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WOODWORKING AND FURNITURE MAKING

FURNITURE FINISHING

PROGRAM OF STUDY
5642

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WOODWORKING AND FURNITURE MAKING

FURNITURE FINISHING

PROGRAM OF STUDY 5642

The *Furniture Finishing* program leads to the
Diploma of Vocational Studies (DVS)
and prepares the student to practise the trade of

FURNITURE FINISHER

Direction générale de la formation professionnelle et technique

This program of study, *Furniture Finishing*, is issued in accordance with section 461 of the *Education Act* (R.S.Q., c. I-13.3).

In conformity with the provisions of paragraph (a) of section 23 of the *Act respecting the Conseil supérieur de l'éducation* (R.S.Q., c. C-60), as replaced by section 569 of the *Education Act* (1988, chapter 84), the confessional committees of the Conseil supérieur de l'éducation have given their opinion on this program of study, which has been authorized for teaching *Furniture Finishing* in the schools as of September, 1994.

Jean Garon
Minister of Education

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INTRODUCTION

The *Furniture Finishing* program is based on the orientations announced by the government in 1986 for secondary school vocational education. It was designed on the basis of a framework for developing vocational education programs that calls for the participation of experts from the workplace and the field of education.

The program of study is developed in terms of competencies, expressed as objectives. These objectives are divided into modules, which are organized into teaching blocks. Various factors were kept in mind in developing the program: training needs, the job situation, purposes, goals, and strategies and means used to attain objectives.

The program of study lists the competencies that are the minimum requirements for a Diploma of Vocational Studies (DVS) for students in both the youth and adult sectors. It also provides the basis for organizing courses, planning teaching strategies, and designing instructional and evaluation materials.

The duration of the program is 900 hours, which includes 780 hours spent on the specific competencies required to practise the trade and 120 hours on general competencies. The program of study is divided into 16 modules, which vary in length from 15 to 120 hours (multiples of 15). The time allocated to the program is to be used not only for teaching but also for evaluation and remedial work.

This document contains two parts. Part I is of general interest and provides an overview of the training plan. It includes a synoptic table of basic information about the modules, a description of the program training goals, the competencies to be developed and the general objectives, and an explanation of operational objectives. Part II is designed primarily for those directly involved in implementing the program. It contains a description of the operational objectives of each module.

In keeping with this broad approach, three accompanying documents will be provided: a teaching guide, an evaluation guide, and a planning guide.

GLOSSARY

Program Training Goals

Statements that describe the educational aims of a program. These goals are the general goals of vocational education adapted to a specific trade or occupation.

Competency

A set of socio-affective behaviours, cognitive skills or psycho-sensori-motor skills that enable a person to correctly perform a role, function, activity or task.

General Objectives

Instructional objectives that provide an orientation for leading the students to attain one or more related objectives.

Operational Objectives

Statements of the educational aims of a program in practical terms. They serve as the basis for teaching, learning and evaluation.

Module of a Program

A component part of a program of study comprising a first-level operational objective and the related second-level operational objectives.

Credit

A unit used for expressing quantitatively the value of the modules in a program of study. One credit corresponds to 15 hours of training. Students must accumulate a set number of credits to graduate from a program.

PART I

1. SYNOPTIC TABLE

Number of modules: 16
 Duration in hours: 900
 Credits: 60

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CODE	TITLE OF THE MODULE	HOURS	CREDITS*
760 111	1. The Trade and the Training Process	15	1
760 121	2. Occupational Health and Safety	15	1
760 132	3. Colour Theory	15	1
760 153	4. Matching Opaque Colours	60	4
760 143	5. Finishing Products	45	3
760 162	6. Surface Preparation	30	2
760 177	7. Finishing Schedules	105	7
760 188	8. Finishing New Furniture	120	8
760 193	9. Touch-Ups	45	3
760 202	10. Furniture Styles	30	2
760 211	11. Stripping	15	1
760 227	12. Special Finishes	105	7
760 238	13. Finishing Used Furniture	120	8
760 246	14. Restoring Furniture	90	6
760 252	15. Starting a Business	30	2
760 264	16. Practicum in the Workplace	60	4

* 15 hours = 1 credit
 This program leads to a Diploma of Vocational Studies (DVS) in *Furniture Finishing*.

2. PROGRAM TRAINING GOALS

The training goals of the *Furniture Finishing* program are based on the general goals of vocational education and take into account the specific nature of the trade. These goals are:

To develop effectiveness in the practice of a trade.

- To teach students to perform furniture finishing tasks and activities correctly, at an acceptable level of competence for entry into the job market.
- To help students acquire safe and effective work methods.
- To instill in students a concern for good workmanship.

To ensure integration into the job market.

- To help students familiarize themselves with the job market in the furniture finishing trade.
- To help students find employment in furniture finishing.

To foster personal and professional development.

- To foster independence and a sense of responsibility.

To ensure job mobility.

- To encourage students to strive for excellence and reinforce their concern for good workmanship.
- To help students develop their ability to adapt to change.

3. COMPETENCIES

The competencies to be developed in the *Furniture Finishing* program are shown in the grid of learning focuses on the following page. The grid lists general and specific competencies as well as the major steps in the work process.

General competencies involve activities common to several tasks or situations. They cover, for example, the technological or scientific principles that the students must understand to practise the trade or occupation. Specific competencies focus on tasks and activities that are of direct use in the trade or occupation. The work process includes the most important steps in carrying out the tasks and activities of the trade or occupation.

The grid of learning focuses shows the relationship between the general competencies on the horizontal axis and the specific competencies on the vertical axis. The symbol (Δ) indicates a correlation between a specific competency and a step in the work process. The symbol ($\circ$) indicates a correlation between a general and a specific competency. The symbols ($\blacktriangle$) and ($\bullet$) indicate that these relationships have been taken into account in the formulation of objectives intended to develop specific competencies related to the trade or occupation.

The logic used in constructing the grid influences the course sequence. Generally speaking, this sequence follows a logical progression in terms of the complexity of the learning involved and the development of the students' autonomy. The vertical axis of the grid shows the competencies directly related to the practice of a specific trade or occupation. These competencies are arranged in a relatively fixed order; therefore, the modules should be taught, insofar as possible, in the order represented on the grid. The modules including the general competencies on the horizontal axis should be taught in relation to those on the vertical axis. This means that some modules are prerequisite to others, while other modules are taught concurrently.

