

**CASS CAREER CENTER
EMBEDDED COMMUNICATION ARTS AND
MATHEMATICS CREDIT
NOVEMBER 2, 2004**

INTRODUCTION:

The Cass Career Center is proposing to offer “embedded” academic credit for those students who complete a six-hour CTE (Career and Technical Education) program and specific, additional academic criteria. It should be kept in mind that this is a working document and will be continually updated and revised. Students who complete a six-hour CTE program will receive the following:

- One hour of elective communication arts credit, Technical Writing, if they meet the minimum requirements for all established components of a portfolio. A scoring guide will assess each required element with minimum levels established. (Implemented during 04-05 school year)
- One hour of elective mathematics credit, Technical Mathematics, if they pass a competency test sometime within their two years in the CTE program. The mathematics credit could be used to meet the math credit requirements if the student has failed a previous mathematics class. (Implemented during 05-06 school year)

RATIONALE:

The concept of “embedded” credit may seem revolutionary, however, other schools in other states are offering some form of additional credit. What we propose is an entirely unique integration of communication arts and mathematics into all CTE programs. We feel that the concept of earning academic credit for completion of a CTE program is a perfect fit for Cass Career Center and its sending schools. The key to the program is that students will not be “given credit” they will earn it by demonstration of their work (communication arts) or by passing a test (math). It is also important to realize that there will be additional work required of students who attempt to earn “embedded” credit. Again, it is important to understand that students will have to earn the credit; it will not be automatically given to them for completion of a CTE program. The integration of academic credit into CTE classes (with additional requirements) meets the intent or requirements of the following:

- The Perkins III program has accountability requirements that are based on student achievement in communication arts and mathematics. The Congressional debate over future Perkins funding is continually centered on the idea that CTE classes do not assist in raising overall academic achievement scores. This program will allow for an academic focus in CTE classes while maintaining the technical learning within the various trades.

- The majority of the sending school students attending the Cass Career Center lose credits due to travel. Many of the sending school students have at least a 30-minute bus ride to the Career Center and a 30-minute bus ride back to their home school. This program would provide them the opportunity to earn as many credits as other students in their schools.
- Granting embedded credit will help all districts meet the MSIP requirement for lowering dropout rates by allowing CTE students to earn additional credits and remain on track to graduate with their class. This process will be even more important as accountability moves from dropouts to graduation rates.
- The number of CTE students who have to take remedial writing, reading, or math classes while continuing their education at local community colleges will be reduced. Most of the students who have to take these classes cannot graduate within the normal two years and therefore have higher costs and longer community college enrollments. CTE students need to be well-educated citizens who are prepared to enter the workforce equipped in the areas of mathematics, science, engineering, and technology while at the same time they must be prepared academically to enter post-secondary education.
- Our placement rate should improve since our graduates will have the basic academic skills that employers are looking for in new employees. Most business and industry representatives say they can teach the technical skills but do not have the resources to improve basic academic skills for their employees. This project will increase higher order thinking skills for all vocational students and increase basic reading, writing and mathematics skills. By acquiring these skills, our graduates will be better prepared for entry into the workforce. This will be true if they enter it upon graduation or continue their education through post-secondary education.

GOALS AND OBJECTIVES:

The following goals and objectives have been developed to provide an overall guide for the purpose of the “embedded” credit program and to allow a basis for evaluation. The goals of the program are intended to allow CTE students to be better prepared to face the challenges of careers in the 21st Century. In order to better prep our CTE graduates, the components of the Perkins III legislation and the development of high expectations under the comprehensive school reform model have been used to develop the goals and objectives.

Goal 1: To meet the Perkins III Core Indicators for secondary academic attainment (1S1) and CTE skill attainment (1S2)

Objective 1: The number of students who enroll in each CTE program will reach 100% capacity and maintain that level of enrollment.

Objective 2: The number of CTE students who complete their CTE program will increase by 5% each year until a 100% completion rate is reached.

Objective 3: The number of CTE completers placed in employment, post-secondary education, or the military will increase by 5% each year until 100% placement is achieved.

Goal 2: High expectations will be established for all CTE students.

Objective 1: All CTE curriculum guides will include integration of communications arts and mathematics objectives.

Objective 2: The number of CTE students who complete “embedded” credit(s) will increase by 5% each year until 75% of CTE graduates have completed at least one “embedded” credit.

Objective 3: The number of CTE graduates who are required to take remedial mathematics, reading, or writing courses upon enrollment in post-secondary education will decrease by 5% each year until 0% of CTE graduates are required to take remedial classes.

TIMELINE:

2003

November Director visit to AVCTC to view “embedded” credit program

2004

April Establish a building level leadership team to meet with staff in small group discussions.

August Meet with Cass Career Center staff to discuss “embedded” credit implementation.

November Director to meet with superintendent to gain input toward “embedded” credit program.

December Schedule meeting with Communications Arts representatives from each sending school.

2005

January Schedule workshops with communications arts and Cass Career Center teachers to establish exhibits and scoring guides.

February Cass Career Center instructors continue to align curriculum toward “embedded” credit implementation.

February-April Meet with Harrisonville Cass R-IX and other participating school boards to present program on “embedded” credit.

April Cass Career Center begins to collect student portfolios of graded communication arts exhibits.

