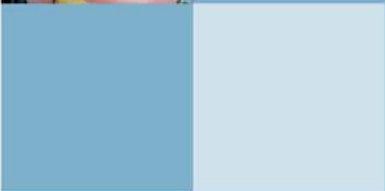
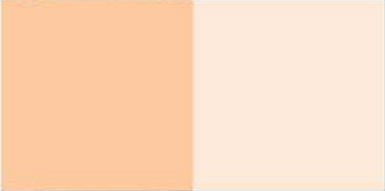


ita
YOUR TICKET.

PROGRAM OUTLINE

Floor Covering Installer





The latest version of this document is available in PDF format on the ITA website
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FLOOR COVERING INSTALLER PROGRAM OUTLINE

**APPROVED
SEPTEMBER 2011**

**BASED ON
NOA 2012**

**Developed by
Industry Training Authority
Province of British Columbia**



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Section 1

INTRODUCTION

Floor Covering Installer



Foreword

The revised Floor Covering Installer Program Outline is intended as a guide for instructors, apprentices, and employers of apprentices as well as for the use of industry organizations, regulatory bodies, and provincial and federal governments. It reflects updated standards based on the new Floor Covering Installer Occupational Analysis (2011) and British Columbia industry and instructor subject matter experts.

Practical instruction by demonstration and student participation should be integrated with classroom sessions. Safe working practices, even though not always specified in each operation or topic, are an implied part of the program and should be stressed throughout the apprenticeship.

The Program Outline includes a list of recommended reference textbooks that are available to support the learning objectives and the minimum shop requirements needed to support instruction.

The Program Outline was prepared with the advice and assistance of the Floor Covering Installer Review Committee and will form the basis for further updating of the British Columbia Floor Covering Installer Program and learning resources by the Construction Industry Training Organization on behalf of the Industry Training Authority.

Each competency is to be evaluated through the use of written examination in which the learner must achieve a minimum of 70% in order to receive a passing grade for that competency. The types of questions used on these exams must reflect the cognitive level indicated by the learning objectives and the learning tasks listed in the related competencies.

Achievement Criteria are included for those competencies that require a practical component. The intent of including Achievement Criteria in the program outline is to ensure consistency in training across the many training institutions in British Columbia. Their purpose is to reinforce the theory and to provide a mechanism for evaluation of the learner's ability to apply the theory to practice. It is important that these performances be observable and measureable and that they reflect the skills spelled out in the competency as those required of a competent journey person. The conditions under which these performances will be observed and measured must be clear to the learner as well as the criteria by which the learner will be evaluated. The learner must also be given the level of expectation of success.

The performance spelled out in the Achievement Criteria is a suggested performance and is not meant to stifle flexibility of delivery. Training providers are welcome to substitute other practical performances that measure similar skills and attainment of the competency. Multiple performances may also be used to replace individual performances where appropriate.

SAFETY ADVISORY

Be advised that references to the Work Safe BC safety regulations contained within these materials do not/may not reflect the most recent Occupational Health and Safety Regulation. The current Standards and Regulation in BC can be obtained on the following website: <http://www.worksafebc.com>. Please note that it is always the responsibility of any person using these materials to inform him/herself about the Occupational Health and Safety Regulation pertaining to his/her work.



Acknowledgements

The Program Outline was prepared with the advice and direction of an industry steering committee convened initially by the Construction Industry Training Organization (CITO). Members include:

- Dylan Beggs
- Mike Donald
- Allan McClelland
- Mark Niebergal
- Hamish Roper

Industry subject matter experts retained to assist in the development of Program Outline content:

- Glenn Allen
- Derrek Autzen
- Allan McClelland
- Braydon Puffalt
- Ron Puffalt
- Hamish Roper

The Industry Training Authority (ITA) would like to acknowledge the dedication and hard work of all the industry representatives appointed to identify the training requirements of the Floor Covering Installer.



How to Use this Document

This Program Outline has been developed for the use of individuals from several different audiences. The table below describes how each section can be used by each intended audience.

Section	Training Providers	Employers/ Sponsors	Apprentices	Challengers
Program Credentialing Model	Communicate program length and structure, and all pathways to completion	Understand the length and structure of the program	Understand the length and structure of the program, and pathway to completion	Understand challenger pathway to Certificate of Qualification
Program Assessment	Communicate program completion requirements and assessment methods	Understand the various assessment requirements for the program	Understand the various assessment requirements for the program	Understand the assessment requirements they would have to fulfill in order to challenge the program
OAC	Communicate the competencies that industry has defined as representing the scope of the occupation	Understand the competencies that an apprentice is expected to demonstrate in order to achieve certification	View the competencies they will achieve as a result of program completion	Understand the competencies they must demonstrate in order to challenge the program
Training Topics and Suggested Time Allocation	Shows proportionate representation of general areas of competency (GACs) at each program level, the suggested proportion of time spent on each GAC, and percentage of time spent on theory versus practical application	Understand the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application	Understand the scope of competencies covered in the technical training, the suggested proportion of time spent on each GAC, and the percentage of that time spent on theory versus practical application	Understand the relative weightings of various competencies of the occupation on which assessment is based
Program Content	Defines the objectives, learning tasks, high level content that must be covered for each competency, as well as defining observable, measureable achievement criteria for objectives with a practical component	Identifies detailed program content and performance expectations for competencies with a practical component; may be used as a checklist prior to signing a recommendation for certification (RFC) for an apprentice	Provides detailed information on program content and performance expectations for demonstrating competency	Allows individual to check program content areas against their own knowledge and performance expectations against their own skill levels
Training Provider Standards	Defines the facility requirements, tools and equipment, reference materials (if any) and instructor requirements for the program	Identifies the tools and equipment an apprentice is expected to have access to; which are supplied by the training provider and which the student is expected to own	Provides information on the training facility, tools and equipment provided by the school and the student, reference materials they may be expected to acquire, and minimum qualification levels of program instructors	Identifies the tools and equipment a tradesperson is expected to be competent in using or operating; which may be used or provided in a practical assessment



Section 2

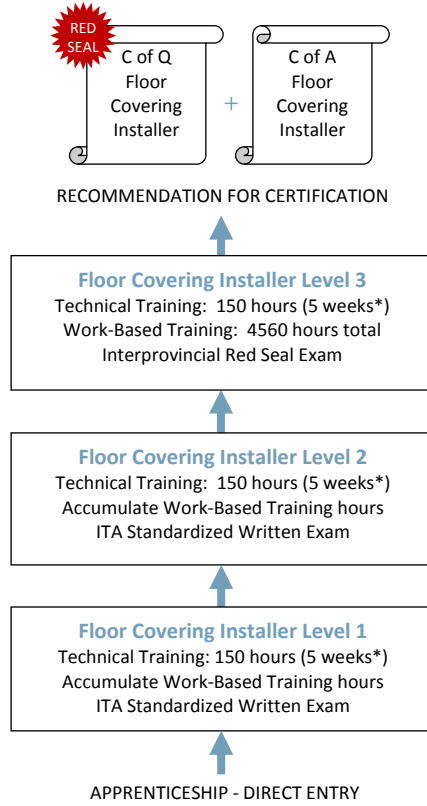
PROGRAM OVERVIEW

Floor Covering Installer



Program Credentialing Model

Certificate of Qualification (C of Q)
 Certificate of Apprenticeship (C of A)
 Certificate of Completion (C of C)
 Work-Based Training (WBT)



**Suggested duration based on 30-hour week*

CROSS-PROGRAM CREDITS
 None



Occupational Analysis Chart

FLOOR COVERING INSTALLER

Occupation Description: “Floor Covering Installer” means a person who installs, applies, replaces, repairs, services and prepares rugs, carpets, organic and synthetic materials, linoleum, vinyl, rubber, engineered wood, cork flooring and preparation of sub-surfaces, and any work that is usually performed by a journeyman Floor Covering Installer.

APPLY SAFE WORK PRACTICES A	Use Shop and Site Safety Practices A1 1	Apply Personal Safety Practices A2 1	Follow Workplace Hazardous Information System (WHMIS) Regulations A3 1	Use Fire Safety Procedures A4 1	Follow Electrical Safety Procedures A5 1		
	USE STANDARD FLOOR COVERING SKILLS B	Describe the Floor Covering Installer Trade B1 1	Handle Materials B2 1	Perform Moisture and Alkalinity Tests B3 1 2	Prepare Subfloors B4 1 2 3	Install Wood Underlayment B5 1	Select and Use Adhesives B6 1
		Match Patterns B7 1	Supervise Work B8 1 3				
		USE MATH AND BLUEPRINT READING SKILLS C	Use Trade Related Math Skills C1 1 2	Read Blueprints and Specifications C2 3	Plan and Estimate Projects C3 3		



INSTALL CARPET D	Describe Carpet Materials D1 1	Describe Carpet Cushions D2 1	Use Carpet Installation Tools D3 1	Use Applicable Carpet Installation Standards D4 1	Layout Carpet D5 1	Install Carpet by Conventional Method D6 1 3
	Finish Carpet Seams D7 1	Install Carpet by Glue-down Method D8 1 3	Install Carpet by Double Bond Method D9 1	Install Carpet Transitions, Trims and Bases D10 1	Install Carpet on Stairs D11 1	Repair Carpet D12 1 3
	Describe Hand Binding of Carpet Edges D13 3	Describe the Installation of Artificial Turf D14 3				
INSTALL RESILIENT FLOORS E	Describe Resilient Flooring Materials E1 1	Install Resilient Sheet Goods E2 1 2	Install Resilient Wall Base E3 1 2	Complete Seams in Resilient Sheet Goods E4 2 3	Repair Resilient Floors E5 2	Layout for Resilient Tile E6 2
	Install Resilient Tile E7 2	Install Resilient Material on Stairs E8 3	Install Flash Coving E9 3	Install Rubber Sheet and Tile E10 3	Install Specialty Resilient Product E11 3	
INSTALL WOOD AND LAMINATE FLOORING F	Describe the Installation of Barriers and Cushions F1 3	Describe the Installation of Prefinished Hardwood Flooring F2 3	Describe the Repair of Prefinished Wood and Laminate Flooring F3 3			



