

## Construction ed.

An innovative UMaine program gives the construction industry just what it needs: grads with both technical and business smarts

BY MOLLY KALKSTEIN

As Mark Bancroft and his father, Allen, took off in their small airplane from the Orono airport, they could talk of nothing but the Construction Management Technology (CMT) program at the University of Maine. It was the spring of 1991, and Allen Bancroft, president of Bancroft Contracting in South Paris, had flown to the campus to discuss the two-year-old CMT program with faculty members. Allen Bancroft had been curious how the program — which had begun as a two-year associate degree in civil engineering technology in 1972 and now offered students a four-year curriculum of construction management and business skills — might help meet the needs of his industry. After talking with faculty and students, his assessment was that it could be of enormous help.

Mark, who was then earning his mechanical engineering degree at Northeastern University in Boston, was similarly enthused. "Dad and I pulled out the calculator and started crunching numbers right then and there," he recalls. "We saw that [the cost of] one quarter at Northeastern would pay for an entire year at UMaine's program." More importantly, Bancroft saw that the new program would give him something Northeastern didn't — the tools to run a construction company.

### Construction Management Technology program, University of Maine

**Launched:** 1989, as four-year program

**Enrollment:** 100

**Faculty:** 3 full-time, 2 part-time

**Coordinator:** Knud Hermansen

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[www.umaine.edu/set/cmt](http://www.umaine.edu/set/cmt)

Mark transferred to the UMaine program the following year, and graduated in 1994. Today, Bancroft, 33, is president of Bancroft Contracting — the company his father founded 26 years ago — making him the first



PHOTO/REBECCA ZICARELLI

*Class reunion: Mark Bancroft (l.), CMT graduate and president of Bancroft Contracting in South Paris, has hired fellow CMT alumni Tim Wilcox, Brad Moll and Rich Gay*

CMT graduate to run a company. And he's hiring other CMT grads, three at last count. Whenever he needs more employees, Bancroft says, he knows where to start his search.

What Bancroft and other managers are getting when they hire CMT grads are people trained in both civil engineering — surveying, safety, equipment management — and business, including accounting, public speaking and business writing. In short, the kind of people construction firms in Maine and across the country are clamoring for. Every one of the 14 CMT grads in the class of 2003 was hired before they even had their diplomas. Bancroft says he offers CMT alums higher salaries than others trained only in a technical skill, partly because they can move from fieldwork to management more quickly. Starting salaries for program graduates average about \$42,000.

UMaine's CMT program is one of only a few like it nationwide, and the only one of its kind in the state. Aside from enviable job offers, grads receive a B.S. degree from UMaine's School of Engineering Technology. Since the program became a four-year course of study in 1989, producing its first grads in 1990, it has graduated about 270 CMT majors, most of whom have gone to work for construction companies in Maine. Typically, 75% of the students enrolled in the program are from Maine, according to Knud Hermansen, coordinator of the CMT program, and about a quarter of them are "non-traditional" students, as opposed to enrollees coming directly out of high school. About 100 are enrolled in the program for the upcoming academic year.

"The construction industry, like many industries, has become very technical — today's managers need to be computer-liter-

ate and able to communicate well at all levels," says Bancroft, of the appeal CMT grads have in the industry. "The construction industry, even in these tough economic times, is starved for talent at the management level as well as the trade level. I believe that the graduates from this program, with all of their specialized skills, will be able to find work now and in the future."

## Low image, high expectations

That's good news for Hermansen, who has expended a lot of effort singing the praises of his program. Hermansen has an ideal background for coordinating and teaching in the CMT program; he's trained as an engineer and lawyer, among other things, and as a teacher he gets a lot of satisfaction out of watching students flourish in the program. "The typical student decides to try out the program because he enjoyed spending a week building his dad's camp," Hermansen chuckles. It continues to amaze him that "a kid who is having a really tough time deciding whether or not to get his navel pierced will, as soon as two years after he graduates, be responsible for getting a barge to a sewer line in [Boston's] Big Dig — a decision that could cost \$10,000 if his estimate is off by one foot."

