

FOCUS ON... CHI CHING SIKINA

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Students in Chi Ching Sikina's computer programming classes are expected to "go with the flow." But in no way does this imply that a haphazard, "come-what-may" sort of atmosphere prevails in her classes. Instead, it means that her students had better be prepared to devise and use *flow charts*—lots of them—as they master the logic of how to write successful programs.

Chi Ching, who was almost apologetic as her interview for this article began, describes herself as a "traditional" teacher, as though traditional educational values might somehow make her a less worthy interviewee. "I believe in hard work and mastery of basic skills—even if memorization is required," she declared. She sees this as a necessary foundation for a learner to build, on which further mastery can occur. Especially if that learner is preparing to write computer code—the building blocks on which all software is based—failure to master the basics could lead someday to failure on the job, with potentially disastrous consequences.



So Chi Ching makes absolutely no apologies for being a demanding teacher. Not all of her students are willing or able to meet these demands, but those who do learn something far more valuable than C++, or whatever particular programming language happens to be in vogue: they learn how to think analytically and to solve problems. To Chi Ching, this is most crucial because it "will enable them to perform well in *any* situation on the job—even with a language they've never before encountered."

"When I first started teaching," she noted, "I did my best to teach students what I know." She soon discovered, however, that teaching what she knew did not guarantee that her students would learn what she wanted them to learn. "Every semester, I try to improve my teaching," Chi Ching said. For her, the most important improvement flowed from this realization that what she taught and what her students learned were not necessarily the same. So instead, she began to shift her attention to the learning process itself: how to help her students *learn how to think*.

At the center of this process is her insistence that her students learn how to solve the problems that they encounter with the programs they write. Although they often get frustrated with her at the time for her refusal to just give them the answer they seek, she challenges them to be stubborn and say, "This is my program...I'm going to make it work, no matter what." If they persevere, they will usually solve the problem themselves. At that point, they can take a lot of pride in saying "I did it!"

When Chi Ching left her native Taiwan in 1976, computers could not have been further from her mind. Armed with a bachelor's degree in sociology and social work, she emigrated to the United States and discovered the value of a liberal arts education: she landed a job in accounting, working for Morgan Bank. It was there that she got "hooked" on computers, having to master the intricacies of Lotus 1-2-3 on a mainframe computer. She began to take courses in computer science, first at the University of Delaware and subsequently, at the graduate level, at Villanova. Her master's degree was completed in education with a concentration in technology, at the University of Delaware. Along the way, she has held positions in programming and

database administration, first with the Delaware Division of Revenue and later with the University of Delaware's computing center. Chi Ching came to Delaware Tech's Computer Information Systems department nine years ago.

Her impact as a teacher is best summed up by the following statement, written by a former student:

The student is not offered any easy ways out and by the same token neither is Ms. Sikina. Her door is always open and she works with any student who comes to her until she helps him understand concepts that are not clear. The method by which she teaches and her wealth of knowledge in the subject area are what make her a good instructor. The additional time, effort and caring given to her students are what make her an excellent instructor.

It doesn't get any better than that!