

Evaluation of Learning

5794

# Industrial Machinery Operation

Training Sector

11

Mechanical  
Manufacturing

**Reach** for  
your **Dreams**

Québec 



*Evaluation of Learning*

5794

# Industrial Machinery Operation

Training Sector

11

Mechanical  
Manufacturing

Formation professionnelle et technique  
et formation continue

Direction générale des programmes  
et du développement

# Development Team

## Coordination

*Jean-Paul Bergeron*  
Coordinator, Vocational training engineering  
Ministère de l'Éducation\*

*Régis Décoste*  
Coordinator, Vocational training engineering  
Ministère de l'Éducation

*Huguette Paquet*  
Education consultant, Measurement and evaluation  
Ministère de l'Éducation

## Design and Development

*Yves Gagné*  
Teacher  
Commission scolaire de la Pointe de l'Île

*Jacques Desharnais*  
Teacher  
Commission scolaire de la Capitale

*Maude Plourde*  
Education consultant  
Commission scolaire de la Capitale

*Céline Maurice*  
Education consultant  
Commission scolaire de la Capitale

## English Version

Direction de la production en langue anglaise  
Services à la communauté anglophone

\* On February 18, 2005, under Order in Council 120-2005, the Ministère de l'Éducation became the Ministère de l'Éducation, du Loisir et du Sport. Given that this is a translation of the original document published in French prior to this date, the name *Ministère de l'Éducation* has been retained for this document.

© Gouvernement du Québec  
Ministère de l'Éducation, du Loisir et du Sport, 2005–05-00638

ISBN – 2-550-45532-0 (Printed version)  
ISBN – 2-550-45533-9 (PDF)

Legal Deposit – Bibliothèque nationale du Québec, 2005

# Acknowledgments

The Ministère de l'Éducation would like to thank the many people in the education community who helped in the development of this document, in particular the following individuals:

*Claude Regimbal*  
Teacher  
Commission scolaire des Hauts Cantons

*André Allard*  
Teacher  
Commission scolaire de la Capitale

*Pierre Pelletier*  
Teacher  
Commission scolaire des Monts et Marées

*Daniel Roch*  
Teacher  
Commission scolaire Harricana

*Réjean Lafond*  
Teacher  
Commission scolaire des Chênes

*Jacques Desharnais*  
Teacher  
Commission scolaire de la Capitale

*Marc Gagnon*  
Teacher  
Commission scolaire de la Jonquière

*Hervé Fortin*  
Teacher  
Commission scolaire Harricana

*Alain Demers*  
Teacher  
Commission scolaire du Pays des Bleuets

*Guy Fontaine*  
Teacher  
Commission scolaire des Sommets



# Table of Contents

Introduction .....	1
Program Synopsis.....	5
The Trade and the Training Process .....	7
Interpreting Technical Drawings .....	13
Solving Mathematical Problems.....	19
Industrial Manufacturing Processes.....	23
Using a Computerized Workstation .....	29
Quality Control .....	35
Health and Safety.....	41
Shopwork .....	45
Handling Materials .....	51
Job Search Techniques .....	57
New Types of Work Organization .....	63
Operating Conventional Machinery.....	67
Operating an Automated Production System.....	73
Maintaining Machinery .....	79
Entering the Work Force .....	85



# Introduction

Educational institutions and the Ministère de l'Éducation share the responsibility for evaluating learning in vocational training programs.<sup>1</sup> The objectives of a program include criteria that are selected to evaluate learning for certification purposes and are prescriptive. As stipulated in the *Basic vocational training regulation*,<sup>2</sup> each competency must be evaluated and the results expressed as a pass or a fail mark.

As part of its responsibility for evaluating learning, the Ministère produces evaluation instruments that are consistent with the competency-based approach to program development. These instruments are developed as part of an overall approach to training designed to meet job market requirements on the one hand, and to provide an integrated vision that promotes program implementation and consistent, meaningful training on the other. The evaluation material provided ensures that the competencies targeted by the programs have been acquired, thus giving students the qualifications required to practise a trade or occupation, and that the training given in all of the educational institutions authorized to offer a given program is comparable. The level of acquisition of competencies corresponds to that expected at entry-level on the job market.

Although the term “competency” can mean many things, the vocational training sector defines it as “the ability to act successfully and evolve in order to adequately perform work-related tasks and activities based on an organized body of knowledge, skills in a variety of fields, perceptions, attitudes, etc.”<sup>3</sup> The evaluation of a competency must reflect its multidimensional nature and take into account all of the important aspects—the knowledge, skills, perceptions and attitudes—on which a competency is based. All of the performance criteria must therefore be met and evaluated during the learning process or for the purpose of certification.

The method of evaluation in vocational training is said to be criterion-referenced. This type of evaluation is used to establish whether an individual has met the required performance or participation level while carrying out a task or activity, according to specific criteria. Rather than compare a student to his or her peers or to a group, criterion-referenced evaluation verifies the extent to which a student develops a given competency according to the performance criteria of a program of study and criteria defined for the purpose of certification.

This document contains three parts, each corresponding to an evaluation instrument produced by the Ministère. The first part, entitled “Evaluation Specifications for Certification Purposes,” contains indicators and evaluation criteria related to the elements and situations that have been selected for evaluation for certification purposes. Each situation or element includes one or more performance indicators that specify what aspect to evaluate or how an element is to be evaluated. Indicators are accompanied by evaluation criteria that are used to judge whether a candidate’s performance is satisfactory. For behavioural objectives, the weighting allotted to each criterion and the minimum performance standard are indicated. For situational objectives, the criteria used by teachers to judge (or infer) whether a competency has been acquired beyond a student’s participation in activities is also indicated.

The second part, entitled “Description of the Examination” or “Description of Participation,”<sup>4</sup> consists of a description of each competency of a program of study. These descriptions are proposals for meeting the requirements of evaluation criteria established for certification purposes. They help standardize the level of complexity of various examinations related to the competencies of a program and support the development of examinations administered in educational institutions. The description of the examination or the description of participation is provided for information purposes only.

