

Business Technology Program Assessment Summary 2002-2003

Program/Discipline Mission Statement

The mission of the Business Technology Department at Arapahoe Community College is to facilitate student learning and meet the needs of the ever-changing business community by providing relevant and up-to-date curriculum. The BTE department is committed to using appropriate instructional strategies and effective use of the latest technology. The BTE department will continually assess student achievement for the purpose of ongoing improvement and life-long learning.

The purpose of the Business Technology Department is to provide coursework that teaches the skills necessary for students to become employed as entry-level support staff in the office environment. This coursework can be combined into professional series, certificate or degree program designed to keep up with the demand for highly skilled office professionals as the use of technology changes and increases.

Intended Learning Outcomes

1. Students will be able to meet industry standards for Keyboarding.
 - a. In Keyboarding I students will be able to key for one minute at 20 words per minute with two errors or less.
 - b. In Keyboarding II students will be able to key for three minutes at 40 words per minute with one error or less per minute.
 - c. In Advanced Keyboarding students will be able to key for five minutes at 55 words per minute with one error or less per minute.
2. Students will demonstrate competency using Word Processing.
3. Students will be able to create documents using desktop publishing techniques.
4. Students will be able to use the ten key pad by touch.
5. Students will be able to integrate office skills on the job.
6. Students will be able to use filing rules to create an Access database.

Outcomes assessed during 2002-2003

The BTE Department chose to assess Intended Learning Outcomes 1a, 1b, 1c, and 4 shown above.

Keyboarding

These three keyboarding classes are sequenced and designed to build the student's skill level to industry standards. Keyboarding Pro Multimedia software is used in Keyboarding I (BTE 100) to introduce the touch method of keyboarding and to build skill to the level of 20 words per

minute. Keyboarding II (BTE 102) introduces formatting of business letters, memos, and reports using Microsoft Word, and also includes a skill building component of timed writings which builds the keyboarding speed further. Advanced Keyboarding using Word Processing (BTE 200) has students keyboarding documents in proper format from unarranged form and also includes a skill-building component of timed writings to assess their keyboarding speed and accuracy.

Keyboarding I (BTE 100) is a seven-week course which is followed by Keyboarding II (BTE 102) during the second seven-week period in the semester. After successful completion of these two courses, the student then takes Advanced Keyboarding using Word Processing (BTE 200) the following semester.

The BTE Department also offers another keyboarding course, Keyboarding Skill Development (BTE 101) which is not included in this assessment. The purpose of this course is strictly skill building. Through diagnostic timed writings, the students in this course can expect to increase their keyboarding speed from 12 to 17 words per minute.

Ten Key by Touch

Ten Key by Touch (BTE 108) is a one-credit hour course designed to introduce touch control of the ten-key pad. It emphasizes development of speed and accuracy using proper fingering technique. This is done using a computer program which measures the students' speed while they key series of numbers during a one-minute timing.

Procedures to assess learning outcomes

1. Measure keyboarding skill of all students in Keyboarding I (BTE 100) on one-minute timed writings using Keyboarding Pro Multimedia software and text passages from their textbooks.
2. Measure keyboarding skill of all students in Keyboarding II (BTE 102) on three-minute timed writings using Keyboarding Pro Multimedia software and text passages from their textbooks.
3. Measure keyboarding skill of all students in Advanced Keyboarding using Word Processing (BTE 200) on five-minute timed writings using Keyboarding Pro Multimedia software and timed writings selected by the instructor.
4. Measure keyboarding skill of all students in Ten Key by Touch (BTE 108) on one-minute timings using 10-Key Mastery software which is included with the students' textbook. The students key series of numbers for one minute. These timings are recorded on a progress report. The students hand in a progress report each week.

Assessment method - Keyboarding

- The students printed out each timed writing showing the student's name, date, time of day, number of gross words per minute, and number of minutes timed.
- The student circled errors on each timed writing.

- The instructor then checked it for accuracy to determine whether or not the test was within the error limit.
- The instructor recorded each timed writing on a permanent record for each student and kept the best timed writing for each student for the program assessment.
- The results were recorded by the Department Chair using rubrics for each course which assessed speed and accuracy.

Results for Keyboarding I (BTE 100)

BTE assessed all sections of BTE 100 from Summer 02 through Spring 03. There were two online sections of BTE 100 with a total of 23 students enrolled (11 in Fall02, 12 in Spring 03). The classroom sections of BTE 100 contained 61 students (14 in Summer 02, 23 in Fall 03, 24 in Spring 03).

