



# DRFT 2263: Diploma Piping and Instrumentation Diagrams & Specifications

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## EFFECTIVE DATE

September 2021

## DEPARTMENT

Drafting

## DESCRIPTION

Students learn how Piping and Instrumentation Diagrams (P&IDs) are created from Process Flow Diagrams. They use standard industry symbols to create a P&ID. Students learn how to interpret Piping Specifications and apply them when creating P&IDs.

## CREDITS

1.0

## YEAR OF STUDY

1st Year Post-secondary

## PREREQUISITES

DRFT 2100 Integrated BIM Project

## COREQUISITES

None

## COURSE LEARNING OUTCOMES

Upon successful completion of this course, students will be able to:

- Explain how piping and instrumentation diagrams are created from process flow diagrams
- Identify the different symbols of pipe, fittings, flanges, pumps and connections used in P&ID's
- Identify equipment numbers and describe how they are unique to each piece of equipment
- Create a P&ID using a given process flow diagram
- Create an industry standard line list from the P&ID
- Determine pipe sizes based on the flow taken from the process flow diagram
- Interpret pipe specifications for industrial applications
- Create a block library of piping symbols to be used in P&IDs

- Apply the concepts and processes at a higher level, in a 3D Building Information Modeling setting

## PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

## HOURS

Lecture: 10

Lab: 20

## INSTRUCTIONAL STRATEGIES

Lectures, video presentations, project-/problem-based learning, lab activities. The course may be offered face-to-face or in a blended format (mix of face-to-face and online)

## GRADING SYSTEM

Letter Grade (A-F)

## PASSING GRADE

D

## EVALUATION PLAN

Type	Percentage	Assessment activity
Project	60	Minimum of 3 project-based major assignments of approximately equal value.
Quizzes/Tests	10	
Final Exam	30	

## COURSE TOPICS

- Terminology, Abbreviations, & Symbols for the piping instrumentation applications
- Piping and Instrumentation Diagram Fundamentals
- Equipment & Line Numbers
- Line List Requirements
- Preliminary Pipe Sizing
- Pipe Specifications

## LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:  
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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1155 East Broadway  
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### Downtown campus

250 West Pender Street  
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### Annacis Island campus

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