---

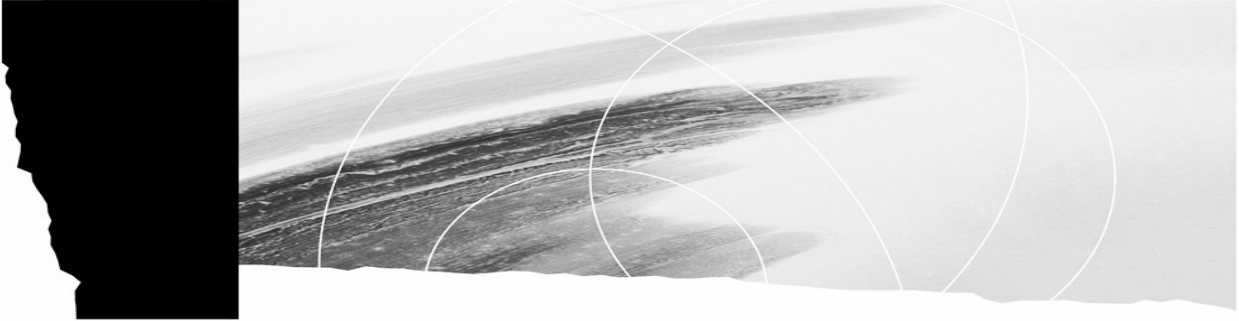
<sup>1</sup> *Education Act*, R.S.Q., c. I-13.3, ss 461 and 463.

<sup>2</sup> Québec, O.C. 653-2000, 1 June 2000, G.O.Q. 2000.II.2608.

<sup>3</sup> Québec, Ministère de l'Éducation, *Program Development: Vocational Training – Program Design and Development Guide* (Québec: Ministère de l'Éducation, 2004), p. 1.

<sup>4</sup> The description of the examination pertains to a behavioural objective, while the description of participation pertains to a situational objective.

The last part, entitled “Evaluation Form,” lists the indicators and criteria used in the evaluation for certification purposes. They are listed as observations and may include accepted tolerances. Teachers may find them useful when carrying out evaluation activities. Like the description of the examination or the description of participation, they are provided for information purposes only.



---

5794

**Industrial Machinery Operation**

---

Year of approval: 2005

---

<b>Certification:</b>	Diploma of Vocational Studies
<b>Number of credits:</b>	60
<b>Number of modules:</b>	15
<b>Total duration:</b>	900 hours

---



# Program Synopsis

<b>Title of Module</b>	<b>Code</b>	<b>Module</b>
The Trade and the Training Process	869512	1
Interpreting Technical Drawings	869525	2
Solving Mathematical Problems	869655	3
Industrial Manufacturing Processes	869663	4
Using a Computerized Workstation	869672	5
Quality Control	869684	6
Health and Safety	869571	7
Shopwork	869586	8
Handling Materials	869692	9
Job Search Techniques	869601	10
New Types of Work Organization	872153	11
Operating Conventional Machinery	869617	12
Operating an Automated Production System	869627	13
Maintaining Machinery	869636	14
Entering the Work Force	869706	15



Module 1

## ***Evaluation Specifications for Certification Purposes***

---

### **Statement of the Competency**

To determine their suitability for the trade and the training process.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>
Learning about the trade.	Collection of information on the characteristics of the job market	<ul style="list-style-type: none"> <li>Summarizes the main characteristics of the job market.</li> </ul>
	Collection of information on the nature and requirements of the job	<ul style="list-style-type: none"> <li>Describes the nature of the job.</li> <li>Lists the primary requirements of the job.</li> </ul>
Learning about the program of study and the training process.	Collection of information on the program of study and the training process	<ul style="list-style-type: none"> <li>Distinguishes between behavioural and situational modules.</li> <li>Describes the evaluation methods.</li> </ul>
	Participation in a group discussion	<ul style="list-style-type: none"> <li>Expresses his/her views on the program of study and the training process.</li> <li>Compares his/her views on the program of study with the job market.</li> </ul>
Conducting a self-evaluation and confirming their career choice.	Production of a report	<ul style="list-style-type: none"> <li>Summarizes his/her interests, aptitudes and preferences.</li> <li>Lists his/her occupational goals and values.</li> <li>Explains his/her career choice.</li> </ul>

The student must meet:

- 8 out of 10 evaluation criteria for the competency to be deemed acquired



## ***Description of Participation***

---

### **1. General Information**

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency *To determine their suitability for the trade and the training process.*

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

### **2. Procedure**

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

#### Information Phase

During this phase, students must learn about the main characteristics of the job market, the nature and requirements of the job, and the program of study and training process.

Students are required to gather information on the following topics:

- The main characteristics of the job market, that is, economic sectors, types of companies, employment prospects and remuneration, opportunities for advancement and mobility.
- The nature and requirements of the job, that is, working conditions, primary hiring criteria.
- The program of study, the training process, etc.

#### Participation Phase

During this phase, students must participate in a group discussion during which they share their views on the proposed training.

Students are required to express their opinions on the following topics:

- Their views on the training program: modules with behavioural and situational objectives and their respective evaluation methods
- The relevance of the program of study with regard to the work environment, the relevance of the method of evaluating competencies, etc.

#### Synthesis Phase

During this phase, students must produce a report in which they present:

- Their interests, aptitudes and preferences with respect to the trade.
- Their occupational goals and values.
- Arguments to justify their career choice, given the characteristics and requirements of the trade.



Module 1

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

Result	
Pass	Fail
<input type="checkbox"/>	<input type="checkbox"/>

**Participation Elements**

	Result	
	Yes	No
1. Collection of information on the characteristics of the job market		
1.1 Summarizes the main characteristics of the job market: <ul style="list-style-type: none"> <li>• types of companies</li> <li>• employment prospects and remuneration</li> <li>• opportunities for advancement and mobility</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
2. Collection of information on the nature and requirements of the job		
2.1 Describes the nature of the job: <ul style="list-style-type: none"> <li>• working conditions</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
2.2 Lists the primary requirements of the job: <ul style="list-style-type: none"> <li>• primary hiring criteria</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
3. Collection of information on the program of study and the training process		
3.1 Distinguishes between behavioural and situational modules.	<input type="checkbox"/>	<input type="checkbox"/>
3.2 Describes the evaluation methods: <ul style="list-style-type: none"> <li>• formative evaluation</li> <li>• evaluation for the purpose of certification</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>
4. Participation in a group discussion		
4.1 Expresses his/her views on the program of study and the training process: <ul style="list-style-type: none"> <li>• program content</li> <li>• evaluation method</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>

## Participation Elements

---

	Result	
	Yes	No
4.2 Compares his/her views on the program of study with the job market.	<input type="checkbox"/>	<input type="checkbox"/>
5. Production of a report		
5.1 Summarizes his/her interests, aptitudes and preferences.	<input type="checkbox"/>	<input type="checkbox"/>
5.2 Lists his/her occupational goals and values.	<input type="checkbox"/>	<input type="checkbox"/>
5.3 Explains his/her career choice.	<input type="checkbox"/>	<input type="checkbox"/>

Total: \_\_\_\_\_ /10

Minimum  
performance  
standard: 8 out of 10 evaluation criteria

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

#### **Statement of the Competency**

To interpret technical drawings.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Visualize a complete part.	Identification of views and sections	• Proper identification of different types of sections	10
		• Proper identification of different types of views	5
	Interpretation of lines and hatching lines	• Accurate interpretation of lines and hatching lines	10
		• Relevant association of views and lines, and points and surfaces	10
Interpret the dimensioning.	Identification of information needed for the job	• Accurate identification of types of materials, number of parts, type of assembly and degree of finishing	15
		• Determination of exact value of dimensions and tolerances	15
	Determination of value of dimensions and tolerances	Identification of information	• Proper identification of information in the title block, list of terms used and annotations
• Accurate interpretation of symbols, codes and abbreviations			15
Find complementary information in technical drawings.	Interpretation of symbols, codes and abbreviations	• Accurate interpretation of symbols, codes and abbreviations	15
		• Thorough identification of the components of an assembly in an assembly drawing	10
Determine the function of the components of an assembly.	Identification of the components of an assembly	• Thorough identification of the components of an assembly in an assembly drawing	10

Minimum performance standard: 80 marks



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to interpret technical drawings.