Training Topics and Suggested Time Allocation

FLOOR COVERING INSTALLER – LEVEL #1

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line A	APPLY SAFE WORK PRACTICES	5%	100%	0%	100%
A1	Use Shop and Site Safety Practices		✓		
A2	Apply Personal Safety Practices		✓		
A3	Follow Workplace Hazardous Information System (WHMIS) Regulations		✓		
A4	Use Fire Safety Procedures		✓		
A5	Follow Electrical Safety Procedures		✓		
Line B	USE STANDARD FLOOR COVERING SKILLS	12%	95%	5%	100%
B1	Describe the Floor Covering Installer Trade		✓		
B2	Handle Materials		✓		
B3	Perform Moisture and Alkalinity Tests		✓		
B4	Prepare Subfloors		✓	✓	
B5	Install Wood Underlayment		✓		
B6	Select and Use Adhesives		✓		
B7	Match Patterns		✓		
B8	Supervise Work		✓		
Line C	USE MATH AND BLUEPRINT READING SKILLS	10%	100%	0%	100%
C1	Use Trade Related Math Skills		✓		
Line D	INSTALL CARPET	59%	39%	61%	100%
D1	Describe Carpet Materials				
D2	Describe Carpet Cushions		✓		
D3	Use Carpet Installation Tools		✓		
D4	Use Applicable Carpet Installation Standards		✓		
D5	Layout Carpet		✓	✓	
D6	Install Carpet by Conventional Method		✓	✓	
D7	Finish Carpet Seams		✓		
D8	Install Carpet by Glue-down Method		✓	✓	
D9	Install Carpet by Double Bond Method		✓		
D10	Install Carpet Transitions, Trims and Bases		✓		
D11	Install Carpet on Stairs			✓	
D12	Repair Carpet			✓	
Line E	INSTALL RESILIENT FLOORS	14%	36%	64%	100%
E1	Describe Resilient Flooring Materials		✓		
E2	Install Resilient Sheet Goods		✓	✓	
E3	Install Resilient Wall Base		✓	✓	
Total Percentage for Floor Covering Installer Level #1		100%			



Training Topics and Suggested Time Allocation

FLOOR COVERING INSTALLER – LEVEL #2

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line B	USE STANDARD FLOOR COVERING SKILLS	7%	50%	50%	100%
B3	Perform Moisture and Alkalinity Tests		✓		
B4	Prepare Subfloors		✓	✓	
Line C	USE MATH AND BLUEPRINT READING SKILLS	13%	100%	0%	100%
C1	Use Trade Related Math Skills		✓		
Line E	INSTALL RESILIENT FLOORS	80%	14%	86%	100%
E2	Install Resilient Sheet Goods		✓	✓	
E3	Install Resilient Wall Base			✓	
E4	Complete Seams in Resilient Sheet Goods		✓	✓	
E5	Repair Resilient Floors		✓	✓	
E6	Layout for Resilient Tile		✓	✓	
E7	Install Resilient Tile		✓	✓	
Total Percentage for Floor Covering Installer Level #2		100%			



Training Topics and Suggested Time Allocation

FLOOR COVERING INSTALLER – LEVEL #3

		% of Time Allocated to:			
		% of Time	Theory	Practical	Total
Line B	USE STANDARD FLOOR COVERING SKILLS	2%	100%	0%	100%
B4	Prepare Subfloors		✓		
B8	Supervise Work		✓		
Line C	USE MATH AND BLUEPRINT READING SKILLS	5%	100%	0%	100%
C2	Read Blueprints and Specifications		✓		
C3	Plan and Estimate Projects		✓		
Line D	INSTALL CARPET	33%	20%	80%	100%
D6	Install Carpet by Conventional Method		✓	✓	
D8	Install Carpet by Glue-down Method		✓	✓	
D12	Repair Carpet		✓	✓	
D13	Describe Hand Binding of Carpet Edges		✓		
D14	Describe the Installation of Artificial Turf		✓		
Line E	INSTALL RESILIENT FLOORS	55%	14%	86%	100%
E4	Complete Seams in Resilient Sheet Goods		✓		
E8	Install Resilient Material on Stairs		✓	✓	
E9	Install Flash Coving		✓	✓	
E10	Install Rubber Sheet and Tile		✓	✓	
E11	Install Specialty Resilient Product		✓		
Line F	INSTALL WOOD AND LAMINATE FLOORING	5%	100%	0%	100%
F1	Describe the Installation of Barriers and Cushions		✓		
F2	Describe the Installation of Prefinished Hardwood Flooring		✓		
F3	Describe the Repair of Prefinished Wood and Laminate Flooring		✓		
Total Percentage for Floor Covering Installer Level #3		100%			



Section 3

PROGRAM CONTENT

Floor Covering Installer



Level 1

Floor Covering Installer



Line (GAC): A APPLY SAFE WORK PRACTICES

Competency: A1 Use Shop and Site Safety Practices

Objectives

To be competent in this area the individual must be able to:

- Apply safe work practices.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Use applicable sections of the WorkSafeBC Regulations</p> | <ul style="list-style-type: none"> • Harmful substances • Health hazards from work environment • Personal protective equipment • Electrical safety • Temporary lighting • Powder actuated tools • Ladders • WHMIS • Asbestos exposure • Heat stress • Lockout procedures |
| <p>2. Describe safety hazards and precautions</p> | <ul style="list-style-type: none"> • Safety attitude • Hazards of loose clothing and jewellery • Condition of tools • Safe use of hand and power tools • Guardrails and barricades around openings • Grounded or double insulated tools and equipment • Correct gauge extension cords • Testing of extension cords • Location of first aid equipment • Evacuation and emergency procedures • Good housekeeping practices • Protection of cords and light bulbs |
| <p>3. Recognize signs of asbestos containing materials</p> | <ul style="list-style-type: none"> • Age of material • Size of material • Colour of adhesives |



LEARNING TASKS

4. Describe rights and responsibilities

CONTENT

- Employer
 - Provide a safe worksite
 - Provide training
 - Provide safety equipment
 - Perform job hazard analysis
 - Occupational health and safety program
- Supervisor
 - Ensure health and safety of all workers under their supervision
- Worker
 - Right to receive safety training
 - Reporting unsafe work conditions
 - Right to refuse unsafe work
 - Must follow WorkSafeBC regulations



Line (GAC): **A APPLY SAFE WORK PRACTICES**
Competency: **A2 Apply Personal Safety Practices**

Objectives

To be competent in this area the individual must be able to:

- Select and use personal protective equipment.
- Use proper lifting techniques.

LEARNING TASKS

1. Use personal protective equipment

CONTENT

- WorkSafeBC regulations
- Selection of equipment
- Training requirements
- Inspection and storage of equipment
- Expiration dates
- Maintenance of equipment
- Safety footwear
- CSA standards
- Eye protection
 - Glasses
 - Goggles
 - Face shields
- Hearing test requirements
- Hearing protection
 - Ear plugs and canal caps
 - Earmuffs
 - Class/grade selection
- Respiratory protection
 - Respirator types
 - Positive and negative seal check
 - Fit testing
 - Types of breathing hazards
 - Filters and cartridges
 - Protection factors
 - Warning signs of respirator failure
- Protective clothing
- Hand protection
 - Gloves
 - Barrier creams
- Knee protection



LEARNING TASKS

2. Lift and move objects safely

3. Use work procedures to reduce the risk of musculoskeletal injuries (MSI)

CONTENT

- Work procedures
- Tools and equipment

- Recognition of signs and symptoms of MSI
- Potential health effects
- Treatment
- Preventative measures
 - PPE
 - Stretching and exercise
- Risk factors
 - Force
 - Repetition
 - Work posture
 - Local contact stress
 - Duration of work
- Common MSI for Floor Covering installers
 - Back injuries
 - Knee injuries
 - Shoulder and elbow
 - Tendonitis



Line (GAC): **A APPLY SAFE WORK PRACTICES**
Competency: **A3 Follow Workplace Hazardous Information System (WHMIS) Regulations**

Objectives

To be competent in this area the individual must be able to:

- Explain the contents of Material Safety Data Sheets (MSDS).
- Explain the contents of WHMIS labels.
- Follow WHMIS regulations.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Describe Federal WHMIS legislation
 2. Describe Provincial WHMIS legislation
 3. Describe the key elements of WHMIS
 4. Describe information disclosed on a MSDS | <ul style="list-style-type: none"> • Hazardous Product Act • Controlled products regulations • Ingredient disclosure list • Purpose of legislation • Responsibilities of workers, employers, and suppliers
 • Use of hazardous materials in the workplace
 • Material safety data sheets (MSDSs) • Labelling of containers of hazardous materials • Worker education programs
 • Hazardous ingredients • Preparation information • Product information • Physical data • Fire or explosion • Reactivity data • Toxicological properties • Preventive measures • First-aid measures |
|---|---|



LEARNING TASKS

5. Identify symbols found on WHMIS labels and their meaning

6. Identify symbols on consumer product labels used in the workplace and their meaning

7. Apply WHMIS regulations as they apply to hazardous materials used in the shop

CONTENT

- Compressed gases
- Flammable and combustible materials
- Oxidizing materials
- Poisonous and infectious materials
 - Materials causing immediate and serious toxic effects
 - Materials causing other toxic effects
 - Biohazardous infectious materials
- Corrosive materials
- Dangerously reactive materials

- Toxic
- Corrosive
- Flammable
- Explosive

- Use, storage and disposal of shop materials



Line (GAC): **A APPLY SAFE WORK PRACTICES**
Competency: **A4 Use Fire Safety Procedures**

Objectives

To be competent in this area the individual must be able to:

- Explain the theory of fires.
- Extinguish fires.
- Handle and store fuels and solvent based products.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. List the three components that must be present before a fire can occur | <ul style="list-style-type: none"> • Fuel • Oxygen • Heat <ul style="list-style-type: none"> ○ Open flame ○ Sparks ○ Cutting processes ○ Static discharge ○ Electrical equipment |
| <ol style="list-style-type: none"> 2. Identify classes of fires and extinguishers | <ul style="list-style-type: none"> • Class A, B, C and D fires • Types of extinguishers |
| <ol style="list-style-type: none"> 3. Describe the procedure for using a fire extinguisher | <ul style="list-style-type: none"> • PASS <ul style="list-style-type: none"> ○ Pull ○ Aim ○ Squeeze ○ Sweep |
| <ol style="list-style-type: none"> 4. Identify combustible and flammable materials | <ul style="list-style-type: none"> • WHMIS symbols • Flash point • Ignition temperature • Fuels • Solvents • Lubricants • Oily rags • Aerosols |
| <ol style="list-style-type: none"> 5. Describe the considerations and steps to take prior to fighting a fire | <ul style="list-style-type: none"> • Warning others • Phoning fire department • Personal method of egress |



LEARNING TASKS

6. Use preventative fire safety procedures

7. Describe the safe use of temporary heating

CONTENT

- Training requirements
- Handling and storing
 - Flammable liquids and gases
 - Combustible materials
- Working near electrical apparatus
- Responsibilities
- Pre-planning
- Hot work permit (site specific)
- Handling and storage of flammable materials
- Ventilation
- Electrical wiring and equipment
- Static electricity
- Controlling spills
- Storage

- Propane heaters
- Electric heaters
- Fumes
- Proximity to flammables and combustibles
- Pilot lights



Line (GAC): **B USE STANDARD FLOOR COVERING SKILLS**
Competency: **B1 Describe the Floor Covering Installer Trade**

Objectives

To be competent in this area the individual must be able to:

- Describe work performed by Floor Covering installers.

