

TeachingMatters

2003

Highlights of Teaching and Learning at the University of Guelph

Interactive seminars challenge minds



Prof. Alan Shepard teaches a new first-year course called "Early Modern Autopsies" that draws on his research and blends science with the arts.

Guelph student Rochelle Colling has discovered just how much can be learned from a human autopsy, both literally and figuratively.

Colling was one of 16 students enrolled in a special first-year seminar taught by Prof. Alan Shepard, director of the School of English and Theatre Studies. The course, "Early Modern Autopsies," examines the ways scientists, poets, writers and artists "dissect" the human body, especially in death. It was one of four interdisciplinary learning seminars being piloted with students in the bachelor of arts and sciences program.

The seminars centre around provocative themes — the other three focus on beautiful minds, sound and the environment and modern myths in the Middle Ages — and are being taught by senior faculty with reputations for being innovative teachers and excellent

researchers.

"It's an opportunity for faculty to share and indulge in their specialized research interests," says Prof. Maureen Mancuso, associate vice-president (academic), who believes faculty members' research benefits when they engage students in the discussion of new ideas and discoveries.

Shepard calls teaching his autopsies course "a privilege. It's an ambitious topic, and I think students are up to the challenge. The fact that it's an interdisciplinary course, that it blends the arts and sciences, teaching and research, means that it's a learning process for everyone in the class, including me. That's the wonderful thing about it. I think it's important for students, especially in their first year, to see that the work we do isn't canned, that we are addressing fresh questions and issues."

TEACHING AT U OF G

The University of Guelph is committed to the highest standards of innovative pedagogy, to meeting the needs of all learners and to the integration of new knowledge and skills in a curriculum that fosters active learning.

With only 16 students in the class, Colling says she embraced the experience. "I was interested in the course because of the intimate setting and the odd, yet intriguing title. I like that it incorporates so many aspects of learning, and the interactive teaching helps me gather my thoughts and effectively share them aloud. It allows you to focus on ideas being expressed by peers and the professor, to ask questions and participate in the discussion."

Mancuso says those are some of the very reasons U of G decided to create and pilot the program. "The seminars are designed to challenge the mind of the new student, introducing and polishing the skills needed for university-level learning, while providing a more enjoyable and fulfilling experience."

It's well-documented that students learn best in small discussion-oriented learning groups, she adds. "Guelph is a leader in unique learning environments, so having creative proactive programs such as this helps us maintain that leadership and hold true to our mission of being a learner-centred university."

U of G celebrates teaching

U of G hosted zoologist Lee Gass of the University of British Columbia in September 2002 as Guelph's first Distinguished Visiting Teaching Professor.

Gass was also the 2002 CASE/CCAE Canadian Professor of the Year and received both a Killam Teaching Award and a 3M Teaching Fellowship in 1999. An expert on hummingbirds, he has increasingly devoted his time to improving science teaching and is interested in transforming the way undergraduate science education engages both students and professors, particularly in building true communities of scholars.

While at Guelph, Gass gave a public lecture offering his "Reflections on a Decade of Innovation in Science



Prof. Lee Gass

Education: Integration, Interaction and Interdisciplinarity."

The distinguished professor program was developed to complement the teaching excellence of U of G's 3M Fellows and is intended to focus especially on the theory, practice and

scholarship of teaching.

"The fellows want the program to capture and celebrate the enthusiasm, passion and dedication that their late colleague Prof. Norman Gibbins brought to his teaching," says Prof. Maureen Mancuso, associate vice-president (academic). Gibbins taught in the Department of Microbiology from 1967 until his death in April 2000. He was active in the Society for Teaching and Learning in Higher Education and served on the 3M Fellowship selection Committee.

In fall 2003, Guelph will host its second distinguished professor. A chemical engineer at McMaster University, Prof. Donald Woods is also a 3M fellow and was awarded an honorary degree from U of G in 2001.

