

Department Showcases its 'Bio-Diversity'

By Mike Albright

Room 313 in SUNY Orange's Bio-Tech Building is relatively unadorned. Several filing cabinets fill one corner, a desk sits along another wall, several posters dot the granite walls and four rectangular tables form a square in the middle of the room.

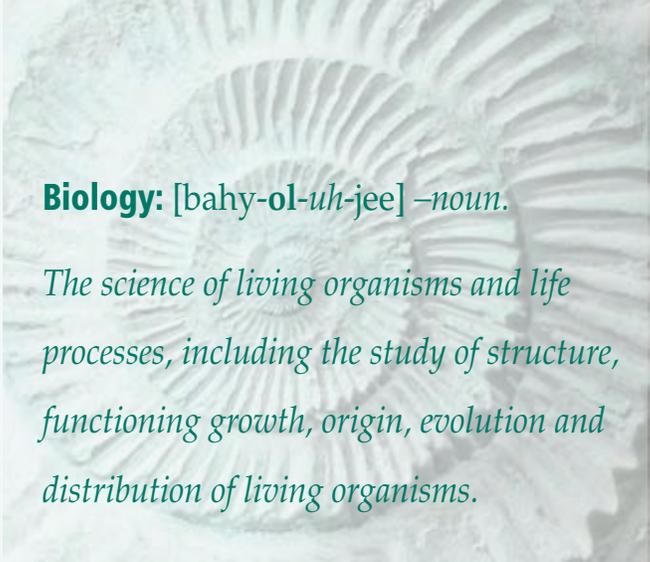
On a campus where indoor space is at a premium, this small conference room—with windows that overlook Middletown's South Street and a large student parking lot—is among the most cramped you'll find. Despite its Spartan interior, Room 313 is clearly a room

with a "view," and that view is the vision of a curriculum and a learning environment that is shaped by the College's Biology Department.

When chair **Dr. Frank Traeger** presides over the department's monthly meetings in Room 313, he is less professor and more conductor, orchestrating a prodigious "think tank" of instructors whose suggestions, ideas and achievements often reach far beyond the walls of the Bio-Tech Building in which the Biology Department calls home.



(L-R): Dr. Michele Paradies, Dr. Joe Zurovchak, Marie De Fazio Shultz, Dr. Jennifer Merriam, Kirsten Gabrielsen



Biology: [bahy-ol-uh-jee] –noun.

The science of living organisms and life processes, including the study of structure, functioning growth, origin, evolution and distribution of living organisms.

The 10 full-time faculty members on Traeger’s team possess an impressive portfolio of specialties, including family medicine, anatomy and physiology, neuroscience, ornithology, ecology, environmental science, dendrochronology, botany, evolutionary biology, genetics, developmental biology, nutrition and herpetology.

Thanks to its professional diversity, few, if any, academic departments at SUNY Orange can match the breadth of impact upon the College that has been exhibited by the Biology Department, which aspires to a mission that is equal parts service, academics, campus enrichment and innovation.

“I have worked in several different types of teaching positions in my career—a medical school, a graduate school, a four-year college and two different two-year colleges. I consider the group of faculty I work with here at SUNY Orange to be among the finest, most talented, and most dedicated groups of individuals anywhere in

the country,” says **Dr. Michele Paradies**, who has been among the College’s biology faculty since 2000.

Two recent additions to the department faculty include **Dr. Michele Iannuzzi Sucich**, who joined the College in the summer of 2007, and **Dr. Anouk Verheyden-Gillikin**, who arrived

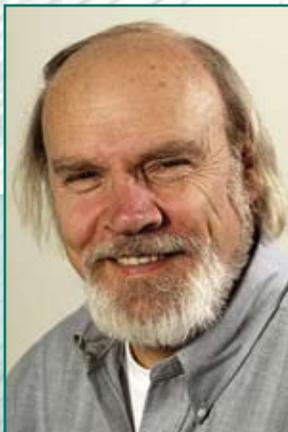
at SUNY Orange in 2006. Each brings a unique background to the classroom that is not generally associated with a community college professor: family medicine and international research, respectively.

Iannuzzi Sucich graduated with a doctor of medicine degree (M.D.) from the State University of New York’s



(L-R): Monty Vacura, Dr. Melody Festa, Dr. Frank Traeger, Dr. Michele Iannuzzi Sucich

Whether at work or play, Dr. Frank Traeger is a man on the move.



In addition to serving as chair of the Biology Department, a role he's held since 2003, Traeger is a member of the College's governance Executive Committee, leads the Staff and Chairman's Association as president, and heads the Professional Recognition Awards Committee.

