The recent outbreak of dengue virus infections in the Florida Keys is a puzzle that has state and federal epidemiologists scratching their heads. The last time a dengue outbreak was documented in Florida was in 1946. So, why has dengue suddenly reappeared in the Keys, and where did it come from? In August 2009, a vacationer to Key West returned home to New York feeling ill and was subsequently diagnosed as having had a recent dengue virus infection. Notification of the Monroe County Department of Health led to confirmation of 25 more cases in the fall of 2009, and 63 further cases in 2010. There are four distinct serotypes of dengue virus and multiple strain variants that co-circulate in a transmission pattern between mosquitoes and humans. Dengue viruses are usually transmitted by either of two primary mosquito vectors, Aedes aegypti and Aedes albopictus. Both of these mosquitoes are tree hole breeding species originating from the forests of Africa and Asia, respectively. Both species have now adapted to life around human dwellings, and breed in small amounts of stagnant water that collect in human trash and other containers left lying around. These are urban mosquitoes, and typically bite us as we drink our morning coffee or enjoy the sunset on the deck. Identification can be tricky, but the adult females are usually small and black with a highly contrasting pattern of white lines and stripes. Both species are highly invasive and have become well established throughout the warmer regions of the southeastern United States as well as in most other regions across the globe with similar climates. The establishment of these vector mosquito species has set the stage for the re-introduction of dengue.

Travelers who have lived in or visited dengue-endemic countries may carry dengue viruses to Florida, and may be bitten by local vector mosquitoes, sparking an outbreak. Similarly, dengue-infected adult or larval mosquitoes may be transported to Florida in a variety of ways. Florida is not unique in this risk. Local transmission of imported dengue has recently been reported in southern France and in Croatia—areas where dengue had been previously eliminated and no outbreaks had occurred in decades.

The laboratory run by Sharon Isern and Scott Michael in the Department of Biological Sciences became involved in finding the source of the outbreak due to their experience working with dengue virus inhibitors and antibodies, funded by the Defense Threat Reduction Agency. Drs. Isern and Michael established a collaboration with the Florida Keys Mosquito Control District to test mosquitoes from across the Florida Keys for the presence of dengue virus. Amanda Graham, Biological Scientist and FGCU graduate in Biotechnology, spearheaded these efforts.

After testing pools of nearly 10,000 mosquitoes, they found three batches positive for dengue virus serotype 1. Global Information System (GIS) analysis performed by Dr. Anne Hartley in the Environmental Studies Program confirmed that all of the dengue positive mosquitoes were from Key West and not from the upper keys. The investigators conducted sequence analysis of the RNA genomes of the viruses from Key West and identified the closest relatives as dengue viruses previously described from Nicaragua, indicating that this was the likely source of the introduction. Interestingly, a molecular clock calculation that counts the number of differences between genetic sequences and compares them to a known rate of change, found that the Key West viruses may have been genetically separated from their Nicaraguan relatives for a decade or more. Whether the virus has been present and undetected in Key West for that long cannot be determined.

The results of this study are significant because they identify where and possibly when the Key West virus originated. Other dengue cases in the US and elsewhere can To be continued on page 14 (Dengue)
Dear CAS Colleagues,

As we approach Spring Break, I trust that your semester is moving ahead smoothly. Along with the faculty search committees, the deans have been active interviewing faculty candidates. At this point, we have 17 offers have been extended and accepted. We will continue to move forward wrapping up the hiring season in late March.

As you know, I have received the white paper from the CAS Reorganization Ephemeral Team and will work with the CAS Leadership Team and the Provost to finalize the CAS structure for fall 2012. I plan to announce the new structure in the next few weeks. It will be exciting for our new colleagues in professional studies to formally join the College.

Finally, I would like to express my thanks to all of you for your continued work on behalf of our students. It is our mission to create an academic environment that engages students and promotes learning. I hope to see many of you at the upcoming “Student Engagement Workshop: Developing Effective Educational Practices at Florida Gulf Coast University” on March 23.

Best Regards,

Donna Henry
Dean, College of Arts & Sciences
Professor of Biology
An Artistic Touch added to AB7 & the Bower School of Music Buildings

Mark T. Fuller, a West Palm Beach designer and public artist was recently selected by two separate FGCU Arts in State Buildings committees to produce new work for the Bower School of Music's building and the CAS’s LEEDs platinum-certified Academic Building #7.

Fuller’s (b. 1953) work has been installed nationwide, including “Light Swimming” at the South County Civic Center in Palm Beach County and a connected set of Boynton Town Center public art installations called “The Last Pasture,” “Waterhole #3,” and “Eight Horses” which are spread out along a series of traffic circles as well as a 9/11 World Trade Center memorial in Hoboken, NJ.

Fuller’s FGCU pieces use the sun’s light in different ways to address the activities that occur inside the building that they adorn. For the Bower School of Music building, he created Whatever You Say, Dear, 2011, powder coated laser-cut aluminum plate music notes that are suspended away from the building so that the varying segments of musical notation cast shadows on the building’s façade that strengthen and fade during the course of the day as interact with the natural light.