LEARNING TASKS

1. Describe the types of work done by Floor Covering installers

2. Describe essential skills for Floor Covering installers

3. Describe communication skills required

CONTENT

- Trade terms
- Planning and estimating
- Site preparation and inspection
- Installation of flooring materials
 - Resilient material
 - Carpeting
 - Wood and laminate flooring
- Installation of trims, transitions and bases
- Worksites
 - Residential
 - Commercial
 - Industrial
 - Institutional

- Reading
- Document use
- Writing
- Math skills
- Communication skills
- Problem solving
- Working with others
- Physically fit

- Customer relations
- Working with other Floor Covering installers
- Working with other trades persons
- Communicating with employer and supervisors
- Resolving discrepancies between industry standards, salespeople commitments and customer expectations
- Communication methods
 - Verbal
 - Written instructions



LEARNING TASKS

4. Describe personal responsibilities

5. Describe employer responsibilities

CONTENT

- Hygiene
- Dress code
- Code of conduct
- Punctuality
- Honesty
- Vehicle requirements

- On the job training
- Indentureship contracts
- Following Labour Standards Legislation



Line (GAC): **B USE STANDARD FLOOR COVERING SKILLS**
Competency: **B3 Perform Moisture and Alkalinity Tests**

Objectives

To be competent in this area the individual must be able to:

- Perform a moisture and alkalinity tests.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>1. Describe substrate problems related to moisture movement through a concrete substrate</p> <p>2. Describe moisture and alkalinity tests</p> <p>3. Perform moisture test</p> <p>4. Perform alkalinity tests</p> | <ul style="list-style-type: none"> • Deposits of alkaline salts • Adhesive failure • Mould and bacteria issues • Basic concrete chemistry
 • American Society for Testing and Materials (ASTM) standards • Purposes
 • Testing of wood substrates • Testing of concrete substrates • Limitations of tests • Equipment and materials • Testing procedures • Qualitative tests <ul style="list-style-type: none"> ○ Polyethylene sheet test ○ Mat test ○ Electrical resistance test ○ Primer or adhesive strip test ○ Relative humidity or hygrometer test • Quantitative test <ul style="list-style-type: none"> ○ Quantitative anhydrous calcium chloride test
 • Procedures • pH paper test • Digital pH testers |
|---|--|



Line (GAC): **B USE STANDARD FLOOR COVERING SKILLS**
Competency: **B4 Prepare Subfloors**

Objectives

To be competent in this area the individual must be able to:

- Use patching and levelling compounds.

LEARNING TASKS

CONTENT

1. Describe types of subfloor problems

- Highs and lows
- Cracks in concrete
- Joist spacing
- Unlevel
- Moisture level
- Alkalinity
- Effects of grade levels
- Floor integrity

2. Prepare substrate

- Safety precautions
- Removal of existing flooring
- Removal of transitions, trims and bases
- Removal of contaminants
- Removal methods
 - Scraping
 - Sanding
 - Grinding
 - Bead blasting
- Disposal of materials
- Priming

3. Describe patching and levelling products

- Gypsum products
 - Mixing of product
 - Depth of application
 - Additives
 - Suitable substrates
- Portland cement based products
 - Drying characteristics
 - Depth of application
 - Suitable substrates



LEARNING TASKS

4. Mix patching materials

5. Apply patching materials with steel trowel

6. Encapsulate adhesives

7. Describe building a ramp from one level to another

8. Apply embossing levellers

9. Describe the use of self levelling materials

CONTENT

- Personal protective equipment
- Hazardous ingredients
- Mixing tools
- Mixing ratio
- Mixing procedure
- Re-stir requirements
- Working time/pot life

- Angle of trowel
- Number of coats
- Sanding/scraping between coats

- Tools
 - Smooth edge trowel
 - Square notched trowel
- Procedures
- Angle of trowels

- Trowel angle
- Width of the patch
- Trowelling across ridges and chatter marks
- Vinyl ramping
- Shingles
- Vinyl composite tiles (VCT)

- Preparation of substrate
- Recommended uses
- Two part levellers
- Mixing ratios
- Procedures
- Filling embossed areas
- Angle of trowel
- Working time

- Recommended uses
- Mixing procedures
- Adjustable screed rake
- Pouring the material
- Distributing the material
- Inspection for additional patching



Achievement Criteria

Performance The individual will be able to prepare a subfloor.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **B USE STANDARD FLOOR COVERING SKILLS**
Competency: **B5 Install Wood Underlayment**

Objectives

To be competent in this area the individual must be able to:

- Install wood underlayment.

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>1. Describe the installation of wood underlayment</p> | <ul style="list-style-type: none"> • Purpose • Substrate • Sub-floor |
| <p>2. Use hand tools used for installing wood underlayment</p> | <ul style="list-style-type: none"> • Safety precautions • Knives • Trowels • Layout Tools <ul style="list-style-type: none"> ○ Dividers ○ Tape measures ○ Chalk line ○ Straight edge ○ Framing squares |
| <p>3. Use saws for wood underlayment installation</p> | <ul style="list-style-type: none"> • Safety precautions • Hand • Circular • Jig • Jamb |
| <p>4. Use fastening tools for underlayment</p> | <ul style="list-style-type: none"> • Safety precautions • Hand operated staple guns • Pneumatic staple guns • Hammers • Mallets |
| <p>5. Describe wood underlayment panels</p> | <ul style="list-style-type: none"> • Minimum thickness • Standards • Acceptable grades • Floor Covering manufacturers recommendations |



LEARNING TASKS

3. Apply adhesives

CONTENT

- Tools and equipment
 - Trowels
 - Notch shape, depth and spacing
 - Rollers
 - Sprayers
- Transfer test
- Acclimating materials
- Manufacturer's recommendations
- Priming requirements
- Application method
- Determining issues
 - Alkalinity
 - Porosity
 - Moisture
 - Correct Trowel size



Line: B USE STANDARD FLOOR COVERING SKILLS
Competency: B8 Supervise Work

Objectives

To be competent in this area the individual must be able to:

- Describe common practices related to job startup.

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Describe documents required on job sites
 2. Describe testing of existing flooring
 3. Describe jobsite information required for projects
 4. Explain coordination of work
 5. Describe paperwork required by flooring contractor | <ul style="list-style-type: none"> • Up to date blueprints and addendum • Seaming diagrams • Specification book • Site safety documents • MSDS's • Testing documents for moisture and pH
 • Lead • Asbestos
 • Project location • General contractor contact person or end user <ul style="list-style-type: none"> ○ Site rules and requirements ○ Restrictions on adhesives, solvents or open flames ○ Power outlets and breaker panels ○ Water source ○ Emergency information ○ Alarms
 • Schedule work with other trades • Areas for material storage • Access routes for deliveries • Elevator and lift sizes • Parking areas • Acclimation of materials • Inspection and inventory of all materials <ul style="list-style-type: none"> ○ Compatibility of materials ○ Roll sequence numbers • Protection of surrounding areas • Safety procedures to be followed
 • Work reports • Time sheets |
|--|--|



Line (GAC): **C** **USE MATH AND BLUEPRINT READING SKILLS**
Competency: **C1** **Use Trade Related Math Skills**

Objectives

To be competent in this area the individual must be able to:

- Use trade related math to solve problems.

LEARNING TASKS

1. Solve problems using whole numbers, fractions, and decimal fractions

2. Solve problems involving formulas

3. Solve problems involving angles, triangles and geometric construction

CONTENT

- Solving word problems
- Key terms and concepts
- Adding, subtracting, dividing and multiplying fractions and decimal fractions
- Converting between decimals and fractions
- Using calculator functions
- Imperial and metric measurements

- Key terms
- Order of operations in solving equations
- Calculating perimeter and area
- Pythagorean formula (3, 4, 5 rule)
- $A^2 + B^2 = C^2$
- Area and perimeter of circles and rectangles

- Using angles
- Types of triangles
- Using a protractor



Line (GAC): **D INSTALL CARPET**
Competency: **D1 Describe Carpet Materials**

Objectives

To be competent in this area the individual must be able to:

- Demonstrate knowledge of carpet materials.
- Identify carpet categories.

