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THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL
First-year seminars and undergraduate research have transformed the Carolina experience

By Kim Weaver Spurr ’88

First-year seminars and undergraduate research have transformed the Carolina experience with a biodiversity expert transformed Michael Foote’s academic experience at Carolina. And a summer research fellowship at the end of Diana Gergel’s sophomore year forever changed her life.

The members of the Chancellor’s Task Force on Intellectual Climate, formed in the late 1990s, would be pleased. Their report and recommendations launched two innovations in the College of Arts and Sciences — the First Year Seminar Program and the Office for Undergraduate Research — that over the course of a decade have profoundly enhanced the Carolina experience for thousands of Tar Heels and become models for other schools.

Gergel graduated in May with an undergraduate degree in history and political science. The research bug bit early. With the help of a Summer Undergraduate Research Fellowship (SURF), she spent the summer after her sophomore year working for the U.S. Holocaust Memorial Museum in Washington, D.C., and doing research at the Library of Congress on South Africa’s Truth and Reconciliation Commission (TRC). She received $5,000 as a John W. Pope Summer Research Fellow, a competitive award established by the

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New professorships help undergraduate research grow
By Kim Weaver Spurr '88

Jane Danielewicz, a professor of English and comparative literature, is enthusiastic about the value of undergraduate research in guiding students “to be amazed and stunned by what they discover.”

The College of Arts and Sciences has recognized her dedication by naming her one of four inaugural Research and Undergraduate Education Term Professors in the four divisions of the College: fine arts, social and behavioral sciences, humanities, and natural sciences and mathematics. A recommendation of the 2006 Quality Enhancement Plan, these professorships will enhance the culture of undergraduate research at UNC.

“When students come to college, it’s about developing an identity … so finding out about research connects the students to their senses of curiosity and creativity,” said Danielewicz, the Richard Grant Hiskey Distinguished Term Professor in Research and Undergraduate Education. “You have an opportunity to help them claim a space within the university. We’re a research university, and students should be a part of this when they first walk onto this campus.”

Danielewicz is also a champion of engaging graduate students as mentors for undergraduate research. She works with Graduate Research Consultants (GRCs) in her courses on autobiography and life-writing genres.

The Office for Undergraduate Research began the GRC program in 2003 to enable faculty to expand opportunities for undergraduate research in their classes. The graduate students work with the instructor and the students on planning, carrying out and communicating their research. The program has continued to grow. In fall 2003, six GRCs served 214 undergraduates through three courses. In fall 2008, 50 GRCs worked with 1,644 undergraduates through 49 courses. The GRC courses are taught in all divisions of the College and at all levels.

Danielewicz first worked with GRC Risa Applegarth ’09 in her honors seminar, “Reading and Writing Women’s Lives.” Since then, Danielewicz has collaborated with Applegarth several times and involved other GRCs about six times in her courses. Applegarth, who recently graduated with a Ph.D. in English and is now an assistant professor at the University of North Carolina at Greensboro, said she enjoyed helping to cultivate students’ sense of independent inquiry.

“Being a GRC gives you a chance to guide students as they’re in the process of becoming researchers,” she said. Applegarth also worked with GRCs in some of the classes she taught at UNC and developed cross-disciplinary relationships with fellow graduate students.

Through a grant from the Spencer and Teagle Foundations, Danielewicz is the principal investigator on a project that will support the growth of writing, critical thinking and research in communication-intensive courses. GRCs will help with that process.

Danielewicz said her students continue to surprise and challenge her.

“I want to invite students into the life I lead here,” she said. “They find ways to do things you can’t imagine.”

NEW RESEARCH AND UNDERGRADUATE EDUCATION TERM PROFESSORS:

• Drew Coleman, geology: Jarsolav Folda Distinguished Term Professor in Research and Undergraduate Education
• Jane Danielewicz, English and comparative literature: Richard Grant Hiskey Distinguished Term Professor in Research and Undergraduate Education
• Donald M. Reid, history: J. Allan Feduccia Distinguished Term Professor in Research and Undergraduate Education
• elin o’Hara slavick, art: Glen H. Elder, Jr. Distinguished Term Professor in Research and Undergraduate Education
Reice, who received a grant from the Carolina Entrepreneurial Initiative (CEI) to develop the course, said it’s fun to help students discover their potential. The CEI encourages faculty and students in the liberal arts as well as business to be entrepreneurial in developing ideas.