May Begin to gather information for implementation of mathematics “embedded” credit.

August Meet with Cass Career Center instructors to discuss mathematics “embedded” credit implementation process.

October Schedule a meeting with all participating schools mathematics department representatives.

November Establish workshop with mathematics team to establish exhibits, scoring guides, pre-test, and final math exams.

- November Administer mathematics pre-test to students in order to establish a base line score.
- November Cass Career Center instructors continue to align curriculum toward mathematics “embedded” credit implementation.

2006

- January Schedule meeting with mathematics team to finalize exhibits.
- February Cass Career Center instructors to begin incorporating math exhibits into student curriculum.
- March Return communication arts student’s portfolios to sending school representatives to prepare for awarding of communication arts credit.
- May Follow-up with sending schools on communication arts student portfolios process.
- August Meet with Cass Career Center staff concerning the final implementation phase of mathematics “embedded” credit – refresher workshop.
- December Follow-up with Cass Career Center instructors on mathematics “embedded” credit student progress.

2007

- February Follow-up with Cass Career Center instructors on mathematics “embedded” credit student progress.
- April Return student mathematics final to sending school representatives to prepare for awarding of math credit.
- May Follow-up with sending schools on mathematics students final process.

EVALUATION:

The process of evaluation is important for any program. It is important to assess the progress of the program in relation to its goals and objectives. If evaluation is the process of examining a subject and rating it based on its important features, then this program must be evaluated to determine if it is meeting the needs of CTE graduates. The evaluation process for this program will consist of performance measures that will lead to evaluation data. Performance measures will also explain the format of the evaluation. The evaluation methods will form the formal written evaluation of the embedded credit program that will use the performance measures to determine if the program has a positive effect on CTE students and raises their academic and CTE achievement. Evaluation will be ongoing and continuously changing. As the program develops there will be a written evaluation plan developed on the following concepts:

- Performance measures (program): The evaluation of the actual embedded curriculum (the daily integration of academics and CTE subjects) and its implementation will be considered evaluation of the program. Data will need to be collected for each of the following performance measures. Some of the data will be simple numbers that can be tracked and the other data will require the development of surveys. The evaluation of the program will lead to changes in the presentation of the embedded instruction, development and revision of materials, and revision of the tests and scoring guides.
 - Number of students planning to earn “embedded” credit
 - Number of students who turned in a portfolio/or take the math exam
 - Number of times students test
 - Parent satisfaction with program
 - Community satisfaction with program
 - Student satisfaction with program

- Performance measures (outcomes): The evaluation of the broader outcomes of the embedded curriculum will be evaluated over an extended time period. This data will be collected over time and future data will be compared to existing data for previous years. The long term evaluation will determine if the program actually improves CTE student achievement.
 - Number of students planning to earn “embedded” credit
 - Number of students who enroll in Cass Career Center programs
 - Number of Cass Career Center graduates who are successfully placed
 - Number of students who have to take remedial math, reading or writing upon enrollment in post-secondary education
 - Student MAP scores
 - Student ACT scores

- Evaluation methods: The plan is to conduct an evaluation for program improvement. The evaluation will serve as benchmarks to determine if the program is “on-track” and making adequate progress. Based on the input from all participants changes will have to be made to continually improve the program. The use of survey data will be important to determine the perception of most groups.
 - Survey students for number of participants (each year)
 - End of year survey of students to determine what worked and what needs changes
 - End of year survey of CTE staff to determine what worked and what needs to be changed
 - Informal, antidotal evaluation and collection of feedback

COMMUNICATIONS ARTS:

The communication arts credit will be awarded based on the development of a portfolio by the CTE student. Each section of the portfolio will have a scoring guide developed for it along with a system to determine an overall percentage for scoring.

Key Points:

Reasons/Purpose (in addition to the rationale)

- Sending school students lose one credit per year due to travel
- Communication arts and mathematics is important for all students, especially technical ones.
- Focus on communication arts/mathematics will reduce the number of Cass Career Center graduates who have to take remedial college entrance classes
- Meet the Perkins III requirements for integration of academics in CTE classes
- The “exhibits” (products of reading and writing) will be determined. Scoring guides to evaluate each exhibit will be developed with the assistance of the Harrisonville High School English Department and a representative from each participating sending school. Students will not receive credit for this in the 2004-2005 school year, but 11th grade (first year) students will be developing their portfolios for credit in the 2005-2006 school year. There may be exceptions if there are specific students (seniors for 2004-2005) who are in need of ½ credit of communication arts for graduation. This would be determined on an individual basis, and the home school of the student involved would have to request the credit.

Grading and Credit

At this point, discussions have been held on several aspects of grading and credit. It is the recommendation that each sending school will be able to choose the options that fit them best as for the awarding of credit.

Based on discussions with DESE, the local school boards can offer the credit as they define. It is proposed that the course will be titled: Technical Writing

Local sending school communication arts and Cass Career Center instructors will work in a collaborative effort in determining communication arts exhibits involved in the “embedded” credit program. Areas listed below may be items used as exhibits:

Cover letter/letter of introduction
Resume
Sample job application/college entrance application
PowerPoint presentation
Article summaries
Technical paper
Vocabulary terms
Informal proposal
Safety report/memo
Career/guidance plan