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Describe the history and development of the carpet industry 2. Describe fibres used in the manufacture of carpet 3. Identify carpet fibres 4. Describe types of fibre processing 5. Identify carpet categories 6. Describe tufted carpet | <ul style="list-style-type: none"> • Early history • Development of the industry • Natural fibres • Synthetic fibres • Processing of fibres • Dying of fibres • Fibre characteristics • Testing methods <ul style="list-style-type: none"> ○ Testing of wool and olefin fibres ○ Burn test procedures • Continuous filaments • Staple fibres • Yarn processing • Plying yarn • Woven • Tufted • Knitted • Flocked • Needle-punched • Fusion-bonded • Tufting methods • Dying methods • Coating • Primary backing • Secondary backings <ul style="list-style-type: none"> ○ Types ○ Functions • Optional backings |
|--|--|



LEARNING TASKS

CONTENT

- | | |
|--|--|
| <p>7. Identify types of carpet surfaces</p> | <ul style="list-style-type: none"> • Berber • Level loop • Cut and loop • Plush • Frieze • Saxony • Sculptured • Shag • Textured |
| <p>8. Describe the final stages of productions</p> | <ul style="list-style-type: none"> • Dyeing and topical treatments • Continuous dyeing • Piece dyeing • Print dyeing • Topical treatments • Shearing |
| <p>9. Describe quality and durability considerations</p> | <ul style="list-style-type: none"> • Tufted carpet pile density • Woven carpet pile density • Yarn weight • Yarn ply • Face weight • Pile height • Durability • Wear • Fading • Flammability |



Line (GAC): **D INSTALL CARPET**
Competency: **D2 Describe Carpet Cushions**

Objectives

To be competent in this area the individual must be able to:

- Describe common types and characteristics of carpet cushion.

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>1. Describe the benefits of carpet cushion</p> | <ul style="list-style-type: none"> • Comfort • Extending the carpet life • Improving acoustics • Improving thermal insulation • Easier maintenance |
| <p>2. Describe the types of carpet cushion materials</p> | <ul style="list-style-type: none"> • Fibre • Sponge rubber • Foam <ul style="list-style-type: none"> ○ Frothed polyurethane ○ Detached ○ Bonded Polyurethane ○ Grades |
| <p>3. Describe cushion characteristics</p> | <ul style="list-style-type: none"> • Thickness • Weight and density • Sizes and widths |



Line (GAC): **D INSTALL CARPET**
Competency: **D3 Use Carpet Installation Tools**

Objectives

To be competent in this area the individual must be able to:

- Follow safety rules when using carpet installation tools.
- Identify and use layout, cutting and trimming, seaming, stretching, fastening and general purpose tools to install carpet.

LEARNING TASKS

1. Describe general tool safety

2. Use measuring and marking tools

3. Use cutting and trimming tools

CONTENT

- Using tools as they were designed to be used
- WorkSafeBC regulations
- Site safety rules
- PPE requirements
- Work procedures
- Manufacturer's recommendations

- Chalk line
- Tape measures
- Straightedges
- Beam compass/trammel points

- Carpet hook knives
- Slotted blade carpet knives
- Utility knives
- Wall trimmers
- Cookie cutter
- Cushion-back cutter
- Loop pile cutter
- Glass block cutter
- Shears and scissors
- Tack strip cutter
- Z-bar trimmer



LEARNING TASKS

- 4. Use seaming tools

- 5. Use stretching and tucking tools

- 6. Use fastening tools

CONTENT

- Kool-glide seaming system
- Napping shears
- Needle thimble and sewing palm
- Row finder
- Seam iron
- Seam board
- Seam rollers
- Seam squeezer
- Seam weight

- Carpet tucker
- Deadman
- Knee kicker
- Mini stretcher
- Power stretcher
- Carpet spreader
- Stair tools
- Stretching board

- Drive bar
- Hammers
- Hot-melt glue gun
- Staplers and staple guns
- Pneumatic tool safety precautions
 - Secure connections
 - Proper air pressure
- Electric tool safety precautions
 - Checking cords
 - Checking ground connections
 - Ground fault circuit interrupter (GFCI)
- PPE
- Manufacturer's instructions



Line (GAC): D **INSTALL CARPET**
Competency: D4 **Use Applicable Carpet Installation Standards**

Objectives

To be competent in this area the individual must be able to:

- Use applicable carpet installation standards. (Presently transitioning from CRI to ASTM)

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Explain the introductory sections of the installation standard | <ul style="list-style-type: none"> • Scope of the standards • Applicable documents and references • ASTM standards • Terminology • Tools and materials |
| <ol style="list-style-type: none"> 2. Interpret storage and handling requirements | <ul style="list-style-type: none"> • Storage • Handling • Problems that may occur from improper storage and handling |
| <ol style="list-style-type: none"> 3. Interpret planning requirements | <ul style="list-style-type: none"> • Shop drawings • Planning for seams • Transitions to other surfaces • Carpet over expansion joints • Pile direction • Pattern matching |
| <ol style="list-style-type: none"> 4. Interpret site conditions requirements | <ul style="list-style-type: none"> • Substrate conditions • Ambient temperature and humidity • Floor preparation • Requirements for installation over various substrates |
| <ol style="list-style-type: none"> 5. Interpret substrates requirements | <ul style="list-style-type: none"> • Terrazzo, ceramic and natural stone <ul style="list-style-type: none"> ○ Removal of finishes ○ Preparation for adhesion ○ Filling grout lines • Slate and brick • Asphalt |



LEARNING TASKS

- 6. Interpret testing concrete substrates requirements

- 7. Interpret relaxing/conditioning carpet requirements

- 8. Interpret ventilation requirements

- 9. Interpret carpet seam edge preparation requirements

- 10. Interpret direct glue-down installation requirements

- 11. Interpret double glue-down installation requirements

CONTENT

- Carpet manufacturer’s written instructions for moisture and pH limits
- Moisture vapour emission (MVER) testing
- Relative humidity (RH) testing
- Testing for alkalinity
- AMST standards referenced

- Purpose
- Time periods

- HVAC system requirements

- Carpet manufacturer’s recommendations
- Trimming
 - Tools
 - Techniques
- Sealing edges
- Proper seam characteristics

- Relaxation/conditioning carpet
- Requirements for installation over various substrates
- Lay out
- Floor adhesive application
- Trowel selection
- Adhesive application
- Manufacturer’s recommendations
- Seam adhesive
- Rolling

- Relaxation/conditioning carpet
- Floor preparation requirements
- Cushion installation
- Layout
- Adhesives and trowel notch sizes
- Seaming
- Rolling



LEARNING TASKS

CONTENT

- | | |
|---|--|
| <p>12. Interpret attached cushion installation requirements</p> | <ul style="list-style-type: none"> • Relaxing/conditioning carpet • Carpet layout • Floor-applied adhesive installations • Installation procedures • Pre-applied adhesive systems • Hook and Loop technology |
| <p>13. Interpret stretch-in installation requirements</p> | <ul style="list-style-type: none"> • Relaxation/conditioning carpet • Tack strip requirements • Cushion selection • Seaming methods • Power stretching • Mechanical stretching device • Amount of stretch • Finishing at wall • Transition moulding |
| <p>14. Interpret carpet on stairs requirements</p> | <ul style="list-style-type: none"> • Stair preparation • Stretch-in installation • Glue-down installation • Carpet direction |
| <p>15. Interpret modular carpet requirements</p> | <ul style="list-style-type: none"> • Manufacturer's specifications • Installation pattern • Joints • Adhesive application |
| <p>16. Interpret patterned carpet requirements</p> | <ul style="list-style-type: none"> • Manufacturer's tolerances • Installation methods • Seaming diagram requirements • Roll sequence • Pattern sequence • Layout • Seam preparation • Pattern adjustment • Pattern alignment |
| <p>17. Interpret protecting installed carpet requirements</p> | <ul style="list-style-type: none"> • Curing adhesives • Protection from foot traffic |



LEARNING TASKS

18. Interpret outdoor carpet and synthetic turf installation requirements

19. Appendices

20. Explain when the standards may superseded

CONTENT

- Carpet selection
- Site conditions
- Floor preparation for various substrates

- Table of adhesives
- Table of adhesive applications
- Guidelines for maintaining indoor air quality
- Definitions of terms

- Manufacturer's specifications may differ
- Placement of seams designated by architect, designer or end user



Line (GAC): D **INSTALL CARPET**
Competency: D5 **Layout Carpet**

Objectives

To be competent in this area the individual must be able to:

- Make a rough drawing and layout carpet.

LEARNING TASKS

1. Explain layout considerations

2. Determine the quantity of carpet

3. Make a rough drawing

CONTENT

- Size of material
- Direction and location of seams
- Pile or pattern direction
- Traffic pattern considerations
- Lighting
- Dye lot
- Pattern match

- Determining the length, width and shape of area
- Calculating square feet, square yards or square metres required
- Additional material for cutting and trimming
- Selecting carpet width to the area when possible
- Number of carpet widths require
- Amount of fill required
- Pattern allowance

- Floor areas
- Stairs
- Rounding measurements
- Types of measurements
- Broken
- Overall
- Direction of measurement
- Door and access ways
- Location of columns and posts
- Lighting considerations Existing flooring
- Abbreviations
- Product dimensions
- Product pattern



LEARNING TASKS

- 4. Describe carpet layout

CONTENT

- Types of layout
 - Half drop into an offset
 - Reversible offsets
- Changing layout direction to reduce seams
- Large area layout
 - Material handling capabilities
 - Accessibility factors
 - Possibility of cross seams
- Pattern carpet layout
 - Cutting set patterns on intervals of pattern repeat
 - Carpets with directional pattern

Achievement Criteria

Performance The individual will be able to measure and create a rough drawing to estimate materials required.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness



LEARNING TASKS

5. Describe the installation of patterned carpet

CONTENT

- Layout variations for pattern
- Identifying and marking pattern repeat along seam line
- Cutting and dry laying
- Adhering the seams
- Stretching for pattern match elongation adjustments
- Use of stretcher
- Use of dry line as pattern adjustment reference
- Pattern alignment requirements
- Stay nailing

Achievement Criteria

Performance The individual will install carpet by the conventional method including carpet cushioning and finishing seams.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



LEARNING TASKS

4. Describe woven carpet cutting

CONTENT

- Square cutting cross seams
- Double cutting
- Serpentine freehand
- Row double cutting
- Manufacturer's installation instructions
- Tools
- Safety
- Row cutting
 - Across the grain
 - From the face
 - Edge sealing
- Cutting Wilton carpet
 - Back Buttering
- Cutting along a selvage edge
- Cutting patterned woven carpet



Line (GAC): **D INSTALL CARPET**
Competency: **D8 Install Carpet by Direct Glue-down Method**

Objectives

To be competent in this area the individual must be able to:

