better with each department and provide richer learning experiences for our students.”

# Department of Speech-Language Pathology & Audiology

Change can be good! This has been a year of immense change and exciting new adventures for the Speech-Language Pathology and Audiology department. Although in comparison to many departments it is small in number, it is large on goals and growth potential.

The faculty is comprised of Brynja Davis, MS, CCC-SLP, a speech-language pathologist, Heather Ferguson, MS, CCC-SLP, a speech-language pathologist and a new faculty member in 2011 and Darah Regal, AuD, CCC-A, an audiologist and new chairperson of the department in 2011. In addition to the new faculty and/or changes in faculty position, the department also added a new full-time administrative assistant, Winona Hays. God has bountifully blessed this team of professionals to work together towards new projects for the department. Having a full-time administrative assistant has been a significant key to all the successful changes this year.

The department has had a long term goal of starting a master's degree in speech-language pathology for several years. To reach this goal several changes needed to be made including ample space for the department, professional degree status, doctoral level faculty, approval of administration and certification through the American Speech and Hearing Association (ASHA). Many of these goals have either begun or were completed this year.

In May the department was moved temporarily while a new space is being renovated in Bell Hall. The new space has been designed with a master's degree in mind. To say the department was "bursting at the seams" would have been an understatement with 75 majors and minors in 700 square feet. Administration has been very supportive of developing a space

for faculty and students, which will allow for further growth and for a professional space for seeing patients. The new space will represent Andrews University well to students, parents, patients and colleagues. August 2012 will be an exciting month when the new space is completed, students return and faculty utilize new therapy and diagnostic areas.

Another step to reach the goal of a master's degree happened in February when the program was approved to be a professional degree. The flexibility for students has greatly increased to allow students to fine-tune their program for their specific career goals. Students who are interested in working in the schools can add education courses. Students who would like to eventually own their own private practice can add business courses and bilingual students will be able to add a language major with more ease.

Two faculty members are actively working towards beginning a doctoral program. Heather Ferguson will be starting her doctoral degree in June 2012 through the education department at Andrews. Her emphasis in the correlation between literacy and language will strengthen the potential for speech-language pathologists to work more effectively with children who struggle in both areas. Brynja Davis plans to specialize in neurology and auditory processing in her doctoral program. She plans to start her degree within the next year.

The approval process of the master's degree proposal has begun as well. As committees approve the degree, more excitement will build. Students will be blessed by the opportunity to work as speech-language pathologists and audiologists. Our community and world will be blessed by the improved communication ability these professionals will provide.