The suggested duration of this practical examination is two hours.

### **2. Procedure**

To demonstrate the required competency, students must identify information such as sections, views, hatching lines, types of materials, notations, codes, symbols, etc.; interpret the dimensioning; identify the components of an assembly and determine the function of the components of an assembly.

### **3. Materials**

Simple plan including detail and assembly drawings (project involving 3 to 8 parts).

### **4. Special Instructions**

Course notes and any documents other than those provided are not allowed.

Students who fail the examination will retake it in a different version (with a different plan).



Module 2

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

		Result	
		Yes	No
1.	Identification of views and sections		
1.1	Proper identification of different types of sections	0	or 10
1.2	Proper identification of different types of views	0	or 5
2.	Interpretation of lines and hatching lines		
2.1	Accurate interpretation of lines and hatching lines	0	or 10
3.	Association of views and lines, and points and surfaces		
3.1	Relevant association of views and lines, and points and surfaces	0	or 10
4.	Identification of information needed for the job		
4.1	Accurate identification of:	0	or 15
	• types of materials	<input type="checkbox"/>	<input type="checkbox"/>
	• number of parts	<input type="checkbox"/>	<input type="checkbox"/>
	• type of assembly	<input type="checkbox"/>	<input type="checkbox"/>
	• degree of finishing	<input type="checkbox"/>	<input type="checkbox"/>
5.	Determination of value of dimensions and tolerances		
5.1	Determination of exact value of:	0	or 15
	• dimensions	<input type="checkbox"/>	<input type="checkbox"/>
	• tolerances	<input type="checkbox"/>	<input type="checkbox"/>

## Observations

---

		Result	
		Yes	No
6.	Identification of information		
6.1	Proper identification of information in:		0 or 10
	• the title block	<input type="checkbox"/>	<input type="checkbox"/>
	• list of terms used	<input type="checkbox"/>	<input type="checkbox"/>
	• annotations	<input type="checkbox"/>	<input type="checkbox"/>
7.	Interpretation of symbols, codes and abbreviations		
7.1	Accurate interpretation of:		0 or 15
	• symbols	<input type="checkbox"/>	<input type="checkbox"/>
	• codes	<input type="checkbox"/>	<input type="checkbox"/>
	• abbreviations	<input type="checkbox"/>	<input type="checkbox"/>
8.	Identification of the components of an assembly		
8.1	Thorough identification of the components of an assembly in an assembly drawing		0 or 10

Total: \_\_\_\_\_ /100

Minimum  
performance  
standard: 80 marks

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To solve mathematical problems related to industrial machinery operation.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Convert measurements from the metric to the imperial system and vice versa.	Results of conversions	<ul style="list-style-type: none"> <li>• Accurate conversions from the imperial to the metric system and vice versa</li> </ul>	15
Calculate surfaces, volumes, flows, pressures and weights.	Results of calculations	<ul style="list-style-type: none"> <li>• Accurate calculations of surfaces</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Accurate calculations of volumes</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Accurate calculations of flows</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Accurate calculations of pressures</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Accurate calculations of weights</li> </ul>	10
Calculate manufacturing parameters.	Results of calculations	<ul style="list-style-type: none"> <li>• Accurate results of manufacturing parameter calculations</li> </ul>	20
Find missing dimensions.	Results of calculations	<ul style="list-style-type: none"> <li>• Accurate results of calculations required to find the value of missing dimensions</li> </ul>	15
Minimum performance standard:	75 marks		



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to solve mathematical problems related to industrial machinery operation.

The suggested duration of this theory examination is two hours.

### **2. Procedure**

The mathematical problems presented to students can be related to everyday situations encountered by industrial machinery operators working in various types of companies. For example, students may be asked to:

- convert a measurement provided in metric units to the imperial system so as to properly adjust a saw calibrated in inches.
- calculate the surface area of a rectangular part to assess how much material is needed to manufacture it.
- calculate the volume of a receptacle to assess how much liquid is needed to fill it.
- calculate the flow of liquid that passes through a pipe joining two tanks.
- calculate the pressure in a container of compressed air.
- calculate the weight of a steel plate to be transported.
- calculate manufacturing parameters like rpm and depth of cut.
- calculate a missing dimension like the length of one side of a triangular part.

### **3. Materials**

Calculator.

### **4. Special Instructions**

Course notes and any documents other than those provided are not allowed.

Students may use a calculator.

Students who fail the examination will retake it in a different version.



### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To learn about industrial manufacturing processes.

<b>Situations Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	
Becoming aware of the variety of industrial manufacturing processes.	Participation in an information session	<ul style="list-style-type: none"> <li>Is attentive to the information related to various industrial manufacturing processes.</li> </ul>	<input type="checkbox"/>
Looking for information on a manufacturing process.	Collection of information on a manufacturing process	<ul style="list-style-type: none"> <li>Consults information sources.</li> <li>Records information in an organized manner.</li> </ul>	<input type="checkbox"/> <input type="checkbox"/>
	Production of a report	<ul style="list-style-type: none"> <li>Produces a report on a manufacturing process.</li> </ul>	<input checked="" type="checkbox"/>
Comparing various manufacturing processes.	Participation in a group discussion	<ul style="list-style-type: none"> <li>Presents his/her research results.</li> </ul>	<input type="checkbox"/>
		<ul style="list-style-type: none"> <li>Compares the various processes presented.</li> </ul>	<input type="checkbox"/>
		<ul style="list-style-type: none"> <li>Discusses methods of ensuring that his/her knowledge is kept up to date.</li> </ul>	<input type="checkbox"/>

The student must meet:

- the criterion indicated by an “X”
- 5 out of 7 evaluation criteria for the competency to be deemed acquired



## ***Description of Participation***

---

### **1. General Information**

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency *To learn about industrial manufacturing processes*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

### **2. Procedure**

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

#### Information Phase

During this phase, students must learn about the various manufacturing processes associated with different sectors of activity.

