

Math IV; Cass Career Center; 1.0 Credit
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COURSE RATIONALE:

To provide a balanced program of mathematic skills utilized within industry and the workplace. This course will provide practice in the use of problem solving techniques, mathematical reasoning skills, as well as math fundamentals specific to each student's field of study in preparation for college and career readiness.

COURSE DESCRIPTION:

Prerequisite: Grade 11; enrolled in a 3-Hour Block Class; committed to the two-year program to earn the full 1.0 credit.

This course presents informational methods of contextual mathematical instruction directly related to the corresponding 3-Hour Block Class. Students will review pre-existing concepts and learn new concepts that are specific to their chosen trade. Contextual mathematics will prepare students for higher education or provide them with the knowledge necessary to enter directly into a trade. Students will complete various assignments including but not limited to team projects, periodic problem solving, lab participation, and job site applications.

COURSE OUTLINE:

Math IV is divided into three sections:

1. Pre-knowledge – In this section all mathematical concepts from each student's past educational career will be reviewed and mastered for guaranteed success in the completion of Cass Career Center's individual programs of study and the 1 hour Math IV credit.
2. Current Knowledge – Each program of study has different mathematical concepts embedded within that program's curriculum. These concepts will be divided into four modules. Within each module there will be four competencies to master. There will be a total of 16 detailed competencies defined, assigned to a time span, written as a course objective and aligned to the Show-Me-Standards and CLE Codes. These competencies will also be associated with a vocabulary and resources list, learning activities and instructional strategies, and assessment methods which are clearly defined.
3. Post-knowledge – A student or a number of students will be selected from different programs and united together to form teams that will use previously attained knowledge from the past two sections to complete an educational career prep project.

EXPECTED STUDENT OUTCOMES:

Upon successful completion of the course, the student will be able to:

1. Demonstrate mastery of all mathematical competencies listed in the pre-knowledge section of the Math IV Pacing Guide;

2. Demonstrate mastery of all competencies listed within Modules I, II, III, and IV in the current knowledge section of the Math IV Pacing Guide;
3. Demonstrate mastery of all previously stated competencies by successfully completing a project assigned to a cross-sectional team of students selected from more than one of CCC's programs of study;
4. Demonstrate critical thinking skills by separating the student's own personal opinions and assumptions while analyzing the ideas of others;
5. Develop reasoned interpretations, draw informed conclusions, and produce accurate results;
6. Exhibit effective oral communications in small and large group situations;
7. Display appropriate respect for all others within each person's surround environment.

ASSESSMENT MEASURES:

1. Learning activities and instructional strategies are listed in the Math IV pacing guide for each competency. Worksheets that are relative to each learning activity will be assigned to the students for completion and are designed for the purpose of monitoring each student's level of success.
2. Assessment techniques and procedures are listed in the Math IV pacing guide for each competency. These assessments will be specifically designed and developed for accurate measurement of mastery for individual competencies.
3. A group project will be assigned during the student's last semester to support and validate final mastery of mathematical concepts.

REQUIREMENTS:

Participation is necessary for a successful completion of this course. This course focuses on technical skills of mathematics and work readiness as a learning process. Independent completion of problems and assignments along with team and group projects, and appropriate behavior in the Math Lab are also necessary for the completion of this course. School rules and classroom rules always apply.

GRADING, MAKE-UP WORK AND LATE-WORK:

Assessment will include essays, assignments, and presentations. For make-up work, students will receive a one-day extension for each day of excused absence. Late-work will be accepted through the particular unit of study but will receive the maximum credit of 60%. Harrisonville High School's grading scale will be used as outlined below:

95-100%=A	87-89%=B+	77-79%=C+	67-69%=D+	0-59%=F
90-94%=A-	83-86%=B	73-76%=C	63-66%=D	
80-82%=B-	70-72%=C-	60-62%=D-		

ACADEMIC DISHONESTY AND PLAGIARISM:

Plagiarism is a serious offense and violation will be handled accordingly. Plagiarism is a felony punishable by a court of law; any offense committed consciously or unconsciously will result in an automatic zero for the particular assignment without means for make-up work. This course will deal with acceptable and ethical ways to discuss the ideas and words of others in students' writing. *This includes copying from another's paper!*