Dear Friends of ESF,

The 2011–12 academic year was one of continued growth and change at ESF. With the addition of the Gateway Center to our Syracuse campus and another record freshman class, the College began its second century with bold steps.

The College was again recognized for the excellence of its programs in numerous national publications. U.S. News & World Report gave ESF its strongest ranking in 10 years providing evidence that ESF provides its students a remarkable education. This is due to our outstanding faculty who focus their efforts on preparing the next generation to improve our world.

Our collaborative efforts are bearing fruit as the Central New York Biotech Accelerator, a joint project between ESF and Upstate Medical University, is slated to open early in 2013. This center will provide a place for cutting-edge research that will create jobs in New York proving SUNY is an economic engine for the state. ESF is also a partner in the Hill Collaboration on Environmental Medicine, which was designed to stimulate research in the areas of cancer, diabetes and disorders of the nervous system and their relationship to the environment.

Our students’ involvement in their community and the world continues to inspire. They not only make a difference locally but also nationally, helping with rebuilding efforts from Hurricane Katrina, and internationally by building a water system to bring potable water to a village in Honduras.

Faculty research at ESF received much attention this year. Work by Drs. Charles Maynard and William Powell to restore the American chestnut tree was brought to national attention when transgenic trees they have developed were planted at the New York Botanical Garden. These trees represent a strong hope for the return of this once-mighty tree to the North American landscape.

Dr. Gregory Boyer is among a team of scientists developing a biofilter that could break down harmful algal toxins in the Great Lakes into harmless byproducts; and Dr. Stephen Teale is researching ways to save mangrove finches, a species studied by Charles Darwin, from a non-native, invasive fly.

Dr. Christopher Nomura and his team are conducting extraordinary research in the area of biological switches which has recently drawn attention from the Department of Defense. ESF’s Ranger School in Wanakena celebrated its Centennial this year. Founded in 1912 to fill the educational gap between the woodsman and the professional forester, today’s students pursue associate’s degrees in applied science in forest technology, land surveying technology and environmental and natural resources conservation.

I hope you will join me in celebrating ESF’s achievements as highlighted in this year’s annual report.

Corneilus B. Murphy, Jr.
ESF Rises to No. 77 on U.S. News ‘Best Colleges’ List

ESF again earned a place among the top universities in America as ranked by U.S. News & World Report magazine. ESF is ranked number 77 in the National Universities category of the magazine’s 2013 edition of Best Colleges and 32 on the list of Top Public Schools. The National Universities category includes schools that offer a wide range of undergraduate majors and master’s and doctoral degrees while also being involved in major research activities. ESF moved up from the number 82 ranking it held last year. ESF is the highest-ranked SUNY institution on the list, which also includes the university centers at Binghamton, Stony Brook, Buffalo and Albany. Both public and private institutions are included in the National Universities category. Among public universities, ESF moved up from last year’s ranking of 36. ESF is also the highest-ranked SUNY institution on that list.

ESF also Earned a Ranking of 42 on the Great Schools at Great Prices List

U.S. News & World Report pointed out that 65 percent of ESF students receive need-based grants. Inclusion in the Great Schools at Great Prices category takes into account a school’s academic quality and the net cost of attendance for a student who receives the average award of financial aid. The magazine says only schools ranked in the top half of their quality categories are included because U.S. News & World Report considers the most significant values to be among colleges that are above average academically. ESF is the only SUNY institution on that list.

Washington Monthly Recognizes ESF’s Community Service

The 2011 Washington Monthly College Guide ranked ESF number 26 among the nation’s top service-oriented colleges. The guide offers a different way of ranking colleges: one based on the amount of service colleges provide to society. ESF students contributed more than 75,000 hours of community service throughout the year. The magazine "devised a way to measure and quantify how well individual colleges and universities were meeting their public obligations in the areas of research, service and social mobility."

Forbes.com Names ESF a Best College Buy

Forbes placed ESF at number 54 in its listing of "America’s Best College Buys" for 2012. Forbes asked the Center for College Affordability and Productivity, a Washington-based think tank, to compile rankings based on five factors:

- Student satisfaction based upon student evaluations from RateMyProfessors.com and freshman-to-sophomore retention rates.
- Postgraduate success based upon salary of alumni from Payscale.com, listings of alumni in Who’s Who in America and alumni listed in Forbes/CCAP Corporate Officers List.
- Student debt based upon four-year debt load for a typical student borrower and student loan default rates.
- Four-year graduation rate and predicted vs. actual rates.
- Academic success based on a number of students winning national awards and alumni with Ph.D. degrees.
College Earns Spot in Guide to Green Colleges from Princeton Review


"Going green isn't a campaign at the State University of New York College of Environmental Science and Forestry, it's a modus operandi," the book states. "With sustainability and environmental education at the core of the university's mission, ESF has been at the forefront of nationally recognized, government-supported research in green issues."

Princeton Review Names ESF One of Best Value Colleges

ESF is one of the nation's "Best Value" colleges and universities according to The Princeton Review.


In its profile of ESF The Princeton Review describes the college as "nationally renowned" and quotes from ESF students surveyed by The Princeton Review who described the College as "a small personal school" where professors "connect real-life problems to all the course work."

Freshman Enrollment Hits Record High

ESF enrolled a record number of 327 entering freshmen for fall 2012, along with 224 entering transfer students. The combined total of 551 new undergraduates for this fall matched the record number enrolled at ESF last fall.

This class is also among the highest quality and most diverse freshman classes to ever enroll at ESF. The "typical" entering freshman at ESF earned a high school average of 92 percent, a class rank in the top 20 percent of his or her graduating class and SAT college entrance examination scores in the top 20 percent of all students tested nationally.

Twenty-one percent of the entering freshmen come from outside New York state, maintaining ESF's position as one of the most geographically diverse campuses in the SUNY system.

Students from underrepresented racial and ethnic populations make up 14 percent of this year's class, a substantially higher percentage than the College has enrolled in recent years.

The entering first-year class is also well balanced in terms of gender, with 51 percent male students and 49 percent female students. Academic programs in conservation biology, environmental studies, bioprocess engineering and natural resources management showed strong gains in enrollment this fall.

ESF offered a new Early Decision application plan for this fall aimed at high school applicants who identified ESF as their first choice institution by December of their senior year. More than one quarter of the entering first-year students were offered admission through this new plan.

Fall 2012 Sees Strongest Graduate Enrollment Yet

Graduate enrollment remains strong at ESF. The fall 2012 entering class of 143 new full-time graduate students enrolled following the most-selective admissions process to date. The application pool for fall 2012 was the largest on record, with more than 670 applications, a more than 11 percent increase over 2011. Most notable in this year's incoming graduate class is the record number of 35 new Ph.D. students.
Ranger School Celebrates Its Centennial

During the 2012–2013 academic year, ESF’s Ranger School is celebrating its 100th anniversary.