GRID OF LEARNING FOCUSES IN FURNITURE FINISHING		FIRST LEVEL OPERATIONAL OBJECTIVES		DURATION (IN HOURS)		WORK PROCESS (major steps)						GENERAL COMPETENCIES (related to technology, subjects, personal development, etc.)					TOTALS	
MODULES	SPECIFIC COMPETENCIES (directly related to the practice of the specific occupation)	MODULES		DURATION		DURATION (IN HOURS)						DURATION (IN HOURS)					DURATION (IN HOURS)	
		FIRST LEVEL OPERATIONAL OBJECTIVES		DURATION		DURATION (IN HOURS)						DURATION (IN HOURS)					DURATION (IN HOURS)	
		DURATION		DURATION		DURATION (IN HOURS)						DURATION (IN HOURS)					DURATION (IN HOURS)	
4	Match opaque colours	B	60	▲								1	2	3	5	10		
6	Prepare surfaces for finishing	B	30	▲	▲							1	2	3	5	10		
7	Develop finishing schedules	B	105	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
8	Finish new furniture	B	120	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
9	Do touch-ups	B	45	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
11	Strip flat surfaces in good condition	B	15	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
12	Apply special finishes	B	105	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
13	Refinish furniture	B	120	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
14	Restore furniture	B	90	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
15	Determine their suitability for starting a business	S	30	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
16	Enter the work force	S	60	▲	▲	▲	▲	▲	▲	▲	▲	1	2	3	5	10		
NUMBER OF OBJECTIVES		11															16	
DURATION (IN HOURS)			780														900	

S : Situational objectives
 B : Behavioural objectives
 ▲ : Correlation between a step and a specific competency
 △ : Correlation to be taught and evaluated
 ○ : Correlation between a general and a specific competency
 ● : Correlation to be taught and evaluated

4. GENERAL OBJECTIVES

The general objectives of the *Furniture Finishing* program are presented below, along with the major statement of each corresponding first-level operational objective.

To develop in the students the prerequisite competencies required to finish furniture.

- Apply concepts of colour theory
- Apply concepts related to finishing products
- Match opaque colours
- Take furniture styles into account in their work

To develop in the students the competencies required to do the steps involved in finishing furniture.

- Apply occupational health and safety rules
- Prepare surfaces for finishing
- Develop finishing schedules
- Finish new furniture
- Do touch-ups
- Strip flat surfaces in good condition
- Apply special finishes
- Refinish furniture
- Restore furniture

To develop in the students the competencies required to integrate into the workplace.

- Determine their suitability for the trade and the training process
- Determine their suitability for starting a business
- Enter the work force

5. FIRST- AND SECOND-LEVEL OPERATIONAL OBJECTIVES

5.1 DEFINITION

A first-level objective is defined for each competency to be developed (see Section 3). Competencies are organized into an integrated training program designed to prepare students to practise the trade or occupation. This systematic organization of competencies produces better overall results than training by isolated objectives. More specifically, it fosters a smooth progression from one objective to the next, saves teaching time by eliminating needless repetition, and integrates and reinforces learning material.

First-level operational objectives are the main, compulsory teaching/learning targets and they are specifically evaluated for certification. There are two kinds of operational objectives: behavioural and situational.

- A **behavioural objective** is a relatively closed objective that describes the actions and results expected of the student by the end of a learning step. Evaluation is based on expected results.
- A **situational objective** is a relatively open-ended objective that outlines the major phases of a learning situation. It allows for output and results to vary from one student to another. Evaluation is based on the student's participation in the activities of the learning context.

Second-level operational objectives are intermediate teaching/learning targets deemed prerequisite for attaining first-level objectives. They are grouped according to the specifications (see 5.2 A) or the phases (see 5.2 B) of the first-level objective.

The division of operational objectives into first- and second-level objectives is based on a clear distinction between the levels of learning:

- learning involving prerequisite knowledge
- learning involving competencies

Second-level operational objectives indicate prerequisite knowledge. They prepare the students to learn what is necessary to attain the first-level operational objectives, which collectively lead to the development of a competency. The objectives should always be adapted to meet the particular needs of the individual students or groups of students.

First-level operational objectives cover the learning that the students need to develop a competency:

- The specifications or the phases of the objective determine or guide specific learning, thereby allowing the competency to be developed step by step.

- The objective as a whole (i.e. the five components and in particular the last phase of a situational objective) determines or guides the overall learning and the integration and synthesis of this learning, allowing the competency to be developed fully.

To attain the objectives, the following learning activities may be prepared:

- specific learning activities for second-level objectives
- specific learning activities for the specifications or phases of first-level objectives
- general learning activities for first-level objectives

5.2 HOW TO READ FIRST-LEVEL OPERATIONAL OBJECTIVES

A. How to Read a Behavioural Objective

Behavioural objectives consist of five components. The first three provide an overview of the objective:

1. The **expected behaviour** states a competency in terms of the general behaviour that the students are expected to have acquired by the end of the module.
2. The **conditions for performance evaluation** define what is necessary or permissible to the students during evaluation designed to verify whether or not the students have attained the objective. This means that the conditions for evaluation are the same wherever and whenever the program is taught.
3. The **general performance criteria** define the requirements by which to judge whether or not the results obtained are generally satisfactory.

The last two components ensure that the objective is understood clearly and unequivocally:

4. The **specifications of the expected behaviour** describe the essential elements of the competency in terms of specific behaviours.
5. The **specific performance criteria** define the requirements for each of the specifications of behaviour. They ensure a more enlightened decision on the attainment of the objective.

B. How to Read a Situational Objective

Situational objectives consist of six components:

1. The **expected outcome** states a competency as an aim to be pursued throughout the course.
2. The **specifications** outline the essential aspects of the competency and ensure a better understanding of the expected outcome.
3. The **learning context** provides an outline of the learning situation designed to help the students develop the required competencies. It is normally divided into three phases of learning:
 - information
 - performance, practice or involvement
 - synthesis, integration and self-evaluation
4. The **instructional guidelines** provide suggested ways and means of teaching the course to ensure that learning takes place and that the same conditions apply wherever and whenever the course is taught. These guidelines may include general principles or specific procedures.
5. The **participation criteria** describe the requirements the students must fulfil, which are usually related to each phase of the learning context. They focus on how the students take part in the activities rather than on the results obtained. Participation criteria are normally provided for each phase of the learning context.

PART II

MODULE 1: THE TRADE AND THE TRAINING PROCESS

CODE: 760 111

Duration: 15 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to **determine their suitability for the trade and the training process.**

SPECIFICATIONS

During this module, the students will:

- Become familiar with the nature of the trade.
- Understand the training program.
- Confirm their career choice.
- Begin their integration into the learning environment.

