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MINISTRY OF SKILL DEVELOPMENT
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Facilitator Guide

Sector
Interiors, Furniture and Fixtures

Sub-Sector
Furniture Business Development, Installation & After Sales

Occupation
Furniture Installation & After Sales

Reference ID: **FFS/Q2204, Version: 2.0, NSQF Level: 5**

Master Carpenter

This book is prepared by
Furniture & Fittings Skill Council (FFSC)
Address: 407-408, 4th Floor, DLF City Court, Sikanderpur
Gurgaon 122002, Haryana, India
Email: info@ffsc.in
Website: www.ffsc.in
Phone: +91 124 4513900

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> Skilling is building a better India. If we have to move India towards development then Skill Development should be our mission.

Shri Narendra Modi
Prime Minister of India

Acknowledgements

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The preparation of this Facilitator Guide would not have been possible without the Furniture and Fittings industry's support. Industry feedback has been extremely encouraging, from inception to conclusion, and it is with their input that we have tried to bridge the skill gaps existing today in the industry.

This Facilitator Guide is dedicated to the aspiring youth, who desire to achieve special skills, which would serve as lifelong assets for their future endeavours.

About This Guide

The Master Carpenter guide is designed to enable training for the specific Qualification Pack (QP). Each National Occupational Standard (NOS) is addressed through dedicated Unit(s). Key Learning Objectives for the relevant NOS are presented at the beginning of each Unit to guide the learner's progress.

The Master Carpenter plays the primary role of project supervision at the worksite. The person is responsible for assisting in client coordination and vendor management of the materials while ensuring quality management. The individual will also perform and guide team members in fabrication, assembly, installation, maintenance, repair, alteration, and finishing of various types of products using hand tools while conforming to plans and specifications.

The individual must have physical strength, good stamina, problem-solving and analytical skills, with a willingness to learn and perform. The person must be organized, diligent, methodical, safety-conscious, and a prompt decision-maker. The individual should be honest, trustworthy, reliable, flexible, and innovative.

Symbols Used

Ask


Explain


Elaborate


Notes


Unit Objectives


Do


Demonstrate


Activity


Team Activity


Facilitation Notes


Practical


Say


Resources

Example


Summary


Role Play


Learning Outcomes

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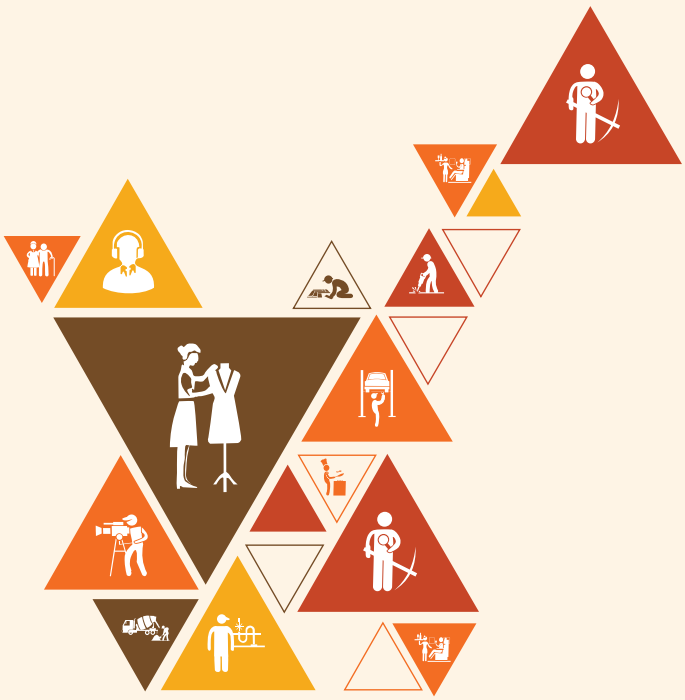
1. Understanding the Master Carpenter's Role and Industry Compliance

Unit 1.1: Scope of the Industry and Professional Responsibilities
Unit 1.2: Industry Documentation and Reporting Structures
Unit 1.3: Legal Compliance and Site Regulations
Unit 1.4: Documentation Analysis and Process Improvement



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Describe the significance of the furniture and fittings industry across residential, commercial, and institutional sectors.
2. Explain the key site-level responsibilities of a Master Carpenter in supervisory roles.
3. Discuss how leadership, ethics, and discipline affect team performance and client satisfaction.
4. Identify key documents used in furniture installation sites, such as job cards, task sheets, and inspection logs.
5. Describe how documentation supports team coordination and project scheduling.
6. Explain the role of reporting formats in maintaining workflow transparency.
7. Illustrate how documentation practices vary between mid-size and large-scale carpentry projects.
8. List common legal requirements applicable to carpentry sites, including building codes and material safety norms.
9. Explain how labour law compliance and site regulations ensure safe working conditions.
10. Identify common errors in site-level documentation and reporting.
11. Explain how to evaluate documentation for accuracy and completeness.
12. Recommend corrective actions for addressing non-compliance reports.
13. Suggest ways to improve documentation practices across different teams.
14. Analyse how recurring reporting gaps affect decision-making at the project management level.