The Ranger School began in 1912 as a part of the New York State College of Forestry in Syracuse. The first students arrived in August of that year, and the first class graduated in December of 1913. The vision for the Ranger School of long-time director James F. Dubuar was “to train men to fill the gap between the average woodsman and the professional forester.”

Through the years the School has evolved to fulfill this vision and much more. In addition to its forest technology program, a surveying program was added in 1995, and a program in environmental and natural resources conservation began in the fall of 2011.

Several events are taking place throughout the centennial year. The celebration kicked off during the annual Alumni Reunion in August 2012, complete with a fireworks display.

New Faculty and Staff/Awards

Jessica Clemons joined the ESF community in March 2012 as assistant librarian. Clemons is a magna cum laude graduate of ESF (ES '06) in addition to holding a master's of library science degree. She comes to ESF from the College of Wooster where she was the science librarian.

William Winter, professor in the Department of Chemistry, has been appointed the pre-health professions coordinator, replacing Scott Turner.

Arthur Stipanovic, professor in the Department of Chemistry, was appointed as the interim co-director of the Central New York Biotech Accelerator and was part of a team including Huiting Mao (chemistry), Tim Volk (FNRM), Tom Amidon (PBE), Lee Newman (EFB) and Mark Driscoll (research office) that visited the Brookhaven National Lab on Nov. 21, 2011. Collaborative opportunities were discussed with emphasis on biofuels, nanomaterials, high-speed computing and radiochemistry, as well as applications of synchrotron high-intensity radiation.

David Kiemle, long-time instructional specialist in analytical and technical services, has been appointed director of analytical and technical services replacing Arthur Stipanovic effective Feb. 13, 2012.

John Turbeville has been appointed assistant dean for student affairs. Turbeville will maintain his current responsibilities as career services coordinator; the assistant dean duties are an additional assignment.

Michael Kelleher, ESF’s executive director of energy and sustainability, has been appointed senior research associate in the Department of Forest and Natural Resources Management. This appointment recognizes Kelleher's past and growing involvement in ESF's instructional and research programs. He will continue to serve as the campus executive director of energy and sustainability concurrently with his senior research associate post.

Neil Ringler, vice provost for research, has been named to SUNY’s newly created Research Council. The Research Council is being constituted to serve as an advisory body to the SUNY Board of Trustees, the Research Foundation Board of Directors, the SUNY provost and campus presidents.

The College welcomed new faculty members: Laura Rickard, Paul Hirsch and Andrea Parker joined the Department of Environmental Studies as assistant professors; Rebecca Rundell is the new assistant professor in the Department of Environmental and Forest Biology; Ramana Callan joined the forest technology program at The Ranger School as an assistant professor; Stephen Shaw joined the Department of Environmental Resources Engineering as an assistant professor;
The following faculty members were approved for promotion effective the beginning of the fall semester, 2012:

Promoted to assistant professor: Benette Whitmore, environmental studies.
Promoted to associate professor: Kelley Donaghy, chemistry; Jacqueline Frair, environmental and forest biology; Lee Newman, environmental and forest biology; and Theresa Sefla, environmental studies.
Promoted to professor: Eddie Bevilacqua, forest and natural resources management; and Stephen Teale, environmental and forest biology.

SUNY Honors ESF Student Excellence

Two students from ESF were honored with the Chancellor’s Award for Student Excellence during an April 2012 ceremony in Albany.

Colby Fisher of Endicott, N.Y. and David Andrews of Long Lake, N.Y. were presented with their awards during a ceremony at the Empire State Convention Center, where they received framed certificates and medallions, which were worn at commencement.

Chancellor Award honorees excel both in academic achievement and in at least one of the following areas: leadership, athletics, community service, creative and performing arts or career achievement.

Fisher, an environmental resources engineering major, is the founder of the ESF Student Chapter of the New York Water Environment Association, treasurer for the Environmental Resources Engineering Club and a member of the Provost’s Student Advisory Council. He received numerous scholarships and honors including the ERE Faculty and Alumni Award, Chesapeake Research Consortium Scholarship and ESF Presidential Scholars Award. He is also a member of Alpha Xi Sigma Honor Society, ESF’s honor society; and Alpha Phi Omega Community Service Fraternity.

Andrews, an aquatics and fisheries science major, is president of the Woodsmen’s Team, ESF’s timber sports team; and a member of the Provost’s Student Advisory Council and the Intercollegiate Athletics Board. He finished second in the 2012 Stihl Timbersports Collegiate Championship televised on ESPN.

ESF Student Athletes Honored by Chancellor

Two students at ESF were honored for their academic excellence and outstanding athletic achievements.

Kaley Donovan and Thaddeus Holland received the SUNY Chancellor’s Scholar-Athlete Award, the highest award given to a SUNY student-athlete. The award is presented in recognition of the recipient’s outstanding academic excellence and superior athletic achievement. Honorees of this award have an average GPA of 3.6.

Donovan of Youngstown, Ohio, a conservation biology major, was a member of the ESF Mighty Oaks women’s soccer team. Holland, of Olmstead Falls, Ohio, was a landscape architecture major and a member of the Mighty Oaks men’s golf team.

Schulz Honored as ESF Exemplary Researcher

Dr. Kimberly Schulz was honored with the ESF Exemplary Researcher Award. The award recognizes a current researcher who has exemplary research activity, an impressive publication record and active graduate/undergraduate student research programs.

Since coming to ESF in April 2000, Schulz has been instrumental in securing significant grant funding including a $300,000 National Science Foundation (NSF) Early-Concept Grant for Exploratory Research. She played a pivotal role in securing a $1.47 million grant to extensively renovate wet labs in Illick Hall and electronic infrastructure for aquatic science research and has had additional research projects funded by NSF and many other agencies.

Schulz has numerous collaborations with faculty across the College and at other institutions. She has a successful mentoring program, and her students have won national awards. She has published extensively in journals such as “Environmental Toxicology,” “Nature,” “Limnology and Oceanography,” “Journal of Great Lakes Research” and “Freshwater Biology.”
The award, which is made annually, provides a $5,000 research account that can roll over for three years. Schulz will present a campuswide research seminar highlighting her work as the first seminar in the Adaptive Peaks Series during the 2012-13 academic year.

**Dr. Shields Honored by College Foundation**

Dr. William M. Shields was honored with the ESF College Foundation Award for Exceptional Achievement in Teaching. The award celebrates the accomplishments of ESF faculty and staff members who excel at the art of teaching. Shields, professor in the Department of Environmental and Forest Biology and director of the Honors Program, was honored for his scientific accomplishments, dedication as a researcher and inspiring his students to go beyond learning the material and, instead, delve into what it means to be a scientist.

