

Lebanon Technology and Career Center

757 Brice Lebanon, MO 65536 417 532 5494
Gail Holcomb, Director

To: Parent
From: Gail Holcomb, Director
Lebanon Technology and Career Center
Subject: Embedded Credits

Important Message for Machining Technology Students/Parents

You have been accepted in the Machining Technology program and it is important that we tell you about the Math and English credits which are part of the course. At this point you still have the opportunity to change your decision about being part of Machining Technology. Please read the following details about the embedded credit program so that you can make an informed decision.

- The Math and English courses take place while in Machining Technology and will be called Technical Math and Senior English.
- The grade/credit for these 2 courses is not optional. Even if a student doesn't need the credit to meet graduation requirements, they are still enrolled in Senior English and Technical Math by virtue of being in Machining Technology.
- Any student accepted into Machining Technology one year only, agrees to complete all work assigned by the instructor although they will not be able to receive the Math or English credit as they have not completed the four-course program. IF, first semester, they have not completed the Math and English Machining Technology assignments they will not be allowed to enroll for the second semester.
- Progress will be recorded on the grade card each semester but no credit is awarded until the completion of the Machining Technology four-course program.
- No partial credit in Technical Math or Senior English is given if the student is dismissed from or drops out of the Machining Technology program. If a student transfers out of the district, a request can be made for partial credit but it is dependent on the competencies completed and teacher recommendation in each subject area.
- Grades/credit for Technical Math and Senior English will be included on the high school transcript.
- Senior English and Technical Math letter grades **will** affect the grade point average and the A+ requirement.
- Students are **not** allowed to take open blocks if enrolled in Machining Technology.
- An internship during the final semester of Machining Technology is allowed if all of the embedded credit competencies are met at the 80% competency level and all other internship criteria met.

I have read and understand the requirements of the Machining Technology and the embedded credit program.

I **WANT** to remain enrolled in the Machining Technology Program

I **DO NOT WANT** to be enrolled in the Machining Technology Program

Signed

Student

Parent/Guardian

Date

Must return to LTCC between Aug. 1 and Aug 19 to remain enrolled in Machining Technology

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Senior English within Machining Technology requires the following items to be completed with a final competency level of 80%. Diana Bentele, Communication Arts Instructor

(For competency, an 80% mastery must be achieved. A scoring guide was developed and will be graded by an English teacher to determine competency levels. Work will be repeated until competency is met.)

Competency Assignments	Introduction of Skill
<ul style="list-style-type: none">• Vocabulary (T & I content specific): These are the career specific terms that each graduate will need to know and understand to successfully communicate within his or her career field. Students will take 4 exams during this course. Writing skill: increased vocabulary skills and reading comprehension • 1 Career Profile Paper• (T & I program specific): Each embedded credit program will require a writing assignment that explores the program area, especially researching the competencies and courses needed to succeed in that career. Writing skill: Identify main idea(s); identify process; summarize • 2 electronic writings• (T & I program specific): Each embedded credit program will require reading and writing assignments in an electronic format, since this is the venue used by this career field. The instructor will assign the subject matter. Writing skill: State main idea(s); Create major and minor details; standard writing format. • 2 essay-type writings• (T & I program specific): Each embedded credit program will require reading and writing assignments in class weekly. Students will be able to select their best work for submission. The instructor will assign some of the articles and some will be independent for each student. Writing skill: Identify main idea(s); discern between major and minor details; summarize • 2 content forms – job sheets• (T & I program specific): Each embedded credit program will require creation of two job sheets to accompany drafting work. Writing skill: Description of overall process; Creation of performance details into paper format; summarize	<p>Pre-Engineering / CADD – Computer Aided Drafting Design</p>

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- **2 electronic writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in an electronic format, since this is the venue used by this career field. The instructor will assign the subject matter.
Writing skill: State main idea(s); Create major and minor details; standard writing format.
- **2 essay-type writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in class weekly. Students will be able to select their best work for submission. The instructor will assign some of the articles and some will be independent for each student.
Writing skill: Identify main idea(s); discern between major and minor details; summarize
- **1 Recommendation Report**
- **(T & I program specific):** Each embedded credit program will require a writing assignment that identifies a need and makes a recommendation to fill the need. Students will identify pro's and con's and make a cost-benefit analysis.
Writing skill: Identify problem; propose solution; describe cost-benefit analysis; make judgment
- **1 content forms – job sheets**
- **(T & I program specific):** Each embedded credit program will require creation of two job sheets to accompany drafting work.
Writing skill: Description of overall process; Creation of performance details into paper format; summarize
- **Cover Letter/Letter of Introduction:** students will create these using technology and save, edit and print them as needed.
Writing skill: Business letter format; persuasive techniques oral and/or written
- **Resume:** students will create these using technology and save, edit and print them as needed.
Writing skill: Resume format; organization of information
- **Sample Job Application/College Entrance Application:** students will be able to complete the standard form developed by the LTCC and then update this criteria with “real” applications as they complete them.
Writing skill: Accuracy; neatness of written communication
- **FAFSA and Scholarship Applications:** students will research these for success in their career field, and complete them using technology.
Writing skill: Neatness; organization of information