Unit 1.1: Scope of the Industry and Professional Responsibilities

Unit Objectives

At the end of this unit, participants will be able to:

1. Describe the significance of the furniture and fittings industry across residential, commercial, and institutional sectors.
2. Explain the key site-level responsibilities of a Master Carpenter in supervisory roles.
3. Discuss how leadership, ethics, and discipline affect team performance and client satisfaction.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the importance of the furniture and fittings industry and how it supports homes, offices, and public institutions. We will also learn about the responsibilities of a Master Carpenter at the worksite, including supervision, planning, and team coordination. The unit highlights how leadership, discipline, and ethics help deliver quality work and build strong client relationships.

Ask

Ask the participants the following questions:

- Can you name one place where furniture is always needed—home, office, or school?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Scope of the Industry and Professional Responsibilities

In this session, we will study the wide-ranging scope of the furniture and fittings industry and the professional responsibilities of those working in it, especially the role of a Master Carpenter. Learners will explore how this industry supports residential, commercial, and institutional projects, and how ethical behaviour, leadership, and discipline directly impact work quality, team performance, and client satisfaction.

1. **Significance of the Furniture and Fittings Industry**
    - The furniture and fittings sector plays a vital role in shaping the functionality and aesthetics of residential homes, commercial spaces like offices and showrooms, and institutional buildings such as schools and hospitals.
    - It influences interior design, user comfort, storage solutions, and overall space utilization.
    - The industry supports a wide range of services including custom furniture making, installation, renovation, and modular solutions, generating employment and contributing to the economy.

2. **Site-Level Responsibilities of a Master Carpenter**
    - A Master Carpenter acts as a supervisor and technical lead at the site, ensuring tasks are completed safely, correctly, and on time.
    - Responsibilities include interpreting drawings, guiding the team, monitoring material usage, coordinating with clients and contractors, and ensuring quality workmanship.
    - They are also expected to maintain site safety protocols, check tool readiness, and ensure adherence to installation standards.

3. **Impact of Leadership, Ethics, and Discipline**
    - Effective leadership boosts team motivation, efficiency, and skill development, helping projects run smoothly.
    - Ethics such as honesty, responsibility, and respect build client trust and long-term reputation.
    - Discipline in punctuality, cleanliness, and work quality leads to better time management and higher customer satisfaction.
    - Together, these qualities enhance workplace culture, reduce conflicts, and support professional growth.

Say

Let us participate in an activity to study the unit a little more.

Activity

- Arrange the class in a semi-circle/circle.
- Each of us will tell the class their name, hometown, hobbies and special quality about themselves, starting with the 1st letter of their name. I will start with mine.
- Say your name aloud and start playing the game with your name.
- Say, “Now, each of one you shall continue with the game with your names till the last person in the circle/ semi-circle participates”.
- Listen to and watch the trainees while they play the game.
- Ask questions and clarify if you are unable to understand or hear a trainee.Remember to:

Activity	Duration	Resources used
Ice Braker	60 minutes	Pen, Notebook etc.

- Discourage any queries related to one’s financial status, gender orientation or religious bias during the game
- Try recognising each trainee by their name because it is not recommended for a trainer to ask the name of a trainee during every interaction

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage teams to think about both utility and aesthetics in each furniture example.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 1.2: Industry Documentation and Reporting Structures

Unit Objectives

At the end of this unit, participants will be able to:

1. Identify key documents used in furniture installation sites, such as job cards, task sheets, and inspection logs.
2. Describe how documentation supports team coordination and project scheduling.
3. Explain the role of reporting formats in maintaining workflow transparency.
4. Illustrate how documentation practices vary between mid-size and large-scale carpentry projects.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the importance of documentation and reporting systems used in the furniture installation industry. Participants will learn about key documents such as job cards, task sheets, and inspection logs, and understand how these support effective team coordination, scheduling, and transparency. The unit also highlights how documentation practices vary depending on project size and complexity, ensuring organized and traceable workflows at different worksite levels.

Ask

Ask the participants the following questions:

- What is a job card used for on a furniture installation site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Industry Documentation and Reporting Structures

In this session, we will study the various types of documents used in the furniture installation industry, their purposes, and how they contribute to smooth project execution. Participants will explore how documentation supports coordination, helps maintain workflow transparency, and differs based on the scale of operations. Emphasis is placed on how structured reporting systems improve communication, accountability, and quality assurance at the site level.

