

## Memorandum

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**TO:** PIAB ESP Project Steering Committee Members  
**FROM:** Patricia Murray, UFV Communications Instructor  
**DATE:** December 30, 2010  
Copy: UFV Communications Faculty Contract Services

**SUBJECT: Introduction to Essential Skills for Piping Curriculum**

This memorandum introduces the deliverables for the PIAB Essential Skills for Piping (ESP) Project: the three attached sets of Lesson Plans with integrated ESP activities. These activities have been designed to complement the existing curriculum for the “Sprinkler Level 1”, “Use and Care of Tools”, and “Rigging” courses. Below is more detail about why these three courses were chosen, what resources were used during this project, and how the ESP activities were designed.

### Curriculum Choices

The “Sprinkler Level 1”, “Use and Care of Tools”, and “Rigging” courses were chosen for further development of Essential Skills because they all have critical Piping foundation curriculum. These courses also provide many opportunities to reinforce the three “most important Essential Skills for Plumbers”: “Document Use, Oral Communication, and Problem Solving”, which are cited on the *Profile Description for Plumbers* on the Human Resources and Skills Development Canada website (2010).

The attached ESP activities were also designed to include as many of the nine Essential Skills as possible: A, Reading Text; B, Document Use; C, Writing; D, Numeracy; E, Oral Communication; F, Thinking Skills; G, Working with Others; H, Computer Use; and I, Continuous Learning. The six “Thinking Skills” are Problem Solving, Decision Making, Critical Thinking, Job Task Planning and Organizing, Significant Use of Memory, and Finding Information.

### Project Resources

Samantha Pattridge (UFV Communications Faculty Contract Services) provided invaluable access to background information, and ongoing support and feedback during my design of suggested ESP activities. PIAB Manuals and lesson plans were also used.

### Format, Design and Use of ESP Activities

The attached Lesson Plans were modeled on the original Piping course Lesson Plans. Additional columns and rows were added for the suggested ES activities, which are highlighted in green. None of the original Piping Lesson Plan information was altered, and this is highlighted in black.

Complete integration of ES activities was not possible because thorough understanding of Piping course content, assignments and tests, schedule limitations, and instructor and student activities was beyond the scope of this project. Liaison between specific Piping course Instructors and an ES curriculum designer would be necessary to fully integrate ES into the Piping curriculum.

The student-centered, active learning strategies (SCALS) illustrated in the ESP activities have definite advantages. First, some SCALS such as “Station Work” can facilitate more efficient curriculum coverage. Secondly, the retention of theoretical and practical concepts can significantly increase when students are actively involved in their own learning. SCALS also provide relevant, creative, and flexible formats for students who learn in a wide variety of visual and auditory ways. And last but not least, student-centered, active learning strategies tend to energize students and instructors, and encourage the ongoing exploration of industry-relevant topics by engaged and engaging life-long learners.

Piping Instructors can use the attached ESP activities as described, or revise them in context with specific curriculum objectives, delivery modes, and time restraints.

The UFV Communication Faculty Contract Services hopes that the attached Lesson Plans will be useful templates for PIAB Instructors to develop Essential Skills activities for the remaining Piping curriculum.

Sincerely,  
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