**SUNY Chancellor Recognizes Excellence in ESF Faculty/Staff**

James Halligan, instructional support specialist for the Department of Forest and Natural Resources Management, was honored with the Chancellor’s Award for Excellence in Professional Service. The award recognizes superior professional achievement within and beyond the position and those who serve as professional role models for a university system in the pursuit of excellence. Halligan has been with ESF for more than 32 years. He began his career as a silviculture technician and helped organize and manage the summer program in field forestry. He became associate director of the department’s 10-week summer field course at Pack Forest and was increasingly involved with the scientific equipment including computers used by FNRM. He helped develop the first GIS courses taught at ESF and has been a primary resource for students and faculty with regard to the technical aspects of their research.

Michael Webb, land surveying technology program instructor at The Ranger School, received the Chancellor’s Award for Excellence in Teaching. This award honors those who consistently have demonstrated superb teaching at the undergraduate, graduate or professional level.

Webb has been with ESF since 2001. He has learned new computer software, incorporating the new programs into his classes and developed manuals to assist with student learning. As a licensed surveyor with a history of running his own business, he brings professional experience to his classes. His effective teaching style, combines enthusiasm for the subject and class involvement.

Sara Young, secretary 1 in the Office of Human Resources, received the Chancellor’s Award for Excellence in Classified Service. The award recognizes classified employees in SUNY including CSEA, Council 82 and M/C classified. Young has been with ESF since 1999 and was recognized for her willingness to go beyond her job description. She has helped increase opportunities for training on campus, serves on multiple College committees and often adjusts her schedule to accommodate the needs of fellow employees who need assistance.

**Undergraduate Student Association Honors Avik Chatterjee**

ESF’s Undergraduate Student Association honored Dr. Avik Chatterjee, an associate professor in the Department of Chemistry, with the Distinguished Teacher award.

The honor was announced at ESF’s Spring Banquet April 21, 2012, in front of an audience of students, faculty and staff.

Chatterjee teaches junior-level courses in physical chemistry to students pursuing studies in the fields of chemistry, engineering, environmental science and biotechnology. The award is given to one ESF faculty member each year.

**ESF President Presents Quality of Worklife Awards**

ESF recognized the contributions of two of its employees to the College and the broader community.

Charlotte Demers was presented with the ESF Public/Community Service Award. Demers, an instructional support technician at the Adirondack Educational Center, goes above and beyond her responsibility and exceeds expectations making public/guest lectures about small mammals, bats, loons, forest management and wildlife, as well as many other public/community service projects that provide excellent representation for the College and its mission. Demers has been at the AEC for more than 25 years.

Sharon Weis was honored with the ESF Quality of Worklife Award. Weis, administrative staff assistant in the Office of Outreach, has demonstrated a willingness to go the extra mile. She impacts many areas of the campus.
community and is always highly professional and ready to assist in any way she can. Weis plays a key role in the College's ESF in the High School Program which works with high schools across Onondaga County.

George Curry Receives Jot D. Carpenter Teaching Medal

George W. Curry, Endowed Kennedy Chair and Distinguished Teaching Professor Emeritus at ESF, was honored with the Jot D. Carpenter Teaching Medal which recognizes significant and sustained excellence in landscape architecture education.

Curry’s academic career spans more than four decades at ESF. A pioneer in the field of cultural landscapes, his dedication to his students and profession have earned him numerous recognitions, including the 2008 New York Professor of the Year designation from the Carnegie Foundation for the Advancement of Teaching and the Council for Advancement and Support of Education and the 2007 Landscape Architecture Educator of the Year award by DesignIntelligence magazine.

At ESF, Curry helped develop the College’s pioneering “Off-Campus Program” that requires landscape architecture students to spend a semester working in the field on a design project they propose and develop. The Jot D. Carpenter Teaching Medal is presented by the American Society of Landscape Architects.

Gary Scott Named TAPPI Fellow

Dr. Gary Scott, chair of the Department of Paper and Bioprocess Engineering, has been named as a 2012 Fellow by TAPPI, the pulp and paper industry’s leading technical association.

Fellow is an honorary title bestowed upon individuals who have made extraordinary technical or service contributions to the industry and/or the association. Scott is one of 10 people so honored this year.

Scott has a bachelor of science in paper science and engineering and computer information systems from the University of Wisconsin — Stevens Point, and a master of science in computer sciences and a Ph.D. in chemical engineering from the University of Wisconsin — Madison. He joined the ESF faculty in 1998, rising to the rank of professor, serving as associate chair of the department and then being appointed chair in 2007. In 2009 he was appointed director of engineering for ESF.

Scott’s research work involves biotechnological processing such as fungal pre-treatment for the production of mechanical and chemical pulps and use of ligninolytic enzymes for bleaching. He’s currently involved in the extraction of hemicellulose from wood for the coproduction of chemicals and biofuels.

College Adds New Undergraduate Programs

The New York State Education Department has approved a bachelor of science program in sustainable energy management to be offered at ESF.

The program was developed and will be overseen by faculty in the Department of Forest and Natural Resources Management. Michael Kelleher and Dr. Timothy Volk played lead roles in developing the program concept and proposal. The central aim of the program is to provide the knowledge and skills required for energy resource and sustainability managers. The program began accepting students this fall.

Pending approval by SUNY and registration with the New York State Education Department, a new major in environmental health will be offered at ESF in the fall 2013 semester. This program will provide ESF students with an
additional pathway to pre-health preparation. It has been developed in cooperation with neighboring SUNY Upstate Medical University, with faculty from UMU likely to offer some of the required courses.

**ESF Signs Agreement with Latvia State Forestry Research Institute**

ESF has signed a Memorandum of Understanding (MOU) with the Latvia State Forestry Research Institute (Silava) to conduct collaborative research on bioenergy production and land use policy.

Ph.D. student Evisa Abolina, a Latvian citizen, is conducting her dissertation research on the cultural influences on land use and abandonment as possible limiting factors in national policies to support biomass for energy. She is partnering with Silava and worked with the institute directly over the summer while collecting data. Her research is linked to a European Union-sponsored project that Silava is conducting, “Developing models for establishing and managing multifunctional plantations of broadleaves and energy crops.”

Dr. Valerie Luzadis, professor and chair of the Department of Environmental Studies, is ESF’s representative in fulfilling the terms of the MOU.

**ESF Receives Middle States Reaffirmation of Accreditation**

ESF received its reaffirmation of accreditation from the Middle States Commission on Higher Education in March 2012. The Commission’s External Review Team conducted its on-site visit Nov. 6 -9, 2011.

The Middle States Team concluded its visit with an oral presentation of its findings to the College’s Executive Cabinet and Middle States Steering Committee. The team reported that in its judgment ESF met all 14 standards required for continued accreditation. ESF was commended on several counts including the openness and responsiveness to student concerns and initiatives; providing a more rich and varied experience for its students, both undergraduate and graduate, than one might think for an institution of its size; and the level of campus-wide knowledge about the Vision 2020 strategic plan and the frequency with which community members reference its importance.