“Think they’re as surprised as anybody that they can do it,” Reice said of his students, “and that’s one of the great joys of this kind of teaching, to get students to progress well beyond what they thought they could do.”

Foote enjoyed working with Reice so much that he signed up this past summer for his Burch Field Research Seminar in Brazil, an intensive seven-week experience focused on sustainable development and preserving biodiversity in the rainforest.

Bobbi Owen, senior associate dean for undergraduate education, said introducing students to how knowledge is created is something that first-year seminars and undergraduate research do very well. First-year seminars give students an early opportunity to study in small groups with leading faculty, and the Office for Undergraduate Research encourages students to participate in research and helps them find ways to fund their projects.

“We’re not trying to train students for specific jobs that exist now, because as they enter the workforce, and later in their lives, those jobs won’t be around anymore,” Owen said. “Instead, we have to teach students how to think, how to discover and develop new knowledge. We need them to create new solutions, ideas and approaches. By engaging them in that process early on, we set them on the right path for the future.”

Research is cool

Carolina undergraduates don’t just dabble in research: They use the acquired skills and knowledge to learn for the rest of their lives.

Gergel was among the first class of 16 students to earn the Carolina Research Scholar distinction. The seeds of the new program began with the administration of former student body president Eve Carson. Research scholars must complete the introductory Modes of Inquiry class and two research-intensive courses, and present their research at a symposium, professional meeting or conference.

Gergel was one of the students involved in planning the new program.

“In a similar fashion to the Public Service Scholars program, I wanted to create a culture that says ‘research is cool.’ And I wanted it to be something not just associated with students in a lab … I wanted it to [encourage] students in the performing arts and studio art and humanities and philosophy.”

John Meyer ’09 also graduated as a Carolina Research Scholar. He’s taking a year off before applying to medical school. His undergraduate research took him to Honduras, where he pursued a different approach to medical research. He used literature to examine the issue of trust and how doctors take on different personas in the doctor-patient relationship. He observed about 700 doctor-patient interactions in North Carolina and Honduras.

Meyer, a comparative literature major with minors in Spanish and chemistry, said he began to make connections in all of his classes at Carolina through pursuing research.

“It teaches you a way to approach a problem, and all of your classes become more tied together,” he said. “It gave me a focal point, and it’s an opportunity to put your skills and knowledge to use. … It lets people know what you’re passionate about.”

Biology professor Pat Pukkila, the university’s ambassador for undergraduate research, has been directing the Office for Undergraduate Research since its inception. In 2007-2008, College faculty reported that they had mentored 1,310 undergraduate projects. And 56 percent of graduating seniors received course credit for at least one research-intensive course in which over half of the class time was devoted to conducting original research and presenting their research conclusions.

Many students receive private funding to help pay for their research endeavors. They also can sign up for a peer adviser to help them with writing research grant proposals.

“When I first started in this job, it seemed overwhelming, but students have really embraced the idea of undergraduate research — and that is thrilling,” Pukkila said. “I think what I’m most proud of is when I walk across campus now I can really imagine every student being influenced by some program in the Office for Undergraduate Research.”

Adventures of a lifetime in Malawi and Jordan

Undergraduate research took Cameron Taylor ’10 and Clayton Thomas ’11 to far-flung corners of the world — to Lilongwe, Malawi, and Amman, Jordan.

The summer after her sophomore year, Taylor got funding from the Institute for Global Health and Infectious Diseases to accompany geography professor Michael Emch to Malawi. She helped develop a geographic information systems (GIS) database so researchers can better track study participants in the UNC Project-Malawi...
program. She also helped train community health workers on how to take global positioning system (GPS) coordinates. This past summer she returned to Malawi with the help of a SURF grant to continue a geographic analysis of HIV and malaria. She also began work on her senior honors thesis which will examine the ecological effects of the malaria vaccine.