Still, while Hermansen and other faculty members may be amazed to see how well their students do in the industry — "just as parents are always surprised to hear how well-behaved their kids were when visiting their neighbors," he says — industry leaders expect as much. "The industry expects CMT graduates to be able to estimate work, develop and present written, multimedia and oral proposals, and have a broad, but not necessarily deep, knowledge of construction management," Bancroft says. "They don't need to be experts at building things when they show up — we'll teach them that. They are expected to be at the peak of their learning

ability because they will need to absorb a lot to become the next generation of experts."

Attracting that next generation remains a challenge, however, despite the demand for grads and the good pay. A key reason is the persistent negative image of construction workers, Hermansen says, one the industry is working hard to combat. Bancroft recalls what an associate once told him: "When kids are given a list of 100 occupations and asked

is meeting the needs of the industry, it works closely with an advisory committee made up of industry leaders, some of whom are alums of the program (see "Professional help," this page). The committee meets twice a year, once with students, once with faculty. Students can discuss anything without faculty members present, and the faculty meets with the advisory group to review the program's curriculum, scrutinizing it to

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Mark Bancroft, president of Bancroft Constructing

to rank them in order of preference, construction comes in 99th. The only one below it is rodeo clown." Kids see construction workers standing in the pouring rain or broiling heat, and see them lampooned on television, Bancroft says; they don't look into the onsite trailers and see the construction manager in charge, working creatively with a team of architects and building owners.

Karl Ward, who graduated from the CMT program in 1993 and is now a partner and vice president at the Brewer-based construction firm Nickerson & O'Day, says the construction field "needs to do what we can to improve our image as a viable career choice and as an ethically driven industry." Hermansen says he'd "love to pull students who are majoring in English, physics or other traditional subjects from their classrooms into ours — they would have so many more opportunities" in the job market.

Still, the CMT program is growing slowly, Hermansen says. One hundred students is a relatively small number for an entire program, and that can have its benefits, he adds. "It's like a one-room schoolhouse — there are only 25 of them in each class and we all get to know each other so well," Hermansen says. The small size helps students foster relationships with each other and their faculty that will serve them well after they graduate, he adds. The program is also small out of necessity: According to Hermansen, UMaine cannot afford to hire more CMT faculty — who currently number three full-time and two part-time — a problem he describes as the program's only "pressure point."

## Attuned to the needs of industry

The CMT community extends beyond the UMaine campus. To ensure the program

be sure the classes offered match the skills and expertise needed for the modern construction industry.

Ward knows just how much the advisory committee helps the program. At a joint meeting between construction industry representatives and CMT administrators in 1994, he talked about how the program wasn't strong enough on safety training. "Within a year, I was being asked by Chuck Gould [now faculty emeritus of the program] to help draft a [safety] curriculum and syllabus and pick a text for the program," Ward says. "Then they asked if I would accept the position of adjunct professor to teach the course." He's been teaching it every other semester since.

That kind of involvement helps advisory committee members prepare students for the business side of the industry, and it also gives them a sneak peek at the graduates-to-be — an inside track that can come in handy, considering the demand for those grads. By January of their senior year, most students already have three or four job offers.

Ward touts the program's successes — its 100% employment rate of graduates year after year, the high salaries, its participation in nationwide industry-related student competitions, the level of safety training for graduates — and sees no reason why they can't continue. "We've dramatically improved the level of awareness [in the industry] of what we're putting out for a product here at CMT," Ward says. "CMT grads are a highly sought-after commodity with a proven worth in the Maine construction industry."

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### Professional help

The CMT program's advisory committee:

**Jack Kelley**, Nickerson & O'Day

**Robert Desjardins**, Cianbro Corp.

**John Simpson**, H.E. Sargent Inc.

**Rick MacInnis**, Kiewit Construction Company

**Herb Sargent**, Sargent & Sargent

**Stephen Murray**, James W. Sewall Co.

**Eldon Morrison**, CPM Constructors

**Steven Cole**, S.W. Cole Engineering Inc.

**John Butts**, Associated Constructors of Maine

**Jeffrey Adams**, Maine Department of Transportation

**Allen Bancroft**, Bancroft Contracting