LEARNING CONTEXT

PHASE 1: Information on the Trade

- Learning about the job market in furniture finishing, i.e. potential work environments (types of companies, products), job prospects, wages, advancement and transfer opportunities, hiring criteria.
- Learning about the nature and requirements of the job (i.e. tasks, working conditions, health and safety hazards, evaluation criteria, workers' rights and responsibilities).

PHASE 2: Information on the Program and Participation in the Training Process

- Becoming familiar with the training program: the program of study, the training process, evaluation methods, certification of studies.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 3: Participation in the Training Process

- Reflecting on their aptitudes and interests with respect to the trade.
- Participating in the suggested activities: meetings with trade specialists, field trips, demonstrations, exhibitions, etc.
- Discussing their perception of the trade:
 - the positive and negative aspects of the trade
 - the demands of the trade
 - the knowledge, skills and attitudes required to practise the trade
- Discussing their initial reactions to the trade and the training process.

PHASE 4: Evaluation and Confirmation of Career Choice

- Producing a report in which they:
 - express their views on the tasks and working conditions involved in furniture finishing
 - assess their career choice by comparing the demands of the trade with their own aptitudes

INSTRUCTIONAL GUIDELINES

The teacher should:

- Encourage the students to engage in discussions and to express themselves.
- Motivate the students to take part in the suggested activities.
- Help the students to acquire an accurate perception of the trade.
- Help the students to assess their career choice honestly and objectively.
- Make suitable reference material available to the students.
- Arrange for the students to meet with trade specialists.
- Provide the students with an outline for the report.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 1:

- Gather relevant information on employment prospects in furniture finishing.
- Gather relevant information on the tasks and working conditions involved in furniture finishing.

PHASE 2:

- Gather relevant information on the program of study and the training process.

PHASE 3:

- Demonstrate a willingness to reflect on their preferences and aptitudes.
- Take part in the suggested activities.
- Express their perception of the trade on the basis of the information they gathered.
- Express their perception of the program of study.

PHASE 4:

- Produce a report.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 1:

1. Find sources of information.
2. Use a research method.
3. Compare information obtained from different sources.
4. Demonstrate a desire to find information.

Before undertaking the activities of Phase 2:

5. Recognize the attitudes required for successful learning.
6. Recognize the importance of organizing their work.
7. Identify the means and methods that will help them pass their examinations.

Before undertaking the activities of Phase 3:

8. Be familiar with the general communication process.
9. Be familiar with the main obstacles to effective communication.
10. Demonstrate a willingness to respect other people's opinions.

Before undertaking the activities of Phase 4:

11. Demonstrate a willingness to assess their career choice.
12. Be receptive to comments.

MODULE 2: OCCUPATIONAL HEALTH AND SAFETY

CODE: 760 121

Duration: 15 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to **apply occupational health and safety rules.**

SPECIFICATIONS

At the end of this module, the students will:

- Be aware of the hazards inherent in the trade with respect to their own and their co-workers' health and safety.
- Demonstrate positive attitudes with respect to the measures to be taken to avoid accidents and occupational diseases.
- Question their own attitudes with respect to occupational health and safety.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 1: Information on Occupational Health and Safety

- Learning about occupational health and safety.
- Learning about the main points of the *Act respecting occupational health and safety*, more specifically, the purpose of the act as well as employers' and workers' rights and responsibilities.
- Learning about the occupational health and safety rules that apply to furniture finishing.
- Learning about the hazards inherent in the trade and about the measures to take and attitudes to adopt in order to avoid industrial accidents and occupational diseases.

PHASE 2: Reflection on the Importance of Observing Occupational Health and Safety Rules

- Reflecting on their attitudes and behaviour with respect to occupational health and safety.
- Participating in a discussion on the occupational hazards and diseases associated with furniture finishing.
- Participating in activities during which each student will suggest ways of preventing accidents at school and in the workplace.

PHASE 3: Assessment of Their Behaviour and Attitudes with Respect to Occupational Health and Safety

- Producing a report in which they:
 - express their views on occupational health and safety
 - describe their behaviour and attitudes with respect to the application of occupational health and safety rules

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

INSTRUCTIONAL GUIDELINES

The teacher should:

- Encourage the students to engage in discussions and to express themselves.
- Motivate the students to take part in the suggested activities.
- Raise the students' awareness of the health and safety hazards inherent in the trade.
- Make suitable reference material available to the students.
- Give the students concrete examples.

PARTICIPATION CRITERIA

PHASE 1:

- Gather relevant information on occupational health and safety.
- Gather relevant information on the general framework of the *Act respecting occupational health and safety*.
- Gather relevant information on occupational health and safety rules.
- Gather relevant information on occupational hazards inherent in furniture finishing.
- Gather relevant information on the measures to take and attitudes to adopt to protect workers' health.

PHASE 2:

- Reflect on occupational health and safety.
- Express their views on the accident hazards and occupational diseases associated with furniture finishing.
- Suggest ways of preventing accidents in the workplace and at school.

PHASE 3:

- Produce a report.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 1:

1. Find sources of information.
2. Use a research method.
3. Demonstrate a desire to find information.

Before undertaking the activities of Phase 2:

4. Apply the basic principles of effective communication.
5. Recognize the importance of occupational health and safety rules.
6. Be receptive to comments.
7. Demonstrate a willingness to respect other people's opinions.

Before undertaking the activities of Phase 3:

8. Be willing to take a critical look at their own behaviour and attitudes.

MODULE 3: COLOUR THEORY

CODE: 760 132

Duration: 15 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **apply concepts of colour theory** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Following instructions
- Given questions based on examples of actual working conditions
- Using colour samples
- Without referring to course notes

GENERAL PERFORMANCE CRITERIA

- Accurate interpretation of colour theory
- Recognition of colours

**FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE**

**SPECIFICATIONS OF THE EXPECTED
BEHAVIOUR**

A. Classify colours.

B. Link colour theory to furniture finishing.

C. Use a spectrometer.

**SPECIFIC PERFORMANCE
CRITERIA**

- Proper classification of colours based on:
 - the colour circle
 - primary colours, hues, shades and tones
 - colour harmony
- Proper characterization of the colours used in furniture finishing
- Clearness of the links established between colour theory and furniture finishing
- Proper use of spectrometer

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to classify colours (A):

1. Define colour.
2. Understand how the eye sees colours.

Before learning how to link colour theory to furniture finishing (B):

3. Recognize the importance of colour in furniture finishing.

Before learning how to use a spectrometer (C):

4. Demonstrate attention to detail.

MODULE 4: MATCHING OPAQUE COLOURS

CODE: 760 153

Duration: 60 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **match opaque colours** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions for matching an opaque colour containing a shade of gray
- Using:
 - colour samples
 - tinted lacquers
 - a spatula, an applicator, colorist's glass, colorist's paper and a Macbeth Easel type lighting system
- Without referring to course notes