For AB #7 Fuller has used more technologically sophisticated means, creating Dépend du Soleil, 2011 a work consisting of acrylic panels covered with a dichroic coating, aluminum and stainless steel hardware and tubing, LED’s, solar ovonic panels and a battery. Completely self-energizing, the work creates subtle and ever changing puddles of projected color on the southern facing exterior wall of the CAS’s flagship building.

These two pieces are a part of a growing collection of on-campus public arts projects that are funded by Florida Arts in State Building program which supplies ½ of 1% the cost of state building budgets so that the buildings paid for by citizens’ of Florida reflect the aspirations and cultural values of the community.

Watch that Ladybug go!

On February 29, 2012, we are saying good bye and good luck to a long-term FGCU employee and friend of many, Susan Fohs, as she plans to retire.

Susan began her journey in September 1994 as part of a team building a new state university. She was hired in as employee number 24 to work as secretary for the librarians whose task was creating and building the initial opening day collection. Susan was selected to receive FGC’s first Recognition of Excellence,’ award for the inaugural year, 1997-1998. In 1999 she moved from the library to the College of Arts and Sciences to work with the Department of Environmental Science. She served at the invitation of Dr. Merwin on his Environmental Stewardship Advisory Council and was part of the committee which recognized the need and created the Staff Advisory Council. She served on the first SAC council and has been elected by her peers to serve two additional terms. She has been a member of the Grant in Aid Committee since its inception. In 2005 she began her work as Administrative Assistant for the Whitaker Center for STEM Education. It is from this position that she will retire the end of February.

Susan has expressed her amazement and appreciation of being a part of creating and building this wonderful new university. She shares her love of this place by leaving behind memories of her ‘Coffee Bar,’ art work for the lunch room in Whitaker Hall, decorative magnets for her car, her love of ‘ladybugs!,’ her loud [but loving] rendition of ‘Happy Birthday’, her smile and helping hand for staff, faculty and students, and the redesign of the space now known as the Whitaker Center! The College of Arts and Sciences wishes Susan the best as she starts in her next chapter of life.
Eagle Priority Registration is just around the corner starting March 19th! This is an online process that allows students, who are closer to degree completion and with certain course needs, the ability to register before students who are further from graduation. Priority levels are determined by a student’s most recently posted, total earned hours.

CAS Advising has an appointment-only policy year round. Students have 30 minute meetings with Academic Advisors to work on developing a plan to graduation, discuss requirements such as internship/research, complete official graduation checks, study abroad paperwork, etc.; and, most importantly, make informed decisions about their academic career. Every semester, we would make an exception to this policy and see students on a walk-in basis during the priority registration period. The reason we would see students on a walk-in basis was to provide help to students with immediate registration issues, such as receiving an error when attempting to register or helping students with academic standing holds register for classes. There is an increased demand to see academic advisors during the priority registration period. What we found over the last couple of years is that students were coming to CAS Advising for a walk-in meeting, but they really had much broader questions that should be addressed in an appointment rather than the quick, walk-in format. As a result, in some cases students experienced a two-hour or more wait to see an advisor. By maintaining our appointment-only policy throughout the priority registration period, long wait times will be eliminated and students will have a more in-depth meeting than a walk-in allows. This will benefit students greatly! In addition to being more convenient (a scheduled time for advising, rather than a long wait), we also believe that students will receive more complete information in a non-rushed format.

Throughout the five-week priority registration period, we anticipate having approximately 2000 appointments available to students. Based upon the number of students who have signed in for walk-in advising in previous semesters, the 2000 appointments should more than accommodate the number of students who want to meet with an advisor. When students call to schedule advising appointments, we will be looking up their priority registration dates to determine when to schedule their advising appointment. For example, if a student who can register starting April 9 calls CAS Advising on March 16 to schedule an appointment, we will try to book their appointment during the week of April 2 – 6. That will leave appointments in late March available for students who can register on March 21 or March 29.

We are encouraging students to plan ahead! By scheduling advising appointments, we hope to significantly reduce the last-minute registration issues students may encounter. However, for any emergency issues, such as needing a permit, students can: (a) stop by the office (AB7, Room 109) to speak with our Advising Assistant, Kendra, (b) send an e-mail to our main address casaadv@fgcu.edu, (c) call our main line 239-590-7196.
Science & Inventor Fairs comes to FGCU

Florida Gulf Coast University hosted the 55th Annual Thomas Alva Edison Kiwanis Science & Engineering Fair, the Thomas A. Edison Inventors Fair and the Discover Village in the Alico Arena complex on January 13 - 14, 2012. These events, known as the Edison Day of Discovery, serve as the kick-off events to the Edison Festival of Lights month long tribute to Thomas Alva Edison. This is the first year that FGCU has served as the judging venue and the students, judges, and the public felt that the University atmosphere elevated the event to a new level of academic achievement for the students.