## The Year of Change

Text by Darah Regal, AUD



Brynja Davis

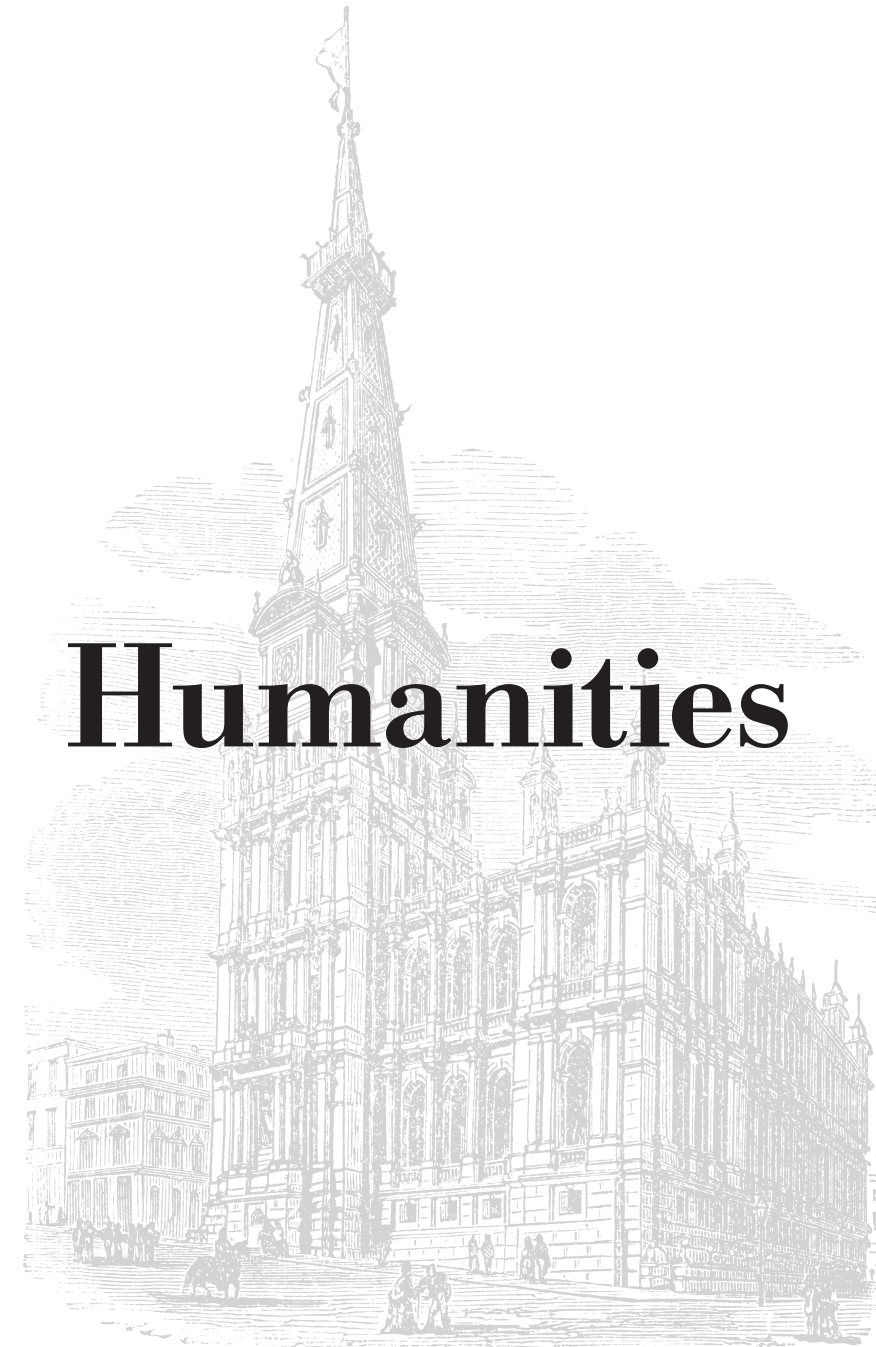


Heather Ferguson



Chair, Darah Regal

# Humanities



## Department of English



This past year the Department of English has had the opportunity to attend two research conferences and present research that both students and faculty have done. On October 14, 2011, Dr. Douglas Jones, Professors Julia Kim and Bruce Closser, as well as students Justina Clayburn, Thula Lambert, Ellen Rodrigues, Meghan Rudley, Erin Hotelling, Jarrod Lutz, Leah Rodriguez, Myles Compton, Karina Mamora and Liana Kim, all attended the Michigan College English Association conference at the University of Michigan, Dearborn campus.

The conference was titled “Taking Risks,” and presentations from the group ranged from Clayburn defending Chaucer’s squire, to Professor Kim, Lambert, Rodrigues, and Rudley discussing if the English language is at risk. Dr. Jones, Hotelling, Lutz, and Rodrigues presented their research about young adult literature in the classroom, while Professor Closser and Compton discussed their study about directness used as a tutoring strategy. Senior English major Erin Hotelling said, “It was an incredible experience to see English scholars present their papers and research—and it is especially wonderful to be able to present and be a part of that process.”

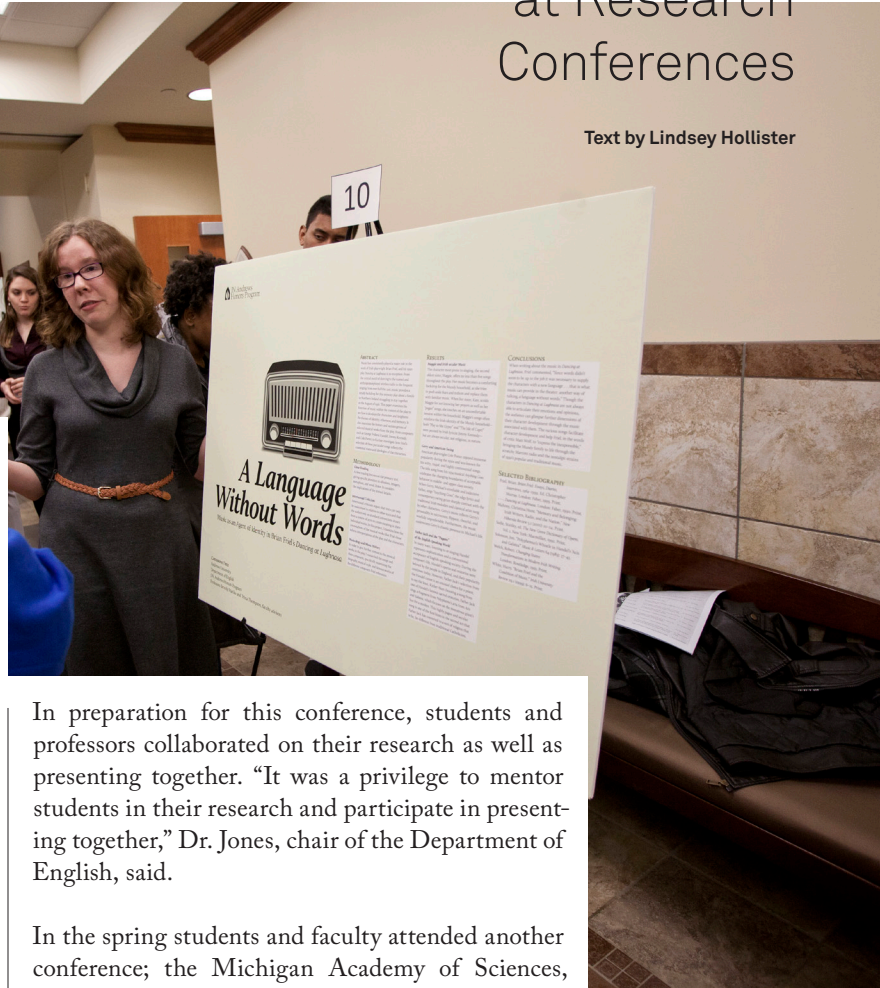
In preparation for this conference, students and professors collaborated on their research as well as presenting together. “It was a privilege to mentor students in their research and participate in presenting together,” Dr. Jones, chair of the Department of English, said.

