

Matters of ethics

The legal battle over whether to keep Terri Schiavo alive wound its way through the courts for seven years until her feeding tube was finally disconnected. Schiavo's death, which came 15 years after the brain-damaged Pinellas Park woman lingered in a persistent vegetative state, sparked a national debate over end-of-life issues.

And in another arena, one characterized by Wall Street boardrooms, the misdeeds and shortcomings of Tyco and Enron have come to symbolize corporate fraud and corruption in America.

From health care and the environment to business and scientific research, issues of ethics permeate everything we do, making its discussion paramount in academia. Visit the academic

“The University has become a major player in something that has become an important part of academic life on Earth.”

—Kenneth Goodman, codirector of the UM Ethics Programs

course listings or departmental directories of almost any institution of higher learning in the United States, and you'll find a program, institute, or center that addresses issues in ethics

and the professions.

At the University of Miami, matters of ethics have been discussed, reviewed, studied, and researched as part of a comprehensive and wide-ranging suite of ethics programs that is entering its 16th year.

“In an age of Enron, we now have a business ethics program. In an era of stem cell research and complications with end-of-life care, we have a bioethics program. In an era where people are interested in environmental ethics and international ethics, we've managed to provide resources that make sure UM is at the table,” says Kenneth Goodman, who codirects the University of Miami Ethics Programs with Anita Cava. “In a decade-and-a-half, the University has become a major player in something that has become an important part of academic life on Earth.”

The University-wide, interdisciplinary program's projects run the gamut, from bioethics and business to genetics and geriatrics. It sponsors and develops classes, conferences, research projects,

seminars, and other activities around the University and with partners throughout Florida, the United States, and the Americas. It collaborates with the CITI research ethics program, the Florida Bioethics Network, the *Journal of Philosophy, Science and Law*, the Miller School of Medicine's new Jay Weiss Center for Social Medicine and Health Equity, and the Pan American Health Organization.

Recently, the program has experienced phenomenal growth. Last year, community leader and chairman of the board of directors of TotalBank Adrienne Arshnt made a \$1 million gift that will enhance and expand the UM Ethics Programs in three key areas: an ethics debate program, a speaker series, and research grants in ethics and community.

Sports Fest, an annual spring competition among the University's residential colleges, included a first-ever ethics component, featuring students debating issues in sports ethics. UM's Ethics Society Debate Team won the



Ethics boost: Anita Cava and Kenneth Goodman have built a robust program that sparks critical reflection and inquiry into important issues of ethics.

National Championship Intercollegiate Ethics Bowl in Cincinnati. A recent Robert Wood Johnson Foundation grant will allow the program to study issues in ethics related to health care computing.

The program's purpose is to spark critical reflection and inquiry. “There's no amount of goodwill that will tell you how to approach stem cell research. Being a nice person is not going to help you resolve workplace issues related to the appropriate use of computers by employees. Critical thinking is the path by which we're addressing these issues,” Goodman says.

Goodman holds appointments in the Departments of Medicine, Philosophy, and Epidemiology and Public Health, as well as in the School of Nursing and Health Studies. His research includes work in ethics and information technology, especially health informatics or clinical computing, and bioinformatics, or the use of computers to store and analyze genetic information, as well as end-of-life care, evidence-based practice, and public health ethics.

“People who can think critically and can use the tools that ethics offers to analyze and consider decision-making are likely to make better decisions, ones that can withstand public scrutiny,” says Cava, an attorney and an associate professor of business law in the School of Business Administration whose research interests include corporate social responsibility and the legal and ethical aspects of business decision-making in health care.

With corruption and other ethical misdeeds dominating national headlines, is there a decaying of ethics in society? Cava thinks not. “This has been a problem with us since the beginning of time,” she says. “This is an ancient problem. The Greeks wrote about hubris, the tragic flaw of arrogance evident in people who think legal and ethical norms do not apply to them. These events are part of the public conversation in a more intense way because technology makes them part of our 24-hour news cycle. Ultimately, there are fewer secrets today, so your decisions had better be good.”

Climatologist Amy Clement studies the past to learn the future

University of Miami climatologist Amy Clement spends a great deal of her time dwelling on the past—and for good reason. By analyzing the paleoclimate record from hundreds of thousands of years ago, Clement is able to gain a better understanding of how the Earth's climate might change in the future.

“My approach has been to look at the full spectrum of climate change, not just focusing on what today's climate is like,” says Clement, an associate professor of meteorology and physical oceanography at the Rosenstiel School of Marine and Atmospheric Science.

Her scientific approach to unlocking the secrets to future climate patterns is different from the methods used by other scientists.

Clement uses mathematical computer models, searching for answers to how climate responded to physical disruptions in the past. “We can change the amount of output from the sun, which we know has happened in the past, or we can change the shape of the Earth's orbit, which we also know has occurred in the past and may have caused the so-called Ice Ages,” Clement says, referring to the models she uses as tools.

What her computer models are telling her is that our climate is changing and that global warming is real. “There's really almost no evidence to suggest that the warming that's occurred since the mid-20th century is caused by natural forces,” Clement says. “Based on the current scientific understanding, one must conclude that the warming is largely caused by human activity, in particular the burning of fossil fuels and the increase

of greenhouse gases in the atmosphere.”

It is the increase in greenhouse gases and their effect on the tropical eastern Pacific Ocean that especially concerns Clement.

“The Pacific Ocean has been long overlooked,” Clement says. “Most of the researchers who have been working on past climate change are very focused on the north Atlantic.”

Clement has theorized that the rise in greenhouse gases would cause unusually cold ocean temperatures, or La Niña-like conditions, in the eastern Pacific, while her colleague, Associate Professor Brian Soden, has argued that the increase will result in warmer ocean temperatures, or an El Niño-like state.

It is important that they determine which theory is right because conditions in the tropical eastern Pacific can affect weather patterns all over the world, Clement says, noting that La Niña-like conditions would cause more hurricanes in the Atlantic. Clement and Soden are working together to learn the answer.

What is clear is that more needs to be done to curb greenhouse gas emissions, Clement says. She applauds UM's efforts to become more environmentally responsible through sustainable building and recycling initiatives and says other institutions and businesses must do the same. “We have to reduce fossil fuel emissions through both conservation and replacement with renewable energy sources,” she says.

It will also take education, to which Clement is committed. Together with colleague and husband Kenneth Broad, assistant professor of marine affairs and policy, she teaches the class *Climate and Society*, in which they cover the physical aspects of and implications to society of climate change. “Above all,” says Clement, “it will take awareness and the changing of old habits.”



Climate modeling: Associate Professor Amy Clement uses mathematical computer models to gauge how the Earth's climate will change in the future.