

Cape Cod Regional Technical High School

Technology Plan 2008-2013

I. Introduction

Cape Cod Regional Technical High School serves approximately 720 students in grades nine through twelve, with auxiliary programs for adult learners and “at risk” eighth graders. This public school enrolls students from twelve towns spanning Mashpee through Provincetown.

Students at Cape Cod Tech divide their learning time between academics and one of eighteen technical career training areas. Academic study is guided by the Massachusetts Curriculum Frameworks and a commitment to high level skill development. These skills are needed to meet the State’s graduation standards as well as to advance careers beyond the entry level. Instruction in the technical shops is guided by National and industry standards. Each shop is advised by a group of practitioners from the workforce.

The student population is generally more diverse than the broader community in terms of the racial/ethnic diversity. Cape Cod Tech enrolls a relatively high percentage of Students with Disabilities, currently thirty percent. Students who are eligible for free and reduced lunch comprise approximately fifteen percent of our population.

Student performance is tracked and analyzed to ensure program effectiveness. MCAS, Stanford 9 and classroom assessments measure academic performance, while technical proficiency is monitored with competency rating system based on performance tasks and employment placement data.

Cape Cod Tech uses a Leadership Team and an annual District Improvement Plan to monitor its own progress and plan for continual improvement. Planning is data based with specific action plans to chart the course for educational excellence. Focused improvement efforts, supported by professional development and data analysis will move Cape Cod Tech forward toward fulfilling its mission *to provide an opportunity to acquire high quality technical, academic and social skills which prepare our students for success in our changing world.*

II. Mission Statement

Cape Cod Tech will provide a technologically rich environment that reflects real world immersion of technology in industry, government and higher education. Students and staff will harness the technological tools available today, and will acquire the comfort level and problem solving skills to make them successful in the future as the technological landscape continues to change. The nurturing of integration of technology into the instructional process will improve teaching and learning and prepare our students for success beyond our doors.

Cape Cod Tech is committed to:

- Maintaining current equipment and software to support educational excellence
- Creating an environment in which students and teachers can become lifelong technology learners
- Nurturing the use of technology to improve education through quality professional development, coaching and peer mentoring

III. Facility, assets and budget

Cape Tech is housed in a single building with 70 shops and classrooms. The building is wired with Category 5 or better network cable and features several wireless access points. The network, which is upgraded incrementally on a yearly basis features a Gigabit fiber optic backbone operating through 100baseT layer 3 switches. All rooms are connected to both a school intranet and the Internet (Comcast Workplace Service).

The school maintains approximately 350 workstation computers and 6 servers. 89 of the workstations are divided between 4 mobile laptop labs. Although the school is primarily populated with PCs, There is also an Apple OSX network, including a high-end Graphic Arts shop operating in 100% OS X Leopard environment.

The school is committed to current equipment and software. Approximately 50-60 computers are upgraded or replaced entirely each year. The school maintains software maintenance agreements to provide current operating systems (Windows XP, OSX, Windows Server) and productivity suites (Microsoft Office, Open Office) on all school computers.

The technology budget for the support of hardware, software and related services is \$85,000 per year and has remained stable at over \$80,000 for six years. Expenditures generally reflect the following percentages:

50% Computer upgrades and replacement

35% Software licensing

10% Network upgrades

5% Services

In addition to these expenditures, the district often approves special projects that are supplemental to the 85K.

The district also funds the following staff (paid according to contract negotiation):

1 FTE District Technology Coordinator

.8 FTE Data Specialist

.5FTE Computer Technician

The district also pursues grants, Erate funding for 60% telecommunications discounts and partnerships to enrich technology at Cape Tech. Budgeting for professional development is addressed in the following section.

IV. Professional development

Professional development in technology has been delivered in several ways in recent years. Activities have included after- school seminars in various computer applications, one-on-one instruction by staff of other staff and ongoing coaching. The result is varied but includes at a minimum:

- The ability of course instructors to take attendance, enter grades and look-up student info through a web based student information system.
- The ability of course instructors to create and track technical competencies through a networked database.
- The ability to receive and respond to email appropriately.
- Four faculty mentors formally trained in technology integration.

Although the district has just two professional development days per year, one half of a day will per year will be dedicated to technology training. Additionally, when possible, an element of technology will be infused into other professional development activities. Much of our training occurs through offsite training funded through budgeted district funds and Title IID grant money.

V. Evaluation Procedures

When evaluating products and services in a technical school environment, there is always a driving question: What is used in industry? The evaluation of need for technological resources in a technical school environment profits a great deal from the guidance provided by the advisory boards of the vocational shops. The boards' membership consists of local professionals that advise the shops on current practices in the industry. As shops request new technologies for their programs, they must seek written approval from their advisory boards. These requests are then reviewed by the district technology coordinator who must then justify the purchase in front of a sub-committee of the school committee. After the new technologies have been installed and implemented, the evaluation of their effectiveness again rests on the advisory board who scrutinize the new technology to ensure that shop instruction mirrors industry practice.

On the academic side, the need for technology updates is relatively self evident. Again, the nature of our school dictates a high reliance on productivity tools used in industry. There is very little "educational" software being used in the school. Instead, there is an emphasis on the use of tools used in the world of work, such as word processors, spreadsheet programs, database programs and presentation software. Because there is a clear industry standard, the school relies heavily on the Microsoft Office suite of applications, and computers powerful enough run them. The school also makes available Open Office for those students using it at home.

Evaluation of the effective use of these productivity tools are embedded in computer applications courses that almost all 9th and 10th grade students take. That curriculum is

aligned to *Vocational Technical Education Framework Standardized Objectives Strand 6: Underlying principles of Technology* and the relevant areas of the *Massachusetts Recommended PreK – 12 Instructional Technology Standards*.

A standardized skills assessment test independent of these courses is under development.

Evaluation of planning tools (such as this document) and associated professional development are achieved largely through the use of surveys and participant evaluations. Annual surveys of staff regarding professional development needs are the guiding force for decision making. All professional development activities involve participant evaluation and a tool for administration to monitor implementation after the fact.

The Technology Plan is, by definition, a dynamic document, especially given that technology continues to change so rapidly. The Technology Plan will be revisited annually.