In the spring students and faculty attended another conference; the Michigan Academy of Sciences, Arts and Letters at Alma College on March 2, 2012, took place. Professors Beverly Matiko, Becky De Oliveira and Bruce Closser, and students Catherine Tetz, Jordan Arellano, Theron Calkins, Carolyn Davis, Christine Lairson, and Samantha Snively presented papers at the conference. The subjects varied from “vision, language and poetics in nineteenth and twentieth century literature” to “gender and subversion in early modern literature.” Professors Becky De Oliveira and Closser also presented their research on English composition.

The funding for travelling and research came from generous donations by English alumni. “It was an incredible advantage to go up the night before and arrive at the conference well-rested and well-practiced, thanks to the English department’s generosity,” Samantha Snively said.

## Students and Faculty Present at Research Conferences

Text by Lindsey Hollister



Catherine Tetz presents her poster at the Honors, Scholars, and Undergraduate Research Symposium

## Department of History & Political Science

### Students and Faculty Present at Research Conferences

Text by John Jovan Markovic, PhD

This past year the Department of History & Political Science moved into vastly improved accommodations, now housed in brand new space. Living in such fine space inspired the Department to use the space to enhance student life academically, socially, and spiritually. Accordingly the Department moved its research requirement from the senior year to the sophomore year, held weekly social events in its new luxurious student lounge area, and brought in an eminent scholar who addressed the role of religion in politics.

The department lectureship series this year included a political scientist, Peter W. Wielhouwer, a specialist and consultant in mobilization politics, campaign strategy, religion and politics, and racial politics. He regularly speaks on faith and politics for academic, professional, and faith-based organizations. His presentation focused on the relationship between government and people of faith. Wielhouwer addressed the observation that government too of-

ten senses a threat from people of faith. People of faith are perceived as having a higher loyalty to God and thus less loyalty to government. Dr. Wielhouwer stressed the importance of the need for people of faith to be politically active and that their political activism should be informed by their religious faith.

Of particular interest was Wielhouwer’s clarification of the original meaning of the often used yet misunderstood term, the “wall of separation” between the state and religion. While this term is normally interpreted as keeping religion out of government Jefferson actually argued that the “wall of separation” is there to keep government out the realm of religion and should be maintained in order to preserve religious freedom. However, people of faith must be active in government and political life while remembering that public policy is made for *all* people. Wielhouwer encouraged people of faith to become involved in public life committed to the “wall of separation” as a protection for people of all faiths.



Peter Wielhouwer

# Department of International Language Studies

## Foreign Internship Opportunities

Text by Pedro Navia, PhD and Meruany Soriano  
Photo by Jason Lemon



Two of the several majors offered by the Department of International Language Studies have to do with languages and business, and both majors require that students spend time participating in an internship dealing with the target language. The sites for internships have been growing and current students can choose Argentina, Chile, Puerto Rico, Mexico, Peru or the Dominican Republic. Agreements exist between the department and private companies that are willing to offer an opportunity to foreign students to complete their internship in their offices.

In the last few years, several students have been able to complete their internship requirement at one of those business sites and gained valuable experience that has helped them to find jobs after graduating. One of the students who recently completed her internship was Meruany Soriano. She went to the Dominican Republic during her last year of studies and decided to share her experience with the community.

“I had the opportunity of visiting the Island of the Dominican Republic for an international internship as part of my Spanish for International Trade Degree.” Soriano said. “My internship was based on three credits towards my major and it helped me experience the life of a stu-

dent in a different country representing Andrews University in every aspect. The internship took place at The Marriott Renaissance Jaragua Hotel and Casino. This hotel has over 300 rooms, 13 meeting rooms, 23,360 sq. ft. of total meeting space, three concierge levels, an on-site casino, with over 1000 employees (associates) working for the facility to make sure everything runs smoothly.

“I worked for five weeks, 40 hours a week. I had to explore and work in four different departments: Sales and Marketing, Office of Events, Event Operation, and Reception. The experience I had in the hotel as an intern was great, much more than what I expected. The things I learned while I was there were intense; the work is constantly going on, and there is no break when you own a hotel. I received training on how a hotel operates from both an employee and employer perspective. A hotel looks great to the eyes of the guest and through a website, basically from the outside. However, the inside takes a lot of effort to make a four star hotel a leader in business and the preference of all possible customers, and there are high levels of stress that the associates and directors of every department go through.

“My experience as an intern was excellent and extremely professional. Directors of every department were well

qualified and proficient in every aspect of their job. The interns are well trained on how to run their units. Every morning they had a meeting called “The Stand Up,” in which every director of a department talked about sales of each section, goals of the day and a short description of what events taking place that day and what to expect. Every department also has a WIG or GSS board that helps them keep track of their sales or expectation in terms of percentage the entire year.

“Something that impressed me the most was the fact that when students go to complete their hours as interns, they will get the opportunity to experience how everything functions or works in terms of administrating a hotel, from the housekeeping duties to the General Manager objectives in terms of revenue or profit. I learned a lot during my internship, including that a hotel can improve only if the team is willing to work together as a group and respect each other professionally.

Soriano said, “I am really glad that the Department of International Language Studies keeps opening doors for students to participate in international internships because the experience they gain will definitely encourage them to be better professionals or to continue with graduate studies.”

This past December, the Music Department created a musical festival in collaboration with students and instructors from several different countries, including Mexico, Philippines, Peru, Korea, and Canada, just to name a few. Dr. Claudio Gonzalez travelled to Costa Rica along with the orchestra to collaborate with many different people to put together a major concert that was performed in a large venue twice. This is the second International Adventist Youth Music Festival that the Andrews Music Department has put together; the first was a music festival in the Philippines, with many students travelling from Asia and surrounding countries. Part of the purpose of the music festival, instead of a general music study tour, is to bring Andrews University to other parts of the world, showcasing it, and taking leading roles in the music field in the world. Some of the students are from Adventist universities, but some are not.