GENERAL PERFORMANCE CRITERIA

- Observance of occupational health and safety rules
- Observance of colour matching methods using the subtractive system (colouring matter)
- Application of the principles of colour theory and of the colour circle
- Quality of the match: the colour of the matched sample must be similar to that of the sample provided

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

- | | |
|--|--|
| A. Analyze an opaque colour. | <ul style="list-style-type: none"> - Appropriate analysis of the colour, i.e. determination of the colours of which the sample to be matched is composed |
| B. Choose the tools and colouring products. | <ul style="list-style-type: none"> - Proper choice of tools - Proper choice of bases and colouring matters |
| C. Produce sample runs: <ul style="list-style-type: none"> • evaluate the quantity required of each product • mix the products • apply the products on the colorist's glass • compare the colour obtained with that of the sample • adjust the colour | <ul style="list-style-type: none"> - Observance of the steps involved in producing sample runs - Accurate assessment of the necessary quantities of bases and colouring matter - Homogeneity of the mix - Proper use of tools - Proper use of daylight or of the Macbeth Easel-type lighting system - Accurate assessment of the necessary adjustments |
| D. Have the match approved. | <ul style="list-style-type: none"> - Proper presentation of the match |
| E. Note the recipe for the colour. | <ul style="list-style-type: none"> - Full and complete notation of the recipe: <ul style="list-style-type: none"> • names of products • quantities • order of incorporation into mix - Observance of procedure - Legibility |
| F. Dispose of the batch and tidy up the work area. | <ul style="list-style-type: none"> - Observance of occupational health and safety rules - Proper cleaning of tools and work area |

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to analyze an opaque colour (A):

1. Interpret the principles of the subtractive system of colour mixing.
2. Demonstrate a willingness to analyze the colour properly.
3. Explain the four ways in which colours may be changed.

Before learning how to choose the tools and colouring products (B):

4. List the types of colouring products likely to be used to match the colour sample.
5. Explain how the colouring products work.

Before learning how to produce sample runs:

- evaluate the quantity required of each product
 - mix the products
 - apply the products on the colorist's glass
 - compare the colour obtained with that of the sample
 - adjust the colour (C):
6. Demonstrate a willingness to develop rational work methods.
 7. Show concern for using materials economically.
 8. Assess the necessary product quantities.
 9. Work carefully when producing sample runs.
 10. Show concern for keeping tools clean.
 11. Observe the product drying times.
 12. Apply the principles relating to true complementary colours.
 13. Be patient and precise in their work.
 14. Be aware that metamerism can pose a problem.

Before learning how to dispose of the batch and tidy up the work area (F):

15. Recognize cleaning products.
16. Observe occupational health and safety rules.

MODULE 5: FINISHING PRODUCTS

CODE: 760 143

Duration: 45 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **apply concepts related to finishing products** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given questions based on examples of actual work situations
- Using technical references and course notes

GENERAL PERFORMANCE CRITERIA

- Clear understanding of the processes used to make finishing products
- Proper choice of finishing products

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

A. Describe the types of products used in furniture finishing:

- stains
- coating products

B. Modify finishing products:

- change their viscosity
- change their colour
- modify their drying time

C. Solve problems related to:

- product application
- product drying

SPECIFIC PERFORMANCE CRITERIA

- Accurate description of stains:
 - name
 - composition
 - characteristics
 - uses
 - available colours
 - application and drying characteristics
- Accurate description of coating products:
 - name
 - composition
 - characteristics
 - uses
 - available colours
 - application and drying characteristics
 - manner in which films are formed (drying)
- Appropriate modifications in accordance with needs and taking into account the compatibility of the products
- Observance of the problem-solving process
- Appropriate solutions
- Economical solutions

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to describe the types of products used in furniture finishing:

- **stains**
- **coating products (A):**
 1. Explain the reasons for finishing furniture.
 2. Define the following terms: "paint," "varnish" and "enamel."
 3. Briefly describe the main aspects of the paint and varnish industry.
 4. Be familiar with the origin of stains and coating products.
 5. Explain the reasons for staining furniture.

Before learning how to modify finishing products:

- **change their viscosity**
- **change their colour**
- **modify their drying time (B):**
 6. Do mathematical calculations.

Before learning how to solve problems related to:

- **product application**
- **product drying (C):**
 7. Show concern for finding feasible, economical solutions.

MODULE 6: SURFACE PREPARATION

CODE: 760 162

Duration: 30 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **prepare surfaces for finishing** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - samples of solid wood or plywood
 - sanding tools and sandpaper

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Proper use of sanding techniques
- Proper use of sanding tools and sandpaper
- Quality of surfaces prepared
 - no fibres, glue, bumps or stains
 - even surfaces
 - uniform porosity

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

- | | |
|---|--|
| A. Interpret the instructions. | - Accurate interpretation of instructions |
| B. Choose sanding tools and sandpapers. | <ul style="list-style-type: none"> - Proper choice of sanding tools - Proper choice of sandpapers |
| C. Prepare the sanding tools. | <ul style="list-style-type: none"> - Proper preparation of sanding block <ul style="list-style-type: none"> • proper size of paper • proper installation of paper - Proper preparation of power or air tools: <ul style="list-style-type: none"> • proper size of paper • proper installation and adjustment of paper • accurate adjustment of air pressure for air tools |
| D. Sand regular and irregular surfaces. | <ul style="list-style-type: none"> - Consideration of direction of wood grain - Proper changing of sandpapers - Proper speed of tool or pressure on tool - Careful handling of wood or plywood or veneer surfaces |
| E. Inspect the surfaces. | - Accurate evaluation of condition of surfaces |
| F. Maintain sanding tools. | - Proper maintenance of each tool |
| G. Tidy up the work area. | - Cleanliness of work area |

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to interpret the instructions (A):

1. Recognize the purpose of sanding.
2. Differentiate among the various types of wood used in furniture making.
3. Recognize by sight open-grain and close-grain wood.
4. Describe the effects of the different wood stains.