After finishing her undergraduate geography degree, Taylor plans to pursue a graduate degree in public health.

Like many Carolina students, Taylor wrote about both summer experiences on her Web log (blog).

“To sum up my summer, it has been amazing. Malawi will always hold a warm spot in my heart and I definitely want to come back again,” she wrote in the summer of 2008.

As a sophomore, Thomas presented his research on Christianity as the lynchpin in Turkey’s new tourism strategy at a major international conference in Amman, Jordan. The summer after his freshman year, he accompanied history professor Sarah Shields on a Burch seminar in Turkey, where he began his research. Shields later encouraged Thomas to submit his paper for the conference.

The Office for Undergraduate Research, the Honors Program and the history department all contributed funds to allow Thomas to travel to Jordan to participate “in one of the most intellectually, academically and personally fulfilling experiences of my entire life.”

Thomas discussed his paper with a representative of the Jordanian Ministry of Tourism and met scholars from Turkey, Canada, Norway and Egypt.

“It was my first time traveling alone and was an incredible opportunity to observe daily life in one of the most important, and perhaps least understood, parts of the world.”

Exploring national policy, Facebook, music and physics

The May 2009 issue of *U.S. News & World Report* lauded UNC’s “imaginative” first-year seminars in a story on how college campuses are changing.

UNC takes a different approach to first-year seminars from some universities, which focus more on orienting students to college, said Steve Reznick, associate dean for first-year seminars and academic experiences.

“Our program is designed to allow incoming students to start their first year with an exciting, intellectual experience,” he said, “to pursue an advanced topic in a way in which the student is participating in the gathering of knowledge.”

There are enough seats for about 63 percent of UNC’s first-year students to take a first-year seminar. From 60 to 80 seminars are offered each semester, with an average class size of fewer than 20 students.

In Kathy Williams’ Documentary Theatre seminar, students come up with a topic, then interview people, write, stage and perform their own script. Williams has an extensive background in documentary theater. She is the performance director for Hidden Voices, a nonprofit theater dedicated to bringing life-changing stories to the public.

On an April morning last spring, students in Williams’ class, coffee cups in hand, rehearsed their lines before a final performance of “Facebook Friendzy: Status Online.” Students spent a semester examining how Facebook and technology are affecting interpersonal relationships and their generation’s ability to communicate.

“It’s almost sickening how much people get on Facebook and e-mail and stuff like that,” one of the characters says in a monologue that closes the show. “I think it’s made people extremely lazy, and I think it’s made us lose a lot of our social skills.”

Kelsey Lee ’12 said she made friends in Williams’ class that she continues to connect with at Carolina — and yes, some of those classmates are now her friends on Facebook.

“It was completely different from any other class I’ve taken because you’re forced to interact with other students around you,” she said. “It made the world seem a little bit smaller, because we were able to connect as complete strangers and form a bond.”

“They find ways to explore stories and share differences in an environment that because it’s creative allows them to explore difficult subjects,” added Williams, who is a member of PlayMakers Repertory Company. “First-year seminars do one of the things that theater does so well — bringing people together to embrace common ground despite how different they are.”

In Hodding Carter’s National Policy seminar, students examine the people responsible for setting the national agenda. Carter served as President Jimmy Carter’s State Department spokesman during the Iran hostage crisis and has had a long career in broadcast journalism. The only prerequisites for Carter’s first-year seminar? “Intellectual rigor and an open mind.”

Teaching a first-year seminar is rewarding for faculty because new students are eager and ready to learn, said Carter, the University Professor of Leadership and Public Policy. After teaching at other colleges, Carter called the UNC seminar experience “the most satisfactory single form of instruction I’ve ever done.”

“They are remarkably open and ready to participate for the most part because they haven’t learned to be ‘cool,’” said Carter, who at the end of the course places students in groups representing political parties where they give a presentation on setting
Doing research, making a difference in Peru
By Kim Weaver Spurr ’88

When UNC anthropologist Brian Billman tells people that he leads a summer field school for undergraduate students in Peru, he sometimes gets the response, “Are you crazy?”

Billman founded the field school in 1998. Since then, about 170 undergraduates have become summer archaeologists, assisted by graduate students. The undergrads receive six hours of academic credit.