Instead of a regular music tour, those who went stayed in one place and invited students and instructors from other countries to meet for one week to rehearse and prepare a music concert. The emphasis wasn't on travelling the world; instead, the emphasis was education. Highly professional and section-specific instructors came from around the world to teach students and provide coaching. The students spent eight or nine hours a day rehearsing in their sections, not to mention practice that they put in after hours. “The students are so excited about finding out what music can do,” Jason Gresl, woodwind instructor, said.

“We always want to do one concert for our institution, but for the second concert, we wanted to take the orchestra out for the general public,” Dr. Claudio Gonzalez, Andrews University conductor and festival coordinator, said. This way, there could be more collaboration between different universities and students, instead of just Andrews University putting on the music festival. As part of the community outreach, the brass ensemble had a mini concert at the local high school, and held a Christmas concert in the central lobby of the public university which hosted the second concert.

# Department of Music

## International Adventist Youth Music Festival in Costa Rica

Text by Lindsey Hollister  
Photos by Deby Andvik





# Department of Religion & Biblical Languages

## A Little Variety Thanks to Buller Hall

Text by Lindsey Hollister

Photo by Jason Lemon

This past year has been the year of firsts and new things for the Religion and Biblical Languages Department. The department had its first lectureship with Dr. Daniel Block, its first open house in Buller Hall during the winter months, new Bible studies and small groups, and a new faculty member joining the department.

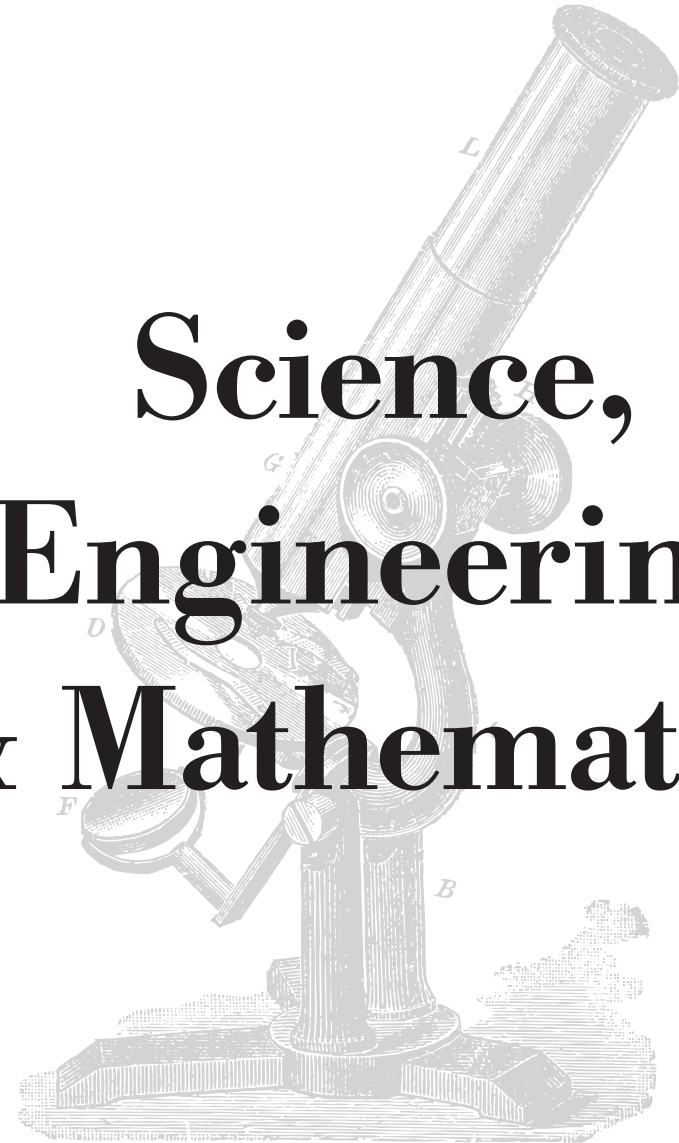
The department's first lectureship series featured Dr. Daniel Block in what Dr. Paul Petersen, the chair of the department, intends to be an annual event. The goal of the lectureship is to have a prominent theologian from outside of Andrews University come and present, both at a Chapel or Forum as well as a fellowship at night, to "expand the academic horizon," Dr. Petersen said.

After moving into Buller Hall this year, the department started an open house in the winter months of January, February and March, when it was dark and cold on Sabbath afternoons. The open house included games, hot chocolate, snacks, and singing. The Vine was also created, and is "one of several Bible Study/Sabbath Schools in which religion faculty are involved" Dr. Petersen said. These options are led by different religion teachers, including Dr. Erhard Gallos, Pastor Glenn Russell, Dr. Ante Jeronic, and Dr. Petersen. Pastor Russell also creates and broadcasts Scriptural Pursuit on the radio and TV every Sabbath, with students becoming more and more involved.

Rahel Schafer has joined the Religion department as a new faculty member, teaching Hebrew and God and Human Life. He is currently finishing his doctoral dissertation, and specializes in animals and the Bible and is enthusiastic about the ethics of animals. He is the only faculty member to specialize in this particular area, which gives the department a little more breadth in specialized subjects.