The Middle States Commission acted on the Review Team’s recommendation in March 2012. The action of the Middle States Commission was shared with the campus community along with the suggestions and recommendations offered to improve College effectiveness.
Service Learning Fosters Community Spirit at ESF

ESF’s Service Learning Initiative and the College’s focus on community service are a growing part of the culture at ESF. Through these programs, our students learn to become engaged citizens while improving the well-being of the local community.

Students contributed more than 75,000 hours through the Service Learning Initiative and community service in 2011–2012. The College works with 200 community partners to provide service opportunities.

Service learning is a form of structured experiential education in which students engage with the community to be active learners, enrich their sense of civic responsibility, and explore a practical application for course content. Faculty oversight, students’ reflective thinking, and college/community reciprocity are key components of service learning.

LA, ERE Students Prepare Waterfront Development Plans for Riverhead, LI

A multidisciplinary studio class re-envisioned the downtown of Riverhead, N.Y. on Long Island. Students from the departments of Landscape Architecture and Environmental Resources Engineering collaborated to develop master plans to revitalize Riverhead’s town center.

Under the direction of Preston Gilbert, operations director of the SUNY Center for Brownfield Studies, and Associate Professor Emanuel Carter, students developed eight plans for the town’s downtown using strategies that blended the needs of residents with the surrounding environment, to serve as the basis of economic development, social development and ecological conservation and restoration.

The students presented their plans to the town board and public in May 2011.

ESF–EWB Improve Quality of Life in Honduras

Since 2006 ESF Engineers without Borders (EWB) has been working to bring potable water to the village of Buena Vista in Central Honduras. The project is now nearing completion.

In the past, villagers did not have a continual supply of clean, potable water. The sources of water close to the residences are contaminated with coliform bacteria, which causes intestinal illness when consumed. A few months out of the year, a fragile system of thin rubber hoses brought drinkable water from a distant source to a portion of the community. However, the water only runs during the rainy season, and the tenuous hose junctions frequently disconnect.
ESF-EWB designed a gravity-fed water supply system with the help of professors at ESF and EWB-USA engineers. The system consists of collection, storage tanks, distribution tanks, and a pipeline bringing water to each residence.

Members from EWB have travelled to Buena Vista multiple times. In the spring of 2008, they collected initial data and met the community. They returned twice in 2011 to meet with the water board and finalize community contracts and later to help dig the trenches for the pipeline and build one of the storage tanks.

ESF-EWB partners with ALFALIT, a Honduran non-governmental organization, the village of Buena Vista and the local water board.

The project is in its final stages. The various tanks and structures have been built and the pipeline is almost complete. Many of the residents of Buena Vista now receive clean, potable water. With the completion of the pipeline, EWB members will be visiting the community again to be part of the inauguration. ESF-EWB plans to continue its relationship with Buena Vista in the future to ensure the success of the system and well-being of the community.

Two ESF Students Represent Youth at United Nations

Two ESF students joined students from Harvard and Princeton as part of a contingent representing young people at the 50th session of the United Nations Commission on Social Development Feb. 1 through 10, 2012, at the U.N. headquarters in New York City.

Anirudh Sridar of Bangalore, India, and Rigoberto Melgar of Port Washington, N.Y., were juniors in the Department of Environmental Studies when they were selected by SustainUS, a youth network for sustainable development, as participants in a conference where some 46 countries adopted resolutions to shape U.N. policy to help alleviate poverty.

The students had the opportunity to participate in official negotiations, speak to the media, meet with government delegates and work with other young people from a number of educational institutions from the European Union and around the world.

Student Awards

Student Team Wins $90,000 Grant in EPA Competition

A team of ESF students was awarded $90,000 in funding to assess the marketability of a fertilizer that could be recovered from animal manure.

The ESF team was chosen to receive the grant through its participation in the U.S. Environmental Protection Agency's People, Prosperity and the Planet (P3) Student Design Competition for Sustainability.

The team members, all students in the College's Department of Environmental Resources Engineering (ERE), were graduate students Doug Mayer, Fred Agyeman and Lee Martin, who earned his M.P.S. degree from ESF in December 2011. Their advisor is ERE's Dr. Wendong Tao.

The teams were chosen for the awards after their participation in the 8th Annual National Sustainable Design Expo on the National Mall in Washington, D.C. The P3 award competition was held at the expo, providing an opportunity for the students to showcase their sustainable projects designed to protect the environment, encourage economic growth and use natural resources more efficiently.

Each P3 award-winning team received a grant of up to $90,000 to further develop their design, apply it to real world applications or move it to the marketplace.
The ESF students focused their attention on dairy manure, which is often used as a liquid fertilizer that can contaminate surface water and groundwater. The team is developing a low-cost technology to recover the rich phosphorus and nitrogen in dairy manure and produce a solid fertilizer called struvite. The process uses a waste product, electric arc furnace slag, in the production. The resulting struvite pellets constitute a slow-release fertilizer that can be marketed for crop production, aquaculture, and horticulture.

ESF Landscape Architecture Students Receive National Award

Graduate students in ESF’s Department of Landscape Architecture received a national award from the American Society of Landscape Architects (ASLA). Marin Braco and Andrew Murphy’s project, Hope Municipal Airport Intervention, received an Honor Award from the professional organization. Martin Hogue served as their faculty advisor.

The former military airport near Hope, Ark., once housed 15,000 relief trailers manufactured for the Federal Emergency Management Agency (FEMA) in the aftermath of Hurricane Katrina in 2005. Many of the units rushed out to the area were built to extremely poor standards. In addition to leaky construction, the wood and glue used in fabrication released harmful levels of formaldehyde gas that have caused serious respiratory troubles. Many of these units were later deemed unfit for human occupation, causing stockpiles of unusable trailers.

The students’ project provides remediation plans for the trailers and the site and plans for repurposing the site.

Athletics

Mighty Oaks Men Win USCAA Cross-Country Championship

The ESF Mighty Oaks men’s cross-country team won the United States Collegiate Athletic Association’s national championship in Lake Placid Nov. 11, 2011.

The Mighty Oaks women finished second in their competition.

Four ESF runners — two men and two women — were awarded All-American honors.

The men’s team was led by freshman Brian Busby, who was barely edged at the finish line by Abram Deng of Spaulding University in Louisville, Ky. Deng got the victory, finishing less than a tenth of a second before Busby. Busby’s time in the 8K race was 27:18.03.

Busby had earned Runner of the Week honors from the USCAA Oct. 11, 2011, after setting a course record in the Cazenovia College Invitational.

His teammate, freshman Timmy Callahan, finished fourth with a time of 28:34.04 despite losing a shoe at the beginning of the race.

Busby and Callahan received All-American honors. The men’s race featured 209 men from 26 teams.
Freshman Cambria Ziemer led the Mighty Oaks women, finishing third among 157 runners from 26 teams. Ziemer’s time for the 6K race was 25:30.64, about 14 seconds behind the winner and 23 seconds in front of ESF teammate Danielle Kaveney, a junior, who finished fourth.