- Install carpet by the direct glue-down method.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>1. Describe the installation of glue-down carpet</p> | <ul style="list-style-type: none"> • Tools and equipment • Substrate preparation • Adhesive selection • Layout • Acclimation materials and sundries • Inspection of carpet |
| <p>2. Install direct glue carpet and carpet tile</p> | <ul style="list-style-type: none"> • Placing the carpet • Exposing floor area for adhesive application • Application of adhesive <ul style="list-style-type: none"> ○ Application method ○ Trowelling technique • Adhesive open time • Placing carpet into adhesive • Trimming along walls • Trimming around objects • Relief cuts • Seam cutting methods • Rolling the carpet • Restriction of traffic |
| <p>3. Install carpet border</p> | <ul style="list-style-type: none"> • Layout • Carpet direction • Seaming • Seam tape placement • Mitres • Tools • Stretching technique • Trimming and grooming • Edge sealing |



Achievement Criteria

Performance The individual will be able to install carpet by the direct glue-down method.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **D INSTALL CARPET**
Competency: **D9 Install Carpet by Double Bond Method**

Objectives

To be competent in this area the individual must be able to:

- Install carpet by the double bond method/double glue down.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Describe the double bond method of carpet installation

 2. Install carpet cushion

 3. Install carpet | <ul style="list-style-type: none"> • Tools and equipment • Manufacturer's instructions • Substrate preparation • Conditioning the materials
 • Installation direction • Seam offset • Positioning the cushion • Application of adhesive • Adhesive flash time • Trimming the cushion • Rolling the cushion
 • Positioning the carpet • Application of adhesive • Adhesive flash time • Application of seam sealer • Use of hot melt seam tape • Use of release paper backed seam tape • Trimming the carpet • Rolling the carpet • Adhesive transfer • Restriction of traffic |
|---|--|



Line (GAC): **D INSTALL CARPET**
Competency: **D10 Install Carpet Transitions, Trims and Bases**

Objectives

To be competent in this area the individual must be able to:

- Install carpet transitions, trims and bases.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Explain the use of carpet transitions
 2. Describe the types of transitions used for carpet installations
 3. Use transition installation tools
 4. Describe types and shapes of metal transitions | <ul style="list-style-type: none"> • Protecting the exposed carpet edges • Finished appearance
 • Metal • Resilient • Wood • Z-bar • Binding • Turn and tack
 • Layout tools <ul style="list-style-type: none"> ○ Plumb bobs ○ Lasers • Snips • Awl • Saws • Hammers • Mallet • Hammer drill • Hand roller • Punch bar • Mitre box
 • Purposes • Naploc/clamp-down/tap-down • T-bar • Contour • Snap-in • Top metal/binder bar • Stair nose |
|---|--|



LEARNING TASKS

5. Layout and cut metal transitions

6. Fasten metal transitions to substrates

7. Install top metal/binder bar transition

8. Install metal transitions on stairs

CONTENT

- Aligning a straight transition
- Aligning a contour transition
 - Creating a consistent curve
 - Fairing sticks
 - Templates
 - Transferring a shape from the ceiling to the floor
- Spanning lengths
- Planning the cut
- Using a mitre box

- Procedures
- Tools
- Inserts and wood plugs
- Safety
- Fastening to wood substrates
- Fastening to concrete substrates
- Installing with inside and outside corners
- Trimming carpet to fit metal transitions

- Placing the transition
- Centring the nail holes
- Fastening
- Working with mitred edges

- Installation procedures
- Fastening stair nose transitions
- Mitreing stair nose
 - Inside corners
 - Outside corners
- Wrapping outside corners using a mitre box
 - Measuring
 - Marking
 - Layout
 - Cutting
 - Nailing



LEARNING TASKS

- 4. Install conventional stair carpet

- 5. Describe the installation of carpet on floating stairs

CONTENT

- Tools
- Safety
- Tackstrip installation
- Cushion measurement
- Carpet measurement
- Edge treatments
- Carpet positioning
- Installation procedure

- Tackstrip placement
- Cushion installation
- Template measurement
- Template test fitting
- Carpet measurement
- Cutting the carpet
- Sealing the carpet edges
- Stretching sequence
- Seam alignment
- Stapling placement

Achievement Criteria

- Performance The individual will be able to install conventional stair carpet.
- Conditions The individual will be given:
- Materials and tools
 - Instructions
- Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:
- Safety
 - Accuracy
 - Completeness
 - Housekeeping



Line (GAC): **D INSTALL CARPET**

Competency: **D12 Repair Carpet**

Objectives

To be competent in this area the individual must be able to:

- Repair carpet damage.

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Describe the main categories of carpet repairs
 2. Recognize carpet construction for method of repair
 3. Patch a damaged section of stretch-in carpet
 4. Re-stretch a carpet
 5. Repair a carpet seam | <ul style="list-style-type: none"> • Patching • Re-stretching • Seam repair
 • Tufted • Woven • Needle-punched • Vinyl backed carpet
 • Stay nailing the effected area • Cutting and removing the damaged area • Application of seam adhesive • Placement of seam tape • Aligning the patch
 • Causes of carpet wrinkling • Removal of furniture • Release from walls • Checking the tackstrip • Selecting the stretch sequence • Repairing a delaminated section
 • Causes of seam failure • Isolating the seam • Separating the yarns • Removing the seam tape • Sealing the seam edges • Appropriate technique for cutting replacement piece • Adhesive application • Rolling and trimming the repair • Avoiding seam streaking • Pattern repair |
|--|---|



LEARNING TASKS

6. Repair a damaged section of glue-down carpet

CONTENT

- Cutting and removing damaged area
- Replacing cut out area
 - Pile direction
 - Carpet pattern
- Re-stretching and refitting carpeting
- Re-tufting

Achievement Criteria

Performance The individual will be able to repair carpet damage.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **E INSTALL RESILIENT FLOORS**
Competency: **E1 Describe Resilient Flooring Materials**

Objectives

To be competent in this area the individual must be able to:

- Describe resilient flooring materials.

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Describe the history and development of the resilient flooring
 2. Describe the manufacturing of resilient flooring
 3. Describe selection issues
 4. Describe resilient flooring materials | <ul style="list-style-type: none"> • Early history • Development of the industry • Use of asbestos • Vinyl components
 • Properties • Types <ul style="list-style-type: none"> ○ Linoleum ○ Vinyl ○ Rubber ○ Cork • Sheet • Tile • Plank • Inlaid vinyl • Embossed and smooth surfaces • Layered composite flooring
 • Leadership in Energy and Environmental Design (LEED) requirements • Performance and durability • Aesthetics • Substrate condition
 • Layers <ul style="list-style-type: none"> ○ Wear layer ○ Intermediate layer ○ Backing • Grades <ul style="list-style-type: none"> ○ Commercial ○ Light commercial ○ Residential |
|--|---|



LEARNING TASKS

5. Describe vinyl tile flooring

6. Describe sheet vinyl flooring

7. Describe specialty resilient flooring

8. Describe resilient bases

CONTENT

- Types
 - Vinyl composition tile
 - Solid vinyl tile flooring
 - Applicable standards
 - Classes
 - Dimensions
 - Advantages and disadvantages

- Types
 - Flexible polyvinyl chloride (PVC)
 - Inlaid
 - Rotogravure cushioned
 - Linoleum
- Common dimensions
- Classes/grades
- Advantages and disadvantages

- Types and styles
 - Slip resistant (safety)
 - Sports
 - Roll and tile rubber
 - Static control
- Applicable standards
- Dimensions
- Typical uses

- Materials
- Rubber
- Vinyl
- Properties
 - Flexibility
 - Durability
 - Colours and textures
- Types
 - Cove/toe
 - Straight/toeless
 - Tapered base/Tightloc
 - Vent-cove base
 - Profiled
 - Specialty
 - Integral
 - Corner



LEARNING TASKS

- 9. Describe resilient stair coverings

- 10. Describe protective edgings for resilient flooring

CONTENT

- Stair treads
- Stair nosings
- Stair risers
- Stair stringers
- Tactile warning strips

- Materials
 - Vinyl
 - Rubber
 - Metal
- Types
 - Reducers
 - Contour edging
 - Capping
 - Fillet/cove strip
- Colours
- Dimensions



LEARNING TASKS

- 4. Cut resilient sheet goods

- 5. Hand fit resilient sheet goods

- 6. Hand fit rotogravure material

CONTENT

- Safety
- Grout line placement
- Knife position
- Straight edge and butt method
- Double cut seams
- Underscribed seams
- Pattern matching
- Balanced pattern
- Seam placement

- Suitable materials
- Positioning the material
- Beginning the fit
- Relief cuts
- Final fitting walls
- Fitting door casings
- Undercutting door jams
- Fitting around objects

- Preparation
 - Patching
 - Undercutting door jambs
- Layout
 - Squareness
 - Seam position
 - Pattern balance
- Adhesive application and sequence
- Pattern matching techniques
- Trimming
- Seam preparation
- Seam cutting methods
- Sealing and protecting the seam

Achievement Criteria

- Performance The individual will be able to install resilient sheet goods.
- Conditions The individual will be given:
- Materials and tools
 - Instructions
- Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:
- Safety
 - Accuracy
 - Housekeeping



Line (GAC): E **INSTALL RESILIENT FLOORS**
Competency: E3 **Install Resilient Wall Base**

Objectives

To be competent in this are the individual must be able to:

- Install resilient wall base to straight walls and inside and outside corners.

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Describe the tools used for the installation of wall base
 2. Describe the materials used for resilient wall base
 3. Install wall base | <ul style="list-style-type: none"> • Layout tools • Scriber • Base spreader • Hand roller • Caulk gun • Scrapers • Base gouge • Chalk line
 • Standard heights • Lengths • Colours • Materials <ul style="list-style-type: none"> ○ Rubber ○ Vinyl
 • Removal of existing base • Layout procedure • Application of adhesive • Positioning the wall base • Aligning the top of the wall base • Rolling the base • Fill sections • Installation procedures <ul style="list-style-type: none"> ○ Wrapping an outside corner ○ Wrapping or butting an inside corner • Use of contact cement • Use of adhesive tape |
|--|--|



Achievement Criteria

Performance The individual will be able to install resilient wall base.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Level 2

Floor Covering Installer



Line (GAC): **B USE STANDARD FLOOR COVERING SKILLS**
Competency: **B3 Perform Moisture and Alkalinity Tests**

Objectives

To be competent in this area the individual must be able to:

- Demonstrate moisture and alkalinity tests.