Before learning how to choose sanding tools and sandpapers (B):

5. Define the term "abrasive."
6. Read the information on the back of the sandpaper.

Before learning how to sand regular and irregular surfaces (D):

7. Show concern for following health and safety rules.

Before learning how to inspect the surfaces (E):

8. Detect surface defects.
9. Pay attention to detail when inspecting the surfaces.

MODULE 7: FINISHING SCHEDULES

CODE: 760 177

Duration: 105 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **develop finishing schedules** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - spray equipment
 - stains and coating products
 - abrasive polishing agents
 - boards of different types of wood measuring 12" x 16½" x ½"

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Proper use of equipment
- Observance of colour theory
- Application of knowledge of finishing products
- Characteristics of finishing schedule:
 - accurate recording of all information
 - recommendation of a logical sequence of finishing operations
 - finishing schedule appropriate for sample

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

- | | |
|---|--|
| A. Analyze the characteristics of the desired finish. | <ul style="list-style-type: none"> - Thorough analysis of: <ul style="list-style-type: none"> • style of finish • type of wood • colour • type of coating |
| B. Determine the type of prefinishing required to obtain the desired finish. | <ul style="list-style-type: none"> - Determination of prefinishing operations |
| C. Choose stains and determine the steps involved in their application. | <ul style="list-style-type: none"> - Proper choice of stains - Determination of: <ul style="list-style-type: none"> • dilution rate of products • their application sequence • the necessary tools and equipment • the drying time of products |
| D. Choose coating products and determine the steps involved in their application. | <ul style="list-style-type: none"> - Proper choice of products - Determination of: <ul style="list-style-type: none"> • number of coats required • their application sequence • tools and equipment - Correct decision as to whether or not to polish the surface |
| E. Make a sample board: <ul style="list-style-type: none"> • choose a board • prepare the surface | <ul style="list-style-type: none"> - Proper choice of board for the type of wood selected - Proper preparation of surface: <ul style="list-style-type: none"> • proper use of sanding techniques • no surface defects - Observance of sequence of operations |

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

- apply the stains
- apply the coating products
- polish the surface, if necessary
- F. Have the finishing schedule approved.
- G. Record the information related to the finishing schedule.
- H. Clean and maintain the tools and equipment.
- I. Store the finishing products.
- J. Tidy up the work area.

SPECIFIC PERFORMANCE CRITERIA

- Proper blending of products
- Proper application of stains
- Observance of sequence of operations
- Proper application of products
- Observance of sequence of operations
- Proper and safe use of tools and equipment
- Proper choice of products
- Observance of polishing technique
- Proper presentation of schedule
- Legibility
- Proper recording of all information necessary for the development of the finishing schedule
- Proper cleaning of tools, equipment and spray booth
- Conformity with standards for storing products
- Cleanliness of work area

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to analyze the characteristics of the desired finish (A):

1. Differentiate among the various types of wood used in furniture making.

Before learning how to determine the type of prefinishing required to obtain the desired finish (B):

2. List the steps involved in prefinishing.
3. Differentiate among the various abrasives.

Before learning how to choose stains and determine the steps involved in their application (C):

4. Differentiate among the various stains.

Before learning how to choose coating products and determine the steps involved in their application (D):

5. Differentiate among the various coating products.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to make a sample board:

- **choose a board**
- **prepare the surface**
- **apply the stains**
- **apply the coating products**
- **polish the surface, if necessary (E):**

6. Choose sanding tools and sandpapers.
7. Apply sanding techniques.
8. Inspect the surfaces.
9. Adopt rational work methods.
10. Show concern for following health and safety rules when sanding.
11. Show concern for following health and safety rules when handling chemicals.
12. Show concern for following health and safety rules when using spray equipment.
13. Show concern for observing drying times.
14. Show concern for using materials economically.

Before learning how to clean and maintain the tools and equipment (H):

15. Show concern for maintaining the tools and equipment.

Before learning how to store the finishing products (I):

16. Observe the standards for the storage of toxic products.

Before learning how to tidy up the work area (J):

17. Get in the habit of keeping the work area tidy.

MODULE 8: FINISHING NEW FURNITURE

CODE: 760 188

Duration: 120 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **finish new furniture** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - a finishing schedule
 - a sample board
 - stains such as NGR stain, pigmented wipe-on stain, filler, etc.
 - coating products such as varnishes or lacquers
 - the necessary spray equipment, tools and accessories
 - a piece of furniture or panel with prepared flat surfaces

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of colour theory
- Observance of finishing techniques
- Quality of finish:
 - finish similar to that of the sample
 - appearance of finished product

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

- | | |
|--|---|
| A. Interpret the finishing schedule. | - Accurate interpretation of finishing schedule |
| B. Choose: <ul style="list-style-type: none"> • tools and equipment • finishing products | <ul style="list-style-type: none"> - Proper choice of tools and equipment - Proper choice of products |
| C. Inspect the surfaces. | - Accurate evaluation of condition of surfaces |
| D. Remove dust from the surfaces. | - No dust |
| E. Mask the surfaces to be protected. | - Observance of masking techniques |
| F. Stain the wood: <ul style="list-style-type: none"> • blend the colours, if necessary • apply the stains | <ul style="list-style-type: none"> - Accurate assessment of quantity of products needed - Safe handling of products - Observance of sequence of operations in finishing schedule - Observance of application techniques - Observance of drying times - Result in conformity with sample |
| G. Apply the coating products. | <ul style="list-style-type: none"> - Accurate adjustment of coating product viscosity - Observance of sequence of operations in finishing schedule - Observance of application techniques - Observance of drying times - Result in conformity with sample - Careful handling of furniture |

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

H. Polish the furniture, if necessary.

I. Perform quality control tasks.

J. Clean and maintain the tools and equipment.

K. Store the finishing products.

L. Tidy up the work area.

SPECIFIC PERFORMANCE CRITERIA

- Accurate evaluation of hardness of finish
- Proper choice of abrasives and equipment
- Quality of preliminary polishing
- Proper use of equipment
- Finish in conformity with sample

- Proper quality control

- Proper maintenance of tools and equipment
- Proper cleaning of tools, equipment and spray booth

- Conformity with standards for storing products

- Cleanliness of work area

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to interpret the finishing schedule (A):

1. Recognize the importance of taking precautions to maintain the client's sample in good condition.
2. Recognize the importance of observing the sequence of operations in the finishing schedule.
3. Briefly review colour theory.
4. Analyze the colour.
5. Differentiate among the main types of wood used in furniture making.

Before learning how to choose:

- tools and equipment
- finishing products (B):

6. Differentiate among the various stains and coating products.
7. Explain the operation of spray tools and equipment.
8. Consult documentation on the products, tools and equipment.

Before learning how to inspect the surfaces (C):

9. Detect surface defects.
10. Choose the tools, equipment and materials required to repair the surfaces.
11. Explain the techniques for repairing surface defects.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to stain the wood:

- blend the colours, if necessary
- apply the stains (F):

12. Mask the surfaces to be protected.
13. Evaluate the quantity of finishing products necessary for the job.
14. Show concern for following health and safety rules when applying finishing products.
15. Adopt rational work methods.
16. Use finishing tools and equipment.
17. Show concern for observing drying times.
18. Make an effort to use materials economically.

