

CMI COURSE CURRICULUM COURSE ACTION

Course Title: Introduction to Technical Drawing **Alpha Number:** VCARP 106 **CIP No.** 46.0000

Type of Action:

☒ X New Course (attach narrative justification for course creation)

☐ Substantive Revision (attach narrative justification for changes, including assessment and/or achievement data and feedback from the advisory committee if relevant)

Select all that apply:

- ☐ Change in number of credit hours
☐ Change in prerequisite
☐ Substantive change in course content
☐ Change to SLOs
☐ Other:

☐ Non-substantive Revision

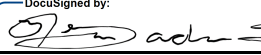
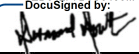
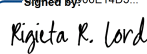
Select all that apply:

- ☐ Change in Alpha Number or Title (unless letter abbreviation has not previously been used)
☐ Edit to course description that does not alter the substance of the course
☐ Change to recommended texts
☐ Other

☐ Reinstitution of Archived Course (attach narrative justification for reinstitution, including evidence of demand, evidence of capacity, feedback from the advisory committee if relevant, and Commentary that speaks directly to the reasons the course was initially archived)

☐ Reaffirmation of Course (only allowable if course completion rate exceeds ISS, the benchmark has been met for the majority of SLO assessments, and there is no evidence of inequitable levels of achievement across subpopulations; attach evidence)

Approvals:

	Name	Signature	Date
Department Chair	Waisake Savu	 DocuSigned by:	4/21/2025
Curriculum Committee Chair	Desmond Doulatram	 6ED042F7B1C0430... DocuSigned by:	5/4/2025
Dean	Rigjeta Lord	 81916D006E14D5... DocuSigned by:	5/4/2025
VPASA	Dr. Elizabeth Switaj	 E719CB3192EB4F4... DocuSigned by:	5/5/2025

CMI COURSE OUTLINE**CIP No.** 46.0201**Version No.** 001VCARP 106Introduction to Technical Drawing**Alpha Number****Course Title****Previous Alpha Number:****Course Description:**

Introduces students to the principles and techniques of technical drawing, including manual drafting and computer-aided design (CAD) using AutoCAD, with a focus on precision, scaling, and industry standards. Covering concepts such as geometric construction, orthographic projection, dimensioning, and blueprint interpretation. Students will gain the skills to produce detailed technical drawings and effectively use AutoCAD for drafting purposes.

Course originally prepared by: Rigiet Lord WAVES April/2025**Most recent revision by:****Course mode(s):** x Face to Face (including Zoom) Hybrid Distance Education**Credits calculated by:** Credit Hour X Clock Hour**Contact Hours:** 105

Type	No. of Hours	No. of Credits	Maximum No. of Hours Online
Lecture/Seminar/Workshop	15	1	
Clinical			
Practicum			
Lab	90	2	
Fieldwork			
Studio Time			
Total	105	3	

Purpose(s) of Course: Degree Requirement _____
Degree Elective _____
General Education _____
Credit Certification X (Certificate of Completion in Carpentry)
Developmental _____
CTE/TVET X
ABE/Adult HS _____
Distribution Area: Humanities _____
Social Sciences _____
Mathematics (Credit) _____
Science _____

Prerequisite: VCARP 101

Student Learning Outcomes: Upon completion of this course, students will be able to:

1. Create accurate technical drawings using manual drafting tools and AutoCAD software.
2. Apply geometric construction techniques to technical drawings.
3. Interpret and produce orthographic projections and detailed views according to industry standards.
4. Dimension drawings accurately and in compliance with drafting conventions.
5. Use AutoCAD to develop, modify, and annotate technical drawings for various applications.

SLO Mapping:

Prerequisite Course SLO	Linked SLO from this Course	Explanation
VCARP 101	SLO 1,2,3	1. Describe the structure and key components of the construction industry. 2. Identify and properly use basic construction tools and materials. 3. Interpret simple blueprints and construction drawings.

Links to Program Learning Outcomes:

SLO	Linked PLO	I/P/M	Explanation of Link
1, 2,3,4	4	P	Read and interpret plans and drawings
5	7	P	Demonstrate and practice essential employability skills

Course Content: Students in this course will understand::

1. Introduction to Technical Drawing
 - History and applications of technical drawing
 - Overview of drafting tools and AutoCAD software
2. Geometric Construction
 - Basic shapes and lines
 - Circles, arcs, and tangents
 - Symmetry and precision
3. Orthographic Projection and Views
 - Front, top, and side views
 - Sectional views and auxiliary views
4. Dimensioning and Annotations

- Types of dimensions and tolerances
- Standards for notes and symbols
- 5. Introduction to AutoCAD
 - Interface and basic commands
 - Creating, editing, and saving drawings
 - Layers, dimensions, and text annotation

6. Application and Blueprint Reading

- Interpreting technical drawings and blueprints
- Creating professional-grade drawings

Higher Order Thinking Skills

- ☒ Analyzing the basic elements of an idea, experience, or theory
- ☐ Making judgements about the value or soundness of information, arguments, or methods
- ☒ Applying theories or concepts to practical or in new situations