The regional science fair is affiliated with the Intel International Science and Engineering Fair and also the Florida State Science and Engineering Fair and serves Lee, Charlotte, Glades and Hendry County schools. This year, 430 middle and high school students were registered and competed in 17 categories for recognition of their independent science research. Categories ranged from Behavioral and Social Sciences, Environmental Management and Sciences, Bio Chemistry and Chemistry, Microbiology, Math, Engineering, Physics and Astronomy, to Plant Sciences. Students may compete as individuals or part of a team (no more than 3 members per team). The finalists display their research results on a project board, an inventors log and invention prototype. A team of 60 judges interview the students and select the best of fair projects at each grade level. The Awards Program was held on Tuesday, January 17 in the historic Edison Park Elementary Auditorium where students received trophies, certificates, SONY products, and scholarships.

Discovery Village, comprised of 30 community partners, entertained hundreds of visitors with interactive displays of science, engineering and the environment occupied the outside recreation center. In addition, campus tours were available to parents, teachers and visitors during the judging hours. The College of Arts and Sciences professors and student assistants graciously opened their classrooms and provided informative lectures and demonstrations regarding their programs in 40 minute concurrent sessions. The tours were very successful and planning is already in progress to expand these opportunities for next year.
2011 FGCU Archaeological Field School

During the Fall 2011 semester, FGCU undergraduates participated in a course entitled “Archaeological Lab Methods” (ANT 3824L). The scope of this course was to provide an experiential learning environment in which students could process and analyze the various types of cultural materials commonly recovered during archaeological research. All the materials examined during the course were generated during the Summer Archaeological Field School held on the Big Cypress Seminole Indian Reservation.

The capstone event of the class was a public poster presentation at the popular Billie Swamp Safari recreation facility on the Big Cypress Seminole Indian Reservation. Hosted in a traditional Chickee, Seminole Tribal members, tourists and other members of the public were invited to look at the posters and engage with the authors in one-on-one sessions. Poster topics included the application of non-invasive geophysical techniques, such as ground penetrating radar, to the identification of archaeological sites, the speciation of sharks teeth and marine shell tools recovered during the excavation, and a controversial theory as to the geologic source of the toolstone recovered from the site. In the case of the lithic presentation students speculated that the source of the lithic material could possibly have been a local outcrop of Tamiami Formation limestone. This interpretation implies direct procurement by local people rather than the commonly assumed trade and exchange network with indigenous groups occupying the Tampa area.

Throughout the course the Seminole Tribal Historic Preservation Office (THPO) on the Big Cypress reservation was integral to the success of this class, providing expertise, space and tools for student investigations. A recent report conducted by the Society for American Archaeology (Silliman and Ferguson 2010) identified the development of meaningful collaborations between Native American and archaeological researchers as one of the most important efforts for current archaeological practice. The Archaeological Laboratory takes this challenge as its raison d’être allowing students to actively explore what can be learned when two communities participate equally in the active investigation and evaluation of an archaeological site located in the heart of southern Florida’s interior.

Student Project/Internship Poster Presentations

Departments of Biological Sciences and Marine and Ecological Sciences came together this past December to celebrate the undergraduate research and internship opportunities of our graduating seniors. This experience created a Mini-Research Day for life science students that graduated this past semester. It was a fun and relaxed afternoon as students discussed their discoveries and findings with faculty and peers. Research projects and internships were impressive and ranged across all of the life sciences. Students presented research findings on an array of topics, including the effect of pathogens on tooth decay and the molecular genetics of bacterial resistance as well as the physiology of marine invertebrates and dispersal pattern of frogs. Our internship students described their experiences in variety of places across the region, including the Rockery Bay National Estuarine Research Preserve and the Lee County Mosquito Control District. These research projects and internships took a significant amount of effort. Students invested anywhere from 5 – 36 months working on these efforts.

This Mini-Research Day was punctuated with the first-annual chili cook off. Joan Firth, an environmental science student, took home the first price with a spicy, vegan chili that received big thumbs up, “Seriously, it was a good bowl of chili, and I love meat.” Everyone had a great time. Students experienced both rigor and celebration as we all geeked off on science.
1st Annual Engagement Day at FGCU

As part of FGCU’s continuous planning cycle, the Planning and Budget Council of FGCU is hosting a workshop coordinated by the Enrollment and Retention Management Committee. The workshop is integral to advancing our campus discussion of enrollment planning and is well aligned with many of the stated goals of the University’s mission and vision statements and will be held on March 23rd, from 8:15 – 4:00 at the Sudgen Hospitality & Resort Management Ballroom.

The featured speaker and program facilitator for the day will be the nationally acclaimed Dr. George Kuh. Dr. Kuh, Professor Emeritus of Indiana University, is an eminent scholar in research on assessment, student development, and campus environments. He was integral in the development of the National Survey of Student Engagement (NSSE) that FGCU participates in on a bi-annual basis.