CAM – Computer
Aided
Manufacturing

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- **Vocabulary (T & I content specific):** These are the career specific terms that each graduate will need to know and understand to successfully communicate within his or her career field. Students will take 4 exams during this course.
Writing skill: increased vocabulary skills and reading comprehension
- **2 electronic writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in an electronic format, since this is the venue used by this career field. The instructor will assign the subject matter.
Writing skill: State main idea(s); Create major and minor details; standard writing format.
- **2 essay-type writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in class weekly. Students will be able to select their best work for submission. The instructor will assign some of the articles and some will be independent for each student.
Writing skill: Identify main idea(s); discern between major and minor details; summarize
- **1 Recommendation Report**
- **(T & I program specific):** Each embedded credit program will require a writing assignment that identifies a need and makes a recommendation to fill the need. Students will identify pro's and con's and make a cost-benefit analysis.
Writing skill: Identify problem; propose solution; describe cost-benefit analysis; make judgment
- **5 content forms – job sheets**
- **(T & I program specific):** Each embedded credit program will require creation of five job sheets to accompany drafting work. Two of these will include a break-down of time billable to the client.
Writing skill: Description of overall process; Creation of performance details into paper format; summarize

CNC – Computer Numerical Control

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- **2 electronic writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in an electronic format, since this is the venue used by this career field. The instructor will assign the subject matter.
Writing skill: State main idea(s); Create major and minor details; standard writing format.
- **2 essay-type writings**
- **(T & I program specific):** Each embedded credit program will require reading and writing assignments in class weekly. Students will be able to select their best work for submission. The instructor will assign some of the articles and some will be independent for each student.
Writing skill: Identify main idea(s); discern between major and minor details; summarize
- **1 Recommendation Report**
- **(T & I program specific):** Each embedded credit program will require a writing assignment that identifies a need and makes a recommendation to fill the need. Students will identify pro's and con's and make a cost-benefit analysis.
Writing skill: Identify problem; propose solution; describe cost-benefit analysis; make judgment
- **1 Process Paper**
- **(T & I program specific):** Each embedded credit program will require a writing assignment that describes a specific career operation or process.
Writing skill: Explain steps of a process; describe details; summarize

Advanced CNC

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Technical Math within Welding Technology requires a minimum of the following items to be completed for with a final competency level of 80%. Emily Cooper, Mathematics Instructor

Competency Assignments	Introduction of Skill
<p>Equipment purchases analysis. Calculate a return on an investment. Determination of cost calculations for repairs, including wages, benefits, and other employer cost per project. .</p> <p>Math skill: Problem solving with number sense and basic operations, including numeration and estimation; to determine multi step formula. Students will be able to analyze data, probability and statistics.</p> <p>Location and percent duty cycle on various machines. Calculating percentages or duty cycle that a welding machine uses.</p> <p>Math skill: Problem solving and making determinations with number sense and basic operations.</p>	<p>Year One Semester 1</p>
<p>Air tank construction project. Determine variables needed. Calculate the area of the entire surface of a round air tank including eh area of the two circular end to the area of the curved surface.</p> <p>Math Skills: Students will be able to use patterns and relationships within and among functions and algebraic, geometric concepts.</p> <p>Flat stock length determination when making a project with a hoop or circle.</p> <p>Math skill: Problem solving with number sense and basic operations, including numeration and estimation; to determine multi step formula.</p>	<p>Year One Semester 2</p>

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<p>Blueprint reading to determine dimensions, angles and type of weld needed for a project. Students will layout an area using given measurements and then cut and weld to the specifications.</p> <p>Math Skills: Students will be able to use geometric and spatial sense involving measurement</p> <p>Determine the area of scrap metal for a project as it relates to productivity. Calculate the cost of circles and the value of the scrap.</p> <p>Math skill: Students will be able to analyze data, probability and statistics.</p>	<p>Year Two Semester 1</p>
<p>Completion of competency assignments not meeting the 80% level.</p>	<p>Year Two Semester 2</p>