1. **Understanding Key Industry Documents**

   In a furniture installation setting, clear and accurate documentation is vital for tracking tasks and responsibilities. Participants are introduced to documents such as:

   - Job cards, which outline the specific work assigned to each worker or team daily.
   - Task sheets, used to describe in detail the steps or activities required to complete a job, often including timelines and resource requirements.
   - Inspection logs, which are records of quality checks and observations made during or after installation. These helps maintain safety and standards compliance.

   Learning to read, interpret, and fill out these documents correctly ensures that team members are accountable and tasks progress systematically.

2. **Role of Documentation in Team Coordination**

   Proper documentation helps teams stay aligned with project goals. When all activities are recorded on task sheets and progress logs, supervisors can delegate work efficiently and ensure materials or tools are available when needed.

   For example, if a job card shows a task scheduled for Tuesday, the store manager knows to issue required materials in advance. This structured communication helps avoid delays, duplication of work, or confusion about who is responsible for what. Good documentation acts like a roadmap, keeping the entire team organized and focused.

3. **Reporting for Workflow Transparency**

   Transparent reporting builds trust and accountability on a site. Participants learn how to use standard formats—like daily logs, issue trackers, and delivery registers—to communicate real-time progress to stakeholders. These reports allow supervisors and clients to assess if work is on schedule, whether any issues are pending, and what corrective measures are in place.

   For example, if a delay is noted due to a late hardware delivery, it can be documented and communicated up the chain. This minimizes misunderstandings and allows for faster decision-making and resource allocation.

4. **Variations Based on Project Scale**

   The complexity and type of documentation depend on the scale of the project.

   - In mid-sized projects, basic formats like printed job sheets or handwritten logs may be sufficient.
   - In large-scale projects, there is a need for digital documentation tools (e.g., project management apps or cloud-based trackers), approval workflows, and frequent formal reporting.

   Participants explore how to adapt to both situations—knowing when minimal records will do, and when a detailed log with timestamps, task codes, and signatures is necessary to maintain clarity and accountability.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Site-Level Documentation and Reporting Scenarios

Group Size: 4–6 participants

Materials:

- Whiteboard or flipchart
- Markers
- Sticky notes
- Scenario cards (3 examples provided below)

Activity Duration: 60 minutes

Instructions:

1. **Setup**

   Divide participants into small groups and explain the purpose of the activity: to explore documentation and reporting scenarios commonly encountered on furniture installation sites.

2. **Distribute Scenario Cards (One per Group)**

   Each card presents a documentation-related challenge that affects site coordination, scheduling, or communication.

3. **Group Discussion and Planning**

   Each group will discuss their scenario using the following prompts:

   - What kind of documentation is involved in this situation?
   - What problems could arise from missing or incorrect documentation?
   - How can proper reporting improve team coordination or prevent issues?
   - What reporting format or document should be used here?

4. **Group Presentations**

   Each group presents:

   - Their assigned scenario
   - The documentation tools required
   - A step-by-step reporting or resolution plan

5. **Debriefing & Key Takeaways**

   As a class, discuss:

   - Different approaches taken
   - How documentation influences site efficiency
   - Common pitfalls and best practices in reporting

Examples of Scenario Cards

Scenario 1:

A site supervisor notices that a task assigned to a technician was delayed because the job card didn't mention the required tool. How can the team improve task documentation to prevent such errors?

Scenario 2:

Midway through an installation project, a misalignment in furniture layout is discovered, but no inspection log is available to trace when the error began. What reporting structure would help in tracking such issues in future?

Scenario 3:

Your team is working on a large-scale installation where multiple subcontractors are involved. Miscommunication has led to two teams overlapping their work. How can documentation help manage workflow and team responsibilities?

Activity	Duration	Resources used
Site-Level Documentation and Reporting Scenarios	60 minutes	Whiteboard or flipchart, Markers, Sticky notes, Scenario cards (3 examples provided below) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage real-world examples from participants' experience (if any) to anchor the discussion in practical reality.
- Guide teams to refer to documentation types such as job cards, site reports, daily logs, or checklist formats.
- Ensure each group explores both the error and the corrective documentation, emphasizing prevention over blame.

Unit 1.3: Legal Compliance and Site Regulations

Unit Objectives

At the end of this unit, participants will be able to:

1. List common legal requirements applicable to carpentry sites, including building codes and material safety norms.
2. Explain how labour law compliance and site regulations ensure safe working conditions.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the basic legal and regulatory requirements that govern carpentry worksites. This includes understanding building codes, safety rules for using materials, and labour laws that protect workers' rights. We will also explore how following these regulations ensures a safer, fairer, and legally compliant work environment for all site staff and supervisors.

Ask

Ask the participants the following questions:

- Why is it important to wear safety gear like helmets and gloves while working on a carpentry site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Legal Compliance and Site Regulations

In this session, we will study the key legal requirements and safety regulations that apply to carpentry and furniture installation sites. Participants will explore how building codes, labor laws, and site-specific protocols contribute to structural safety, worker well-being, and smooth project execution. Understanding these frameworks ensures that work is done ethically, legally, and safely.