The first of its kind in our history, the workshop will include a morning plenary session featuring Dr. Kuh, commentary from key FGCU faculty and staff, and conclude with a collaborative planning session on improving student engagement and success. Participants will come away with a broad understanding of what FGCU is currently doing to engage our students and also identify strategies we could implement to increase student persistence.


To learn more about Dr. Kuh, please take a moment and go to: [http://nsse.iub.edu/html/staff.cfm?iuid=kuh](http://nsse.iub.edu/html/staff.cfm?iuid=kuh)

Pictures of Resistance

On January 3rd FGCU’s Center for Judaic, Holocaust, and Human Rights Studies held a “high tea” reception showcasing the opening of “Pictures of Resistance: The Wartime Photographs of Jewish Partisan Faye Schulman” at the ArtLab. This rare collection of images captures the camaraderie and bravery of the rag-tag partisans—some Jewish, some not—who fought the Nazis.

Faye Schulman was a teen-ager living with her family on the Russian-Polish border in August of 1942 when Nazis invaded her town and killed most of its Jewish residents, including Faye’s parents, sisters and younger brother. She was spared because of her photographic abilities, ordered by the Nazis to develop their photos of the massacre. She later escaped and joined a partisan group comprised mostly of escaped Soviet Red Army POWs. During the 2 ½ years that she lived in the woods, nursed the wounded, and participated in partisan raids, Faye took over a hundred photographs, developing the negatives under blankets and making “sun prints” during the day. Her work defies the notion that Jews did not resist their oppressors. As Faye explains, “I want people to know that there was resistance. Jews did not go like sheep to the slaughter. I was a photographer. I have pictures. I have proof.”

The Jan. 3rd ArtLab opening reception was well attended, and many local residents expressed their appreciation of the exhibit. Everyone also enjoyed a selection of finger sandwiches, sweets, and refreshments, all underwritten by Ann Jacobson, herself a Holocaust survivor. With the start of the semester, the Center hosted another reception on January 13th, this one intended to attract more students as well as community members. Anica Sturdivant was hosting a WGCU members’ event in the main art gallery that evening, and she graciously announced the exhibit to their guests, attracting an even broader audience. The reception was followed by a Shabbat service in the Student Union Ballroom, where Hillel students led the service and served a delicious dinner. It was a lovely evening of community, bringing together people of all faiths and ages to share in the excitement of the exhibit, the solemnity of the Torah reading, and the delights of good food.

The partisans’ lives depended on remaining unseen, undocumented and unidentifiable. But one fighter, Faye Schulman, had a camera. Her photographs speak eloquently of survival, endurance, and resilience, and contribute historical memories that must be preserved. FGCU’s students, faculty, and staff were fortunate to share in this slice of history and to celebrate this courageous woman.
The Department of Language and Literature will be painting, parading and partying (not to mention Salsa dancing) during its first annual Karnigras at Gulf Coast Town Center on April 7th. “Karnigras” is a combination of the Old and New World traditions of French Mardi Gras, Latin Carnival, and German Karneval all rolled up into one big, fun(draising) celebration. The “cause” is funding future study-abroad programs and the call is all hands on.

How exactly does it work? FGCU students will be asking the shops and restaurants to donate prizes or profits for raffles and costumes in all categories and offering face-painting for those who come without a costume. The Gulf Coast Town Center is sponsoring a salsa band at their Marketplace and the FGCU Spanish profs will be teaching us all how to dance it. The Karnigras is aimed at attracting students, faculty, staff and community, so save the day and start planning your costume! You might win a week in Vienna!

In addition to Karnigras, the French Film Festival, and several International Luncheons, the Language Team is also working hard to make the World Heritage Trip 2012 a success. This faculty-led study-abroad trip will take students from all fields of study on a tour of seven UNESCO World Heritage sites. From Freud and Mozart to the Dachstein Ice Caves, there is something for everyone. The trip will take place during Summer Term A and enrollments are open now, so please pass the word on to your students. Complete info can be found at the International Services Office or online at: http://www.fgcu.edu/international.

In 2010, Eric Strahorn was named a Research Fellow of the National Asia Research Program (NARP) for 2010-2012. He was among thirty-nine outstanding scholars of Asia who were chosen through a competitive, nationwide selection process based on their research into issues of importance to U.S. interests in Asia.


“Our goal in this new program is to highlight and reward scholars who have successfully bridged the gap between the academy and policy,” said NBR President and NARP co-director Richard Ellings. “America’s future security, prosperity, and well-being will be deeply linked with Asia’s future, and thus America needs some of its best and brightest to understand our interests in Asia -- and the history, nations, peoples, and issues of Asia. In short the NARP is responding to the needs for information and assessment arising from the shift in locus in world power from the Atlantic to the Pacific.”