The SUNY Orange Biology Department is among the largest at the College, encompassing 10 full-time faculty, plus a sizeable roster of supporting personnel—adjunct professors, technical assistants and a secretary. The Biology Department regularly offers more than 100 lecture/laboratory class sections and instructs more than 2,000 students per semester, all under Traeger's watchful eye.

Keeping pace with changes in science, medicine and the environment is a challenge, but one Traeger assures his department is capable of tackling.

"It's an ongoing process for us to keep our courses fresh and keep students up-to-date on the newest findings and methodology in the scientific realm," he says. "We want to encourage students' understanding of science as it relates to their everyday life as useful citizens, as well as to provide a strong background for those pursuing bioscience-related careers."

Traeger's commitment to establishing sound teaching and learning environments for SUNY Orange students extends far beyond College grounds in Middletown and Newburgh.

He serves on the Science and Engineering Advisory Board for SUNY New Paltz, helping develop articulation relationships with New Paltz that will create transfer opportunities for SUNY Orange students. Additionally, he has taught a variety of biology and laboratory technology courses at New Paltz since 1988, including a popular graduate offering "Advanced Topics in Biology."

Away from the College, he's a competitive sailor, having competed—and placed—in the North American Rebel Regatta in 2007. He also trains champion Gordon Setters, one of whom (Kira) competed in this year's Westminster Dog Show.

While serving as an Army medical technologist in the 9th Medical Laboratory in Vietnam, he received two meritorious service awards and the Army Commendation Medal for his actions.

Traeger earned his bachelor's degree from Ohio's Marietta College prior to completing his master's and doctoral (Ph.D.) degrees at Miami University in Oxford, Ohio. He joined SUNY Orange's faculty in 1981 after serving as the head of electron microscopy services at The Mercy Hospital of Pittsburgh, an affiliate of the University of Pittsburgh.

Health Science Center in Syracuse in 1998. Following a residency and fellowship, she spent the four years prior to her arrival at the College as an attending physician in a family practice in nearby Modena, N.Y. Aside from her doctor's duties, she simultaneously held an adjunct teaching position at SUNY Ulster.

Verheyden-Gillikin, meanwhile, is among the world's elite dendrochronologists, having spent much of her career researching the effects of the environment on tropical mangrove trees. She brings a unique "worldly" perspective to the classroom, thanks to extensive tours through Europe as a child growing up in Brussels, a student exchange trip to Thailand at age 18, and visits to Sri Lanka and Kenya for research projects related to her master's and doctorate degrees.

Despite the varied backgrounds of the instructors under his supervision, Traeger notes that the department thrives in large part because of teamwork and mutual commitment to shared goals.

"Everyone in the department shares a common interest in our students, common interests as educators and a common interest in promoting not just biology as a career, but biology as a subject for discussion in everyday life," Traeger says. "This department is at its best when ideas are exchanged and developed. All of the instructors take ownership in the courses in the department, even if they aren't teaching that particular course."

Such commitment to improving the College and its curriculum has helped department members form a cohesive unit in which creativity is welcomed and positive results often follow.

"These folks devote a lot of energy and passion to their craft," Traeger adds. "They engage in a wide range of independent work, but when they pursue a common goal, their cooperative and synergistic efforts come into play."

Students at SUNY Orange know they are in for an engaging and informative semester when they have “Dr. Z.” for a class.



Renowned for his creative teaching methods that energize students, **Dr. Joe Zurovchak** combines his flair for teaching with a wealth of environmental knowledge and experience to facilitate learning and understanding in the classroom and beyond.

A field biologist and ornithologist, Zurovchak has such a “good take on environmental science,” according to Biology chair **Dr. Frank Traeger**, that his Diversity of Life class is a popular elective for students not interested in a career in science.

But Zurovchak’s impact at SUNY Orange, and within the Hudson Valley, extends further than the classroom. In addition to chairing an ad-hoc Sustainability Committee, which in one year has already significantly strengthened the College’s “green initiatives,” he organizes students who collect data on water quality from local streams and forwards that information to regional water monitoring organizations.

He has served on the Orange County Bird Checklist Committee since 2001 and has participated in numerous bird counts, nature projects and conservation endeavors throughout the region.

Since arriving at SUNY Orange in 2000, he has immersed himself in a mix of campus-wide and departmental committees and has lectured on a variety of topics, including the recent nationwide Global Warming Solutions for America program.

“It’s exciting and rewarding to be part of a young, energetic department that is constantly seeking ways to strengthen its capabilities of servicing students,” Zurovchak says.

One look at the College’s schedule bulletin and it’s apparent that Biology is a department in constant motion. During the Fall 2007 semester, the department offered more than 100 lecture/laboratory class sections that encompassed nearly a dozen subject areas and included more than 2,000 students.