Focus on learning makes a difference

A 1995 decision to officially adopt learner-centredness as a strategic objective is reaping big rewards for the University of Guelph, says president designate Alastair Summerlee. "There's no question that Guelph has developed a reputation for teaching excellence," he says.

"I'm in a privy position to hear such comments from professors and students at other universities," says Summerlee, who has been vice-president (academic) for three years. It's easy to get lost in the day-to-day classroom activities, rather than see ourselves as others see us."

What other educators see is an institution that seeks to empower students to assume more responsibility for their own learning. Traditional lectures are combined with hands-on experiences and collaborative work projects that stimulate discussion and debate.

Prospective students see a close-knit campus community where professors welcome interaction with students. And they no doubt count the number of Guelph faculty who have won national teaching and research awards — more than 100.

Faculty excellence and learner-centredness are key elements in the overall U of G picture that earned the University *Maclean's* magazine's 2002 designation as top comprehensive university in Canada.

Despite the accolades, Summerlee says Guelph is still working to encourage faculty to give a higher priority to teaching. "There's still a perception among some professors that research activity is more important," he says, when what U of G strives for is a blending of research and teaching initiatives, with each stimulating the other.

Students support students

Interactive learning takes many forms at U of G, including an initiative that relies on peer helpers to lead collaborative learning sessions for high-risk undergraduate courses.

Launched in 1999, Guelph's Supported Learning Groups (SLGs) have boosted average student marks as much as 16 per cent in some courses where students have taken full advantage of the weekly meetings.

That's a track record that receives high praise from Guelph faculty such as Prof. Bob Balahura, chair of the Department of Chemistry and Biochemistry.

"SLGs have been a real boon in that they're a way to actively promote learning," he says. "This is a great way for students to not only learn but also to manage their time."

The SLG program is designed to provide a stress-free environment where students can supplement the material they cover in lectures, labs and seminars. Participation is voluntary, with students meeting up to three hours a week with a senior undergraduate student to review notes, discuss readings, develop problem-solving strategies and share study tips.



To enhance learning, support teaching

U of G's Teaching Support Services (TSS) is a campus unit dedicated to working with professors and instructors to enhance their teaching methods and facilitate learning. Key among its services are workshops for new faculty and a peer consultation program, but TSS provides many other avenues for teachers to apply the latest tools and techniques in the classroom.

By administering instructional development grants and offering multimedia or pedagogical expertise, TSS supports the efforts of people like Dawn Larson, who creates learning activities for first-year biology courses. She has spearheaded a module on academic integrity, as well as small-group assignments that both introduce the discipline and help increase interaction among students in larger courses.

TSS is also a leader in universal instructional design, in which courses, materials and learning spaces are designed in advance to accommodate all kinds of learners.

Whether faculty wish to work on face-to-face or online activities for their students, TSS helps them put time-tested and useful new theories into practice.

Faculty Facts

- More than 100 have won prestigious teaching and research excellence awards
- 10 are 3M Teaching Fellows
- 19 are members of the Royal Society of Canada
- Full-time faculty: 760
- More than 96 per cent hold PhDs
- 45 per cent of new faculty appointed in 2002/03 are women
- Guelph faculty supervise 1700 graduate students from 70 countries
- U of G ranks fifth in Canada for ratio of faculty to funding from the Canada Foundation for Innovation

Teaching Matters in Physics



Prof. Joanne O'Meara

In a classroom of 150 first-year physics students, Prof. Joanne O'Meara encourages class members to argue with their neighbours. But only about things like the fundamental forces in nature.

It's part of a teaching technique that uses peer interaction to help students understand basic concepts such as momentum, energy and force.

"When students are asked to convince their neighbour that they have the right answer to a particular multiple-choice question, it gives them a chance to put a voice to their logic and, if necessary, replace misconceptions with understanding," says O'Meara. "And it's helpful for me to see if they really understand the concepts."