Participation in the information session consists in listening attentively and taking notes on the information provided.

#### Participation Phase

During this phase, students must research and write a report on a manufacturing process.

#### Synthesis Phase

During this phase, students must participate in a group discussion in which they:

- Present their research results.
- Compare the various manufacturing processes presented.
- Discuss methods of ensuring that their knowledge is kept up to date.



Module 4

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Participation Elements**

		Result	
		Yes	No
1.	Participation in an information session		
1.1	Is attentive to the information related to various industrial manufacturing processes:	<input type="checkbox"/>	<input type="checkbox"/>
	• takes notes		
	• asks questions		
2.	Collection of information on a manufacturing process		
2.1	Consults information sources.	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Records information in an organized manner.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Production of a report		
3.1	Produces a report on a manufacturing process:	<input type="checkbox"/>	<input type="checkbox"/>
	• raw materials		
	• equipment		
	• manufacturing stages		
	• quality criteria		
4.	Participation in a group discussion		
4.1	Presents his/her research results.	<input type="checkbox"/>	<input type="checkbox"/>
4.2	Compares the various processes presented.	<input type="checkbox"/>	<input type="checkbox"/>

## Participation Elements

---

	Result	
	Yes	No
4.3 Discusses methods of ensuring that his/her knowledge is kept up to date.	<input type="checkbox"/>	<input type="checkbox"/>

Total: \_\_\_\_\_

Minimum  
performance  
standard:

5 out of 7 criteria, including criterion 3.1

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To use a computerized workstation.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Use the basic functions of an operating system.	Main functions of the file manager	• Observance of procedure for opening documents	10
		• Observance of procedure for creating documents	10
		• Observance of procedure for saving documents	10
		• Observance of procedure for deleting documents	10
Input and format a short text.	Use of formatting commands	• Proper use of basic formatting commands	20
		• Successful creation of a simple table	10
Send and receive information using electronic messaging and e-mail.	Procedure for sending information	• Presence of attachment	10
		• Successful transmission of a message with an attachment	10
Look for information using an intranet and the Internet.	Use of a search engine	• Efficient use of a search engine	5
		• Appropriate selection of a site	5
Minimum performance standard:	75 marks		



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to use a computerized workstation.

The suggested duration of this practical examination is two hours.

### **2. Procedure**

The students will be required to open a document, create a document, save and delete a document, format a letter, create a simple table, send a message with an attachment by e-mail, and look for information on the Internet.

### **3. Materials**

Computerized workstations connected to an intranet or the Internet.

A word processing program.

A printer.

### **4. Special Instructions**

Course notes and any documents other than those provided are not allowed.

Students who fail the examination will retake it in a different version.



Module 5

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

	Result	
	Yes	No
1. Main functions of the file manager		
1.1 Observance of procedure for opening documents	0	10
1.2 Observance of procedure for creating documents	0	10
1.3 Observance of procedure for saving documents	0	10
1.4 Observance of procedure for deleting documents	0	10
2. Use of formatting commands		
2.1 Proper use of basic formatting commands	0	20
2.2 Successful creation of a simple table	0	10
3. Procedure for sending information		
3.1 Presence of attachment	0	10
3.2 Successful transmission of a message with an attachment	0	10

## Observations

---

		Result	
		Yes	No
4	Use of a search engine		
4.1	Efficient use of a search engine	0 or	5
4.2	Appropriate selection of a site	0 or	5
		Total: _____ /100	

Minimum  
performance  
standard:            75 marks

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To carry out the quality control of products.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Plan the work.	Identification of quality criteria	<ul style="list-style-type: none"> <li>• Accurate identification of quality standards and tolerances</li> </ul>	10
Prepare the measuring instruments and devices, as well as the product to be tested.	Calibration and adjustment of common measuring instruments and devices	<ul style="list-style-type: none"> <li>• Accurate calibration and adjustment of the control instrument</li> </ul>	15
Check the physical characteristics of products.	Inspection of the product	<ul style="list-style-type: none"> <li>• Accurate measurements of the product's physical characteristics</li> </ul>	25
		<ul style="list-style-type: none"> <li>• Accurate recording of results</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Proper sensory inspection of the product's physical characteristics</li> </ul>	20
Compare the measurements recorded with the required standards.	Detection of abnormalities	<ul style="list-style-type: none"> <li>• Accurate determination of product conformity</li> </ul>	20
Minimum performance standard:	75 marks		



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to carry out the quality control of products.

The suggested duration of this practical examination is two hours.

### **2. Procedure**

The students will be required to identify information relevant to quality control, prepare and use the necessary instruments and devices, record information, carry out sensory inspections and determine the conformity of a product.

### **3. Materials**

Simple plans including detail and assembly drawings and a list of quality standards.

Manufactured parts.

Basic control systems.

Measuring and control instruments.

### **4. Special Instructions**

Course notes and any documents other than those provided are not allowed.

The list of quality standards will be available.

Students who fail the examination will retake it in a different version (with different plans and parts).



Module 6

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

		Result	
		Yes	No
1.	Identification of quality criteria		
1.1	Accurate identification of quality standards and tolerances	0	10
2.	Calibration and adjustment of common measuring instruments and devices		
2.1	Accurate calibration and adjustment of the control instrument	0	15
3.	Inspection of the product		
3.1	Accurate measurements of the product's physical characteristics <ul style="list-style-type: none"> <li>• dimensions</li> <li>• weight</li> </ul>	0	25
3.2	Accurate recording of results	0	10
3.3	Proper sensory inspection of the product's physical characteristics	0	20

## Observations

---

	Result	
	Yes	No
4. Detection of abnormalities		
4.1 Accurate determination of product conformity	0	or 20
	Total: _____ /100	

Minimum  
performance  
standard:            75 marks

Comments

---

---

---

## ***Evaluation Specifications for Certification Purposes***

---

### **Statement of the Competency**

To avoid occupational health and safety risks.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Gather information on the laws and regulations that apply to industrial machinery operation.		<ul style="list-style-type: none"> <li>• Recognition of the rights and obligations of workers</li> </ul>	10
Recognize the potential risks and their effects on health and safety.	Potential risks and their effects on health and safety	<ul style="list-style-type: none"> <li>• Accurate identification of the risks inherent in the trade</li> <li>• Accurate interpretation of Workplace Hazardous Materials Information System (WHMIS) data sheets</li> <li>• Accurate association between potential risks and their effects on health and safety</li> </ul>	10 10 10
Recognize means of preventing accidents.	Recognition of preventive measures	<ul style="list-style-type: none"> <li>• Identification of the preventive measures related to setting up the shop and the workstation</li> <li>• Identification of the preventive measures related to performing trade-related operations</li> <li>• Description of the preventive measures related to handling loads</li> <li>• Description of the preventive measures related to using hazardous materials</li> </ul>	15 15 10 10

Elements Retained	Indicators	Evaluation Criteria	Mark
Minimum performance standard:	75 marks	Personal protective equipment <ul style="list-style-type: none"> <li>• Accurate association between personal protective equipment and the risks inherent in the trade</li> </ul>	10

## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to avoid occupational health and safety risks.