# Science, Engineering & Mathematics



## Department of Biology

Four Faculty Members Retiring, Four New Members Joining the Department



Left to right: Jack Stout, Dennis Woodland, Bill Chobotar, David Steen

In the past 75 years since its beginning in the mid-1930s, the Biology Department has only had seven department chairs and 19 faculty members leave due to retirement or moving on to other jobs, and the last members to leave were over ten years ago! “There will be new faces appearing in the department over the next couple years as we are currently searching for, interviewing, and finding replacements for four biology faculty who are retiring but are graciously staying around to help lift the load until all the replacements are on board and up to speed,” Dr. David Steen, chair of the department, said.

Bill Chobotar, David Steen, Jack Stout and Dennis Woodland all plan to retire within the next year. Combined, they have given nearly 145 years of service to the department, and the department plans to celebrate their careers and contributions during alumni homecoming, September 27-30, 2012. The four new faculty are expected to join the department in July 2012, and January and July 2013. Peter Lyons and Pamela Coburn-Litvak will join the faculty in July 2012; Lyons earned his PhD at Dalhousie University. Coburn-Litvak earned her doctorate degree at State University of New York. Kanya Long and Daniel Gonzalez will be joining the department in 2013; Long earned her PhD at the University of Texas. Gonzalez earned his is completing his doctorate at Duke. In addition, Denise Smith will join the faculty in July 2012 as coordinator of labs and the high school biology program. Smith earned her doctorate at Western Michigan University. Tom Goodwin has also been elected as the chair of the department, taking over for Dr. David Steen beginning July 1, 2012, becoming the seventh chair in over 75 years.

Text by Lindsey Hollister



Dr. Desmond Murray, Associate Professor of Chemistry, received the Michigan Science Teachers Association (MSTA) 2012 College Science Teacher of the Year Award on Friday, March 9, 2012. Murray, an Andrews University faculty since 1995, teaches both high school and college chemistry. He has engaged and mentored over 700 students in early research participation programs since 1998.

Murray received a plaque that read in part, “Outstanding Educator for 2011-2012 In Recognition of Contributions to the field of Science Education.” The Awards Reception and Luncheon was held at the Radisson Hotel, in Lansing, Michigan. Michigan Science Teachers Association is part of the National Science Teachers Association (NSTA). As part of the award Murray received a one-year membership in the Michigan Science Teachers Association.

When asked about Murray, the Interim Vice Provost of Research at Central Michigan University, James Hageman, wrote, “My admiration and respect for all that he has done to promote deep chemical understanding by an active participation of students in authentic research, from high school and younger students to undergraduate and master’s students, has grown and grown. He has thrown his heart and soul into these teaching enterprises in a selfless way, often sacrificing his own research possibilities and ability to publish.”

When asked about his most important contribution, Desmond wrote, “I think that the single most important contribution to my students, fellow teachers, educational institutions and district is my promotion, implementation and continuous improvement of early research participation at both the high school and college levels.”

## Department of Chemistry & Biochemistry

Dr. Desmond Murray Receives 2012 College Science Teacher of the Year Award

Text by Princella Tobias

Murray has become the founder and director of BEST, Building Excellence in Science and Technology, a nonprofit program that leads the charge for providing research opportunities to high school-aged students. Mike Tanke, a former student at Niles High School, participated in the program and commented, “This semester’s Bioorganic Chemistry course has been very beneficial to me as a student entering college within less than four months. Until January, I hadn’t ever experienced a lab-based class. Because of my experiences in the lab, I now feel much more prepared for the college setting. For the most part, high school teachers have held our hands through the last four years. This is why the class has been so beneficial to me. It taught me to think and work independently.”

# Department of Engineering & Computer Science

## Engineering Seniors Helping the World, One Project at a Time

Text by Lindsey Hollister

Every year for the past six years, senior Engineering and Computer Science majors are required to complete a design project in order to graduate. The department encourages the community to give the department engineering problems that they need solving, and students come up with solution designs as their projects. This year, a couple groups of students took different community problems and created possible solutions for those problems. One group, consisting of Spencer Groff and Adam Shull, created a solution for the water filtration problem that missionaries face in the field. Another group, Ebenezer Akyiano and Craig Brown, discovered that younger students at the Emmanuel Mission School in Lesotho, Africa, are having trouble pumping water at the local water pump. They designed a solution that would be effective as well as fun for the students to use.

Groff and Shull created a portable, low-power water filtration system for use by aid workers in underdeveloped world regions. While the device is small, and easy to use, it is much more intricate than it looks. There are multiple power sources so that people can use it in various settings. It can be plugged in to a power outlet, run on batteries, or powered by pedals. There is also an option the group built in, so that people can modulate the system to use it to its full benefits. The device can be told to bypass certain filtration systems (filters) depending on the

water sources that are being filtered. The students came up with the idea because Shull was an intern at a water purification company, and Groff was a student missionary. They put their experiences together, with Groff bringing the problem that missionaries often get sick in third world countries because of the water, and Shull bringing the solution idea, a portable, low-power system. Livingston Associates, a company that creates water purification systems, sponsored the project, and the owner came with his son from Arizona, where he was at the time, to see the students present.