Anna Angeli’s French students added to our festive spirits by singing French (and German) Christmas carols around campus on December 5th. Here they are joined by German students in a bilingual carol. Carolers included: Composition Instructors Jason Elek and Allison Dieppa, and French I student Dahiangi Hernandez. We sang in French, German, and English!
Tournées French Film Festival

The Department of Language and Literature held their inaugural Tournées French Film Festival throughout the month of February, 2012. Presented in collaboration with the Department of Communication and Philosophy; The College of Arts and Sciences; Multicultural Student Services; The Center for Judaic, Holocaust, and Human Rights Studies; and Amnesty International, this event featured a variety of recent francophone movies.

The entire FGCU community was invited to watch the free weekly movie screenings on campus starting February 2nd, 2012. The event was open to all FGCU students, faculty, and staff as well as the larger community. Movies featured during the film festival included:

Feb. 2, 6 p.m. – La Mome (La vie en Rose) by Oliver Dahan. A swirling, impressionistic portrait of an artist who regretted nothing. Marion Cotillard stars as the legendary French icon Edith Piaf.

Feb. 9, 6 p.m. – Paris by Cédric Klapisch. Characters of vastly different backgrounds intersect, provide a sense of the multitudes and complexities contained within one of the world’s greatest metropolises.

Feb. 16, 7 p.m. – Copie Conforme (Certified Copy) by Abbas Kiarostami. Movie screening with an introductory lecture by Farshad Aminian, assistant professor in the Dept. of Communication and Philosophy. The movie centers on the relationship between an English writer and an anonymous woman.

Feb. 22, 7 p.m. – Le Chant Des Mariées (The Wedding Song) by Karin Albou. Movie screening sponsored by the Center for Judaic, Holocaust, and Human Rights Studies, with an introductory lecture by John Cox, associate professor at the University of North Carolina, Charlotte. The movie focuses on the friendship between teenagers - a devout Muslim celebrating her engagement, and her neighbor, a secular Jew living with her widowed mother.

Feb. 23, 6 p.m. – Persepolis by Vincent Paronnaud and Marjane Satrapi. Movie screening sponsored by Amnesty International. The movie features a young girl coming of age in Iran during the Islamic Revolution.

Support for the Tournée Festival is provided by the French Ministry of Foreign and European Affairs / The Centre National de la Cinématographie / The Florence Gould Foundation / The Grand Marnier Foundation / highbrow entertainment. www.facecouncil.org

Mei-Mei Chan speaks at FGCU

Mei-Mei Chan—president and publisher of The NewsPress—shared her personal story with FGCU students and community members in January. Born in Canton, China, the child of peasant farmers, Chan came to the United States with her parents when she was 7. She is one of only three Asian American newspaper publishers in the U.S.

Chan told her inspirational story, spoke about where she believes journalism is headed, and urged students to speak up, get involved, and be purposeful about their “brand,” or persona.

Chan spoke as part of The Community Speaks lecture series, which features talks by minority leaders in southwest Florida. The series is provided by FGCU’s Office of Community Outreach. The next speaker is attorney Miguel C. Fernandez III, Esq., who speaks on March 19.
The first week of the spring semester marked a series of events to commemorate the second anniversary of the Haitian earthquake of January 12, 2010, in which three hundred thousand people died and more than a million people were left homeless. FGCU faculty and students, led by Nicola Foote, Joe Cudjoe and Simone O’Bryan from the Department of Social and Behavioral Studies and Meryl James-Sebro from the Department of Marine and Ecological Studies, came together to underline the continuing impact that the earthquake is having on Haiti and the Haitian Diaspora, and to draw attention to the continuing need for help and support.

The event series opened on Wednesday January 11 with an afternoon of student research presentations, as undergraduates from the disciplines of history, anthropology and sociology presented their work on Haitian society and culture. This was followed by the screening of the documentary Bound by Haiti, about the partnership being forged between an American student from South Florida and a Haitian teacher in Port-au-Prince as they work to bring educational opportunities to Haitian children, and which includes powerful footage from the immediate aftermath of the devastating earthquake. Participants were able to discuss the film with the film-makers and its Haitian protagonist John Dieubon, who introduced the film via Skype and joined us in a question and answer session afterwards.

The events of Thursday January 12, began with a keynote address by Haitian-American political scientist and author, Robert Fatton, Jr., the Julia A. Cooper Professor of Government and Foreign Affairs in the Department of Politics at the University of Virginia. Professor Fatton provided an overview of the new Presidency of Michel Martelly and evaluated the challenges the former pop-singer faces in leading Haiti through the reconstruction process. This was followed by a roundtable which brought together a range of leaders from the non-profit sector who are working in Haiti, including Rebecca Reichert, Director of Development at the Florida Association for Volunteer Action in the Caribbean and the Americas, Alejandro Salisbury, Community Liaison Officer for the Haiti Youth Development and Education, and Karen Curtiss of Food for the Poor. They were joined by Haitian and Haitian-American students from FGCU, and leaders from the local Haitian-American community in SW Florida.