Soccer Teams Capture Barkeater Cup

The men’s and women’s Mighty Oaks soccer teams finished their fall 2011 season, with victories over Paul Smith’s College in the inaugural Barkeater Cup competition.

Playing at Paul Smith’s campus, the women won 5–0 while the men took their game to penalty kicks after double overtime before emerging with a victory. Trophies made by Syracuse sculptor Ron Derutee and Saranac Lake artist Dan Burke were presented to the teams by Paul Smith’s College President John Mills.

The Mighty Oaks women ended their season with an 8–4 record. The men finished their season with a record of 6–2–2.

ESF Golfers Finish 8th at USCAA Championships


Leading the ESF squad was freshman Ryan DiRado with a two-day total of 165 which tied him for 31st place overall. Only one stroke back was team co-captain and senior Matt Dennis with a 166 total tying him for 34th out of the 125-person field.

ESF Athletes Named to All–American Team

Nine ESF athletes earned All–American status from the U.S. Collegiate Athletic Association in 2011–12, and nine earned recognition as Academic All–Americans.

They were Kaley Donovan, senior, environmental science, soccer; Sue Fassier, senior, conservation biology, soccer; Amy Chianucci, senior, conservation biology, soccer; Matthew Allen, senior, bioprocess engineering, cross country; Nathan Sleight, junior, environmental science, cross country; Daniel Arseneau, senior, landscape architecture, soccer; Ryan Graig, freshman, environmental studies, soccer; Mike Miles, senior, environmental resources engineering, cross country; and Owen Hunter, senior, environmental resources engineering, cross country.

Three students received All–American honors from the USCAA based on their athletic performances throughout their respective sports seasons.

Honored athletes were freshman Brian Busby, cross country; freshman Cambria Ziemer, cross country; and freshman Bridget Cuddihy, soccer.
Spring Break Means Community Service for ESF Students

Twenty-five ESF students and three alumni devoted their spring break to helping victims of Hurricane Katrina build and repair homes in Chalmette, La. They planted trees and helped clean up several neighborhoods in March 2012.

In addition to ESF, the contingent included representatives of Syracuse University and SUNY Oswego. The trip is organized through Operation Southern Comfort, a volunteer group that has been helping the Katrina victims for several years. This was Operation Southern Comfort’s 39th trip to the New Orleans area.

The ESF Alumni Association donated $500 to help pay the students’ expenses on the trip down and back as well as an educational bus tour around St. Bernard Parish, one of the area’s hardest hit by the hurricane. ESF students also organized a benefit concert at Funk ‘N Waffles to sponsor a project for a homeowner in the region.

Graduates of Distinction

ESF alumni Dr. Donald E. Moore III ’76 and Dr. Ellis B. Cowling ’54 were honored with the Graduate of Distinction and Lifetime Achievement awards respectively during the December 2011 convocation.

As a zoo-based wildlife biologist, animal behaviorist, and educator, Moore (EFB) has dedicated his professional life to improving the care and management of animals in both captivity and the wild. He has helped renovate and manage several zoos across the United States and created conservation management plans for wild animals in nature for more than 30 years.

He is currently the associate director for animal care at the Smithsonian Institution’s National Zoo in Washington, D.C.

Cowling is a professor and respected researcher in biological, environmental, and natural resource sciences. A 1954 graduate of ESF, he received a Bachelor of Science degree in wood technology and earned a Master of Science degree in forest pathology in 1956.

An expert in the field of acid rain, he was a leader in the development of the National Acid Precipitation Assessment Program (NAPAP). This program provides reliable continental scale maps of precipitation chemistry in the United States. Cowling helped develop the original draft plan for NAPAP which provided the scientific foundation for the Clean Air Act Amendments of 1990.

He worked with the U.S. Public Health Service in Sweden and served as an associate professor at Yale University. He also worked as a professor/researcher in the fields of plant pathology and forestry at North Carolina State University.

Cowling received numerous international awards and was elected a Fellow in the International Academy of Wood Science in Vienna, Austria. In 1981, the University of North Carolina presented him an award for “contributions to the welfare of the human race.”

ESF Outreach Activities Impact Thousands

ESF’s outreach initiatives continue to reach thousands of people throughout Central New York. The College’s outreach initiatives served more than 3,700 people in 68 credit and non-credit programs and events in 2011-12, along with an even greater number served through informal education programs, extension services, and service learning efforts.
Formal professional educational programs engaged participants from more than 40 states and Canada. These programs included the 10th Annual New York State Green Building Conference; the Northeastern Recreation Research Symposium; the SUNY Faculty Senate/SUNY Research Foundation Sustainability Research Symposium; the Biotechnology Symposium; Likelihood and Bayesian Approaches to Data Analysis Workshop; and the American Ecological Engineering Society national conference.

ESF’s second Summer Session saw enrollment grow to more than 180 course registrations in classroom, field, and seven online courses.

Through ESF in the High School, the College served 618 students in 30 schools who took one or more ESF courses. Close collaboration with the Syracuse City School District’s (SCSD) Institute for Technology Central allowed 97 students to take ESF college classes in 2011-12.

Over 150 students participated in ESF summer science camps (ESF SCIENCE). The Environmental Challenge science fair for SCSD middle school students engaged more than 500 students and over 100 judges from schools, colleges, public and private organizations throughout Central New York.

SEFA/United Way
The ESF Campus Community donated more than $60,000 in the 2011 SEFA/United Way campaign. The College was given the Platinum Award for having an employee per capita of $50 or more. ESF’s accomplishment was recognized in the February Progress Edition of The Post–Standard.

ESF Helps Matts Brewery Achieve a More Sustainable and Energy-efficient Operation
Researchers and students at ESF are helping Matts Brewery heighten the sustainability and energy efficiency of its operation. ESF helped coordinate the installation of process tanks that will be used as anaerobic digesters for the brewery’s wastewater. Special bacteria will feast on the yeast and grains left in the brewery’s wastewater. The process will make the water approximately 85 percent cleaner before it is discharged into the Utica sewer system.

The digestion process also produces methane and carbon dioxide. The methane will be used to power a generator and will provide up to 40 percent of the brewery’s electricity needs.

The College hopes to create a new class covering the design and function of the brewery’s digester and methane recovery system.
Research Flourishes at ESF

Research continues to thrive at ESF. Total expenditures for sponsored research in fiscal year 2011–2012 were $15.1 million and the book value was $63.2 million.

There were 250 funding proposals submitted for a total of $61 million. The College was among the most active research campuses in SUNY with an average research expenditure of $112,488 per faculty member.

Approximately 85 percent of ESF’s faculty is actively and successfully pursuing extramural support at state and federal levels.

$1.3 Million Federal Grant to ESF Supports Job Training

The U.S. Department of Labor provided $1,387,104 in funding for ESF to educate students and workers in the defense, automotive, electronics and medical/technical manufacturing sector.