Recently hired into a tenure-track position with a focus on teaching in the Department of Physics, O'Meara will get ample opportunity to test peer interaction and other innovative teaching techniques. She has a heavier teaching load than colleagues following a more traditional research/teaching balance, and she loves it.

"I was attracted to Guelph because of the teaching emphasis within this position," she says.

O'Meara enjoys the immediate reward from teaching. "I love working with students who are here because they want to learn. It's tremendously satisfying to help them develop the

skills they need to continue their academic careers."

She says she has great support within the department and values the input of more experienced colleagues in finding the appropriate balance of scholarship, research and teaching for this new position. Her research is primarily computational and involves developing techniques to measure trace elements in humans and animals. It's radiation physics applied to medicine, an area of interest that originally led her to consider a career in medicine.

"I enjoyed physics in high school, but had never considered physics as a discipline of study," she says.

That changed after her first year as an undergraduate at McMaster University, when a physics professor convinced her to apply for a Natural Sciences and Engineering Research Council summer research assistantship.

Her summer job turned into a PhD program, and O'Meara now encourages her own students to consider physics as a discipline of study.

"Studying physics at the undergraduate level and beyond is a valuable experience that is applicable to a wide variety of future careers in our technologically advanced society. I feel strongly that no matter what career path a student follows, a conceptual understanding of basic principles of physics will be an asset, along with the logical problem-solving skills developed in the process. I try to emphasize both aspects in my lectures."

O'Meara says most students are accepting of new teaching techniques when they know why she introduces something like peer interaction and what she hopes to accomplish through the exercise. "Students seem to appreciate being involved in the teaching process itself, rather than merely acting as the recipients of information."

Teaching Matters Here, Too!

Journal of Positive Pedagogy
www.mcmaster.ca/learning/posped
Society for Teaching and Learning in Higher Education
www.tss.uoguelph.ca/stlhe

Faculty promote good teaching



Since 1984, the University of Guelph Faculty Association has recognized 121 professors for their contributions to teaching through its Distinguished Professorial Teaching Awards and Special Merit Awards for innovation in teaching. Winners in 2002 were, from left: Profs. Larry Peterson, Botany; Tony Hayes, Pathobiology; Frances Sharom, Chemistry and Biochemistry; Rich Moccia, Animal and Poultry Science; John Holt, Mathematics and Statistics; Ken Dorter, Philosophy; Doug Joy, Engineering; and Ian Barker, Pathobiology.

Guelph meets double cohort challenge

Discussions of Ontario's 2003 double cohort usually focus on the need for facilities to accommodate the expected increase in university applicants, but U of G administrators believe a renewed commitment to teaching and faculty support are also essential parts of the planning process.

President designate Alastair Summerlee says enrolment growth has important multiplier effects on the process of teaching when combined with technological changes and the socio-cultural effects of a larger, more diverse student body.

"To maintain the quality of the Guelph educational experience, the University must preserve small-group learning experiences, provide training for graduate students and enhance integrated electronic learning opportunities," he says.

To help meet those objectives, U of G has hired more than 150 new faculty in the last two years and built a state-of-the-art classroom complex. But it has also launched new support programs for all faculty and instructional staff interested in the use of technology in teaching.

U of G's Teaching Support Services (TSS) has enriched its regular

programming with simulated teaching workshops to prepare faculty for their debut in the new classroom complex.

Built to enhance learning through the use of multimedia presentations and technology-assisted course deliveries, the 1,500-seat facility is fully equipped with video conferencing, electronic white board and sophisticated presentation capabilities in 30- and 60-seat classrooms and lectures halls that will accommodate 120 to 600 students.

The University is also renovating other learning spaces, laboratories and the library. A new science complex scheduled for completion in 2006 will upgrade teaching space and equipment for science programs while helping to accommodate more students.

By 2008, U of G will grow to 18,000 students on the main campus. Up to 3,000 additional students will be enrolled at the University of Guelph-Humber in Toronto, where another new building is under construction.