Akyiano and Brown designed a project based on a problem brought to their attention by Dr. Thomas Chittick and Verlyn Benson, who travel to various countries to find agricultural projects for students. They went to Lesotho, Africa, and discovered the issue with the school's water hand pump. Younger students couldn't pump water, and it was the only option for pumping water, because electricity isn't reliable, natural energy is cumbersome, and solar energy is expensive and hard to get. The hand pump requires a lot of force to use, so Akyiano and Brown designed a way for it to be easier and fun for children to use. They designed a contraption that has a seesaw connected to the pump, which changes the way force is applied. They tested the seesaw design at Andrews with weights instead of a pump, with four smaller children testing it, and it was a success. Akyiano and Brown also made a manual that will be sent to the school for the setup and use of their design.

The department enjoys facilitating with the public to generate more problems such as these that students can design solutions and projects to, as well as donors and sponsors to help give the students real goals. "Donors and sponsors help push students with real-life type of projects with realistic constraints," Dr. George Agoki, chair of the department, said.



Diversity is a word that aptly describes Andrews University, and some departments on campus reflect that diversity more than others do. What some people may not know is that, unlike many mathematics departments—which tend to be monochromatic and male-dominated—the Andrews Department of Mathematics is surprisingly diverse, having a rich ethnic and gender diversity as well as diversity in opportunities available to students while at the university and diversity of career options available after graduation.

The ethnic diversity of the math department is demonstrated by the fact that mathematics majors during the past five years have come from home countries such as Bermuda, Bolivia, Canada, the Czech Republic, France, Japan, Kenya, Korea, Mexico, Taiwan, Trinidad and Tobago, the U.S., and Zambia. On average, ethnicities have been 59.8 percent white, 24.8 percent black, 9.2 percent Hispanic, and 6.2 percent Asian, compared to the demography of the Andrews University undergraduate student body, which in 2010-11 was 45 percent white, 26 percent black, 17 percent Hispanic, and 7 percent Asian.

This same trend toward diversity is seen in the gender of students, of which 63 percent of Andrews students are women. In a traditionally male-dominated major like mathematics, however, Andrews can

be proud that 34.5 percent of its math majors in the past five years have been females and that 60 percent of the tenured and tenure-track professors are female.

Whatever their gender or background, mathematics majors have many options while here at Andrews. Those who plan to enter fields such as mathematics, physics, actuarial science, or economics can pursue the BS Mathematics major, while those who want to teach math at the K-12 level can take a BS in Mathematics Education. Some choose to take a traditional double major, and others take a Mathematics Studies second major (nine hours less than a BS Math degree), an option that is very popular with students taking primary majors in Computing, Chemistry, Engineering, Finance. Also, students taking the Behavioral Neuroscience pro-

# Department of Mathematics

## The New Face of Mathematics

Text by Karen Johnson-McWilliams

gram can choose to take a math concentration. In the past five years, areas in which math majors have double-majored include all of the previous majors plus Biology, Biophysics, English Literature, and Political Science.

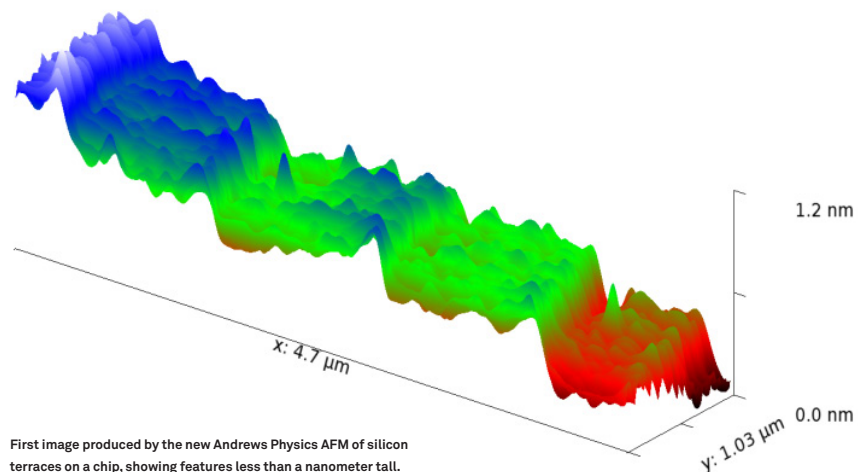
When they graduate, in addition to finding careers as mathematicians and becoming university mathematics professors or secondary school teachers, Andrews math majors have gone on to succeed in careers such as law, economics, dentistry, medicine, actuarial science, mathematical biology, and quantitative psychology.

Rich in diversity, mathematics at Andrews University is a great option for students no matter what their ethnicity, gender, other interests, or future plans.

# Department of Physics

## Getting to the Bottom: AFM Captures Nanoscale Images

Text by Dr. Margarita Mattingly  
Photos by Brendan Cross and AFM Workshop



First image produced by the new Andrews Physics AFM of silicon terraces on a chip, showing features less than a nanometer tall.

Physics is good at using mathematical models to intuit structure abstractly, but direct visual images provide us special satisfaction and new handles on problems we want and need to solve. The “bottom” is intriguing, where mysterious, inscrutably small, intricate structures make things like smartphones possible.

This year the Physics Department invested in a new microscope – an atomic force microscope (AFM) to capture images of structures at the smallest scales approaching the size of an atom by using atomic forces on a cantilever probe thinner than a human hair with an even thinner tip capable of detecting features less than a millionth of an inch tall. By 2007, it was already clear that we needed to move in this direction and give our students exposure and experience in nanotechnology. After all, AFM technology was not all that new. The first AFM was built in 1986 and commercialized in 1989. First attention to nanotechnology as a possibility came much earlier in 1959, when Richard Feynman presented his famous lecture “There’s Plenty of Room at the Bottom.”