LEARNING TASKS

CONTENT

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. Review Level 1
 2. Describe testing equipment to determine pH level of concrete
 3. Demonstrate testing equipment to determine the moisture content of concrete | <ul style="list-style-type: none"> • Problems related to moisture movement through concrete • ASTM standards • Types of moisture tests • Types of alkalinity tests
 • PH paper test <ul style="list-style-type: none"> ○ Preparing the surface ○ Use of distilled water ○ Interval time ○ Matching to test strip
 • Polyethylene sheet test • Matt test • Relative humidity • Quantitative anhydrous calcium chloride test <ul style="list-style-type: none"> ○ Limitations of the test ○ Preparation and acclimation of test area ○ Distribution of tests ○ Pre-test weight ○ Placing and securing the plastic dome ○ Timing of the test ○ Post-test weight |
|--|--|



Line (GAC): C **USE MATH AND BLUEPRINT READING SKILLS**
Competency: C1 **Use Trade Related Math Skills**

Objectives

To be competent in this area the individual must be able to:

- Scale out measurements from a drawing.

LEARNING TASKS

1. Review level 1

2. Scale out measurements from a drawing

CONTENT

- Metric and imperial conversions
- Formulas
- 3, 4, 5 rule
- Geometry

- Scale ruler
- Ratios
- Room size
- Lineal feet and yardage
- Square feet and yardage
- Lineal metric measurements



Line (GAC): **E** **INSTALL RESILIENT FLOORS**
Competency: **E2** **Install Resilient Sheet Goods**

Objectives

To be competent in this area the individual must be able to:

- Install resilient sheet goods.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Describe layout considerations
 2. Layout an area for resilient sheet goods
 3. Describe the tools used for the installation of resilient sheet goods
 4. Describe resilient sheet goods | <ul style="list-style-type: none"> • Size of material • Traffic pattern • Lighting • Size and shape of pattern
 • Measuring the length and width of the area • Determining the number of sections required • Location of seams • Fill pieces required • Offsets <ul style="list-style-type: none"> ○ Half drop into an offset ○ Reversible offsets • Pattern matching
 • Layout tools • Underscriber • Dividers • Knives • Hand roller • Weighted roller • Pin vice • Trimmers • Trowels • Resilient seam cutter • Undercut saw
 • Manufacturing process • Characteristics • Available dimensions • Types and styles |
|---|---|



LEARNING TASKS

9. Direct scribe resilient sheet goods

10. Flat lay pattern scribe resilient sheet goods

CONTENT

- Balanced pattern
- Seam placement
- Layout
 - Squareness
 - Seam position
 - Pattern balance
- Adhesive application and sequence
- Pattern matching techniques
- Trimming
- Sealing and protecting the seam

- Suitable materials
- Material preparation
- Scribing tool position
- Setting accurate scribing distance
- Scribing with a scribing bar
- Scribing with dividers
- Maintaining sheet alignment to reference marks

- Suitable materials
- Scribing straight walls
- Scribing pipes
- Scribing door casings
- Scribing radius objects
- Transferring scribe lines
- Cutting the flooring

Achievement Criteria

Performance The individual will be able to install resilient sheet goods.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Housekeeping



Line (GAC): E **INSTALL RESILIENT FLOORS**
Competency: E3 **Install Resilient Wall Base**

Objectives

To be competent in this are the individual must be able to:

- Install resilient wall base to straight walls and inside and outside corners.

LEARNING TASKS

1. Review Level 1

2. Install wall base

CONTENT

- Tools
 - Layout tools
 - Scribe
 - Base spreader
 - Hand roller
 - Caulk gun
 - Scrapers
 - Base gouge
 - Chalk line
- Materials
 - Standard heights
 - Lengths
 - Colours
 - Materials
 - Rubber
 - Vinyl
- Removal of existing base
- Layout procedure
- Application of adhesive
- Positioning the wall base
- Aligning the top of the wall base
- Rolling the base
- Fill sections
- Installation procedures
 - Effect of wall base composition on fitting technique
 - Installing pre-formed corners and fitting the field lengths
 - Wrapping an outside corner
 - Outside corner mitre
 - Wrapping or butting an inside corner
- Use of contact cement
- Use of adhesive tape



Achievement Criteria

Performance The individual will be able to install resilient wall base.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **E INSTALL RESILIENT FLOORS**
Competency: **E4 Complete Seams in Resilient Sheet Goods**

Objectives

To be competent in this area the individual must be able to:

- Complete seams in resilient sheet goods using chemical sealing.

LEARNING TASKS

1. Describe chemical seam sealers

2. Seal seams with a chemical seam sealer

CONTENT

- Hazards and precautions
- Compatible flooring materials

- Manufacturer's instructions
- Mixing requirements
- Seam preparation
- Set-up time
- Cleanup
- Shelf life

Achievement Criteria

Performance The individual will be able to complete seams in resilient sheet goods using chemical sealing.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **E INSTALL RESILIENT FLOORS**
Competency: **E5 Repair Resilient Floors**

Objectives

To be competent in this area the individual must be able to:

- Repair resilient flooring.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Describe the tools used for resilient flooring repair
 2. Select repair procedure to be used
 3. Repair resilient flooring | <ul style="list-style-type: none"> • Layout tools • Broad knife • Notched spreader • Knives • Heat gun • Hand roller
 • Identification of materials being repaired • Installation method of materials being repaired • Type of damage being repaired • Testing required for materials that may contain asbestos
 • Removal of existing material • Preparation of substrate • Adhesive applications • Size and shape of repair material • Types of damage • Punctures and gouges • Hand rolling • Repair method for various materials • Inlaid vinyl repair • Full-spread roto-vinyl repair • Perimeter spread felt back or tension floors • Non-patterned commercial sheet vinyl and linoleum • Seam repair |
|---|--|



Achievement Criteria

Performance The individual will be able to repair resilient floors.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): E **INSTALL RESILIENT FLOORS**
Competency: E6 **Layout for Resilient Tile**

Objectives

To be competent in this area the individual must be able to:

- Layout an area for resilient tile.

LEARNING TASKS

1. Describe layout considerations

2. Perform square tile layout

3. Perform diagonal tile layout

CONTENT

- Traffic pattern
- Lighting

- Taking measurements
- Checking squareness of the area
- Determining border width
- Adjusting for patterns
- Striking chalk lines
 - Control line
 - Building perpendicular lines
 - 3, 4, 5 method
 - Swinging arcs
- Finding the centre of a circle

- Taking measurements
- Finding the centre of the room
- Striking chalk lines
 - Control line
 - Building perpendicular lines
 - 3, 4, 5 method
 - Swinging arcs
 - 45° guidelines
- Adjusting for borders



Achievement Criteria

Performance The individual will be able to layout an area for resilient tile.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **E** **INSTALL RESILIENT FLOORS**
Competency: **E7** **Install Resilient Tile**

Objectives

To be competent in this area the individual must be able to:

- Install resilient tile.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <p>1. Describe the installation of resilient tile</p>

<p>2. Install resilient tile to a square layout</p>

<p>3. Install resilient tile to a diagonal layout</p> | <ul style="list-style-type: none">• Tools and equipment<ul style="list-style-type: none">○ Tile cutter○ Layout tools○ Heat gun○ Hand roller○ Knives○ Scrapers○ Trowels• Substrate preparation• Lot/run number• Layout techniques• Grain orientation
• Adhesive application• Batching/shuffling the tile• Placing the tiles• Fitting and cutting<ul style="list-style-type: none">○ Straight wall○ Outside corners○ Circular obstacles○ Door jambs• Use of kneeling board for wet-set method• Rolling the tile
• Layout techniques• Border cut tile• Door jamb cut tile• Using a template |
|---|---|



Achievement Criteria

Performance The individual will be able to install resilient tile.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Level 3

Floor Covering Installer



Line: B USE STANDARD FLOOR COVERING SKILLS
Competency: B8 Supervise Work

Objectives

To be competent in this area the individual must be able to:

- Use common practices related to job startup.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Ensure all documents are on site | <ul style="list-style-type: none"> • Up to date blueprints and addendum • Seaming diagrams • Specification book • Site safety documents • MSDS's • Testing documents for moisture and pH |
| <ol style="list-style-type: none"> 2. Ensure testing of existing flooring materials have been completed when necessary | <ul style="list-style-type: none"> • Lead • Asbestos |
| <ol style="list-style-type: none"> 3. Acquire jobsite information for the project | <ul style="list-style-type: none"> • Project location • General contractor contact person or end user <ul style="list-style-type: none"> ○ Site rules and requirements ○ Restrictions on adhesives, solvents or open flames ○ Power outlets and breaker panels ○ Water source ○ Emergency information ○ Alarms |
| <ol style="list-style-type: none"> 4. Coordinate work | <ul style="list-style-type: none"> • Schedule work with other trades • Areas for material storage • Access routes for deliveries • Elevator and lift sizes • Parking areas • Acclimation of materials • Inspection and inventory of all materials <ul style="list-style-type: none"> ○ Compatibility of materials ○ Roll sequence numbers • Protection of surrounding areas • Safety procedures to be followed |
| <ol style="list-style-type: none"> 5. Complete paperwork required by flooring contractor | <ul style="list-style-type: none"> • Work reports • Time sheets |



Line (GAC): C USE MATH AND BLUEPRINT READING SKILLS
Competency: C2 Read Blueprints and Specifications

Objectives

To be competent in this area the individual must be able to:

- Read and interpret specifications, blueprints and related materials.