Before learning how to apply the coating products (G):

19. Determine the viscosity of the products.
20. Show concern for following manufacturers' instructions concerning pressure, distance, number of coats, and drying time before polishing.

Before learning how to polish the furniture, if necessary (H):

21. Evaluate the hardness of the finish.
22. Recognize the importance of preliminary polishing.
23. Choose abrasive polishing agents.

Before learning how to clean and maintain the tools and equipment (J):

24. Differentiate among the various cleaning products.
25. Briefly describe the techniques for maintaining tools and equipment.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to store the finishing products (K):

26. Observe the standards applicable to the storage of toxic products.

Before learning how to tidy up the work area (L):

27. Get in the habit of keeping the work area tidy.

MODULE 9: TOUCH-UPS

CODE: 760 193

Duration: 45 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **do touch-ups** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - finished sample boards or pieces of furniture requiring touch-ups
 - touch-up products
 - the necessary tools and equipment

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of touch-up techniques
- Proper use of tools and equipment
- Quality of touch-ups:
 - uniform colour
 - invisible touch-ups

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

A. Meet with the client.

B. Plan the work.

C. Choose the tools, equipment and products.

SPECIFIC PERFORMANCE CRITERIA

- Neat appearance
- Courteous, honest behaviour
- Accurate interpretation of client's wishes
- Accurate terminology

- Proper planning of work to be done:
 - recognition of type of surface to be touched up
 - determination of the nature of the touch-ups to be done
 - determination of techniques to be used
 - determination of the necessary products, tools and equipment
- Accurate estimate of the cost and duration of the job

- Proper choice of tools and equipment
- Proper choice of products

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

D. Repair damaged surfaces.

- Observance of sequence of operations for each type of touch-up:
 - scratches
 - holes
 - cracks in varnish
 - iridescence
 - no colour on edges
- Observance of sequence of operations for each type of repair:
 - broken corners
 - broken carvings
 - burns
 - dents
 - unglued or missing veneer, etc.

E. Perform quality control tasks.

- Proper quality control

F. Clean and maintain the equipment.

- Proper cleaning and maintenance of equipment

G. Tidy up the work area.

- Cleanliness of work area

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to meet with the client (A):

1. Recognize the importance of communicating effectively with clients.
2. Be familiar with the main obstacles to effective communication.

Before learning how to plan the work (B):

3. Show concern for developing rational work methods.
4. Be familiar with finishing products.

Before learning how to repair damaged surfaces (D):

5. Show concern for following health and safety rules.
6. Pay attention to detail when doing touch-ups.

MODULE 10: FURNITURE STYLES

CODE: 760 202

Duration: 30 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to
take furniture styles into account in their work.

SPECIFICATIONS

During this module, the students will:

- Associate the main furniture styles with their historical periods.
- Show good judgement in their evaluation of contemporary furniture.

LEARNING CONTEXT

PHASE 1: Information on Furniture Styles

- Gathering general information on style:
 - definition of style
 - main characteristics of a style: types of furniture, decorations, raw materials, assembly, finish, etc.
- Gathering general information on the characteristics of types of furniture and decorations and of finishing products used in different historical periods.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: Learning

- Reflecting on the importance of taking an interest in furniture styles and on their preferences with respect to the various styles.
- Participating in the suggested activities: visits to museums, antique shops, etc.
- Participating in an activity involving research on a style of furniture.

PHASE 3: Evaluation

- Producing a portfolio.
- Evaluating their participation in the activities.

INSTRUCTIONAL GUIDELINES

The teacher should:

- Encourage the students to engage in discussions and to express themselves.
- Motivate the students to take part in the suggested activities.
- Make suitable reference material available to the students.

PARTICIPATION CRITERIA

PHASE 1:

- Gather relevant information about style.
- Gather relevant information about the characteristics of different styles.
- Gather relevant information on furniture finishing during different historical periods.

**FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE**

PARTICIPATION CRITERIA

PHASE 2:

- Demonstrate a willingness to reflect on the subject.
- Participate in the suggested activities.

PHASE 3:

- Produce a portfolio.
- Evaluate their participation in the activities.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 1:

1. Find sources of information.
2. Apply a research method.
3. Compare the information obtained from the different sources.
4. Demonstrate a desire to find information.

Before undertaking the activities of Phase 2:

5. Demonstrate a willingness to respect other people's opinions.
6. Develop their ability to work in a team.

Before undertaking the activities of Phase 3:

7. Be receptive to comments.

MODULE 11: STRIPPING

CODE: 760 211

Duration: 15 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **strip flat surfaces in good condition** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - painted or varnished furniture or pieces of wood
 - stripper and stripping tools

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of stripping techniques
- Proper use of stripping tools
- Quality of stripped surfaces:
 - no paint or varnish residue
 - no tool marks
 - clean surfaces

**FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE**

**SPECIFICATIONS OF THE EXPECTED
BEHAVIOUR**

**SPECIFIC PERFORMANCE
CRITERIA**

- | | |
|---|---|
| A. Plan the work. | <ul style="list-style-type: none"> - Accurate interpretation of instructions - Accurate identification of type of film to be stripped |
| B. Protect the work area. | <ul style="list-style-type: none"> - Proper protection of work area in accordance with the type of stripping to be done |
| C. Choose the strippers and stripping tools. | <ul style="list-style-type: none"> - Proper choice of strippers - Proper choice of stripping tools |
| D. Apply the stripper. | <ul style="list-style-type: none"> - Proper application of stripper in accordance with type of surface - Observance of waiting time |
| E. Remove the old finish. | <ul style="list-style-type: none"> - Observance of technique |
| F. Neutralize the stripper and clean the surface. | <ul style="list-style-type: none"> - Proper choice of products - Cleanliness of surface |
| G. Tidy up the work area. | <ul style="list-style-type: none"> - Cleanliness of work area |

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to plan the work (A):

1. Recognize the purpose of stripping.
2. Differentiate among the main types of wood used in furniture making.

Before learning how to apply the stripper (D):

3. Describe the action of a stripper.
3. Show concern for following health and safety rules.

Before learning how to remove the old finish (E):

5. Show concern for leaving the surfaces unmarked.
6. Show concern for doing quality work.

MODULE 12: SPECIAL FINISHES

CODE: 760 227

Duration: 105 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **apply special finishes** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - a colour palette
 - materials such as artists' paints, acrylic paint, primer, etc.
 - the necessary tools, equipment and accessories, such as artists' brushes
 - a pine or pressed wood board

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of techniques for applying special finishes
- Proper use of tools and equipment
- Quality of special finishes:
 - appearance of finished product
 - conformity with applicable quality standards for each type of finish