AFM will give students hands-on experience at these scales and poise them for continued development of nanotechnology. Their involvement will inform and motivate their theoretical work as they experience the thrill of direct observation of what they had only imagined. It will open doors for students and faculty alike to collaborate on projects with other departments on campus and with established AFM programs at research universities and labs.

AFM units are costly, and the University’s Capital Expenditures Committee agreed to partner with the department to make the \$50,000 purchase. Mickey Kutzner and Brendan Cross studied the possibilities and found very few options for the kind of open system the faculty envisioned. From the beginning, the physics faculty favored purchasing an AFM unit that would be open and accessible in order for students to be able to adjust, modify, and otherwise interact with the inner workings. Kutzner and Cross recommended we build the AFM from the ground up, purchasing the design and parts from AFM Workshop in Long Beach, CA, and assemble the

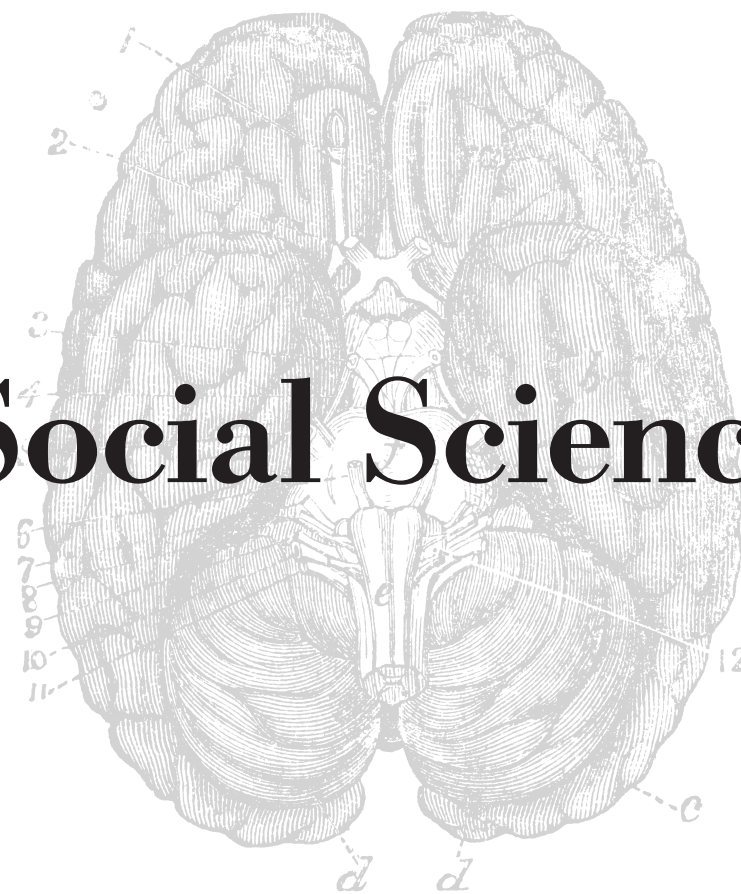
unit over a week’s time at their location under their direction with added training in calibration and maintenance. This would make it possible for us to make modifications as needed and to service the unit ourselves rather than relying on outside experts.

Cross travelled to the AFM Workshop’s Signal Hill Headquarters during spring break in March 2012 to assemble our unit. After spending a week at the Workshop and California State University building and learning about the AFM, it was shipped in a container that doubles as its housing, and arrived on campus on March 29, 2012. It was installed in a dedicated, ground floor, windowless room that had formerly served Physics Enterprises for storage. The Advanced Lab class is including the AFM in its April 2012 projects and interest has been expressed in using the instrument for imaging nanoparticles. We are very pleased to finally get to the “bottom” here at Andrews with the new AFM.



Brendan Cross, Instructor of Physics, gets experience calibrating AFM scanners at the Signal Hill Headquarters of AFM Workshop.

# Social Science



# Department of Art & Design



Gadi Solis



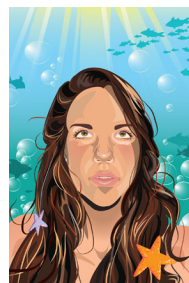
Victor Mills



Ivan Ruiz



Jonathon Wolfer



Michelle Leffler



Sam Estrella



Victor Mills



Lindsey Weigley

We would like to thank the College of Art & Sciences for being a wonderful home for our department for the last 61 years (the Art Department was started in 1951). We will always share with CAS the belief in the importance and joy of the “Arts” and Sciences, in the education of students who will serve our God, no matter where we are housed in this University. We have not moved very far so each of you are welcome to visit us anytime. On this page we would like to share some examples of the creativity of our students. Thanks again for your support of our department!

—Faculty of the new Department of Visual Art & Design

# Department of Behavioral Sciences

## Events in the Past Year

Text by Duane McBride, PhD



partment. We now serve over 400 students in both programs and through these programs are having a major impact on global development.

Our undergraduate program remains strong and has grown significantly. In the fall of 2010, we had 141 majors. This grew to 147 in the fall 2011 and in the spring 2012 we had 155 majors! We are very thankful for God’s blessing our growth.

The Behavioral Sciences Department remains the most scholarly department in the College of Arts and Sciences. We also lead in faculty/student research presentations and publications. Our faculty strongly believes that it is a core part of our Christian witness to conduct high quality research and publish that research in high impact journals and to do so with students. Our student research has helped get our students into great graduate programs. This year we have also worked to develop strong working relationships with relevant General Conference Departments for joint research projects and curriculum development. The departments we are working with include Education, Family Ministries and Health Ministries.