Students spend about a month with Billman in Peru, working five days a week excavating an ancient village (400 BC-700 AD) in the Moche River Valley, about 45 minutes from the coast. On the weekends, Billman conducts tours of local museums and archaeological sites.

“It’s definitely not for everybody,” Billman said, laughing, “it’s very dirty work, hard and tedious. But they also develop a broader understanding of the world, an appreciation for the culture and history of Peru.”

For many students, Billman said it’s an eye-opening experience.

“Some have never been out of the country; some have never been out of North Carolina before,” he said. “It’s really exciting being with the students and going through that experience with them. It’s an immersion — in the country, in archaeology — and that’s the sort of experience that changes people because they can’t just put the book back on the shelf; [the learning] is 24-7.”

Chris Jochem ’07, a geography major, participated in Billman’s field school in the summer of 2005. He was intrigued by a prehistoric site at the top of Cerro Ramon (elevation: 1,831 meters) that had not been mapped before. Jochem returned the following summer with the help of a Summer Undergraduate Research Fellowship (SURF) to conduct an archaeological survey and assessment of the site.

Jochem said he is still using the skills learned in Peru in his current job as a research associate at the Oak Ridge National Laboratory west of Knoxville, Tenn.

“There’s only so much you can learn from lectures, textbooks and labs. … The next level is to try and apply some of those things,” he said. “That’s where, when faced with the challenges of doing something new, I found I learned the most.”

Kevin Kohler ’11 participated in the Peru field school the summer after his freshman year. For 10 years, Billman and his Peruvian colleague Jesús Briceno have had a unique partnership with the community of Ciudad de Dios in the Moche Valley. The researchers “hired” the community to guard the archaeological site while they were away during the year, to protect it from looters. In exchange, the archaeologists promised to take on a development project of the community’s choosing.

With the help of a Launching the Venture class through Keran-Flagler Business School and a Kauffman Faculty Fellowship from UNC, Billman created a nonprofit, MOCHE, that supports the development projects. So far, MOCHE has built a road, a water system, a schoolhouse and a soccer field, among other projects. Their next goal? A medical clinic.

Kohler became so passionate about MOCHE that he and four other students formed an official UNC club, MOCHE-UNC, to raise money for the nonprofit. In their first semester, they raised $600.

This past summer, Kohler returned to Peru with Billman to help with the development of a service-learning course tied to MOCHE.

Billman calls himself a “reluctant community activist and philanthropist.”

“But years later, it’s the most gratifying and rewarding experience a person can have. And when you add in the element of these young students, it’s just amazing.”

McNeil said leading a first-year seminar has taught her how to be a better teacher.

“Working on the course for over 10 years has been a real pleasure,” said McNeil, a leader in mentoring women in science. “There are certain things that it doesn’t matter how many times or ways I explain it, the students don’t understand it until they do it with their own hands.”

“Teaching by telling doesn’t always work. They have to actually experience it.”

ONLINE EXTRAS: Read Cameron Taylor’s Malawi blog, learn more about Brian Billman’s archaeological field school, see a world map of where SURF students have conducted research at college.unc.edu.

the national agenda. “I want them to take away an understanding that we’re talking about an evolving process. … I want them to know that critical thinking is the most important thing you bring to public life.”

At the beginning of the class, Ian Lee ’12 said Carter invited each of the students to set up a time to go to lunch with him. Lee took him up on it.

“We talked for about an hour and half outside the classroom about what was going on in the media,” said Lee.

Physics professor Laurie McNeil and Brent Wissick, the Zachary Taylor Smith Distinguished Term Professor of music, have taught their course on the Interplay of Music and Physics every year since the inception of first-year seminars. She served on the Chancellor’s Task Force on Intellectual Climate that recommended the program’s creation.

Wissick has always been interested in how musical instruments make sound, and McNeil has studied violin and sings with the Choral Society of Durham. Students take a field trip to University Methodist Church, where they see the inner-workings of an organ. They also build string and wind instruments out of “found objects,” like broomsticks or cookie tins and perform an original concert composition.

McNeil said leading a first-year seminar