The department delivers a sizeable roster of classes and labs (Anatomy and Physiology I and II, Human Biology, Neuroanatomy, etc.) that support the curricula of the College’s eight health professions programs, which have long been respected within the community for developing competent and highly trained healthcare professionals. Health professions graduates of SUNY Orange are quickly absorbed into the workforce.

“Chances are, if you ever visited an Orange County medical, dental, diagnostic imaging or rehabilitative facility, you will see first hand the important role our students play in regional healthcare,” Traeger adds.

The department also fields a rich slate of popular SUNY general education science electives, including Diversity of Life, Field Biology, Environmental Biology, Biology for Today, Avian Biology and Prehistoric Life.

Biology also offers its own academic curriculum (Associate in Science degree in Math and Sciences) in which liberal arts students may concentrate their elective courses in biological sciences to prepare for transfer to four-year colleges and universities. This allows SUNY Orange graduates to pursue careers in diverse professions from astrobiology to zoology, medicine to environmental science, and teaching to research.

Most recently a newly developed General Ecology course has been added to the department and will be taught for the first time in Fall 2009. This joins a “major’s course lineup” encompassing General Biology I and II, Genetics, Comparative Vertebrate Anatomy and General Botany.

In addition, the Biology Department collaborates with the College’s Education Department in a SUNY New Paltz partnership, the Jointly Registered Teacher Education Program (JRTEP), helping prepare students who desire to become science or biology teachers at the elementary school, middle school or high school levels. And, through SUNY Orange’s growing Community College in the High School (CCHS) and New Visions programs, the Biology Department instructs some of the best and brightest high school students in the area.

Dr. Catherine Chew, vice president for Academic Affairs, uses one word—“awesome”—to describe the Biology Department. “I applaud this department for its innovation and team spirit. This faculty group is every administrator’s dream team. I get out of their way and let them soar!”



“Walter wants to create an academic environment that extends beyond the rigid walls of the classroom.”

Biology chair **Dr. Frank Traeger** calls **Dr. Walter Jahn** the department’s “jack of all trades,” but adds, “he a master of all.” He’s learned in genetics, has written a book on evolution and his Prehistoric Life class is one of the most popular courses on campus.

Throughout his 10-year tenure at SUNY Orange, Jahn has been a veritable force on campus, from his immeasurable contributions to the biology curriculum to his thought-provoking lecture series to his innovative forays into the use of technology in education.

He maintains a biology web site that has served as a tremendous educational tool for SUNY Orange students as well as a trusted resource for members of the community. The site includes a guide to wildlife and flora in the Hudson Valley.

Through a variety of projects and initiatives, the efforts of those in the Biology Department have improved the aesthetic beauty of the Middletown campus, stimulated the academic inquiry of the College community, promoted student success, enhanced the quality of life for employees, and supported the professional development of countless faculty and staff members.

During the 2007-08 academic year, **Dr. Joe Zurovchak** chaired the College’s first-ever ad-hoc sustainability committee that focused its attention on a series of “green” initiatives. **Dr. Jennifer Merriam** directs the Center for Teaching and Learning, tasked with developing

Evidence of his creativity is abundant in the hallways of Hudson Hall and the Bio-Tech Building. A master of creating visual cues to assist students, he just recently revamped a series of display cases that had remained unchanged for years.

He’s taught at Temple University, Philadelphia Community College and Philadelphia University. More recently, he’s taught a semester at both Mount St. Mary College and SUNY New Paltz. He arrived at SUNY Orange soon after earning his Ph.D. from Temple in 1997.

He was a Peace Corps volunteer in Paraguay from 1990-92 where he taught future teachers about Latin American biodiversity.

Jahn was one of many faculty members who were instrumental in the College’s successful debut “Global Initiative,” a year-long focus on Latin America.

lectures, presentations and discussions on varied topics aimed at helping professors improve teaching methods and enhance students’ learning.

Monty Vacura, botanist and department webmaster, recently inventoried the College’s entire botanical collection, including drafting detailed capsules on plant origins and methods for proper care and handling. **Dr. Walter Jahn** organizes an on-campus lecture series that has been instrumental in cultivating intellectual dialogue between faculty and staff from all corners of campus, and the community at large. He and Vacura also created and maintain a biology web site that

serves as a resource for students and community members by showcasing local plants, providing information on area wildlife and helping visitors learn more about plant and animal species of the Hudson Valley. Material on this site is linked to the Biology Department web site.

Similarly, Biology Department members are spearheading the department’s “Flora and Fauna Initiative” to preserve and develop the natural resources of the Middletown campus and Newburgh Extension Center, including botanical collections, College greenhouses, campus plantings, and the campus stream that runs along Wawayanda Avenue.

