

SPRING/1990

Boston University College of Engineering

# NEWSLETTER

## A LEAP into Engineering

"I was a high school math teacher who was always encouraging my students, particularly young women, to study engineering. And I convinced myself," says Ann Murphy. In 1988, after eight years of teaching, she entered LEAP, the College of Engineering's Late Entry Accelerated Program.

LEAP enables a student with a bachelor's degree in a nonengineering field to earn a master's degree in engineering in two full-time years or the equivalent. The first year is given to the necessary undergraduate courses; the second year, to graduate work in the student's chosen area of specialization: electrical, biomedical, aerospace, computer, manufacturing, systems, or mechanical engineering.

"What I liked best was that I didn't have to earn a whole new undergraduate degree," says Reza Antoszewska, who has been a nurse and a midwife before deciding to become an engineer. In planning her programs, "I could count the courses I had had before that applied to the program—I even used the statistics course from my nursing."

LEAP is a quicker way for nonengineers to earn advanced engineering degrees—and harder. Students attend classes year-round, often taking advanced courses in two or three different engineering areas simultaneously. For students who, like Murphy, have been out of school for several years, it is complicated at first by readjustment to the role of student. "It's harder than I remembered," she says. "Sometimes I study on campus until midnight."

Intensive study requires a new approach to home responsibilities. Two of Murphy's children are in college, the third in high school. "They understand that sometimes I can give less," she says. Antoszewska, who completed LEAP in 1988, is the single mother of an eight-year-old son, Nur. As she crammed tasks for school, home, and employment into each day, "I just kept reminding myself that it wouldn't always be this way."

While the majority of LEAP students have had technical or scientific undergraduate education, some have been in totally nontechnical fields. Having completed all requirements for a doctorate in linguistics but the dissertation, Barbara Bliss does not consider herself one of them.

"Actually linguistics is not that far from engineering," she says. "It's the scientific part of language. And I'd taken a couple of computer courses; linguistics and computers are very related in terms of language." She was teaching English as a second language in the University's Center for



English Language Orientation Programs (CELOP) when she learned about LEAP. "When I heard about the program, I knew I wanted to do it."

Designed for nontraditional students, LEAP offers some nontraditional flexibility. Bliss takes just one course a semester, summer and winter, as she continues to teach full-time at CELOP and to care for her family. She began the program six years ago and expects to be in it another three. "My son assumes this is what all mothers do," she says.

Antoszewska's son often accompanied her to campus, with the encouragement of her advisor, Professor David Perreault. "He's a great advisor; an excellent teacher and an excellent human being," she says. "He was a role model: I saw him juggle his family and his teaching. He's very involved with his students, and his kids were often in the lab."

LEAP students follow programs individually tailored to their backgrounds and academic goals. They are urged through what Antoszewska calls "a baptism by fire" by one another and LEAP coordinator Maxine Millstein, whom generations of students describe as "very supportive." Special career seminars help them plan their next steps.

When she graduated, Antoszewska took Nur on a long-promised vacation at Disney World and then embarked on her new career as a design engineer at Mitre Corporation, working on specialty computers for communications.

Neither Bliss nor Murphy think their nontraditional career paths and their late starts will be a detriment to their entry into engineering. "Many places are looking for people with maturity," Murphy says.

*Information on LEAP and the financial aid and campus employment available to LEAP students may be requested from Maxine Milstein, 617/353-9760.*