The funding came to the College through a Department of Labor program aimed at enhancing American jobs and global competitiveness. The program focuses on sustainable materials, manufacturing and the education of New York state workers for careers in that field.

The grant complements the nearly $1 million in funding that came to the College in 2010 from the New York State Energy Research and Development Authority (NYSERDA). The NYSERDA funding helped establish the Ultraviolet Light and Electron Beam Process Curing Systems Technology Center at ESF, which supports companies developing environmentally friendly ways to make resins and coatings dry nearly instantaneously.

The Department of Labor grant allows ESF to train workers in the use of technologies developed through the new center. The radiation curing of resins is a $1 billion-a-year industry that is a vital aspect of the aerospace, automotive, electronics, building products and medical technology industries. Radiation curing reduces energy consumption, reduces air pollution by virtually eliminating volatile organic compound emissions and decreases operating costs.

ESF Partners in Hill Collaboration on Environmental Medicine

ESF is a partner in the Hill Collaboration on Environmental Medicine, which was designed to stimulate research in the areas of cancer, diabetes and disorders of the nervous system and their relationship to the environment.

Funded by a total of $60,000 in contributions from the partner institutions and the SUNY Research Foundation, the Hill Collaboration focuses on developing collaborations among faculty members and researchers from the member institutions. In addition to ESF, the Hill Collaboration includes SUNY Upstate Medical University (UMU), Syracuse University and the Central New York Research Corporation, a non-profit affiliate of the Syracuse Veterans Administration Medical Center.

The proximity of ESF, UMU, SU, and the Veterans Administration Hospital, and the combined abilities of the staff members at the four institutions, is unique in the country.

Research funded by the Hill Collaboration will focus on advances in science, collaborative publications and projects that draw from the array of academic disciplines and diverse expertise in the universities and hospitals on Syracuse’s University Hill.
The collaboration was formed under the guidance of Dr. Neil Ringler from ESF; Dr. Steven R. Goodman, vice president for research and dean of the College of Graduate Studies at UMU; Dr. Gina Lee-Glauser, vice president for research at Syracuse University; and Dr. Kristopher Maier, interim associate chief of staff for research and development. Dr. John Hassett of ESF’s Department of Chemistry is co-leader of the cancer focus group.

Establishment of the Hill Collaboration was announced Oct. 18, 2011.

**New Process Disrupts Bacteria Before It Becomes Harmful**

Scientists at ESF are developing a biochemical process that uses a protein molecule to prevent the development of bacteria, a finding that could have widespread implications for human health.

The work is led by Dr. Christopher Nomura of the College’s Department of Chemistry, who discovered that a simple protein molecule can interrupt the process bacteria use to move, grow and become potentially harmful.

Exposing bacteria to the synthetic protein disrupts the developmental sequence that is common among such organisms. This gives the process the potential to work against an array of bacteria including those that threaten patients with certain illnesses, such as cystic fibrosis, stubborn strains that commonly affect hospital patients and strains that occur in desert environments and prove troublesome for U.S. troops serving in Afghanistan or similar arid environments.

The College is seeking to patent the process.

**ESF Returns American Chestnut to New York City**

Ten transgenic American chestnut trees were planted at a test site in The New York Botanical Garden on April 18, 2012, by ESF researchers with supporters from The American Chestnut Foundation. Scientists say there is reason to believe this field trial will reveal a variety of American chestnut that can survive a blight attack.

Dr. William Powell, a plant biotechnology expert at ESF, and Dr. Charles Maynard, a tree improvement specialist, are enthusiastic about a gene derived from wheat that they have shown to increase resistance to a fungal pathogen in hybrid poplar. Powell and Maynard believe this gene will also be effective in the American chestnut because it detoxifies the oxalic acid produced by the blight pathogen. Oxalic acid kills the trees by attacking the cambium, the part of the tree that allows it to continue reproducing cells. A canker forms and everything above the canker dies. The roots can remain healthy and continue to send up shoots but the trees die back to ground level within a few years.

The American chestnut was once a dominant species in the forests of the eastern United States; it accounted for 25 percent of the trees in the forest. It was a key species in the eastern forest. The fast-growing trees produced nuts for wildlife and human consumption, and the wood was rot-resistant making it important to the lumber industry.

**Rockefeller Center Holiday Tree Rolls into Paper at ESF**

Part of the holiday tree that graced New York City’s Rockefeller Center in 2011 was pulped and made into paper at ESF for use in a Habitat for Humanity project.

The paper made April 15, 2012, on the College’s paper machine was used in conjunction with Habitat’s publication of a children’s book about the need for people to help each other. The ESF-made paper was used in commemorative bookplates and promotional materials.
The 78th Annual Rockefeller Center Christmas Tree was donated to Habitat for Humanity for the fourth consecutive year by Tishman Speyer, the company that owns the famous New York City property. After the holiday season, the tree was milled into lumber in Rockefeller Plaza and used in framing the exterior walls of a home built by Habitat for Humanity of Greater Newburgh.

Portions of the 74-foot Norway spruce that were not suitable for lumber were brought to ESF, where they were chipped, processed in a digester and made into usable pulp. Pulp from the tree was mixed with the College’s regular pulp supply to produce the commemorative paper. The unbleached fibers from the tree are visible in the finished sheet.

The Bronx location of the planting is significant because the blight was originally discovered literally across the street from the Botanical Garden in 1904.

Powell and Maynard, the third generation of scientists searching for a solution, have conducted their research through the American Chestnut Research and Restoration Program at ESF, with support from the New York chapter of The American Chestnut Foundation, the Forest Health Initiative, ArborGen and many others. They were the first research team to run field trials of transgenic varieties.

ESF, ReEnergy Collaborate on USDA-funded Willow Program

A $4.3 million investment by the U.S. Department of Agriculture has allowed ESF to partner with ReEnergy to encourage the growth of shrub willow as a renewable energy fuel in Central and Northern New York.

The willow will be grown on marginal farmland throughout the region and used as fuel for biomass-to-energy facilities in the region that are owned by ReEnergy Holdings LLC.

ESF will offer an outreach program to educate local government officials, agricultural leaders, farmers and landowners about the opportunity to grow willow.

The funds will be made available from the USDA’s Biomass Crop Assistance Program (BCAP), which helps renewable energy companies and farmers manage the risk of developing new crops like willow for power, heat and fuel. BCAP will provide up to 75 percent reimbursement of willow establishment costs and annual rental payments for the term of the program.

The main goal of this project is to demonstrate a complete willow biomass production system on a commercial scale.

ESF scientists have invested 25 years of research in the development of shrub willow as a sustainable resource for bioenergy and other bioproducts. This project is unique because it is an investment in a renewable energy system in the region that will go directly to producers who will be commercializing willow biomass crops.