Recommended Methods of Instruction

- ☒ Demonstration
- ☒ Lecture
- ☒ Small group discussion
- ☒ Class discussion
- ☒ Audio-Visual Aids
- ☐ Laboratory
- ☒ Supervised Practice
- ☐ Field Trips
- ☒ Other:

Recommended Assessment Tool Type(s):

- ☐ Case Study
- ☐ Critique of Performance
- ☒ Exam/Quiz In-Course
- ☐ Exam/Quiz Standardized (attach narrative describing development and validation process)
- ☐ Focus Group
- ☒ Group Project
- ☒ Individual Project
- ☐ Observation
- ☐ Portfolio Review
- ☐ Presentation
- ☐ Simulation
- ☐ Skill Performance
- ☐ Supervisor Evaluation
- ☐ Survey
- ☒ Written Assignment

Required Forms of Regular and Substantive Interaction for Hybrid or Distance Education Courses (Select at Least Two):

- ☐ Direct instruction through:
 - ☐ Live video lectures
 - ☐ Live audio-only lectures
 - ☐ Live text chats
- ☐ Assessing or providing feedback on a student's coursework
- ☐ Providing information or responding to questions about the content of a course or competency through
 - ☐ Live video discussions

- ☐ Live audio-only discussions
- ☐ Live text chats
- ☐ Facilitating a group discussion regarding the content of a course or competency through:
 - ☐ Live video discussion
 - ☐ Live texts chats
 - ☐ Asynchronous message boards or text chats
- ☐ Other, specify:

Note: for distance education courses, if only two are selected, both must occur within the course on a weekly basis. If more than two are selected, the instructor may choose which two are used during each week.

Equipment and Materials:

1. Personal Protective Equipment
 - Hard hats
 - Safety glasses or goggles
 - Gloves (cut-resistant or general purpose)
 - Steel-toe boots
 - Hearing protection (earplugs or earmuffs) if needed
2. Textbook - Feirer, M. D., & Feirer, J. L. (2003). *Carpentry & building construction: Student text* (Student ed.). Glencoe/McGraw-Hill School Publishing. ISBN 978-0078227028

Connection to College Mission:

The College of the Marshall Islands will provide our community with access to quality, higher and further educational services, prioritize student success through engagement in relevant Academic, Career and Technical Education, and be a center for the study of Marshallese Culture. It will also provide intellectual resources and facilitate research specific to the needs of the nation. EC approved 4th Nov, 2020. BOR approved 1st December, 2020

The Introduction to Technical Drawing course aligns with the College of the Marshall Islands' mission by providing students with foundational skills essential for success in academic, career, and technical education pathways. It supports national development by preparing students to contribute to construction, design, and planning efforts that address the infrastructure needs of the Marshallese community.

Connection to Department Mission:

The mission for the Vocational Carpentry program is to provide quality non-credit vocational courses for students to gain employment, pursue post-secondary education and develop an appreciation for life-long learning.

Approved by IEC on October 25, 2017

The Introduction to Technical Drawing course supports the Vocational Carpentry program's mission by equipping students with essential drafting skills needed for employment and further training in the carpentry and construction fields. It fosters lifelong learning by developing precision, attention to detail, and an understanding of design principles critical to the trade.

Justification for the Course: Introduction to Technical Drawing
Program: Certificate of Completion in Vocational Carpentry

The course **Introduction to Technical Drawing** is a fundamental component of the Certificate in Vocational Carpentry program, designed to equip students with the essential skills required to interpret, create, and apply technical drawings in carpentry projects. This course bridges the gap between conceptual design and practical application, ensuring students are well-prepared to excel in the carpentry trade. Technical drawing is a core skill in carpentry, enabling professionals to visualize, plan, and execute construction projects with precision. This course is justified based on the following key reasons:

1. **Industry Relevance:** Technical drawings are the foundation of carpentry work, used extensively for creating blueprints, reading project specifications, and communicating design ideas. Mastery of technical drawing ensures students are workforce-ready and can meet industry standards.
2. **Skill Development:** The course develops students' ability to interpret architectural and construction drawings, a skill critical for accurate material estimation, efficient project planning, and adherence to design specifications.
3. **Enhanced Employability:** Employers prioritize candidates who can effectively work with technical drawings, as this ability reduces errors, improves project outcomes, and demonstrates professional competency. This course directly enhances students' employability and career prospects.
4. **Alignment with Program Goals:** The Certificate in Vocational Carpentry aims to produce skilled carpenters who can seamlessly transition from training to the workforce. This course aligns with that goal by providing the technical foundation necessary for advanced carpentry practices.
5. **Support for Further Learning:** Introduction to Technical Drawing lays the groundwork for students to pursue advanced courses in design and construction, should they choose to specialize further in areas like architectural drafting or construction management.

Including **Introduction to Technical Drawing** in the Certificate in Vocational Carpentry program is essential to preparing students for success in the field.

By equipping them with critical drawing and interpretation skills, this course not only meets industry demands but also empowers students to achieve excellence in their carpentry careers.