At exactly 4.53, the precise moment at which the 2010 earthquake took place, President Bradshaw led students, faculty and community members in a ceremonial planting of Haitian flags on the library lawn. This provided a solemn moment for commemoration of the lives lost in the disaster as FGCU students sang the Haitian national anthem. This was followed by an evening candlelight vigil, with poetry recitations and musical performances by FGCU students.

On Friday January 13 the mood turned to celebration of Haiti’s resilience and culture, and Tropical Breeze, a local Haitian-American band, performed Haitian compa in the central campus plaza.
Are we alone in this galaxy of hundreds of billions of suns? It’s a question of the most profound significance and one that mathematics student Andrew Hedman and I have been trying to examine in a mathematically rigorous way. Our research published in The International Journal of Astrobiology and recently featured in The Economist, Discovery News, and MSNBC, examines how advanced civilizations would spread themselves out in both time and space. For example, we know from the historic rate of star formation that the galaxy has been capable of producing planets with environments like ours for almost five billion years. This would strongly suggest that if we are not alone within the galaxy that many civilizations could have had an enormous head start. In fact, in all the computer simulations we ran the first intelligences to emerge could have had whole geologic epochs to explore every nook and cranny of the galaxy even at speeds as low as one percent of the speed of light long before our emergence. This begs the question: If they had stumbled upon our solar system a half billion years ago when the largest life forms on this planet were stromatolites and sea worms, then would we have ever been given the chance to evolve? It would seem to be the ideal setup for space-weary aliens.

The pessimist might say this question is moot. That maybe all civilizations have finite life spans measured in thousands and not millions or billions of years because of resource depletion or self-annihilation…or that maybe they turn to solipsism and simply contemplate their extraterrestrial navels. These scenarios, however, would imply a uniformity of motive among all civilizations across both light years of distance and mega years of time. It would take only a small subset of societies to abrogate this uniformity for it to break down, so it is not very likely to exist.

Therefore, if we are not alone in the galaxy, and our uniqueness is a distinct possibility, then intelligent life has evolved on numerous occasions in the distant past, has had tens of millions of years or more to migrate across the galaxy, and has intentionally left us alone each time. This suggests a convergent sociological imperative that is either forced, taught, or passed down by the earliest civilizations or is simply the logical conclusion that all intelligences deduce after millions of years of contemplation…somewhat akin to how convergent evolution has produced eyes numerous times in earth’s biological record. What’s more, ancient civilizations are likely to be non-biological, having adopted a more durable template, and thus do not want to live in a warm, wet, oxidizing environment like that found on Earth. Being information based, they would prefer the outer reaches of star systems. It may be due to Hollywood’s influence, but we have probably grossly over-simplified or anthropomorphized both the motivations and needs these entities have for physical resources.

The apparent size and age of the Universe suggest that many technologically advanced extraterrestrial civilizations should exist. However, this hypothesis seems inconsistent with the lack of observational evidence to support it and further suggests that other, often more complex and subtle explanations like those mentioned previously must be examined to explain this eerie silence. As Enrico Fermi famously asked his fellow scientists in the Los Alamos commissary in 1950 starting the whole conversation, “Where the heck is everybody?”
FGCU Annual Math Competition

Each year middle and high school students from around the state look forward to participating in what has become the largest mathematics competition in Florida. The Annual FGCU Mathematics Competition is held right here on our beautiful campus during the reading days of fall semester and attracts students and schools from Gainesville to Miami. The event boasts over 1100 students and 50 schools all participating in a full day of academic bliss. Students compete in mathematics content areas in both an individual and team format. The tremendous success of the event is a culmination of many faculty in the department working together to develop tests, seek out sponsors, and generally organize and plan for this big day in its entirety. All who attend revel in amazement as students gather for the largest “it’s cool to be smart” pep-rally called an awards ceremony culminating the event.

This year the event added two new features to the program. The first was a special option for students to compete in a special chemistry round of tests which were very well received. This added feature offered some variety to students as they explored their expertise in a closely related field. In addition to the chemistry rounds, world renowned mathematician Dr. Edward Burger flew in from Baylor University as the guest of honor. His lecture was riveting and enjoyed by all.

For information on FGCU’s upcoming STEM Competition in March, please go to: http://www.fgcu.edu/events/mathcompetition/STEM/index.html

GEMS Explores the Wonders of Space

In its sixth year, Girls in Engineering, Math and Science (GEMS) is still going strong serving young women from our region. GEMS was launched in 2006 to address our nation’s shortage of women professionals in the fields of math, science and engineering. The GEMS program provides 6th, 7th, and 8th grade girls from public schools the opportunity to participate in STEM related activities on the FGCU campus.

GEMS has provided creative hands-on science workshops for middle school female students from Lee and Collier counties. To date GEMS has served more than 1500 middle-school girls from our surrounding counties with grant support from agencies such as the Women’s Fund of the Foundation of Collier County, the American Honda Foundation, Zonta Club of Bonita Springs, The Whitaker Center for Science, Technology, Engineering, and Mathematics Education and the Center for Environmental and Sustainability Education. This year Jan DeJarnette and Jo Ann Wilson were awarded a grant from NASA Florida Space Grant Consortium. With this funding GEMS is serving 300 girls in an event that was held November 2011 and two more events planned for February 25 and April 21. To date, 15 FGCU faculty and 55 FGCU undergraduates have played an active role in the success of GEMS in providing hands-on laboratory investigations for middle-school girls.