New facilities paired with innovative training and technical support will provide unparalleled opportunities for Guelph faculty to broaden and enhance their teaching efforts, says Summerlee.

Distinguished teaching professors

The University of Guelph's Presidential Distinguished Professor and Librarian Awards were presented to 44 faculty and librarians in January 2003.

"You are the people who contribute so much to all of our high rankings and accolades, and these awards bring your efforts and innovations in teaching, research and service into the limelight," U of G president Mordechai Rozanski told the recipients. "The awards are reflective of the special collegial relationship that Guelph is known for."

Nominations for the prestigious awards came from faculty and library colleagues of the winners and were supported by dean's councils and college tenure and promotion or librarian performance committees. They were then forwarded to a council of the vice-president (academic) for review, then to the president for a decision.

"This process demonstrates the high value your peers and mentors place on the work you do in teaching, research and service," said Rozanski. "It also shows that senior academics and administrators at Guelph support and applaud the efforts of our faculty and librarians."

U of G Links

Centre for International Programs

www.uoguelph.ca/CIP

Faculty Recruitment

www.uoguelph.ca/facultyjobs

Office of Open Learning

www.open.uoguelph.ca

Teaching Support Services

www.tss.uoguelph.ca

University of Guelph-Humber

www.guelphhumber.ca

U of G home page

www.uoguelph.ca

TeachingMatters

2003

Highlights of Teaching and Learning at the University of Guelph

Interactive seminars challenge minds



Prof. Alan Shepard teaches a new first-year course called "Early Modern Autopsies" that draws on his research and blends science with the arts.

Guelph student Rochelle Colling has discovered just how much can be learned from a human autopsy, both literally and figuratively.

Colling was one of 16 students enrolled in a special first-year seminar taught by Prof. Alan Shepard, director of the School of English and Theatre Studies. The course, "Early Modern Autopsies," examines the ways scientists, poets, writers and artists "dissect" the human body, especially in death. It was one of four interdisciplinary learning seminars being piloted with students in the bachelor of arts and sciences program.

The seminars centre around provocative themes — the other three focus on beautiful minds, sound and the environment and modern myths in the Middle Ages — and are being taught by senior faculty with reputations for being innovative teachers and excellent

researchers.

"It's an opportunity for faculty to share and indulge in their specialized research interests," says Prof. Maureen Mancuso, associate vice-president (academic), who believes faculty members' research benefits when they engage students in the discussion of new ideas and discoveries.

Shepard calls teaching his autopsies course "a privilege. It's an ambitious topic, and I think students are up to the challenge. The fact that it's an interdisciplinary course, that it blends the arts and sciences, teaching and research, means that it's a learning process for everyone in the class, including me. That's the wonderful thing about it. I think it's important for students, especially in their first year, to see that the work we do isn't canned, that we are addressing fresh questions and issues."

TEACHING AT U OF G

The University of Guelph is committed to the highest standards of innovative pedagogy, to meeting the needs of all learners and to the integration of new knowledge and skills in a curriculum that fosters active learning.

With only 16 students in the class, Colling says she embraced the experience. "I was interested in the course because of the intimate setting and the odd, yet intriguing title. I like that it incorporates so many aspects of learning, and the interactive teaching helps me gather my thoughts and effectively share them aloud. It allows you to focus on ideas being expressed by peers and the professor, to ask questions and participate in the discussion."

Mancuso says those are some of the very reasons U of G decided to create and pilot the program. "The seminars are designed to challenge the mind of the new student, introducing and polishing the skills needed for university-level learning, while providing a more enjoyable and fulfilling experience."

It's well-documented that students learn best in small discussion-oriented learning groups, she adds. "Guelph is a leader in unique learning environments, so having creative proactive programs such as this helps us maintain that leadership and hold true to our mission of being a learner-centred university."