In conjunction with the “Flora and Fauna” undertaking, the College will establish themed Educational Gardens that will be located in the areas surrounding Hudson Hall and will be overseen by **Kirsten Gabrielsen**, a technical assistant in the department who serves in the newly created position of Botanical Conservator.

“We see the Flora and Fauna project as something that will enhance the visual beauty on campus,” Traeger says. “But it will also serve the educational needs of our students and the broader community as well. The gardens and greenhouses will be places everyone will be able to visit and enjoy. The stream and pond venues will provide us with an example of aquatic micro-ecosystems on a local scale. Students will be able to study animal and plant variations and adaptations in the different seasons, as well as the impact of environmental stressors. It will be a great resource for us.”

The “Flora and Fauna” project is emblematic of nearly every undertaking by the Biology Department. While the results typically impact many groups, the primary focus is always student-centered.

The department continually evaluates its course offerings so it can keep its curriculum current and adaptable. Of late, Traeger and his instructors

have been developing “active learning formats” and web-enhanced components for a number of classes.

“Joe (Zurovchak) has really embraced innovative teaching strategies aimed at getting students more actively involved in the learning process,” Traeger adds, explaining that students are more successful when they are integrated into the classroom topic rather than simply listening to lectures.

Student success is also at the heart of the BATCAVERN, a Biology-supported technology-based learning laboratory that serves several thousand biology and health professions students per year. In the lab, under the watchful eye of technical assistant **David Logan**, students can utilize available technology for research and review, gain access to lecture notes and other study materials, or receive tutorial assistance.

The Agassiz Society, the College’s student-run biology club, is yet another avenue for students to embrace learning, bond with classmates, and appreciate the educational and career opportunities available in the biological sciences. Professor **Grace Gloeckler**, the longest-tenured member of the Biology Department, serves as advisor to the Agassiz Society and has helped the organization immeasurably over the years.

Another veteran of the department, who rejoined its ranks in Fall 2007, is **Dr. Melody Festa**. A former chair of the Biology Department, Festa recently elected to return to the classroom following a successful three-year stint as the College’s academic vice president for business, math, science and technology.

“Melody brings a very important perspective to the department because of her experiences as an administrator,” Traeger notes. “I’ve seen her passion as a teacher re-emerge. She is our only full-time instructor at the Newburgh Extension Center and she is helping restructure our Intro to Biology course so that we can make that course more effective and serve our students better.”

Over the past few years, Festa has teamed with **Marie De Fazio Shultz**, the department’s second technical assistant, and professor emeritus **Thomas Alford** on the Orange County West Nile Virus Surveillance Project, supporting the Orange County Health Department.

Festa and Traeger are also leading the department’s input on designs for laboratories and biology facilities that will be part of the College’s planned Newburgh Branch Campus. With an expanded Newburgh curriculum that is sure to include sizeable increases in several health professions programs, there will be a vital need for more expansive biology offerings.

Traeger, Zurovchak and Merriam collaborated to develop the new General Ecology course that will debut in Fall 2009. The development of such upper-level biology courses provides students

with yet another opportunity to prepare themselves for the next step on their academic journey.

Dedication to their craft and a healthy respect for the educational process has vaulted each of the biology professors toward independent success, but it is their commitment to teamwork and cooperative ventures that allows the department to flourish in so many venues on campus and beyond.

While much inspiration is generated when the Biology “think tank” convenes in Room 313, the reverberations are felt throughout the College and community. ■

Dr. Michele Iannuzzi Sucich has always loved to learn. That constant quest for knowledge prompted her progression from learner to teacher.



As an M.D., Iannuzzi Sucich carries a unique resume to the SUNY Orange community. She joined the College’s biology faculty in the summer of 2007 following a four-year stint as an attending physician in a family practice.

Her background in patient education and care, supervisory experience and research skills are invaluable to students who may be thinking of an advanced career in biology. In addition, she’s able to incorporate real-life scenarios into her Anatomy and Physiology lectures and labs.

Following medical school, she completed a residency in family practice and a fellowship in geriatrics. Her fellowship included clinical research and publications in sarcopenia

(muscles wasting with age) and falls in the elderly. In addition, she collaborated on a project to implement, assess and publish a paper on an innovative application of technology in medical education.

She has always sought to find connections between her work, research, and teaching, whether it was educating patients on health-care issues, training future doctors under her tutelage or lecturing in a classroom.

“I’ve tried to use my personal learning to become an effective and approachable educator,” Iannuzzi Sucich says. “Teaching at SUNY Orange allows me to share my knowledge and my love of learning with my students to help them achieve their life goals.”