The suggested duration of this theory examination is two hours.

### **2. Procedure**

The questions presented to students can be related to everyday situations encountered by industrial machinery operators working in various types of companies. For example, students may be asked to:

- Identify, on a list provided by the examiner, a right and an obligation of workers, as defined in the Act respecting occupational health and safety.
- Name a risk inherent in the trade.
- Describe a preventive measure related to the safe handling of a given chemical, as indicated in the WHMIS data sheet.
- Identify a health and safety risk related to the use of a particular electric tool.
- Identify preventive measures related to setting up a shop and a workstation and performing trade-related operations.
- Describe a preventive measure related to the handling of heavy loads.
- Identify the personal protective equipment required for a specific task.

### **3. Special Instructions**

Course notes and any documents other than those provided are not allowed.

Students who fail the examination will retake it in a different version.



Shopwork

Code: 869586

Module 8

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To do shopwork.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Gather the information needed for the job.	Interpretation of drawings and instructions	<ul style="list-style-type: none"> <li>• Accurate interpretation of drawings and instructions</li> </ul>	10
Lay out workpieces.	Layout of the workpiece	<ul style="list-style-type: none"> <li>• Correct layout of the workpiece</li> </ul>	10
Prepare the workstation.	Preparation of equipment and accessories	<ul style="list-style-type: none"> <li>• Proper execution of required adjustments</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Proper installation of accessories</li> </ul>	10
Perform the required manufacturing operations.	Work technique	<ul style="list-style-type: none"> <li>• Correct use of work techniques</li> </ul>	25
	Quality of the product	<ul style="list-style-type: none"> <li>• Observance of manufacturing requirements</li> </ul>	15
Control the quality of their work.	Quality control	<ul style="list-style-type: none"> <li>• Accurate identification of physical characteristics</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Accurate assessment of product quality</li> </ul>	5
		<ul style="list-style-type: none"> <li>• Proper presentation of results in a report</li> </ul>	5

Minimum performance standard: 75 marks

Pass/Fail condition: Observes occupational health and safety rules.



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to do shopwork.

The suggested duration of this practical examination is three hours.

### **2. Procedure**

Working with technical drawings, students must perform a manufacturing operation on a workpiece.

Students will be required to interpret plans and instructions, lay out a workpiece, adjust and use equipment, perform manufacturing operations and control the quality of their work.

### **3. Materials**

Plans or technical drawings.

Hand tools.

Electric or air tools.

### **4. Special Instructions**

The examiner will immediately terminate a student's examination if the student does not observe occupational health and safety rules at all times. In this case, the student will fail the examination.

Course notes and any documents other than those provided are not allowed.

Students who fail the examination will retake it in a different version.



Module 8

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

	Result	
	Yes	No
1. Interpretation of drawings and instructions		
1.1 Accurate interpretation of drawings and instructions	0	10
2. Layout of the workpiece		
2.1 Correct layout of the workpiece	0	10
3. Preparation of equipment and accessories		
3.1 Proper execution of required adjustments	0	10
3.2 Proper installation of accessories	0	10
4. Work technique		
4.1 Correct use of work techniques	0	25
5. Quality of the product		
5.1 Observance of manufacturing requirements	0	15
6. Quality control		
6.1 Accurate identification of physical characteristics	0	10
6.2 Accurate assessment of product quality	0	5
6.3 Proper presentation of results in a report	0	5
	Total: _____ /100	

Minimum performance standard:

75 marks

Pass/Fail condition:

Observes occupational health and safety rules.

Comments

---



---



### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To handle materials.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Plan the move.	Organization of the move	• Accurate determination of the approximate weight of the load to be moved	15
		• Proper organization of the steps involved in the move	10
Inspect the equipment.	Inspection of equipment	• Visual inspection of handling and lifting devices	15
Move items and loads on horizontal and inclined planes.	Determination of centre of gravity	• Accurate determination of the load's centre of gravity	10
		Moving the load	• Observance of techniques for lifting and moving
			• Observance of techniques for setting down
	Use of standardized signals and gestures	• Proper use of standardized signals and gestures	10
Maintain handling equipment.	Storage method	• Observance of storage method	10

Minimum performance standard: 75 marks

Pass/Fail condition: Observes occupational health and safety rules.



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to handle materials.

The suggested duration of this practical examination is one hour, thirty minutes.

### **2. Procedure**

Students will be required to estimate the weight of a load to be moved and plan the steps involved in the move. They will have to determine the load's centre of gravity and then lift, move and set down the load. It is recommended that students use standardized signals and gestures.

### **3. Materials**

Handling and lifting equipment such as simple levers, hoists, cables and slings.

Tables of maximum loads.

Goods or machinery to be moved.

Instruction manuals.

### **4. Special Instructions**

The examiner will immediately terminate a student's examination if the student does not observe occupational health and safety rules at all times. In this case, the student will fail the examination.

Course notes and any documents other than those provided are not allowed.

Students who fail the examination will retake it in a different version.



Module 9

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result	
Pass	Fail
<input type="checkbox"/>	<input type="checkbox"/>

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

	Result	
	Yes	No
1. Organization of the move		
1.1 Accurate determination of the approximate weight of the load to be moved	0	or 15
1.2 Proper organization of the steps involved in the move	0	or 10
2. Inspection of equipment		
2.1 Visual inspection of handling and lifting devices	0	or 15
3. Determination of centre of gravity		
3.1 Accurate determination of the load's centre of gravity	0	or 10
4. Moving the load		
4.1 Observance of techniques for lifting and moving	0	or 15
4.2 Observance of techniques for setting down	0	or 15
5. Use of standardized signals and gestures		
5.1 Proper use of standardized signals and gestures	0	or 10
6. Storage method		
6.1 Observance of storage method	0	or 10
		Total: _____ /100

Minimum performance standard: 75 marks  
 Pass/Fail condition: Observes occupational health and safety rules.

Comments  
 \_\_\_\_\_  
 \_\_\_\_\_



### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To use job search techniques.

