

Chicago Tribune

Major Commitment To Biology Majors

April 18, 1993 | By Andrew Gottesman.



A funny thing happened to Prins Sales, a college junior, on his way to [medical](#) school: He decided that he might not want to be a doctor.

Sales' case is not at all unusual. Studies show that half of all freshmen who declare themselves [science](#) majors will switch out by the end of their first year.

The scientific community has long been [worried](#) about this drain, but now the University of Illinois at Chicago is using a new course to bolster the ranks of tomorrow's researchers and teachers.

So unlike many pre-med students who undergo radical career changes—from the organic sciences to English, for example—Sales will continue to pursue a biology degree at UIC.

He now hopes to one day work in the environmental field.

His goals were redirected thanks to a new university colloquium, only the second of its kind nationwide, that is helping biology majors uncover the numerous career paths available to them—especially outside medicine. It also shows students what a medical career might really be like.

Sales and his classmates spend much of their time watching biology at work in the professional world. They've been behind the scenes at a wide range of venues, from surgery to a crime lab to a water-processing plant to museums and zoos to a variety of research facilities.

The only lectures are delivered by guest scientists who focus on the nature of their work and how they came to do it.

"A lot of students these days don't know where they're going," said Sales, 23. "This class shows you that biology is not all health-related. There are a lot of other opportunities.

"I've enjoyed it because my big question was, 'What are my options?' With this class, I get to see all the possibilities and honestly, half of the things I've seen in this class I would not want to do. It kind of shows you the pathways you can take. I wish there was somebody who grabbed me earlier and said, 'Here's what you can do with this degree.' "

The colloquium was designed by Huan Ngo, a Ph.D. candidate at UIC who took a similar course while at the [University](#) of Minnesota.

"If students don't have opportunities to explore things, they'll just get focused into something that isn't for them," said Ngo, whose interests switched from medical school to molecular biology [research](#). "Unless you see classroom things applied to real life, it doesn't mean anything—it becomes so esoteric."

"You can drive by Cook County Hospital every day, but that's not the same as having a vehicle to get in and learn things. The students these days, they have a thirst for this kind of stuff."

Many students in the colloquium have even gone to see an autopsy. Though they clearly were interested in the medical examiner's work, none was ready to make a career of it.

At one point during the harsh procedure, Sales wandered away from the gurney for a moment.

"I think it would be kind of hard seeing this every single day," Sales said, gesturing toward the excavated body. "I'd rather deal with people than this."

The colloquium, which is managed by students, includes two main segments: Seminars, at which lecturers speak on a wide range of biological topics; and small-group [tours](#), during which the 75-member class breaks down into groups that visit places of biological interest.

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Each of the small groups, [led](#) by a student leader who took the course when it was first offered last fall, decides on its own where to go. A few, for example, prefer research, while others are more interested in medicine. No group has more than seven students.

Such personal interaction with former biology majors would otherwise be impossible for most undergraduates, Ngo said.

On a recent day, the colloquium gathered in a meeting area on the UIC campus before several small groups fanned out to locations all over the city. One went to the Jardine water filtration plant, another to a UIC epidemiology research laboratory, a third viewed surgery at County Hospital, and two went to the Chicago Police Department's crime lab. Earlier that week, two groups watched an autopsy at the Cook County medical examiner's office.

At each, officials discussed their work and its relation to biological studies. Some professionals, like a surgeon or a pathologist, have obvious connections to their degrees; others, like a police forensics expert, require a more detailed explanation.

Both sorts, however, have piqued the interest of some visitors-and turned off others. Students say both outcomes are valuable learning experiences, especially at a time when an extremely tough job market makes it a good idea to have plenty of options.

As a side effect, students get to see cutting-edge research, much of which won't make it into textbooks for several years.

Sidney Simpson, head of UIC's biological sciences department, is hoping the colloquium will prompt students to look past "the classical (biology careers) we normally think of."

"This is a problem that all of the universities and colleges have had," he said. "It's probably the worst thing about most undergraduate programs."

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Simpson said crowded classes have deterred many young science majors, who rarely have personal contact with the people they're learning about or listening to.

"A lot of what we do at the freshman level needs to be rethought and is very impersonal and is very uninteresting," Simpson said.

The colloquium's cost to the university is inexpensive-between \$5,000 and \$8,000 for the first two semesters. Yet it has been so successful that another section will open next fall, meaning that more than 100 students can enroll and still receive almost personal attention.

Many students in the course also have used the opportunity to make contacts and land internships or jobs, generally with local researchers and professionals.

Sophomore James Whitcomb, 22, began volunteering one day a week in the reptile department at the Field Museum-but only after his colloquium group toured the facility and met with curators.

"I had never found the museum very interesting in the past," he said. "It's a learning experience for me, and it's probably something I'd never get to do at college. Hopefully, down the line, by working with these professionals at the museum I can use them as a reference or maybe even be working alongside them one day."

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