We also continue our Study Tours. This year we went to Peru and are planning Study Tours to Madagascar and Jordan. We also continue to lead the community service program at Andrews. Research has shown that engaging in service relates to higher rates of healthy behavior; we strongly believe that our service program is a core part of student development at Andrews.

We look forward to the next school year, continuing to work with our students and witnessing to the quality of Adventist education through our research.

The biggest event in our department this year was the move to our new offices in Buller Hall. Our new facilities provide great space for faculty and students to work together on research projects and, for the first time, we have a dedicated research lab for our students. All of our faculty, staff and students are very grateful for the donors and administration that made our new space possible!

We also welcomed two new faculty this last school year. The first is Joel Raveloharimisy, who is the new director of our Master’s program in Community and International Development. Dr. Raveloharimisy was born in Madagascar and holds a PhD in Political Sciences from Western Michigan University. He is off to a great start in developing our graduate program and in achieving a high level of professional recognition as a consultant to the World Bank. Our second new faculty member is Romulus Chelbegean. Dr. Chelbegean has a PhD in Marital and Family Therapy from Loma Linda University. He directs our Family Studies Program. His consistent cheerfulness and professionalism have had a very positive impact on our department.

Another major event that happened this year was the integration of the off-campus Masters in International Development into our department. We welcomed Program Director Dawn Dulhunty and her administrative assistant, Rod Snow. We are very pleased to have both Development programs in our de-

## Department of Communication

### New Minors Introduced into the Department of Communication



This past school year the Department of Communication has been working hard to create 11 new minors with the collaboration of other departments. Dr. Karl Bailey analyzed the trends in various departments relevant to communication; the study showed that the departments were losing majors but gaining minors, and this gave the department the idea to create new minors to facilitate this need. The department has been collaborating with different departments to share courses because the discipline of Communication is interdisciplinary. The department wanted to create minors that would help students in other majors gain additional skills for use in the workplace.

Two types of minors have been developed because of the study. One type is with the collaboration with other departments or majors, and the other type offers skill sets that correspond to majors offered in the Department of Communication at present. The beneficial thing to note is that none of the new minors require any new classes to be offered. The classes have been grouped differently to help simplify and focus the minors to skill sets that will be needed in the work force, without the need to create new classes. Dr. Delyse Steyn, the chair of the Department of Communications, said, "We believe our divisional strategy of packaging existing classes into social sciences skill-

development minors offers a service to the campus community and may help attract students into our classes in the departments." In addition to developing skill sets that reflect various career tracks, the minors also prepare students for internships by the packaging of courses. "As a liberal arts school and an interdisciplinary program, we're honored to collaborate with different campus departments to offer students such specified career tracks. It's an opportunity for them to enhance their futures and skills," Dr. Steyn said.

The minors will be added to the 2012-2013 bulletin, first appearing in the Fall semester. The new minors are:

- Electronic Journalism
- Event Management
- Health Communication
- Strategic Communication
- Image, Identity and Popular Culture
- Photojournalism
- Publication Production
- Communication and the Family (In collaboration with Family Studies)
- Communication and Community Development (In collaboration with Community and International Development)
- Advocacy of Public Policy (In collaboration with History and Political Science)
- International Relations and Peace Studies

Text by Lindsey Hollister  
Photo of Delyse Steyn and her class  
by Brittany McNitt

## Department of Social Work

### The Ripple Effect of Ministry

Text by Lindsey Hollister



Pastors Daniel Vega and Elvis Velez became social work interns at Neighbor to Neighbor when Lucy Randall, their mentor, gave them the idea to start a ministry in the community. Vega and Velez took the idea to Dowagiac, Michigan, figuring out what the community needed and catering to those needs to become friends with people. They discovered that people needed clothes, and Neighbor to Neighbor was happy to donate clothes for them to give out. Vega and Velez gave out clothes to start opening doors to people, allowing them to get acquainted with families, and then start discussing different things with people as friends, including religion and faith. They came up with the idea from Jesus' example in His ministry, which was to go out and preach and meet the needs of the people.

Vega and Velez, as well as two other pastors, Gilberto Tuesta and Omar Lebrault, lead a church service every week, run a couples support group and children's programs. Currently there are 49 families that the pastors have close contact with in Dowagiac that they serve with giving clothes, and ten people who

are receiving Bible studies. There are more people who want Bible studies, but because Vega and Velez are also students, they just don't have the time to handle more people.

Their clothing ministry has spread not just to other local communities, but also across the US and other countries. At the moment, clothes are being sent to Benton Harbor, South Bend, Chicago, Grand Rapids, Wisconsin, the Dominican Republic, and other places. Vega and Velez also attend meetings with groups of pastors across the country, presenting their ministry and teaching them. Their goal is to make a manual that pastors can use. "People who want to start the ministry can receive the manual and learn how to start the ministry," Randall said. Right now, the manual is only in Spanish, so Vega and Velez need to translate the manual into English so they can distribute it.

Vega and Velez's plans for the future are to keep sharing and spreading the ministry, appeal to the community for support and funding to get a larger place to meet for church, Bible studies and activities they run in Dowagiac, because the place they have is extremely small and cannot fit everyone who wants to come.

"Everywhere we go, we share the plan," Vega and Velez said, and everywhere they share their plan, the pastors listening have taken it and put it into practice, starting the ministry where they are. It keeps spreading in a huge ripple effect that all started with one little church in Dowagiac and two social work interns with a vision.