The NASA FSGC SETP grant allows the GEMS program to provide innovative space engineering and science activities to 300 girls in an all-female and primarily, under-represented population. Our two-county area served by GEMS has an overall middle-school diversity of nearly 52%. Some of our target schools have 97% under-represented students. Our schools have up to 93% that are deemed economically needy by federal standards as well as up to a 37% migrant population. GEMS opens a new world of opportunities for these girls by introducing them to careers that they never dreamed possible or within their reach.
Joint Meetings in Mathematics in Boston

Last year, math club’s trip to the 2011 National JMM was eye opening to say the least. It left us in such anticipation for the coming year’s conference that we started making plans 6 months in advance. Our trip began at 2:00 in the morning on January 3rd, 2012 when we flew 1,200 miles to the frozen tundra of Boston, MA. Over the next few days, we joined 7,200 other math minds in enjoying 2,700 presentations on everything from the celebration of Benoit Mandelbrot’s life accomplishments to the application of operations research in deciding who gets donor organs. A personal high point for members of the math club was watching our very own Andrew Hedman (senior) give a scheduled presentation on percolation theory. After being inspired by Andrew a few more members have started piecing together a presentation for next year’s JMM in San Diego, CA. It’s been a fantastic few years for FGCU Mathematics and the best is yet to come.

Andrew Hedman presenting the research paper titled “Spatial dispersion of interstellar civilizations: a site percolation model in three dimensions” co-worked with Dr. Thomas Hair.

Pictured from left to right 1st row: Santiago Salazar, Jessel Serrano, Tyler Medina, Ashley Rusciano, & Farhana Huda. Left to right 2nd (back) row: Katherine Galluzzo, David Blessing, Stephanie Fine, Tyler Thomas, Kendra Dozier, Sergio Ovalle, & Renzo Angulo. Not pictured: Nracelis Chamorro & Andrew Hedman.

Faculty Mentors pictured from left to right: Jaffar Ali Shahul-Hameed, Rick Schnackenberg, Daniel Kern & Menaka Navaratna.

Phi Alpha Theta History Convention

Six FGCU students turned out to represent FGCU at the 2012 biennial national convention of Phi Alpha Theta, the nation’s premier history honors society, which met January 3 to 7. Four FGCU undergraduate history majors and two graduate students traveled to Orlando to present their research and represent their university. Such academic conferences present students with unparalleled opportunities not only to exhibit and refine their work but to network with top scholars and students from across the United States, readying themselves for graduate school. Even in a crowded field of presenters from the United States Air Force Academy and other top-flight schools, our six FGCU students stood out for their polished presentations and for the depth and rigor of their research.

The topics of the papers presented by FGCU students included the Spanish civil war by Michael Dest, political purges in Nazi Germany by Sara Gottwalles, youth resistance in Nazi Germany by Frank Piccirillo, Luddites in history by Janet Schalk, war crimes in the American-Filipino conflict by Andrew Cain, national consciousness in Spanish American by Michael Rodriguez, and Roman law in the early Irish legal system by William Mattingly. Congratulations to FGCU undergraduates and M.A. candidates for generating such fine papers and for embracing the opportunity to showcase their work before a national audience of historians.
Dengue Continued (from cover story)

be compared to these results to see if the same or a different dengue virus strain is circulating. The presence of more than one circulating dengue strain in any location is a major problem, as recovery from infection with one dengue serotype does not produce immunological protection against the other three virus serotypes. In fact, antibodies from infection with one serotype have actually been associated with more severe disease upon infection with a second dengue serotype. This means that keeping track of which dengue virus types are circulating in any particular area is critical to predict the severity of a possible outbreak.

Thankfully, there have been no fatalities from the Key West dengue outbreak, although there have been numerous cases with severe symptoms called “break-bone fever” for the associated painful body aches. The outbreak also seems to have stopped, or at least paused, during 2011 as no new human infections have been reported. No one knows if this is due to the identification of dengue-positive mosquito locations and increased mosquito control efforts, unusual drought during 2011 in the Keys, or both. Epidemiologists and tourists will be watching to see if dengue is truly gone from the Keys when the rains return next summer.

