

MCC moves to refocus its optics program

College aims to boost enrollment, to meet demand for workers

By ANDREA DECKERT

In an effort to boost sluggish enrollment and meet a demand for skilled workers in a growing local field, Monroe Community College will make changes in its optical systems technology program.

The program has had fluctuating enrollment. In 2006-07, 25 students were enrolled, working toward either an associate's degree or a certificate, data from the college shows. Enrollment dropped to 14 in 2007-08 but rose to 18 for 2008-09.

Those numbers are significantly lower than they were a decade ago. In the fall of 1998, for example, 48 students were enrolled in the optics program, said Dianna Phillips, dean of technical education.

Changes in the optics program, expected as early as the fall semester, include revisions of the curriculum, with a focus on precision optics training, along with revamped lab space, she said.

Optics, and photonics in particular, is the future of this community, Phillips said.

"Photonics is the next industrial revolution," she said. "In fact, it's already started."

The college offers an associate in applied science degree in optical systems technology, a program that prepares graduates for work in high-tech fields that apply light and optical principles in their operations. An optical systems technician works with scientists and engineers in research, development, design, production, quality control, testing and evaluation of optical components and systems and in sales and service.

A one-year certificate program in optical fabrication is also available. It too will be upgraded and could be changed to a degree program, Phillips said.

MCC is the only community college in the country that offers an optics degree, she noted, and Rochester is the only place where students interested in an optics career can receive training from an associate's degree up to a Ph.D. without leaving the area. In addition, many students pursue higher degrees after graduation from MCC or go into the field but later return to school, Phillips said.

A disconnect with the industry and lack of knowledge about the field among high school students contributed to the decline, she said. In response, MCC has increased its community awareness efforts about the optics program, including offering a career night, and has improved its connections with local optics leaders.

Phillips said the upgrades are a response to local industry needs.

"The product here has always been good," Phillips said. "But with the changes in the works, it's going to be just unbeatable."

The optics community has supported the MCC program. Employees at firms such as Corning Tropol Corp., JML Optical Industries Inc. and QED Technologies International Inc. serve as adjunct professors and help design the curriculum. Also, company leaders are working with Phillips on new lab designs and equipment needs.

James Sydor, president of Sydor Optics Inc., said seven graduates of the MCC optics program work at the company, includ-



File photo by Kimberly McKinzie
Dianna Phillips, MCC's dean of technical education, calls photonics "the next industrial revolution."

ing himself. His firm is not an exception, Sydor noted; several local optics firms look to MCC for employees.

Sydor is one of the local optics leaders who are helping MCC revamp its optics program, and he says his company and others will need trained workers.

"Fifty years ago, thousands of people were grinding and polishing glass in Rochester," Sydor said, noting that companies like his are continuing that optics tradition. "It would be a shame for this to just disappear."

Thomas Battley, executive director of the Rochester Regional Photonics Cluster, said companies such as Bausch & Lomb Inc., Eastman Kodak Co. and Xerox Corp. make the region a research and manufacturing hub, with knowledge, experience and innovation in optics manufacturing, metrology and imaging. It is also supported by the University of Rochester's Institute of Optics, the Laboratory for Laser Energetics at UR, Rochester Institute of Technology and the Infotonics Technology Center Inc.

Locally, there are 70 members of the cluster, ranging from one-person consulting companies to large corporations, including ITT Corp.'s Space Systems Division. Battley estimated the local optics industry employs 5,000 people.

Battley and other members of the cluster have been working with the National Center for Optics and Photonics Education, which is based in Texas and funded by the National Science Foundation, on national standards for the skills of precision optics technicians. The skills needed range from working on computer numerically controlled machines to interpreting technical drawings and specifications.

Battley spoke about the standards at Optifab 2009, an optics conference and trade show held last week in Rochester. There is a need for precision optics technicians, he said, referring to a recent study from the University of North Texas that estimates there are 7,000 now and 3,500 more will

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CORRECTIONS AND AMPLIFICATIONS

The May 15 Life Sciences Companies list should have included Rochester Clinical Research Inc. With 23 local employees, Rochester Clinical Research would have ranked 13th.

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You rarely use the sales tips you're given, even though they're obvious and might produce better results than the way you're selling now. Reason? You're comfortable with moderate success and don't want to chance losing what you have.

The classic example of valuable advice ignored is my tip: Cold calling is a waste of time. You're calling on people you don't know, interrupting their day, manipulating your way in, and if you get through to an actual decision maker, odds are you'll say the wrong thing anyway. "If I could just have a few minutes of your time, I can save you some money." Pathetic.