<b>Situations Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	
Learning about job search techniques.	Collection of information useful for a job search	• Lists companies in the region that meet his/her specifications.	<input type="checkbox"/>
		• Recognizes the steps involved in a job search.	<input type="checkbox"/>
Preparing for a job search.	Creation of a realistic timetable	• Organizes his/her job search.	<input type="checkbox"/>
		• Creates a realistic timetable.	<input type="checkbox"/>
	Production of a résumé and a cover letter	• Produces his/her résumé.	<input checked="" type="checkbox"/>
		• Produces a cover letter.	<input checked="" type="checkbox"/>
	Collection of information about selection interviews	• Lists the attitudes and behaviours to adopt or avoid during a selection interview.	<input type="checkbox"/>
Evaluating their potential.	Participation in a group discussion	• Describes past experiences.	<input type="checkbox"/>
		• Describes methods to overcome his/her weaknesses.	<input type="checkbox"/>

The student must meet:

- the criteria indicated by an “X”
- 6 out of 9 evaluation criteria for the competency to be deemed acquired



## ***Description of Participation***

---

### **1. General Information**

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency *To use job search techniques*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

### **2. Procedure**

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

#### Information Phase

During this phase, students must learn about job search techniques.

Students are required to gather information on the following topics:

- The steps involved in a job search.
- Companies in the region.

#### Participation Phase

During this phase, students must prepare themselves for a job search.

Students are required to:

- Organize a job search and create a timetable.
- Write a résumé and a cover letter.
- Gather information about selection interviews.

#### Synthesis Phase

During this phase, students must participate in a group discussion in which they:

- Describe their past experiences.
- Describe methods to overcome their weaknesses.



Module 10

**Evaluation Form**

---

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail



Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Participation Elements**

---

		Result	
		Yes	No
1.	Collection of information useful for a job search		
1.1	Lists companies in the region that meet his/her specifications.	<input type="checkbox"/>	<input type="checkbox"/>
1.2	Recognizes the steps involved in a job search.	<input type="checkbox"/>	<input type="checkbox"/>
2.	Creation of a realistic timetable		
2.1	Organizes his/her job search.	<input type="checkbox"/>	<input type="checkbox"/>
2.2	Creates a realistic timetable.	<input type="checkbox"/>	<input type="checkbox"/>
3.	Production of a résumé and a cover letter		
3.1	Produces his/her résumé.	<input type="checkbox"/>	<input type="checkbox"/>
3.2	Produces a cover letter.	<input type="checkbox"/>	<input type="checkbox"/>
4.	Collection of information about selection interviews		
4.1	Lists the attitudes and behaviours to adopt or avoid during a selection interview.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Participation in a group discussion		
5.1	Describes past experiences.	<input type="checkbox"/>	<input type="checkbox"/>
5.2	Describes methods to overcome his/her weaknesses.	<input type="checkbox"/>	<input type="checkbox"/>

Total: \_\_\_\_\_

Minimum performance standard: 6 out of 9 evaluation criteria, including criteria 3.1 and 3.2

Comments  
 \_\_\_\_\_  
 \_\_\_\_\_



### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To adapt to new types of work organization.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Recognize the production management approaches of the company and their effects on the type of work organization.	Types of production management approaches	• Comparison of different management approaches	5
		• Accurate differentiation among the types of work organization used by a company	5
		• Comparison of the company's various production processes	5
		• Appropriate comparison of the various production management approaches and the evolution of tasks	5
Recognize the means used to promote the continual improvement of productivity.	Continual improvement of productivity	• Accurate identification of the instruments or techniques used in the company for the continual improvement of productivity	5
		• Accurate identification of the various means used to meet the requirements of the new economy	5
		• Satisfactory identification of the various contributions of personnel to the improvement of productivity	5

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Solve problems.	Simple problem-solving process	• Accurate determination of the causes of the problem	15
		• Accurate determination of the consequences of the problem	15
		• Appropriate choice of solution to the problem	15
		• Creation of a realistic plan of action	20

Minimum performance standard: Part I: 25 marks  
Part II: 50 marks

## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to adapt to new types of work organization.

The suggested duration of this theory examination is three hours: one hour for Part I and two hours for Part II.

### **2. Procedure**

In Part I, students will answer questions on new types of work organization. These questions will take various forms: multiple choice, matching, association, short-answer, etc. This part of the examination covers the first two elements retained.

In Part II, students will use a case study to solve a problem related to work organization. A sample case study is provided in *Nouvelles organisations du travail*, published by the Centre d'élaboration des moyens d'enseignement du Québec (CÉMEQ). This part of the examination covers the third element retained.

### **3. Special Instructions**

Students who fail the examination will retake the part or parts that they failed.



### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To operate conventional machinery.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Interpret procedures manuals and instructions.	Interpretation of information	<ul style="list-style-type: none"> <li>Thorough identification of information in sketches, diagrams, drawings, patterns, recipes and work orders</li> </ul>	15
Prepare machines.	Installation of machines and accessories	<ul style="list-style-type: none"> <li>Proper preparation of machines used</li> </ul>	20
Use the equipment necessary for manufacturing, assembly or finishing.	Use of machines for manufacturing	<ul style="list-style-type: none"> <li>Appropriate use of machines</li> </ul>	20
	Observance of requirements	<ul style="list-style-type: none"> <li>Observance of product quality requirements</li> </ul>	15
Control the quality of the product.	Conformity of the product	<ul style="list-style-type: none"> <li>Accurate measurements recorded</li> </ul>	10
		<ul style="list-style-type: none"> <li>Accurate assessment of product conformity</li> </ul>	10
Prepare products for shipping or handling.	Packing slip	<ul style="list-style-type: none"> <li>Proper completion of packing slip</li> </ul>	5
Tidy up and clean the workstation.	Cleaning of work areas	<ul style="list-style-type: none"> <li>Proper cleaning and organizing of workstation</li> </ul>	5
Minimum performance standard:	75 marks		
Pass/Fail condition:	Observes occupational health and safety rules.		



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to operate conventional machinery.

The suggested duration of this practical examination is four hours.

### **2. Procedure**

The students will be required to interpret manufacturing data, prepare and use machines, control the quality of the product, fill out a packing slip and tidy up and clean the workstation.

### **3. Materials**

Procedures manuals.  
Manufacturing equipment.  
Raw materials.  
Measuring instruments.  
A packing slip.

### **4. Special Instructions**

The examiner will immediately terminate a student's examination if the student does not observe occupational health and safety rules at all times. In this case, the student will fail the examination.

Course notes and any documents other than those provided are not allowed.