This study was recently published in the journal *Emerging Infectious Diseases*, published by the US Centers for Disease Control. This article can be accessed online at: [http://wwwnc.cdc.gov/eid/article/17/11/11-0419_article.htm](http://wwwnc.cdc.gov/eid/article/17/11/11-0419_article.htm). Additionally, the results of this study have also been disseminated through oral presentations given at the 30th Annual Meeting of the American Society for Virology held at the University of Minnesota this past July (by Amanda Graham) as part of the Emerging Viruses Workshop (chaired by Dr. Isern), the Biodefense Consortium Annual Meeting held at University of South Florida in September 2011 (by Dr. Michael), and the 83rd Annual Meeting of the Florida Mosquito Control Association held in Jacksonville in November 2011 (by Dr. Isern).
“Wings of Hope” Panther Posse CREW Hiking Adventure

Over 220 FGCU Environmental Humanities/Community Service Learning Students signing up for a "Wings of Hope" CREW Hiking Adventure during the FGCU Spring Semester. The college students will hike and educate over 2,000 4th and 5th grade students (Panther posse) thru a 60,000 acre watershed at CREW trails. The students hike 2 ½ miles thru panther habitat, identifying habitats, birds, invertebrates, signs of wildlife, and plants. They learn about how Florida Panther Wildlife biologists study and research the endangered Florida panther and wildlife, using GPS, Anemometers, compasses, scent stations, and infrared motion cameras.

After the program the students educate 2 people about CREW, Florida panther habitats, and wildlife. The elementary students receive a panther photo and the college students receive a grade. The elementary students receive a blank rock and paint something special they liked at CREW. Then they ask their families to help them bring their rock back to CREW and place it in a special “Nature Rocks” area by the Tower. The students take their CREW journal and educate their families while they’re hiking and placing their rock.

www.fgcu.edu/cas/wingsofhope
www.crewtrust.org

The students learn about future careers from the college students, the importance of fire, food chains, native and exotic species, and much more about the natural world. They leap like a panther (Panthers can leap 15 feet) and compare their distance with a math activity when they return back to school.

Running like a bear, hopping like a tree frog, soaring like a vulture, and lots of smiles and laughter is a huge part of the adventure. The students, elementary to college, learn about the natural world with this science based program.

Studying in the Swamp

Freshmen students visit the 6 Mile Cypress Slough Preserve. These students are jointly enrolled in Composition II with Linda Rowland and Environmental Biology with Neil Wilkinson. All of their writing is based on a series of readings, discussions, and field trip experiences that explore the natural world with a special emphasis on southwest Florida.
## 2012 Spring Events Schedule

Note: MBRH=Music Building Recital Hall; CCB=Cohen Center (Student Union) Ballroom

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
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<tbody>
<tr>
<td>March 13*</td>
<td>Guest Lecture—“Triangles, Trapezoids, and Triple-Plagal Relations: Using Simple Geometric Shapes to Represent Pop-Rock Chord Progressions”—Don Traut—7:30 p.m., MBRH</td>
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<tr>
<td>March 22*</td>
<td>Faculty Artist Recital—“A Modern Trio”—Mario Bernardo, saxophone; Jeanie Darnell, soprano; Michael Baron, piano—7:30 p.m., MBRH</td>
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<tr>
<td>April 1</td>
<td>Chamber Choir Concert—3:00 p.m., MBRH</td>
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<td>April 10</td>
<td>Jazz Ensemble Concert—7:30 p.m., MBRH</td>
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<tr>
<td>April 12</td>
<td>Symphonic Band Concert—7:30 p.m., SUB</td>
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<tr>
<td>April 13*</td>
<td>Faculty &amp; Guest Artist Recital—“Virtuoso Violin”—Francisco Pereda, violin; Michael Baron, piano—7:30 p.m., MBRH</td>
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<tr>
<td>April 15</td>
<td>University Choir Concert—3:00 p.m., MBRH</td>
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<tr>
<td>April 17</td>
<td>Chamber Winds Concert—7:30 p.m., MBRH</td>
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<tr>
<td>April 20</td>
<td>String Orchestra Concert—7:30 p.m., MBRH</td>
</tr>
<tr>
<td>April 22</td>
<td>Wind Orchestra Concert—3:00 p.m., SUB</td>
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*Please note that events in the Faculty & Guest Artist Series require a $7 ticket available online only at www.fgcu.edu/cas/bsm or at the door with credit/debit cards ONLY—no cash accepted.
Mark Your Calendar

Judaic Holocaust Events

MARCH 22-23, 2012
Father Patrick Desbois
Naples Lecture: March 22nd St. John the Evangelist’s Parish Life Center 6-9PM
FGCU Interfaith Seminar: Sugden Hospitality March 23rd 10 AM-2PM
On Campus Lecture:TBA

Art Gallery

February 23-March 22, 2012
Jansen, Mueller, and Sonnenberg: Lessons in Expression, Conceptualism, and Abstraction

April 4 - April 12, 2012
2012 Annual Juried Student Art Exhibition

April 19 - May 7, 2012
Finals: Spring 2012 Senior Project

May 18 - June 22, 2012
Hot!

Theatre

Faustus Burns Brightly
Written and Directed by Barry Cavin
April 4-8 & April 11-15, 2012

Fireworks, Waterworks and Other Ridiculous Things: A Collection of Children’s Theatre
Directed by Barry Cavin
June 13-17, 2012

Please consider submitting an article to a future issue of CAS Quarterly!