First of all, real leaders don't want to save money; they want to make a profit. Second, rejection 98 out of 100 times is depressing, demoralizing, degrading—not to mention that it gives you a bad rap as a rep.

The better way is to earn and generate referrals. It's a much higher percentage sale, much more respected in its approach and more likely to create a relationship—and another referral.

Cold calls do work, but not that well. Two or three out of a hundred? Referrals work 50 out of a 100 times. Hello! The smart way forward seems obvious to me, yet cold calls persist.

So let me give you a few more pieces of sales gold. See which ones you can cash in on.

■ **Never call on a purchasing or procurement office. Talk only to people who tell purchasing what to do.** Thousands of salespeople start with someone in purchasing because it's the easiest point of entry. All purchasing people want to do is cut costs and reduce vendor profits in the process. CEOs tell purchasing agents what to do. Convince the big boss of your value, and the little boss in purchasing will follow his orders like a puppy.

■ **Always leave a message.** The main reason salespeople do not leave a message is fear that the call will not be returned or that they have nothing of value to say.



SALES MOVES

Jeffrey Gitomer

The reason they have nothing of value to say is that they are completely unprepared to engage the customer with anything of value. The reason they're unprepared is that they are unwilling to invest the time it takes to get ready.

■ **Ask for the sale every time.** A salesperson goes through the presentation and the customer says, "Sounds great. Can you send me a proposal?" The salesperson says yes and leaves without asking for the sale. It happens all the time. But salespeople should walk in with a proposal. They should ask, "If the proposal is exactly what we discussed today, will you accept it?" And if you, the salesperson, do agree to submit the proposal later, never leave without a firm appointment for presenting it in person and finalizing the deal.

■ **Start your presentation with en-**

gaging, emotional questions, not self-serving garbage about you and your product. It's likely that your customer already has a decent working knowledge of your product and your company. Your goal is not to educate. Your goal is to engage. This is most easily done by asking emotion-based questions. One I always ask is, "Where did you grow up?" This immediately brings back thoughts of early childhood, siblings, parents, a hometown.

Contrived "professionalism" produces fewer sales than conversational friendliness. Start by asking questions that engage customers and create emotional bonds, allowing you to build sincere relationships.

Often the answer is not the place where you're making the presentation. Often it will reveal commonalities and similar interests. One simple question will give you a way to begin building a relationship and can easily elicit a brief customer history:

"How did you get from there to here?" Then ask more questions: "What made you choose this career?" If you feel comfortable enough to ask deeper questions—"What are you most proud of?" or "How did that event impact your success?"—you can develop solid rapport. Taking an interest in other people is key to their taking an interest in you.

Friendliness beats professionalism every time. It's always interesting to me to see the word "professional" in reference to salespeople or sales training. Maybe it's just me, but I'd rather deal with a friendly person than a professional person, because I can get along with a friendly person. I can't always get along with a professional person, and I want to like the people I do business with. This is subtle: You can act professionally, but when you speak, it should always be in a friendly manner. Be conversational rather than contrived; to me, friendly is conversational but professional is contrived.

These are a few tips you can use. Will you use them? You decide.

Jeffrey Gitomer, president of Buy-Gitomer Inc. of Charlotte, N.C., gives seminars, runs annual sales meetings and conducts training programs on selling and customer service.

OPTICS

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be needed in the next five years.

Local optics leaders who have reviewed the standards include Sydor and Michael Mandina, president of Optimax Systems Inc.

Sydor said that in addition to basic optical fabrication skills, people interested in the optics field need a strong work ethic.

Like Phillips, he foresees substantial growth for the industry.

Sydor Optics, for example, recently landed its largest contract to date—a \$3.3 million order for optical components for 3-D movie projection systems. The con-

tract led to three new hires this year. Sydor employs 63 workers.

"Last century was the century of the electron," Sydor said. "This century is the century of the photon."

Daniel Hull, executive director of the national center in Texas, is seeking funds that would help bring the technician standards to community colleges, and he would like MCC's program to be one of the first to use the standards to educate future precision optics workers.

Hull's center, also known as OP-TEC, has applied for a three-year, \$900,000 grant from the National Science Foundation to support the program at MCC and three other

community colleges across the country.

The precision optics field is growing, especially because so much security and defense equipment contains precision optical components, Hull said.

Many community colleges that have offered education and training in precision optics have discontinued their programs because of faculty retirements and poor support, Hull said. In contrast, MCC is updating its program.

"When it comes to precision optics training, MCC is a leader," he said. "And when it comes to optics and photonics, Rochester is a leader."

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