Under the program, qualified farmers and landowners will have funding help to plant the shrub willow, technical advice and oversight from experts and a guaranteed buyer when the willow crop matures. ReEnergy will purchase the harvested willow and use the biomass to produce energy at its biomass-to-energy facilities.

International Research

ESF Cameras Capture Snow Leopards in Siberia

Cameras supplied by ESF researchers captured the first images of elusive snow leopards in a remote mountain range in Siberia.

The cameras, equipped with motion sensors, captured photos of two snow leopards on a ridge in the Altai Mountains along the Russia-Mongolia border.
The photos were taken between Oct. 26 and 30, 2011, at an altitude of about 4,000 meters at a location called Chikhachyova Ridge in the Altai Republic, a semiautonomous region in southern Russia. The animals are probably part of a larger population that extends into Mongolia. The signs that the species is in this region were definitive but a picture is irrefutable.

Ten cameras were installed in the area as the result of evidence that was found during an expedition in the summer of 2011. The expedition included Dr. James P. Gibbs, ESF conservation biologist, Dr. Jacqueline Frair, an ESF wildlife ecologist, and three ESF graduate students: James Arrigoni, Meredith Atwood and Elizabeth Hunter.

The main reason for the trip was to survey the population of Argali sheep, the world's largest wild sheep species that is threatened by hunting and habitat loss. But the researchers did double duty, searching at the same time for evidence of snow leopards. The snow leopard population is threatened by poachers who hunt the animals for their distinctive spotted coats.

ESF supplied the high-tech cameras through a $20,000 grant from Panthera, a conservation organization that focuses on saving wild cats. In addition to the snow leopards, the cameras caught images of a rarely seen Pallas cat, also called a manul, a thick-furred feline about the size of a domestic cat.

NOAA Grant Focuses on Battling Toxins in Great Lakes

The National Oceanic and Atmospheric Administration (NOAA) has awarded a team of scientists, including Dr. Gregory Boyer of ESF, $182,982 for the first year of an anticipated four-year $703,777 project for research that could lead to an instrument called a biofilter that could break down harmful algal toxins in the Great Lakes into harmless byproducts.

This project will build on previous research that examined bacteria capable of degrading microcystin, a widespread toxin produced by some species of cyanobacteria, commonly known as blue-green algae. Toxins produced by blue-green algae are a growing national threat and known to cause serious illnesses in humans, pets and wildlife and pose a significant risk to some water supplies. The planned biofilter could be an effective way to prevent the passage of algal toxins into water distribution systems.

Boyer, chair of ESF's Department of Chemistry and executive director of the Great Lakes Research Consortium, is a collaborator on the team.

The NOAA grant is part of a larger effort to eliminate the dangers presented by blue-green algae. Previously ESF received a nearly $400,000 grant to test the use of hydrogen peroxide to control blooms that formed in Sodus Bay. The researchers are also seeking funding to develop water-flow models and long-term solutions that would prevent nutrients that feed the algae from entering the water in the first place.

The research is funded through a national competition of the Prevention, Control, and Mitigation of Harmful Algal Blooms run by NOAA's National Ocean Service/National Centers for Coastal Ocean Science. NOAA's harmful algal bloom and hypoxia programs are authorized by the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998.

ESF Battles Fly That Threatens Darwin's Finches

Researchers from ESF traveled to the Galapagos Islands to search for ways to combat a non-native, invasive fly that is threatening native birds, including mangrove finches, one of the species studied by Charles Darwin.

The pest has contributed to reducing the population of mangrove finches to fewer than 100 nesting pairs, putting them on the verge of extinction.

The flies invade the nests of mangrove finches and Floreana mockingbirds, among others. Females lay their eggs in the nests. First, the larvae crawl into the nasal cavities of young birds to feed, causing beak deformities that can be disabling to the birds that survive. At a later stage in their life cycle, the developing larval flies spend their days in the nest and emerge at night to
pierce the birds' skin with paired, hook-like mouthparts and drink the birds' blood. Many of the young birds die from anemia.

Dr. Stephen Teale, who has been researching the flies in his laboratory, traveled to the Galapagos with ESF senior Kristin Doherty. Their fieldwork included researching the flies' mating habits, their ability to find the birds' nests and their reaction to food odors.

Teale's work focuses on the chemical pheromones that insects use to communicate. His goal is to identify the chemical structure of the pheromones the flies use as sex attractants. If the chemical compounds can be synthesized in the laboratory, they can be used to trap the flies, which can lead to information about the flies' abundance, location and behavior. The pheromones can also be used to disrupt the flies' mating behavior.

Teale, a professor in ESF's Department of Environmental and Forest Biology, and Doherty worked out of the Charles Darwin Foundation facilities on Santa Cruz Island. The work is funded by the Galapagos Conservancy.

**Saving African Great Apes**

Saving the African great apes from infectious diseases is the focus of ESF researcher Sadie Ryan's work.

Ryan was the lead author on the article "Consequences of Non-Intervention for Infectious Disease in African Great Apes," published in the online journal PLoS ONE. She is assistant professor of ecology at ESF.

Infectious disease has joined poaching and habitat loss as a major threat to the survival of African great apes as they have become restricted to ever-smaller populations.

The study illustrates how severely disease threatens the long-term survival of wild gorillas and chimpanzees and explores the status of potential interventions such as vaccinations that may help ensure their continued existence. The study indicates that mortality rates comparable to those recently reported for disease outbreaks in wild populations are not sustainable.

Because of the scarcity of diagnostic data on exactly which pathogens infect apes and at what rates, researchers found it difficult to rigorously quantify how increased tourism would translate into increased disease pressure on ape populations. As a result, they assessed and compared potential future disease spillover risk with non-interventionist responses, such as limiting tourist access to the primates, community health programs, increased vigilance, and reactive veterinary intervention.

Based on their findings, the study suggests the great ape conservation community "pursue and promote treatment and vaccination as weapons in the arsenal for fighting the decline of African apes." They recommend that field studies on safe and efficient methods for delivering treatments and vaccines orally be conducted, along with evaluating the cost effectiveness of all ape conservation strategies.

**ESF Scientists Work on Great Lakes Water Level Regulations**

A team of researchers from ESF is conducting studies on wetlands restoration. The project is examining methods, including excavation and managed hydrology, to restore wetland functions that have been impaired by invasive hybrid cattail. Scientists are taking a comprehensive approach with concurrent examination of hydrology, biogeochemistry and lower trophic levels, vegetation and faunal linkages including fish, herptiles and avian communities. The effect of water-level regulation is an important environmental effect regulating moisture conditions affecting redox and nutrients, plant seed bank germination and flood tolerance and hence habitat conditions and access to fauna.

The work is funded by grants from the National Fish and Wildlife Foundation with the U.S. Fish and Wildlife Service, Cortland, N.Y., and Ducks Unlimited through the National Oceanic and Atmospheric Administration.