LEARNING TASKS

CONTENT

- | | |
|---|---|
| <ol style="list-style-type: none"> 1. Describe plans and views used by floor covering installers | <ul style="list-style-type: none"> • Construction prints • Shop Drawings • Working sketches • Views <ul style="list-style-type: none"> ○ Details ○ Elevation ○ Sections • Plans <ul style="list-style-type: none"> ○ Site ○ Floor ○ Foundation |
| <ol style="list-style-type: none"> 2. Identify lines used in drawings | <ul style="list-style-type: none"> • Object • Dimension • Extension • Break • Centre |
| <ol style="list-style-type: none"> 3. Read and write dimensions | <ul style="list-style-type: none"> • Scale rulers • Lineal measurements <ul style="list-style-type: none"> ○ Imperial units of measure ○ Metric units of measure ○ Converting measurements ○ Abbreviations ○ Determining missing measurements |
| <ol style="list-style-type: none"> 4. Interpret symbols abbreviations used on prints | <ul style="list-style-type: none"> • Symbols for materials • Symbols for fixtures • Symbols for dimensions and positions • Abbreviations |



LEARNING TASKS

5. Interpret finishing schedules

6. Describe specifications

CONTENT

- Purpose
- Format
- Common schedules used by Floor Covering installers

- Purpose
- Types of information



Line (GAC): D **INSTALL CARPET**
Competency: D6 **Install Carpet by Conventional Method**

Objectives

To be competent in this area the individual must be able to:

- Install patterned carpet with borders.

LEARNING TASKS

1. Review level one

2. Describe and measure for pattern conditions

3. Install patterned carpet with borders

CONTENT

- Carpet installation standards
- Tools
- Tackstrips
- Cushions
- Measuring
- Layout
- Unrolling and positioning

- Bow
- Skew/bias
- Repeat variations
- Trueness of edge
- Manufacturer's tolerance

- Layout variations for pattern
- Identifying and marking pattern repeat along seam line
- Cutting and dry laying
- Adhering the seams
- Stretching for pattern match elongation adjustments
- Use of stretcher
- Use of dry line as pattern adjustment reference
- Pattern alignment requirements
- Stay nailing
- Kool Glide Sealing System
- Conventional seaming iron



Achievement Criteria

Performance The individual will be able to install patterned carpet with a border.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Achievement Criteria

Performance The individual will be able to install field and border by glue down method.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **D INSTALL CARPET**

Competency: **D12 Repair Carpet**

Objectives

To be competent in this area the individual must be able to:

- Repair carpet damage.

LEARNING TASKS

1. Review level 1

2. Patch a damaged section of stretch-in carpet

3. Re-stretch a carpet

4. Repair a carpet seam

5. Repair a damaged section of glue-down carpet

CONTENT

- Categories of carpet repairs
- Recognizing carpet construction for method of repair

- Stay nailing the effected area
- Cutting and removing the damaged area
- Application of seam adhesive
- Placement of seam tape
- Aligning the patch

- Causes of carpet wrinkling
- Removal of furniture
- Release from walls
- Checking the tackstrip
- Selecting the stretch sequence
- Repairing a delaminated section

- Causes of seam failure
- Isolating the seam
- Separating the yarns
- Removing the seam tape
- Sealing the seam edges
- Appropriate technique for cutting replacement piece
- Adhesive application
- Rolling and trimming the repair
- Avoiding seam streaking
- Pattern repair

- Cutting and removing damaged area
- Replacing cut out area
 - Pile direction
 - Carpet pattern
- Re-stretching and refitting carpeting
- Re-tufting



Achievement Criteria

- Performance The individual will be able to repair carpet damage.
- Conditions The individual will be given:
- Materials and tools
 - Instructions
- Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:
- Safety
 - Accuracy
 - Completeness
 - Housekeeping



Line (GAC): **D INSTALL CARPET**
Competency: **D14 Describe the Installation of Artificial Turf**

Objectives

To be competent in this area the individual must be able to:

- Describe the layout and installation of artificial turf.

LEARNING TASKS

1. Describe the ground preparation for artificial turf

2. Describe the installation of artificial turf

CONTENT

- Removal of sod
- Compacting of existing ground
- Weed barrier
- Sub-base requirements
- Top based sand requirements

- Layout and grid lines
- Marking grid lines using transits and lasers
- Assembling the turf sections
- Rolling out the turf
- Cutting and trimming the turf
- Hand stretching of turf sections
- Seaming sections
- Turf insets



Line (GAC): E INSTALL RESILIENT FLOORS

Competency: E4 Complete Seams in Resilient Sheet Goods

Objectives

To be competent in this area the individual must be able to:

- Heat weld seams to create an integral floor.

LEARNING TASKS

1. Use tools for heat welding seams

CONTENT

- Heat welder
- Welding tips
- Power groover
- Hand groover
- Skiving knives
- Trim plate
- Cleaning tools
- Sharpeners
- Specialty tools

2. Use the heat welding process

- Manufacturer's recommendations
- Trimming the seams
- Adjusting a power groover
- Maintaining the proper groove depth
- Selecting the welding tip and rod for the material
- Welding positions
- Skiving the seam
 - Number of passes
 - Position of the trim plate
- Defects from improper temperature of speed of welding
- Defects caused by improper skiving procedure



LEARNING TASKS

- 3. Install stair treads and risers

CONTENT

- Tools
- Wooden spacers
- Substrate preparation
- Step and tread preparation
- Positioning the tread
- Setting the dividers
- Scribing and cutting the back of the tread
- Measuring and cutting the riser
- Adhesive application
- Installation procedure for tread and risers

Achievement Criteria

Performance The individual will be able to install resilient stringers, treads and risers.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): E **INSTALL RESILIENT FLOORS**
Competency: E9 **Install Flash Coving**

Objectives

To be competent in this area the individual must be able to:

- Install flash coving.

LEARNING TASKS

1. Describe flash cove trim
2. Install flash cove trim and cove stick
3. Install flash coving

CONTENT

- Purpose
- Terminology
- Cove cap
- Materials
- Profiles
- Cover stick materials
- Tools
- Cap installation
 - Measuring and cutting
 - Anchoring methods
 - Techniques for wrapping inside and outside corners
- Cove stick installation
 - Cutting methods
 - Anchoring methods
 - Mitreing
 - Tapering at doorways
- Material preparation
- Hand fitting method
- Template fitting
- Transferring the marks to the flooring material
- Cutting sequence and methods
- Adhesive application
- Aligning the material
- Installation techniques
- Heat welding seams



Achievement Criteria

Performance The individual will be able to install flash coving

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): E INSTALL RESILIENT FLOORS

Competency: E10 Install Rubber Sheet and Tile

Objectives

To be competent in this area the individual must be able to:

- Install rubber sheet and tile.

LEARNING TASKS

1. Describe rubber flooring

2. Describe the preparation for rubber floor installation

3. Describe the installation of rubber flooring

CONTENT

- Manufacturing process
- Characteristics
- Uses
- Finishes

- Manufacturer's recommendations
- Acceptable substrates
- Maximum moisture content
- Calcium chloride test
- Relative humidity test
- Preparing the substrate
- Bond test
- Storage and handling
- Acclimation and staging
- Roll sequencing

- Tools
- Correct directional layout
- Wet lay installations
- Adhesives
 - Required adhesive transfer
 - Trowel size
 - One-part
 - Stirring
 - Off gassing of adhesive
 - Two-part
 - Mixing equipment
 - Mixing procedure
 - Pot life



LEARNING TASKS

CONTENT

- Fitting and layout methods for tile installation
- Fitting and layout methods for sheet rubber
- Rolling applications
- Seam cutting techniques
- Weighting the flooring
- Adhesive cleanup from flooring

Achievement Criteria

Performance The individual will be able to install rubber resilient flooring.

Conditions The individual will be given:

- Materials and tools
- Instructions

Criteria The individual will score 70% or better on a rating sheet that reflects the following criteria:

- Safety
- Accuracy
- Completeness
- Housekeeping



Line (GAC): **E INSTALL RESILIENT FLOORS**
Competency: **E11 Install Specialty Resilient Product**

Objectives

To be competent in this area the individual must be able to:

- Describe the installation of specialty resilient material.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Define terms used for conductive flooring materials 2. Describe installation requirements for conductive flooring components 3. Describe safety flooring installation 4. Describe specialty wall products | <ul style="list-style-type: none"> • Static dissipative • Conductive • Positioning of grounding strips • ASTM standards • Substrate requirements • Adhesive selection • Delivery, storage and handling • Manufacturer's instructions • Requirements for sheet material • Requirements for resilient tile • Surface preparation requirements • Adhesive application • Rolling of installed material • Protection of installation • Seaming restrictions • Specialty grooving blade • Maintenance awareness • Surface water resistance • Recommended adhesives • Wall vinyl for clean rooms/showers • Acrylic wall covering for clean rooms |
|---|--|



Line (GAC): F INSTALL WOOD AND LAMINATE FLOORING
Competency: F1 Describe the Installation of Barriers and Cushions

Objectives

To be competent in this area the individual must be able to:

- Describe the installation of barriers and cushions for hardwood flooring.

LEARNING TASKS

CONTENT

- | | |
|---|--|
| <ol style="list-style-type: none"> 1. Describe types of vapour barriers 2. Describe types of sound retarders 3. Describe the installation of barriers and cushions | <ul style="list-style-type: none"> • Urethane • Polyethylene sheeting • Double felt • Epoxy sealer • Cork • Rubber • Synthetic sound transmission barriers • Synthetic felt • Adhesives • Donnaconna board • Manufacturer's recommendations • Fastening techniques • Height above finished flooring • Taping seams |
|---|--|



Line (GAC): F INSTALL WOOD AND LAMINATE FLOORING
Competency: F2 Describe the Installation of Prefinished Hardwood Flooring

Objectives

To be competent in this area the individual must be able to:

- Describe the installation of prefinished hardwood flooring.

