Course: Carpentry	**Grade:** 9-12
Instructor:	**CIP Code:** 460201
Unit: Unit 8	**Title:** Floor tile layout and installation

Knowledge, Content and Skills: Identify and describe the predominate wall. Calculate center of the room and adjusted center. Identify and describe the use and maintenance of floor laying tools and materials.

Performance objective: Students will identify the center of the room and calculate the center. Determine the border tile size, primer the floor and check the floor finish schedule in the plans. Layout a square floor tile installation with equal borders and install tile.

Competency: 1. Identify and demonstrate the procedures and policies of safety in the trade. 2. Explain basic riggings and describe inspection techniques and load handling safety practices with proper use of ladders and scaffolds. 3. Demonstrate use of appropriate personal safety equipment and proper use of emergency equipment. 32. Discuss the types and application of different floor finishes and the suitability of each.

Common Core: Listening: Students will demonstrate the ability to listen and view critically for variety of purposes. Reading Informational Texts Competency: Students will demonstrate the ability to comprehend, analyze and critique a variety of increasingly complex print and non-print informational texts.

Tools, supplies and reference materials: Chalk line, utility knife, framing square or straightedge, vacuum floor primer, self -adhesive 12"X12" tiles. Career Connections Project Book 3 Commercial pages: 390-411.

Methods of instruction: Demonstration on how to install floor tile, including diagonal and border patterns. Lecture on how to calculate center and border tiles- using power point presentations. Field trip to a local jobsite or the Union Training Hall to see the task performed by professional carpenters.

Task analysis or activities: Students will demonstrate appropriate dress for the shop using the required PPE. **Students will Clean and vacuum the floor, Prime the floor, measure and snap a centerline, Cut and install floor tiles, Clean-up the area.**

Evaluation: Students will be graded on their use of time, safety methods, quality of work, cleaning and organization of their work area, interaction with other students, and employability skills. Evaluate student work using the rubrics page: 411.

Instructor's Notes:

Unit: Project Book 3 Commercial, Unit 8
Title: Floor Tile- Layout and Installation

Skill(s) and Knowledge: Identify and describe the predominate wall. Calculate center of the room and adjusted center. Identify and describe the use and maintenance of floor laying tools and materials.

Tasks: Students will be able to:
Performance objective:

Tools, supplies and reference materials:

Methods of instruction: Demonstration on how to install floor tile, including diagonal and border patterns. Lecture on how to calculate center and border tiles- using power point presentations. Field trip to a local jobsite or the Union Training Hall to see the task performed by professional carpenters.

Estimated time: 30 hrs. **Number of students:** 10

Task analysis or activities:

Evaluation: Students will be graded on their use of time, safety methods, quality of work, cleaning and organization of their work area, interaction with other students, and vocational employability skills grading rubric. Manipulative skills assessments and written evaluations.

Performance Notes:

Vocational Frameworks References
2.A.01.05   Identify and apply OSHA safety regulations.
2.E.01.01   Demonstrate use and maintenance of layout, marking and measuring tools.
2.I.02.05   Install underlayment and finish flooring products.

English/Strand 3 Frameworks References:
      2.B.01-06   Determine the meaning of symbols, key terms, and other domain-specific words and phrases in a technical context.

Frameworks References: **Math**

2.B.01   Use Trigonometric ratios and Pythagorean Theorem to solve right triangles in applied problems.

Common Core References:
      Read and listen critically for information understanding and enjoyment
      Set goals and achieve them by organizing time, workspace, and resources effectively
      Work both independently and in groups

SCANS references:
      Foundation Skills:
1. Basic skills— reading, writing, mathematics, speaking, and listening.
2. Thinking Skills-- thinking creatively, making decisions, solving problems, visualizing, knowing how to learn, and reasoning
3. Personal qualities--individual responsibility, self-esteem, sociability, self management, and integrity

      Workplace Competencies
1. Resources--allocating time, money, material, space, and staff.
2. Interpersonal skills--working in teams, teaching others, serving customers, leading negotiating, and working well with culturally diverse populations.
3. Information--acquiring and evaluating data, organizing and maintaining files, interpreting & communicating, and using computer to process information
4. Systems--understanding social, organizational, and technological systems, monitoring and correcting performance, and designing or improving systems.
5. Technology--selecting equipment and tools, applying technology to specific tasks, maintaining and troubleshooting technologies.