Fifteen of the 23 students in the online section of BTE 100 completed the course. The student that did not complete the course did not turn in any work. All of the 15 students who completed the course attained the required keyboarding speed of 20 words per minute in a one-minute timed writing with two errors or less, which is the acceptable criteria for Keyboarding I. All of those students had keyboarding speeds of more than 25 words per minute. I am concerned about the number of students who did not hand in any work in the BTE 100 online course even though they were contacted regularly about completing their coursework.

Fifty of the 61 students enrolled in the classroom section of BTE 100 completed the course. All the 50 students who completed the course attained the required keyboarding speed of 20 word per minute in a one-minute timed writing with two errors or less, which is the acceptable criteria for Keyboarding I. Eleven of those students' speeds were between 20 and 25 words per minute. Thirty-nine students had keyboarding speeds of more than 25 words per minute.

Conclusions and recommendations for Keyboarding I (BTE 100)

In this sample of students from Keyboarding I during 2002-2003, all the students who completed the course met the keyboarding speed and accuracy requirements for the course. We feel that the software does a good job of introducing the keyboard and building skill. Therefore, we will continue to use the Keyboarding Pro Multimedia software and the textbook that accompanies it for our instruction in Keyboarding I.

Results for Keyboarding II (BTE 102)

Thirty-one students enrolled in Keyboarding II (BTE 102) for 2002-2003 (10 in Fall02 and 21 in Spring 03). Twenty-six of those students completed the course. Of those 26 students, 21 attained the required keyboarding speed of 40 words per minute with three errors or less in a three-minute timed writing. Four of the students reached the speeds between 31 and 39 words per minute. Three students' highest timed writing speeds were between 20 and 30 words per minute.

Conclusions and recommendations for Keyboarding II (BTE 102)

Last year we discovered that over one-half of the students in BTE 102 were not reaching the required keyboarding speeds. There were two recommendations:

1. Increase the number of timed writings required each week for students in BTE 102, so that they will spend more time building their skill.
2. Advise students whose best speeds are between 20 and 25 words per minute to take BTE 101 (Keyboarding Skill Development) before taking BTE 102.

Both these recommendations were put into place for this year. This year BTE 102 students were required to hand in two timed writings each week, and students who completed BTE 100 with low keyboarding speeds were encouraged to take a skill development course before continuing with BTE 102. This worked, because this year 21 of the 26 students who completed BTE 102 had timed writing scores of 40+ words per minute.

Results for Advanced Keyboarding using Word Processing

Eleven students enrolled for Advanced Keyboarding using Word Processing (BTE 200). This is the third course in the keyboarding sequence, and it is taken by students working in both certificate and degree programs. All the students successfully completed the course with a passing grade, however, only four of the students attained the required speed of 55 words per minute with one error or less per minute on a five-minute timed writing. Four of the students reached a speed of 40 to 54 words per minute, and three of the students' highest speeds were between 30 and 40 words per minute. Again, the timed writing grade is only a part of the final course grade in BTE 200, so it is possible to pass the course without reaching the required speed on timed writings.

Conclusions and recommendations for Advanced Keyboarding using Word Processing

It is very important to the BTE Department that students reach the industry standards of 55 words per minute by the time they complete the series of keyboarding courses in the BTE program if we are to prepare students for a job in today's office environment.

There were three recommendations made in last year's assessment:

1. Assign diagnostic timed writings in addition to the timed writings required by the course to increase a student's skill level.
2. Increase the number of timed writings assigned each week, so students will spend more time skill building.
3. Advise students with a skill level of 30 to 40 words per minute to take BTE 101 (Keyboarding Skill Development) before taking BTE 200.

This year the number of timed writings assigned each week was increased and the timed writings did not improve. Students were encouraged to take a skill building course if their speeds in BTE 102 were not high enough to be successful in BTE 200. I did not assign diagnostic timings

during the course. I plan to include those in the course in Spring 04 to see if that will increase the timed writing speeds.

Ten Key by Touch

Thirty students registered for BTE108 (Ten Key by Touch) and 24 completed the course. All 24 students reached or exceeded the industry standard of 12,000 characters per hour with 98% accuracy or better, with some students reaching as high as 17,000 characters per hour.

Conclusions and recommendations for Ten Key by Touch (BTE 108)

We feel that the software program used to teach Ten Key by Touch does a good job of developing skill using the ten-key pad. All students reached the industry standard of 12,000 characters per hour based on one-minute timings.

The BTE Department Chairperson will report these results to the Assessment Committee, the Division Dean, and the BTE Advisory Committee.