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR	SPECIFIC PERFORMANCE CRITERIA
A. Determine the type of finish required.	- Type of finish in accordance with: • style of furniture • type of substrate • condition of substrate
B. Plan the work.	- Realistic planning of work to be done: • determination of tasks and sequence of operations • proper choice of technique in accordance with the desired finish - Accurate estimate of the cost and duration of the job
C. Choose the tools, equipment and products.	- Choice of tools, equipment and products in accordance with the desired finish
D. Prepare the surfaces.	- Preparation of surfaces in accordance with the desired finish
E. Prepare the products, if necessary.	- Proper preparation of: • varnishes • wax or polish • oleoresinous and synthetic varnishes • lacquers, etc.
F. Apply the base coat(s), if necessary.	- Proper use of tools and spray gun - Observance of drying time - Proper dusting of surfaces - Uniformity of surfaces

**FIRST-LEVEL OPERATIONAL OBJECTIVE
BEHAVIOURAL OBJECTIVE**

**SPECIFICATIONS OF THE EXPECTED
BEHAVIOUR**

**SPECIFIC PERFORMANCE
CRITERIA**

G. Apply the different finishing products.

- Observance of techniques for applying:
 - French polish
 - encaustic finishes
 - oleoresinous and synthetic varnishes
 - coloured lacquers and products used to simulate marble and wood grain
 - products for finishing paper
 - different types of lacquers
 - paints for stencilling or free-hand painting
 - products used to age wood and colours
 - gold sheets and powder
 - ceruse (white lead)
- Observance of drying time(s)
- Proper sanding of surfaces
- Proper dusting of surfaces
- Proper polishing of surfaces

H. Account for their time.

- Accurate account

I. Tidy up the work area.

- Cleanliness of work area
- Proper storage of tools and products

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to determine the type of finish required (A):

1. Be familiar with the different substrates.
2. Describe furniture styles.

Before learning how to apply the base coat(s), if necessary (F):

3. Take account of the condition of the substrate in applying different finishes.
4. Show concern for observing drying times.
5. Show concern for observing health and safety rules.

MODULE 13: FINISHING USED FURNITURE

CODE: 760 238

Duration: 120 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **refinish furniture** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - strippers, stains and coating products
 - the tools and equipment necessary for stripping, preparing surfaces, applying finishing products and polishing the furniture
 - a painted or varnished piece of furniture

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of finishing techniques
- Proper use of tools and equipment
- Quality of finish:
 - proper colour matching
 - finish similar to that of the sample
 - attractive appearance

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

A. Meet with the client.

- Neat appearance
- Courteous, honest behaviour
- Accurate interpretation of client's wishes
- Accurate terminology

B. Plan the work.

- Planning of work in accordance with the type of furniture and the condition of its surface
- Accurate estimate of the cost and duration of the job

C. Develop the finishing schedule.

- Proper matching of opaque or transparent colours
- Relevant and accurate information related to the finishing schedule
- Careful creation of sample
- Approval of sample by client

D. Disassemble the piece of furniture.

- Observance of disassembly sequence
- Accurate marking of parts

E. Prepare the piece of furniture for finishing:

- strip it
- sand it

- Preparation in accordance with the finishing schedule

F. Stain the wood.

- Proper preparation of mixture
- Observance of techniques for applying the stain
- Observance of drying times

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

G. Apply the coating products.

- Accurate adjustment of coating product viscosity
- Observance of techniques for applying the coating products
- Observance of drying times

H. Polish the surfaces.

- Polishing in conformity with sample

I. Reassemble the piece of furniture.

- Solid assembly

J. Perform quality control tasks.

- Proper quality control

K. Clean and maintain the equipment.

- Proper cleaning and maintenance of equipment

L. Account for their time.

- Accurate account

M. Deliver the furniture.

- Proper protection of surfaces
- Careful handling of furniture

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to meet with the client (A):

1. Recognize the importance of giving clients good advice.
2. Be familiar with the main obstacles to effective communication.

Before learning how to plan the work (B):

3. Inspect the surfaces.
4. Be familiar with finishing products.

Before learning how to disassemble the piece of furniture (D):

5. Show concern for following health and safety rules.

Before learning how to deliver the furniture (M):

6. Show concern for keeping the work area tidy.

MODULE 14: RESTORING FURNITURE

CODE: 760 246

Duration: 90 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

EXPECTED BEHAVIOUR

To demonstrate the required competency, the students must **restore furniture** in accordance with the following conditions, criteria and specifications.

CONDITIONS FOR PERFORMANCE EVALUATION

- Given instructions on the nature of the examination
- Using:
 - the appropriate materials for stripping, sanding, staining, applying antique or modern coating materials, and polishing
 - the necessary tools, equipment and accessories
 - a piece of furniture requiring rebuilding or restoring

GENERAL PERFORMANCE CRITERIA

- Observance of health and safety rules
- Observance of restoration and finishing techniques
- Proper use of tools and equipment
- Quality of the restoration of the furniture's original appearance:
 - consideration of style
 - invisible repairs
 - solid assembly
 - appropriate colour matching
 - careful finish

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

A. Inspect the piece of furniture.

B. Plan the work.

C. Disassemble the piece of furniture.

SPECIFIC PERFORMANCE CRITERIA

- Determination of:
 - type of furniture
 - approximate year of manufacture
- Accurate assessment of condition of frame and parts
- Accurate assessment of condition of solid wood, veneered, inlaid or carved surfaces
- Realistic planning of work to be done:
 - determination of tasks and sequence of operations
 - choice of technique in accordance with the types of repairs required
- Accurate estimate of the cost and duration of the job
- Observance of disassembly techniques and sequence
- Accurate marking of parts
- Proper precautions taken

FIRST-LEVEL OPERATIONAL OBJECTIVE BEHAVIOURAL OBJECTIVE

SPECIFICATIONS OF THE EXPECTED BEHAVIOUR

SPECIFIC PERFORMANCE CRITERIA

D. Do the repair(s):

- shape a part
- repair or replace hinges
- repair surfaces

- Quality of shaped parts:
 - consideration of characteristics of parts copied
 - proper and safe use of tools, accessories and machine tools
- Proper repair or replacement of parts:
 - proper choice of parts
 - optimal operation of hinges
- Proper repair of surfaces:
 - no burns, dents, holes, scratches, etc.
 - veneer in good condition
 - clean, even surfaces

E. Refinish the piece of furniture.

- Relevant and accurate information related to the finishing schedule
- Proper choice of products and equipment
- Observance of techniques and sequences for applying stains and coating products
- Observance of drying times
- Well-polished surfaces

F. Reassemble the piece of furniture.

- Solid assembly

G. Perform quality control tasks.

- Proper quality control

H. Account for their time.

- Accurate account

I. Tidy up the work area.

- Cleanliness of work area
- Proper storage of tools and products

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before learning how to inspect the piece of furniture (A):

1. Define the terms "restoration" and "repair."
2. Be familiar with the main principles of furniture restoration.

Before learning how to plan the work (B):

3. Calculate the cost of the job.

Before learning how to do the repair(s):

- shape a part
 - repair or replace hinges
 - repair surfaces (D):
4. Show concern for following health and safety rules.
 5. Be familiar with furniture styles.

