Academic Program Review

For

Information Technology
Associate Degrees

And

Certificates

An Evaluation of the Review

By Michael E. Pelletier
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For Information Technology
Associate Degrees and Certificates

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The IT Program at Cape Cod Community College appears to be quite successful in fulfilling its mission "to provide IT students with the requisite business, communication, and technical knowledge and skills to facilitate entry into the workforce or the pursuit of advanced degrees." The IT Program also provides courses for non-majors, which teach information technology skills appropriate for a rapidly changing world. In courses for both majors and non-majors, every effort appears to be made to focus on current information technologies and anticipate new directions.

During the site visit on April 19, 2007, the external consultant was able to meet with Vice President Ross, Academic Dean Susan Miller, and Business Department Chair Professor Gail Knell. All expressed support for the IT Program, but they are concerned about the very low numbers of students enrolled in some upper-level courses.

Lengthier meetings were held with the full-time IT faculty: Professor Gail Guarino, IT Program Coordinator; Professor Victor Smith; and Professor Kathleen Bent, the former IT Program Coordinator at CCCC. These three faculty members are experienced, knowledgeable professionals, each of whom holds a Master's degree as well as industry standard IT certifications and all of whom have received certification training.

Professor Guarino has taught at CCCC since 1988 and has served as IT Program Coordinator since 2002. Professor Bent has taught at CCCC since 1988 and served as IT Program Coordinator from 1997-2002. Professor Smith taught at CCC from 1987-1989 and again from 1999 until the present. He has also worked as a system analyst and operated his own IT firm during various other periods of his career. These three faculty members are enthusiastic about the IT field and concerned about their students. Together, they complement each other well in applications, software, and hardware, and form an extraordinarily strong nucleus for the IT Program. The concerns they expressed were about how difficult it is to provide proper academic advising to all IT students, how isolating it feels to be physically separated from their faculty colleagues, and how frustrating it is to have a state-of-the-art technology center which is yet less than optimum for teaching. The external consultant is concerned about how long these IT faculty members can remain enthusiastic and effective while continuing to teach 15 credit hours per semester, often with 4 or 5 different preparations. There is a danger of burn-out.
College classrooms were visited and the three full-time professors of the IT program were observed teaching classes. In addition, there was a tour of the Technology Center and an introduction to the IT Support Staff and the staff of the Tutoring Center. All of the staff were knowledgeable, friendly and helpful.

The external consultant also met for lunch with the Program Review Team, Advisory Committee members and a number of alumni. Some of the alumni had gone on to earn a four-year college degree, while others had gone directly to work in IT. Without fail, the graduates of the IT Program were fulsome in their praise of the program and how well it had prepared them for further study and/or employment in IT.

Credentials of the IT faculty members were examined and all appeared to be correct and in order.

**MAJOR PROGRAM STRENGTHS**
- An experienced faculty, very knowledgeable about IT and very concerned for the welfare of their students
- The breadth of the IT Program, encompassing the major areas of applications, operating system software, hardware, and networking
- The depth of the IT Program--there are several courses of increasing sophistication in each major area
- A new, inviting Technology Center which has the potential to attract new students
- A helpful IT support staff housed in the Technology Center
- A Tutoring Center housed in the Technology Center
- Throughout the program, students are asked to demonstrate competency in working in teams, performing case studies, and completing IT design projects
- In addition to a required course in English composition, all AS degrees in IT require Oral Communication and half of the AS degrees in IT also require Introduction to Business and Business Law

**MAJOR PROGRAM ISSUES**
- The small number of full-time IT faculty and the resulting low ratio of full-time to adjunct faculty make it difficult to provide adequate academic advising to all of the IT majors and can result in IT faculty with five different course preparations per semester. The IT Faculty appear stretched nearly to the breaking point.
- There are serious problems with configuring classrooms and computer labs in the new Technology Center in such a way as to maximize student learning. This is stressful for the IT faculty and not helpful to the students.
- The physical separation of the IT faculty from the rest of the Business Department was stated by the faculty as an area of concern that leads to a sense of isolation.
• An overabundance of specialized offerings leads to numerous courses with too small enrollments to be economically feasible to offer. The result is often cancelled courses and a referral to courses on-line.

• IT faculty reported that finding appropriate courses in Massachusetts Colleges On-line (MCO) has been made difficult by only the course description being readily available from MCO. It is suggested that IT faculty might alleviate this problem by going directly to the web site of the MCO faculty member to see if the syllabus is publicly available or by e-mailing the MCO faculty member to ask for more details about the on-line course. Or perhaps the college could communicate directly with MCO for a more direct way to get this needed information into the hands of the IT faculty.

• There is a perceived need to increasingly emphasize soft skills and business skills. However, the inclusion of Oral Communication in every AS in IT degree, the presence of Intro to Business and Business Law in half of the existing AS in IT degrees, and the proposed inclusion of Intro to Business and Business Law in the proposed revision of the AS in IT degree should lessen any anxiety about including enough soft skills and business skills.

• There is a concern about how to maintain program quality while scaling back the number of different courses being offered. There can be confidence that the experienced IT faculty can and will successfully replace specialized niche courses with enhanced IT courses which impart broad knowledge of core IT principals.

• How to maintain and even increase industry input and involvement is a continuing concern. There is a sense among the IT faculty that a new Co-op staffer whose job it is to talk to industry about the skills needed by Co-op students from the IT program would go a long way to increasing industry involvement and feedback.

• How to manage the co-operative work experience to the best advantage of students and the IT program is another concern. There should be a staff person to do this (as mentioned in the above bullet point) or, at a very minimum, a course reduction for an IT faculty member.

• GIT offerings for non-IT majors also deserve thoughtful planning. The college might consider establishing an IT Fluency certificate (embracing IT skills, IT concepts, and IT problem-solving) for its non-IT majors. IT fluency is daily becoming more important for non-IT majors. Four-year colleges like Salem State College now have a minor in IT Across the Curriculum available for students in the Liberal Arts.

• A new program in Medical Informatics would seem to be a natural fit for Cape Cod Community College given the demographics of the area and the fact that Medical Informatics represents the joining of information technology with health care, two academic areas already established at Cape Cod Community College.

• The consolidated AS in IT Program proposed for the fall of 2007 holds promise for reducing the number of specialized upper-level courses which
have too often been under-enrolled. The consolidated AS in IT Program should definitely be pursued.