

UD Graduate School Programs Top-Notch: The Proof's in the Profs

With programs leading to advanced degrees in everything from business administration and education to theological studies, the University of Dayton Graduate School offers powerful preparation to students taking the next step to further their education. What separates UD is its small class sizes, career-related experiences and, most importantly, faculty who are leaders in their fields of study. Following are two examples of UD Graduate School faculty daring and doing great things.

Thinking Big by Thinking Small

Andrew Sarangan spends his days studying materials a billionth of a meter in size. That's small. But the impact of the work being done by Sarangan and his colleagues in the electro-optics graduate program at the University of Dayton could be huge.

Think about the changes which discoveries in microelectronics during the 1970s brought about. Today, we have the computer chip, high-speed computers and cell phones because of work done in scientific labs three decades ago on electronic properties at microscopic levels. Sarangan and others in his department at UD are doing similar things with light – an area called nanophotonics – to advance the next round of technological breakthroughs.

"The speed of light is many, many, many times faster than electrons," says Sarangan. "As a result, the potential for optical circuits and optical chips is mind-boggling."

Seeing, as they say, is believing, and Sarangan is an expert in building devices that mold the flow of light at the molecular level. In fact, using nanophotonic optical chips, you can actually slow light down and even stop it – which means you can concentrate and amplify it and put it to some amazing uses.

Today, Sarangan and his students are developing a variety of lasers that could hold the key to major advances in medicine, consumer electronics, and the military. One is very bright, compact lasers that, resting in the palm of your hand, could be used to point at and track things miles away. Another is ultraviolet lasers which promise to quadruple the amount of information on CDs and DVDs. Yet another is ultra sensitive infrared imaging technology which would make today's night vision goggles seem old-fashioned by comparison. (Imagine being able to find a person lost in the middle of a dark forest.)

Perhaps the most startling applications for Sarangan's research could be in medicine, where concentrated, highly temperature-sensitive imaging detectors could be used to look at how blood is flowing through the body or to search for cancerous cells.

UD's electro-optics department, one of only six in the entire country that offer a PhD degree in optics, recently received a large grant from the State of Ohio to develop and build a state-of-the-art laboratory for nanophotonics research. Engineers and physicists from companies throughout the area, as well as the Air Force Research Lab at Wright-Patt, are working hand in hand with Sarangan on the cutting edge research.

"We're very hands-on at UD," says Sarangan. "We believe in applying what you learn to develop innovative technologies that benefit society. Students see the value in that."

It may not be long before the world also sees the value.

Good Advice for Dealing with Bad Bosses

Dean McFarlin, professor of management in the School of Administration at the University of Dayton, likes the challenge of connecting theory to practice and showing how his research has relevance to real-life situations. His students, mostly working adults, appreciate the value as well. Occasionally, McFarlin's work even anticipates events in remarkable ways.

Browse the "Business" section at any bookstore, and you'll find hundreds and hundreds of books on organizational leadership of the "knight in shining armor" variety. Think Lee Iacocca or Jack Welch – the charismatic, larger-than-life CEOs. But what about the self-absorbed, self-important narcissists who can make a job a nightmare?

In 2000, before the world had gotten to know Enron or the likes of Dennis "\$6,000 Shower Curtain" Koslowski, UD's McFarlin was delving into the belly of the beast. "Until recently, very little

attention was paid to the really bad bosses," he says. "But many of us have had the experience of having to deal with one, and it's no walk in the park."

McFarlin, an expert on leadership, management and organizational behavior, surveyed and interviewed hundreds of people for his book *House of Mirrors: The Untold Truth about Narcissistic Leaders and How to Survive Them*. What he found was occasionally shocking.

Approximately 10% of managers may have tendencies toward excessive narcissism. They're attracted to management positions because they like power. They're experts in scapegoating, lying and distorting, emotional and psychological games, and credit-stealing. Plus, one of their best traits may be impression management, so they tend to be glib interviewees.

According to McFarlin, it's important not to underestimate narcissistic leaders, and you must recognize their traits early and manage them carefully. His advice is multi-faceted because the situation that narcissists create is often so irrational and emotional.

Try to think through your options ahead of time. Consider avoidance as a short-term strategy. If you're going to have to deal with a narcissistic boss over the long haul, create a paper trail and work to build

a coalition of like-minded employees, so you can make your case as a group. You can go to a superior or human resources, but be careful not to make it personal. Remember: that manager or human resources person hired the narcissist in the first place, and they're unlikely to own up to their mistake easily. Complaining may even be seen as a sign that you're a difficult or disgruntled employee. Bottom line, McFarlin says, "You may have to think about where you want to work next."

How to deal with bad bosses is, of course, just the beginning of the real-world education McFarlin and his colleagues can offer students. The MBA classes at UD's School of Business Administration are very project-based and application-oriented, one of the things that McFarlin claims makes UD special. They allow students to take the business theory they've learned and apply it to real projects. The interaction with the business community even extends to an executive in residence program, in which successful local leaders are invited to teach classes and interact with the UD faculty.

That's the kind of education, McFarlin notes, that helps students become better employees, and hopefully better bosses, down the road.

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