Before learning how to refinish the piece of furniture (E):

6. Describe the techniques for applying antique and special finishes.

MODULE 15: STARTING A BUSINESS

CODE: 760 252

Duration: 30 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to **determine their suitability for starting a business.**

SPECIFICATIONS

During this module, the students will:

- Assess their entrepreneurial abilities.
- Become familiar with the factors to consider when starting a business.
- Become familiar with the main elements of a business plan.

LEARNING CONTEXT

PHASE 1: Information on Starting a Furniture Finishing Business

- Learning about the qualities necessary to become an entrepreneur.
- Learning about the factors to consider when starting a business:
 - advantages and disadvantages of the different types of business organization
 - government requirements
 - financial assistance
 - other types of assistance, etc.
- Learning about the main elements of a business plan:
 - marketing plan
 - financial resources plan, etc.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: Familiarization with the Process of Starting a Business

- Reflecting on their preferences and aptitudes with respect to starting a furniture finishing business.
- Comparing their qualities with those necessary to become an entrepreneur.
- Participating in various activities:
 - conference given by an entrepreneur
 - video on the business plan
 - readings, etc.
- Participating in discussions.

PHASE 3: Evaluation

- Producing a report in which they present:
 - the positive and negative aspects of their personality with respect to the possibility of becoming an entrepreneur
 - their opinion on the advantages and disadvantages of starting a furniture finishing business

INSTRUCTIONAL GUIDELINES

The teacher should:

- Make suitable reference material on starting a business available to the students.
- Encourage the students to engage in discussions and to express themselves.
- Motivate the students to take part in the suggested activities.
- Organize a meeting with entrepreneurs.
- Provide the students with an outline for the report.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

PARTICIPATION CRITERIA

PHASE 1:

- Gather relevant information on the qualities necessary to become an entrepreneur.
- Gather relevant information on starting a business.
- Gather relevant information on the business plan.

PHASE 2:

- Demonstrate a willingness to reflect on their preferences and aptitudes.
- Compare their qualities with those necessary to become an entrepreneur.
- Participate in activities.
- Participate in discussions.

PHASE 3:

- Produce a report.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 1:

1. Be familiar with the characteristics of furniture finishing businesses in their region.
2. Find sources of information on starting a business.
3. Use a research method.

Before undertaking the activities of Phase 2:

4. Communicate effectively.
5. Show concern for participating in the activities.

Before undertaking the activities of Phase 3:

6. Demonstrate a willingness to evaluate their participation in the activities.

MODULE 16: PRACTICUM IN THE WORKPLACE

CODE: 760 264

Duration: 60 hours

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

EXPECTED OUTCOME

By participating in the required activities of the learning context according to the indicated criteria, the students will be able to **enter the work force.**

SPECIFICATIONS

During this module, the students will:

- Become familiar with certain aspects of the workplace in furniture finishing.
- Perform various trade-related activities.
- Follow company rules.
- Communicate with colleagues and supervisors.

LEARNING CONTEXT

PHASE 1: Preparation for the Practicum

- Learning about the objectives and procedures related to the practicum.
- Making a list of furniture finishing companies and cabinet makers likely to hire trainees.
- Looking for a practicum position.
- Learning about the company rules.
- Taking the necessary steps to find a practicum position.

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

LEARNING CONTEXT

PHASE 2: Practicum in the Workplace

- Gathering information on the workplace:
 - observing the workplace (organization, equipment, working conditions, etc.)
 - sharing information and talking with colleagues
- Performing or helping to perform various activities related to furniture finishing.
- Noting their observations in a log.

PHASE 3: Evaluation

- Producing a report in which they present:
 - their observations
 - the activities they performed
 - the similarities and differences between the school and the workplace
- Participating in the evaluation of the practicum with instructors and the person responsible for the practicum in the company.
- Participating in the evaluation of practicums with the other trainees and with instructors:
 - discussing their observations, problems encountered, etc.
 - evaluating their entry into the workforce

FIRST-LEVEL OPERATIONAL OBJECTIVE SITUATIONAL OBJECTIVE

INSTRUCTIONAL GUIDELINES

The teacher should:

- Maintain good relations with those responsible for furniture finishing companies and with cabinet makers.
- Provide the students with documentation on the companies.
- Help the students negotiate a practicum position in a furniture finishing company or with a cabinet maker.
- Illustrate the importance of following company rules and adopting a positive attitude.
- Provide the students with support and supervision.
- Make sure that the students are under the constant supervision of a responsible person in the company.
- Provide the students with an outline for the report.
- Encourage discussion among students, especially during the practicum search and at the evaluation stage.

PARTICIPATION CRITERIA

PHASE 1:

- Make a list of furniture finishing companies and cabinet makers in their region.
- Look for a practicum position.
- Learn about the objectives of and procedure for the practicum.
- Learn about the company rules.

PHASE 2:

- Observe the workplace.
- Correctly and safely perform the tasks assigned to them.
- Follow the rules.
- Be receptive to comments.
- Talk with colleagues.

**FIRST-LEVEL OPERATIONAL OBJECTIVE
SITUATIONAL OBJECTIVE**

PARTICIPATION CRITERIA

PHASE 3:

- Produce a report.
- Participate in evaluations.

SECOND-LEVEL OPERATIONAL OBJECTIVES

IN ORDER TO ACHIEVE THE FIRST-LEVEL OBJECTIVE, THE STUDENTS SHOULD HAVE PREVIOUSLY ATTAINED SECOND-LEVEL OBJECTIVES, SUCH AS:

Before undertaking the activities of Phase 1:

1. Demonstrate an interest in participating in a practicum.
2. Differentiate among the furniture finishing businesses in their region.

Before undertaking the activities of Phase 2:

3. Describe the behaviour to adopt in the workplace.
4. Recognize the importance of following company rules.
5. Show concern for following health and safety rules.
6. Understand the importance of a positive attitude.

Before undertaking the activities of Phase 3:

7. Show concern for writing a good practicum report.
8. Be receptive to comments.