The study is being conducted by Dr. John Farrell, director of the Thousand Islands Biological Station, along with co-investigators from the Department of Environmental and Forest Biology including Drs. Kimberly Schulz, James Gibbs, Myron Mitchell, and Donald Leopold; and senior research support specialists Brandeis Brown, Gillian Avruskin and Christopher Barry.

EFB graduate students Matt Regan, Stewart LaPan and Ceili Bachman are conducting their studies through this effort.
College Prepares for Gateway Opening

Work on the College's Gateway Center is near completion with an anticipated opening set for the first quarter of 2013.

One of the hallmarks of the building, which is designed to achieve a U.S. Green Building Council Leadership in Energy and Environmental Design (LEED) Platinum certification, is a novel combined heat-and-power (CHP) system.

The CHP project is made up of two complementary systems. The first is a biomass-fueled system that will produce high-pressure steam that will be used to generate electricity by driving a steam turbine before it is used to heat campus buildings. Complementing the biomass system are three natural gas-fired microturbines that will provide a balance of electricity and steam for heating.

The CHP system will provide the Gateway Center and four other buildings on campus with both thermal and electrical energy. Combined heat-and-power systems produce electrical and thermal energy simultaneously, improving overall system efficiency and reducing the College's carbon footprint.

This system will provide approximately 65 percent of campus heating needs and 20 percent of campus electrical needs while reducing the campuswide carbon footprint by 22 percent. It is a major component of ESF's Climate Action Plan.

The College used the building for December 2012 Convocation reception and for conference activities in January 2013. The building will house the Office of Undergraduate Admissions and the Department of Outreach and Continuing Education. The building will also feature a café, bookstore, conference space and a green roof using native plant species from the eastern shore of Lake Ontario.

College Foundation Reports Successful Year

The ESF College Foundation headlined a successful year by completing the public phase of "The Centennial Campaign for ESF" with gifts to the campaign totaling in excess of $13 million; 65 percent of the $20 million five-year fundraising goal and $1 million ahead of the target for June 30, 2012.

Other accomplishments noted by the Foundation include:

- Maintained the highest alumni gift participation rate in SUNY
- Reached goal of $350,000 to construct new student and researcher residence at Thousand Islands Biological Station
- Completed acquisition and sale contracts for a block of real property to assist ESF with a construction site for the new Academic Research Building
Achieved occupancy rate in excess of 98 percent at Centennial Hall student residence

Increased the assets of the ESF College Foundation to $58 million

**Work Begins on Academic Research Building**

Site preparation for ESF’s new Academic Research Building has begun. The 120,000-square-foot building will house the Department of Environmental and Forest Biology.

The building will primarily house research labs, but classroom and faculty office space are also included in the design. The building will be constructed in two phases. The first will be a four-story building costing $44 million. Completion of Phase 1 is slated for summer 2015. Phase 2, a six-story building, will begin soon after the completion of Phase 1, with the exact start date dependent on securing funding.

The site will include greenspace landscaped with a variety of trees, plants, a marsh and walkways.

The building will be built on a site that extends the western edge of the ESF campus and will face Centennial Hall, the College’s residence hall.

Currently, EFB is housed in Illick Hall which was built in 1968. Illick will be renovated for other uses including swing space for classrooms and offices temporarily displaced by renovations to other buildings on campus.

**Biotech Accelerator Construction Nearing Completion**

The Central New York Biotech Accelerator, a joint project between ESF and Upstate Medical University, is slated to open during the first quarter of 2013. The 40,000-square-foot building will accommodate start-up companies involved in the commercialization of medical and biological technologies.

Structural steel and foundation work is complete on the bioincubator facility, and when open the facility will include 18 independent laboratory-office modules that will house more than 100 scientists, technicians and entrepreneurs and a full complement of business support services.

**Centennial Hall Earns LEED Gold Certification**

Centennial Hall, the first residence hall at ESF providing housing for 454 students, was awarded Gold certification by the U.S. Green Building Council’s Leadership in Energy and Environmental Design (LEED) program.

Centennial Hall achieved LEED certification for energy use, lighting, water and material use as well as incorporating a variety of other sustainable strategies. By using less energy and water, LEED-certified buildings help cut expenses, consume less energy and reduce greenhouse gas emissions.

Centennial Hall was constructed using sustainable building materials where possible and prefabricated modular units that minimized waste and helped keep the project on a tight construction schedule. Windows were designed to take advantage of natural lighting, minimize heat loss and provide for natural ventilation. The storm water management system uses rain gardens to essentially eliminate runoff; the landscaping includes native plants, minimizes maintenance and provides a pedestrian-friendly setting; and space for automobile parking is limited. The building also includes an indoor storage and maintenance facility for residents’ bicycles.
Illick Hall Gets Facelift

A new roof, new greenhouses, and repairs to the exterior masonry are part of renovations underway on Illick Hall.

The greenhouses that sit atop the building are being replaced. The new greenhouses will feature:

- A 1,000-square-foot, restricted-admittance quarantine greenhouse suitable for conducting studies on a wide range of insect pests.
- A series of compartments featuring enhanced climate-control technology suitable for conducting research projects requiring fine control of a range of environmental conditions including temperature, humidity, and solar radiation.
- Continuous 18-foot eaves that will allow faculty to grow much larger plants for instructional needs.
- An estimated 25 percent savings in annual energy required to heat the facility through a connected gutter and face design featuring only three external faces (four including the greenhouse roof) versus 21 external faces associated with the previous greenhouse complex. Several greenhouses will also have radiant floor heat, while research compartments will have retractable thermal blankets.
- Compartments holding the College’s teaching botanical collection will feature a loop circulation pattern that will make visits more convenient and comfortable.
- Other work being done on Illick Hall includes a new roof, preliminary masonry restoration, and replacement of building entrances and windows on the east and west sides of the building. Vines were removed from the building to prepare for masonry and concrete repairs.

NSF Grant Upgrades Aquatic Facilities in Illick and at TIBS

Work has begun to renovate aquatic labs in Illick Hall. The College was awarded a $1.47 million grant by the National Science Foundation (NSF) to renovate its aquatic laboratories to expand research into topics such as fish disease, invasive species and water quality.

The new labs will consist of more than 4,000 square feet of wet labs, so called because they are specially equipped for aquatic experiments. Seven rooms on the second floor of Illick Hall are currently under construction and a wet lab at the Thousand Islands Biological Station has also undergone extensive renovation.

The funding also provides a digital infrastructure that will establish new connections between the main ESF campus in Syracuse and ESF’s Thousand Islands Biological Station (TIBS) on Governor’s Island in the St. Lawrence River.

Buildings and aquatics labs have been upgraded at TIBS. The labs located in the boathouse were renovated with new floors, drains, and wet and dry labs installed. These improvements will allow for new experimental capabilities by faculty and students.

Funding provided by the ESF College Foundation allowed for renovations to the main lodge and the construction of new student and faculty housing on