Module 12

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result	
Pass	Fail
<input type="checkbox"/>	<input type="checkbox"/>

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

	Result	
	Yes	No
1. Interpretation of information		
1.1 Thorough identification of information in sketches, diagrams, drawings, patterns, recipes and work orders	0	or 15
2. Installation of machines and accessories		
2.1 Proper preparation of machines used	0	or 20
• proper installation of accessories	<input type="checkbox"/>	<input type="checkbox"/>
• accurate adjustment of parameters	<input type="checkbox"/>	<input type="checkbox"/>
3. Use of machines for manufacturing		
3.1 Appropriate use of machines	0	or 20
• respect for limitations of machines	<input type="checkbox"/>	<input type="checkbox"/>
• proper work techniques	<input type="checkbox"/>	<input type="checkbox"/>
• readjustment of parameters, as needed	<input type="checkbox"/>	<input type="checkbox"/>
4. Observance of requirements		
4.1 Observance of product quality requirements	0	or 15
5. Conformity of the product		
5.1 Accurate measurements recorded	0	or 10
5.2 Accurate assessment of product conformity	0	or 10
• accurate assessment	<input type="checkbox"/>	<input type="checkbox"/>
• valid justification, if applicable	<input type="checkbox"/>	<input type="checkbox"/>

## Observations

---

		Result	
		Yes	No
6.	Packing slip		
6.1	Proper completion of packing slip		0 or 5
	• identification of product	<input type="checkbox"/>	<input type="checkbox"/>
	• proper completion of form	<input type="checkbox"/>	<input type="checkbox"/>
7.	Cleaning of work areas		
7.1	Proper cleaning and organizing of workstation		0 or 5
	• tools and accessories put away	<input type="checkbox"/>	<input type="checkbox"/>
	• clean machines	<input type="checkbox"/>	<input type="checkbox"/>
	• clean floor	<input type="checkbox"/>	<input type="checkbox"/>
		Total: _____ /100	

Minimum  
performance  
standard: 75 marks

Pass/Fail  
condition: Observes occupational health and safety rules.

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To operate an automated production system.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Interpret procedures manuals and instructions.	Identification of information	<ul style="list-style-type: none"> <li>• Thorough identification of information</li> </ul>	10
Plan the work.	Preparation of raw materials	<ul style="list-style-type: none"> <li>• Preparation of raw materials in conformity with instructions and standards</li> </ul>	10
Control the sequence of an automated procedure.	Preparation of machines	<ul style="list-style-type: none"> <li>• Proper preparation of machines in accordance with the product to be manufactured</li> </ul>	10
	Operating parameters	<ul style="list-style-type: none"> <li>• Inputting of parameters in accordance with instructions</li> <li>• Appropriate corrections to parameters following the detection of abnormalities</li> </ul>	20 15
Control the quality of the product.	Conformity of the product	<ul style="list-style-type: none"> <li>• Observance of inspection and measuring techniques</li> </ul>	10
		<ul style="list-style-type: none"> <li>• Proper recording of quality control information</li> </ul>	5
		<ul style="list-style-type: none"> <li>• Detection of substandard products</li> </ul>	5
Prepare products for shipping or handling.	Packaging and labelling of products	<ul style="list-style-type: none"> <li>• Proper packaging and labelling of products to be shipped or handled</li> </ul>	5

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Tidy up and clean up the workstation.	Shutdown of machines	<ul style="list-style-type: none"> <li>• Observance of procedure for shutting down the machine</li> </ul>	10
Minimum performance standard:	75 marks		
Pass/Fail condition:	Observes occupational health and safety rules.		

## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to operate an automated production system.

The suggested duration of this practical examination is three hours.

### **2. Procedure**

On a continuous process production line, production is usually handled by a team, except when it comes to modifying parameters. Students are evaluated on every criterion.

The examination could involve two work orders. The first work order will require students to identify information, prepare raw materials and machines, introduce operating parameters, record information and check that products conform to standards. The second work order will require students to locate information and modify parameters.

### **3. Materials**

Procedures manuals and instructions.  
Automated machines or a continuous process production line.  
Raw materials.  
Measuring instruments and testing devices.  
Work orders.  
Packaging and labelling materials.

### **4. Special Instructions**

The examiner will immediately terminate a student's examination if the student does not observe occupational health and safety rules at all times. In this case, the student will fail the examination.

Course notes and any documents other than those provided are not allowed.



Module 13

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail



Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

		Result	
		Yes	No
1.	Identification of information		
1.1	Thorough identification of information		0 or 10
	• work to do	<input type="checkbox"/>	<input type="checkbox"/>
	• procedure to use	<input type="checkbox"/>	<input type="checkbox"/>
2.	Preparation of raw materials		
2.1	Preparation of raw materials in conformity with:		0 or 10
	• instructions	<input type="checkbox"/>	<input type="checkbox"/>
	• standards	<input type="checkbox"/>	<input type="checkbox"/>
3.	Preparation of machines		
3.1	Proper preparation of machines in accordance with the product to be manufactured		0 or 10
4.	Operating parameters		
4.1	Inputting of parameters in accordance with instructions		0 or 20
4.2	Appropriate corrections to parameters following the detection of abnormalities		0 or 15
5.	Conformity of the product		
5.1	Observance of inspection and measuring techniques		0 or 10
5.2	Proper recording of quality control information		0 or 5
5.3	Detection of substandard products		0 or 5

## Observations

---

	Result	
	Yes	No
6. Packaging and labelling of products		
6.1 Proper packaging and labelling of products to be shipped or handled	0	5
7. Shutdown of machines		
7.1 Observance of procedure for shutting down the machine	0	10
	Total: _____ /100	

Minimum  
performance  
standard: 75 marks

Pass/Fail  
condition: Observes occupational health and safety rules.

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To maintain machinery.

<b>Elements Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	<b>Mark</b>
Detect operating abnormalities.	Verification of checkpoints	<ul style="list-style-type: none"> <li>• Proper verification of specified checkpoints</li> </ul>	10
	Location of abnormalities	<ul style="list-style-type: none"> <li>• Accurate detection of source of unusual noises, odours or vibrations</li> <li>• Accurate identification of defective component or system fault</li> </ul>	10
Perform tasks included in the maintenance schedule.	Adjustment of components	<ul style="list-style-type: none"> <li>• Adjustment of components in conformity with instructions</li> </ul>	15
	Lubrication points	<ul style="list-style-type: none"> <li>• Observance of lubrication points</li> </ul>	10
Replace simple components.	Replacement of components	<ul style="list-style-type: none"> <li>• Correct dismantling, reassembly and adjustment of an assembly of simple components</li> </ul>	15
	Cleaning of components	<ul style="list-style-type: none"> <li>• Proper cleaning of components</li> </ul>	10
Tidy up and clean the work area.	Cleanliness of machines and work area	<ul style="list-style-type: none"> <li>• Clean environment throughout the maintenance operation</li> </ul>	10
Fill out the maintenance record card.	Relevance of comments	<ul style="list-style-type: none"> <li>• Comments reflecting the maintenance performed</li> </ul>	10

Minimum performance standard: 75 marks

Pass/Fail condition: Observes occupational health and safety rules.



