



Course: Workplace Mathematics 11

Level: 11

Course Description: Workplace Mathematics 11 is a math course designed to build the practical mathematical skills needed for trades, apprenticeships, and direct entry into the workforce. It emphasizes financial literacy, proportional reasoning, interpreting data, and representing 3D objects in 2D space. The course focuses on the mathematical understanding required for real-world problem solving, employment, data handling, and everyday decision-making. The course develops critical thinking, numeracy, and practical application skills through hands-on, contextualized tasks such as budgeting, interpreting graphs, analyzing data, and working with scale diagrams. Students learn to apply mathematics in meaningful contexts such as personal finance, workplace tasks, and interpreting information in media and society.

Big Ideas:

- Representing and analyzing data helps identify patterns and relationships.
- Flexibility with number builds meaning, confidence, and understanding.
- Mathematics informs financial decision-making, including budgeting, loans, and investments.

Core Competencies:

Communication

The Communication competency encompasses the knowledge, skills, processes and dispositions we associate with interactions with others. Through their communication, students acquire, develop and transform ideas and information, and make connections with others to share their ideas, express their individuality, further their learning, and get things done. The Communication competency is fundamental to finding satisfaction, purpose and joy.

Thinking

The Thinking competency encompasses the knowledge, skills and processes we associate with intellectual development. It is through their competency as thinkers that students take subject-specific concepts and content and transform them into a new understanding. Thinking competence includes specific thinking skills as well as habits of mind, and metacognitive awareness. These are used to process information from a variety of sources, including thoughts and feelings that arise from the subconscious and unconscious mind and from embodied cognition, to create new understandings.

Personal & Social

The Personal and Social competency is the set of abilities that relate to students' identity in the world, both as individuals and as members of their community and society. Personal and social competency encompasses what students need to thrive as individuals, to understand and care about themselves and others, and to find and achieve their purposes in the world.

Resources: MathWorks 11; Pacific Educational Press



With respects to the First People's Principles of Learning, students may be alternatively assessed in ways that people can display knowledge and subject mastery. The alternative assessment can be storytelling, art or other expressions of self, knowing and learning.

- Learning is holistic, reflexive, reflective, experiential, and relational.
- Learning ultimately supports the well-being of the self, the family, the community, the land, the spirits, and the ancestors.
- Learning involves patience and time.

Assessment:

Formative (30%)

In-class activities/assignments

Summative: (70%)

Quizzes (20%)

Midterm (25%)

Final (25%)

Expectations: Attendance in the classroom is mandatory. Students are expected to use their electronics responsibly, speak English, and participate in daily activities. Students will take an active role by discussing, doing work, working in partners or groups, and taking notes. Students are responsible for any missed assignments.

Week	Topics covered	Assignments
1	Brief history & origins of Math, Numbers	<ul style="list-style-type: none"> • Review of lecture notes • Homework
2	Graphical representations – Line graphs	<ul style="list-style-type: none"> • Homework • Activity
3	Bar graphs, and Histograms	<ul style="list-style-type: none"> • Test
4	Circle graphs	<ul style="list-style-type: none"> • Homework • Activity • Quiz
5 - 6	Slope and Rate of Change	<ul style="list-style-type: none"> • Homework • Project • Quiz
7 - 8	Surface Area, Volume, and Capacity	<ul style="list-style-type: none"> • Homework • In-class assignments
9 - 10	Trigonometry of Right Triangles	<ul style="list-style-type: none"> • Homework • Quiz
11 - 12	Financial Services	<ul style="list-style-type: none"> • Homework