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>1. Describe types of hardwood flooring</p> | <ul style="list-style-type: none"> • Construction <ul style="list-style-type: none"> ○ Solid ○ Engineered • Types of installations <ul style="list-style-type: none"> ○ Nail-down ○ Glue-Down ○ Floating |
| <p>2. Describe substrate requirements</p> | <ul style="list-style-type: none"> • Direction of joints • Surface preparation requirements • Undercutting door jambs • Maximum difference in moisture content between flooring and substrate • Flatness requirements |
| <p>3. Describe layout procedures.</p> | <ul style="list-style-type: none"> • Establishing the direction and layout of the flooring • Establishing the start line • Control lines • Dry laying/racking • Starter rows • Laying out patterns |
| <p>4. Describe the installation of nail-down hardwood flooring</p> | <ul style="list-style-type: none"> • Fitting techniques • Fasteners • Fastener equipment • Fastener spacing and depth • Installing a spline or slip tongue • Installation of transitions and mouldings |



LEARNING TASKS

5. Describe glue-down hardwood flooring installations

6. Describe the assembly of floating floors

7. Describe the installation of borders and insets

8. Describe the installation of wood and laminate flooring on stairs

CONTENT

- Adhesive application
 - Spread rate
 - Ventilation requirements
 - Open times
- Starter rows
- Installing a spline or slip tongue
- Rolling the floor

- Joint type
 - Mechanical
 - Glued
- Locking joints
- Expansion joints

- Border terminology
 - Inset
 - Framing
 - Skirting
 - Apron
- Measuring techniques
- Mitre and lap joints
- Wood fillers
- Tools and equipment

- Stair components
- Stringers
- Risers
- Nosings
- Treads
- Starting points
- Cutting the material for tight fit
- Fastening material



Line (GAC): **F INSTALL WOOD AND LAMINATE FLOORING**
Competency: **F3 Describe the Repair of Prefinished Wood and Laminate Flooring**

Objectives

To be competent in this area the individual must be able to:

- Describe the repair damaged prefinished solid and laminate floors.

LEARNING TASKS

CONTENT

- | | |
|--|---|
| <p>1. Describe the repair of boards</p> | <ul style="list-style-type: none"> • Repair materials • Thermal plastic repair kits • Laminate repair kits • Putties and crayons • Tightening loose boards • Gluing loose boards with injection system |
| <p>2. Describe the replacement of damaged boards</p> | <ul style="list-style-type: none"> • Protecting existing finished surfaces • Tools for removing boards • Specialty tools for laminate • Removing fasteners • Adhesive application • Fitting and install new board • Keeping flat with weight |
| <p>3. Describe the refinishing of wood flooring</p> | <ul style="list-style-type: none"> • Sanding and screening • Filler application • Dust removal • Stain application • Finish application |



Section 4

TRAINING PROVIDER STANDARDS



Facility Requirements

Classroom Area

- Comfortable seating and tables suitable for learning
- Compliance with the local and national fire code and occupational safety requirements
- Overhead and multimedia projectors with a projection screen
- Whiteboard with marking pens and erasers
- Lighting controls to allow easy visibility of the projection screen while allowing students to take notes
- Windows must have shades or blinds to adjust sunlight
- Heating/Air conditioning for comfort all year round
- In-room temperature control to ensure comfortable room temperature
- Acoustics in the room must allow the instructor to be heard
- Computer lab complete with 6 computers and internet access
- Library complete with reference material for student and instructor use

Shop Area

- 4000 square feet of workshop space per class of 14 students with a minimum ceiling height of 20 feet
 - This includes space for a tool crib
- Adequate lighting and lighting control
- Ventilation as per WorkSafeBC standards
- Refuse and recycling bins for used shop materials
- Level 2 first-aid facilities

Lab Requirements

N/A

Student Facilities

- Adequate lunch room as per WorkSafeBC requirements
- Adequate washroom facilities as per WorkSafeBC requirements
- Personal storage lockers

Instructor's Office Space

- Desk and filing space
- Computer



Tools and Equipment

Shop Equipment

Required

- N/A

Recommended

- N/A

Shop (Facility) Tools

Standard Tools Levels 1 to 3

- Adjustable wrench
- Awl
- Blades (utility, slotted, hooked, saw)
- Broom
- Caulking gun
- Chalk line
- Chisels
- Claw hammer
- Dryline
- Dust brush
- Files
- Hacksaw
- Hand scraper
- Hammer stapler
- Hand stapler
- Levels
- Measuring tape
- Mitre box
- Moulding cutter
- Moulding lifter
- Nail set
- Patching trowel
- Pencils/markers
- Pliers
- Plumb bob
- Putty knife
- Rubber mallet
- Scale rulers
- Screwdrivers
- Sharpening stone
- Square
- Straightedge
- Tee square
- Tin snips
- Tool box
- Tool pouch
- Utility knife
- Air compressors
- Angle grinder
- Circular saw
- Cove base adhesive gun
- Dollies and hand trucks
- Edger
- Electric tacker
- Extension cords
- Floor fan
- Hammer drill
- Heat gun



- Hot melt glue gun
- Jamb saw
- Jigsaw
- Laser line
- Lights
- Mitre saw
- Moisture meter
- Pneumatic nailer
- Pneumatic tacker
- Portable electric circular saw
- Portable table saw
- Powder actuated tools
- Power drill and mixing paddle
- Router and specialized router bits
- Sanders
- Seaming irons
- Soldering guns
- Stripper machines
- Vacuum cleaners
- Welding guns

Specialty Carpet Tools Levels 1 and 3

- Adhesive trowels
- Brad set
- Carpet cart
- Carpet comb
- Carpet clamp
- Carpet restretcher (crab)
- Carpet seam roller
- Carpet shears
- Carpet spreader
- Carpet tractor
- Carpet tucker
- Cookie cutter
- Cushion-back cutter
- Double cutter
- Double headed crab
- Driving bar
- Hot melt edge sealer tip
- Induction heating irons
- Knee kicker
- Latex squeeze bottle
- Loop pile cutter
- Moisture test kit
- Needles
- Parallel cutter
- Porcupine roller
- Power stretcher
- Row separator
- Seam seal kit
- Seam squeezer
- Sewing palm and thimble
- Stair stretcher
- Stair tool
- Stand-up rollers
- Stand-up scraper
- Staple lifter
- Tack hammer
- Tack strip cutter
- Trowel notcher
- Various knives
- Wall trimmer – conventional



Specialty Resilient Flooring Tools Levels 1 to 3

- Bar scribe
- Bricks (grey, paver bricks)
- Corner scribe
- Cove base gouging tool
- Cove base groover
- Divider
- Edge trimmer
- Extension hand roller (laminated)
- Hand roller (seam/coving roller)
- Linoleum dolly (sheet vinyl cradle)
- Mixing paddle
- Moisture test kit
- Paint brushes
- Heat seam welding system
- Paint roller and tray
- Power drill
- Propane torch
- Seam roller
- Spatula knife (quarter-moon knife)
- Specialized knives
- Spreader or notched steel trowel
- Stand up roller (100 lb. – 125 lb.)
- Straightedge
- Serpentine straightedge
- Tee square (6 in. or 2 m)
- Tile cutter
- Trim plate
- Two metre straightedge
- Under or recess scribe
- Universal scribe
- Wall roller
- Wall trimmer

Student Equipment (supplied by school)

Required

Miscellaneous hand tools specific to task being performed

Recommended

N/A

Student Tools (supplied by student)

Required

N/A

Recommended

N/A



Reference Materials

Required Reference Materials

N/A

Required Texts

Contact Training Facility for Required Reference Material

Suggested Texts

N/A

Recommended Resources

Industry Training Authority (ITA) www.itabc.ca

WorkSafeBC (WCB) www.worksafebc.com



Instructor Requirements

Occupation Qualification

The instructor must possess:

- A BC Certificate of Qualification preferably with a Red Seal Endorsement.
- Certificate of Qualification from another Canadian jurisdiction complete with Red Seal Endorsement only.

Work Experience

- A minimum of 5 years' experience working in the industry as a journey person.

Instructional Experience and Education

It is preferred that the instructor also possesses one of the following:

- An Instructors Diploma or equivalent
- A Bachelor's Degree in Education
- A Master's Degree in Education



Appendices



Appendix A

Assessment Guidelines



Grading Sheet: Subject Competency and Weightings

PROGRAM:		Floor Covering Installer	
IN-SCHOOL TRAINING:		LEVEL 1	
ITA DIRECT ACCESS CODE:		0008FC01	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
A	Apply Safe Work Practices	10%	0%
B	Use Standard Floorcovering Skills	20%	20%
C	Use Math and Blueprint Reading Skills	15%	0%
D	Install Carpet	50%	65 %
E	Install Resilient Floors	5%	15%
	Total	100%	100%
In-school theory / practical subject competency weighting		30%	70%
Final in-school percentage score is entered into ITA Direct Access		IN-SCHOOL %	

In-school Percentage Score Combined theory and practical subject competency multiplied by	80%
Standard Level Exam Percentage Score The exam score is multiplied by	20%
Final Percentage Score	FINAL%



PROGRAM:		Floor Covering Installer	
IN-SCHOOL TRAINING:		LEVEL 2	
ITA DIRECT ACCESS CODE:		0008FC02	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
B	Use Standard Floorcovering Skills	20%	20%
C	Use Math and Blueprint Reading Skills	20%	0%
E	Install Resilient Floors	60%	80%
	Total	100%	100%
In-school theory / practical subject competency weighting		30%	70%
Final in-school percentage score is entered into ITA Direct Access		IN-SCHOOL %	

In-school Percentage Score Combined theory and practical subject competency multiplied by	80%
Standard Level Exam Percentage Score The exam score is multiplied by	20%
Final Percentage Score	FINAL%



PROGRAM:		Floor Covering Installer	
IN-SCHOOL TRAINING:		LEVEL 3	
ITA DIRECT ACCESS CODE:		0008FC03	
LINE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
B	Use Standard Floorcovering Skills	5%	0%
C	Use Math and Blueprint Reading Skills	10%	0%
D	Install Carpet	35%	45%
E	Install Resilient Floors	35%	45%
F	Install Wood and Laminate Flooring	15%	10%
	Total	100%	100%

In-school theory / practical subject competency weighting	40%	60%
Final in-school percentage score Apprentices must achieve a minimum 70% for the Level 3 final in-school percentage score to be eligible to write the Interprovincial Red Seal exam.	IN-SCHOOL FINAL %	

All apprentices who complete Level 3 of the Floorcovering Installer program with a FINAL level percentage score of 70% or greater will write the Interprovincial Red Seal examination as their final assessment.

ITA will enter the apprentices' Floorcovering Installer Interprovincial Red Seal examination percentage score in ITA Direct Access. A minimum percentage score of 70% on the examination is required for a pass.