## ***Description of the Examination***

---

### **1. General Information**

The purpose of the examination is to evaluate the students' ability to maintain machinery.

The suggested duration of this practical examination is three hours.

### **2. Procedure**

The students will be required to perform a basic adjustment on an assembly of simple components and replace some simple components. This will enable them to verify checkpoints, detect abnormalities, identify a defective component, adjust and lubricate the component, record maintenance information, and dismantle, reassemble, adjust and clean an assembly of components.

### **3. Materials**

Assembly drawings of machines.

Technical manuals.

Measuring instruments.

Basic tools.

Machinery.

### **4. Special Instructions**

The examiner will immediately terminate a student's examination if the student does not observe occupational health and safety rules at all times. In this case, the student will fail the examination.



Module 14

**Evaluation Form**

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Result

Pass

Fail

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

**Observations**

		Result	
		Yes	No
1.	Verification of checkpoints		
1.1	Proper verification of specified checkpoints	0	10
2.	Location of abnormalities		
2.1	Accurate detection of source of unusual noises, odours or vibrations	0	10
2.2	Accurate identification of defective component or system fault	0	10
3.	Adjustment of components		
3.1	Adjustment of components in conformity with instructions	0	15
4.	Lubrication points		
4.1	Observance of lubrication points	0	10
5.	Replacement of components		
5.1	Correct dismantling, reassembly and adjustment of an assembly of simple components	0	15
6.	Cleaning of components		
6.1	Proper cleaning of components	0	10
7.	Cleanliness of machines and work area		
7.1	Clean environment throughout the maintenance operation	0	10

## Observations

---

	Result	
	Yes	No
8. Relevance of comments		
8.1 Comments reflecting the maintenance performed	0	or 10
	Total: _____ /100	

Minimum performance standard: 75 marks

Pass/Fail condition: Observes occupational health and safety rules.

Comments

---

---

---

### ***Evaluation Specifications for Certification Purposes***

---

#### **Statement of the Competency**

To enter the work force.

<b>Situations Retained</b>	<b>Indicators</b>	<b>Evaluation Criteria</b>	
Finding a practicum position.	Obtaining a practicum position	<ul style="list-style-type: none"> <li>• Creates a plan for finding a practicum position. <input type="checkbox"/></li> <li>• Makes contact with employers. <input type="checkbox"/></li> <li>• Meets with the person responsible for the practicum at the company. <input type="checkbox"/></li> </ul>	
Engaging in activities in the workplace.	Participation in the performance of various tasks	<ul style="list-style-type: none"> <li>• Adopts professional behaviour. <input checked="" type="checkbox"/></li> <li>• Observes and performs tasks in conformity with the company's practices. <input checked="" type="checkbox"/></li> <li>• Learns about the techniques and equipment used. <input type="checkbox"/></li> </ul>	
	Production of a daily log	<ul style="list-style-type: none"> <li>• Records the tasks performed and comments received in a daily log. <input checked="" type="checkbox"/></li> </ul>	
Evaluating the practicum experience.	Participation in a group discussion	<ul style="list-style-type: none"> <li>• Lists the main tasks performed. <input type="checkbox"/></li> <li>• Comments on the tasks performed. <input type="checkbox"/></li> <li>• Determines the strong and weak points of the training received. <input type="checkbox"/></li> <li>• Defines supplemental training needs. <input type="checkbox"/></li> </ul>	

The student must meet:

- the criteria indicated by an "X"
- 8 out of 11 evaluation criteria for the competency to be deemed acquired



## ***Description of Participation***

---

### **1. General Information**

The purpose of the evaluation is to assess the students' participation in activities designed to develop the competency *To enter the work force*.

The teacher evaluates participation throughout the module using a participation evaluation form. Evaluation is based on the students' participation in the various activities carried out individually or in large or small groups, and not on the results obtained.

### **2. Procedure**

The evaluation consists of three phases, undertaken at different stages of the module. Each phase is accompanied by specific instructions.

#### Information Phase

During this phase, students must find a practicum position. They must:

- Create a plan.
- Make contact with the company and meet the person responsible for the practicum position.

#### Participation Phase

During this phase, students must participate in the performance of various tasks:

- Adopt professional behaviour.
- Observe and perform tasks.
- Learn about techniques and equipment.
- Produce a report.

#### Synthesis Phase

During this phase, students must participate in a group discussion in which they:

- Present the tasks performed during the practicum.
- Determine the strong and weak points of the training received.
- Define their future training needs.



Module 15

**Evaluation Form**

---

Student's name: \_\_\_\_\_

School: \_\_\_\_\_

Permanent code: \_\_\_\_\_

Date: \_\_\_\_\_

Teacher's signature: \_\_\_\_\_

Result	
Pass	Fail
<input type="checkbox"/>	<input type="checkbox"/>

**Participation Elements**

---

	Result	
	Yes	No
1. Obtaining a practicum position		
1.1 Creates a plan for finding a practicum position.	<input type="checkbox"/>	<input type="checkbox"/>
1.2 Makes contact with employers.	<input type="checkbox"/>	<input type="checkbox"/>
1.3 Meets the person responsible for the practicum at the company.	<input type="checkbox"/>	<input type="checkbox"/>
2. Participation in the performance of various tasks		
2.1 Adopts professional behaviour:	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• punctuality</li> <li>• courtesy</li> <li>• safe behaviour</li> <li>• respect for company rules</li> </ul>		
2.2 Observes and performs tasks in conformity with the company's practices.	<input type="checkbox"/>	<input type="checkbox"/>
2.3 Learns about the techniques and equipment used.	<input type="checkbox"/>	<input type="checkbox"/>
3. Production of a daily log		
3.1 Records the tasks performed and comments received in a daily log.	<input type="checkbox"/>	<input type="checkbox"/>
4. Participation in a group discussion		
4.1 Lists the main tasks performed.	<input type="checkbox"/>	<input type="checkbox"/>
4.2 Comments on the tasks performed.	<input type="checkbox"/>	<input type="checkbox"/>
4.3 Determines the strong and weak points of the training received.	<input type="checkbox"/>	<input type="checkbox"/>
4.4 Defines supplemental training needs.	<input type="checkbox"/>	<input type="checkbox"/>

## Participation Elements

---

Result  
Yes No  
Total: \_\_\_\_\_

Minimum  
performance  
standard:

8 out of 11 evaluation criteria, including criteria 2.1, 2.2 and 3.1

Comments

---

---

---



The image features a blue-toned landscape photograph, possibly of a mountain range or a large body of water, with a white, torn-paper-like edge at the top. Overlaid on the image are several white, thin-lined circles of varying sizes and positions, some overlapping each other. The circles are scattered across the blue area and extend slightly into the white background below.

**Éducation,  
Loisir et Sport**

**Québec** 

17-1120-04A