1. **Understanding Legal Requirements for Carpentry Sites**
    - Carpentry works must comply with national and local building codes that specify construction standards for structural safety and durability.
    - Fire safety regulations must be followed, especially when working with wood and flammable materials. This includes using flame-retardant boards and having proper fire exits.
    - Material safety norms guide the handling and selection of adhesives, coatings, and finishes to prevent health risks to workers and users.
    - Adhering to these laws helps avoid structural failures, ensures legal project approval, and improves overall safety.

2. **Labour Law Compliance and Site Safety Regulations**
    - Labour laws provide legal protection to workers, including rights to fair wages, regulated working hours, and weekly rest days.
    - Sites must enforce safe working conditions, such as proper ventilation, lighting, and protection from hazardous zones.
    - Employers must provide Personal Protective Equipment (PPE) like helmets, gloves, goggles, and safety boots to all workers.
    - Projects must include first-aid provisions, emergency protocols, and a system to report and manage accidents.
    - Following these rules creates a secure and fair work environment, builds trust with workers, and avoids legal penalties.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: "Site Compliance Scenario Challenge"

Group Size: 4–6 participants

Materials:

- Scenario cards (with site-based legal/safety situations)
- Chart paper or whiteboard
- Markers
- Copies of a simplified checklist of basic carpentry site regulations

Activity Duration: 45–60 minutes

Instructions:

1. Divide participants into small groups and provide each group with one scenario card (see examples below).
2. Each group should analyse the scenario and identify:
   - Which legal or safety regulations are being violated or overlooked?
   - What actions should be taken to correct the situation?
   - How can compliance be maintained going forward?
3. Groups will present their findings and proposed actions to the rest of the class.
4. Close the activity with a class discussion on why compliance is critical to avoid penalties, prevent injuries, and maintain work quality.

Activity	Duration	Resources used
"Site Compliance Scenario Challenge"	45-60 minutes	Scenario cards (with site-based legal/safety situations), Chart paper or whiteboard, Markers, Copies of a simplified checklist of basic carpentry site regulations etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Ensure participants understand basic legal terms like “building codes”, “labor law”, and “material handling regulations” before starting.
- Encourage teamwork and discussion — the goal is to apply concepts, not just recall rules.
- After presentations, highlight the real-world consequences of non-compliance such as legal penalties, fines, site shutdowns, or injuries.

Unit 1.4: Documentation Analysis and Process Improvement

Unit Objectives

At the end of this unit, participants will be able to:

1. Identify common errors in site-level documentation and reporting.
2. Explain how to evaluate documentation for accuracy and completeness.
3. Recommend corrective actions for addressing non-compliance reports.
4. Suggest ways to improve documentation practices across different teams.
5. Analyse how recurring reporting gaps affect decision-making at the project management level.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to review, analyse, and improve site-level documentation in carpentry and furniture installation projects. Participants will learn to identify common documentation errors, evaluate reports for completeness and accuracy, recommend corrective actions for non-compliance, and explore ways to enhance reporting practices across teams. The unit also highlights how poor documentation can impact project decision-making and workflow efficiency.

Ask

Ask the participants the following questions:

- Why is it important to check documentation carefully before submitting it at a furniture installation site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Documentation Analysis and Process Improvement

In this session, we will study how site-level documentation can be reviewed and improved to support efficient furniture project management. Participants will learn to identify common reporting errors, assess the quality and accuracy of documents, suggest corrections, and improve practices that affect team coordination and decision-making. Emphasis will be placed on real-time reporting, consistency across teams, and minimizing non-compliance in site records.

1. **Identifying Common Errors in Site-Level Documentation**

   Participants will learn how to review documents such as job cards, task sheets, inspection logs, and material receipts to identify common issues. These may include incomplete entries, incorrect time logs, missing signatures, mismatched part codes, or duplicate records. Understanding these errors helps reduce confusion during audits or progress reviews and prevents work delays due to miscommunication.

2. **Evaluating Documentation for Accuracy and Completeness**

   It is important that site documentation reflects the actual work status. Learners will practice checking if all required fields are filled correctly, whether data matches physical work on site, and if documents follow standard formats. Accurate documentation supports better coordination among teams and allows supervisors to track daily progress, quality, and safety compliance efficiently.

3. **Recommending Corrective Actions for Non-Compliance Reports**

   When errors or incomplete reports are discovered, it's crucial to propose clear solutions. Participants will learn to suggest practical steps such as rechecking with site workers, revising formats to avoid confusion, or adding checklist-based reviews before submission. These actions help prevent recurring issues and ensure accountability across reporting teams.

4. **Improving Documentation Practices Across Different Teams**

   Reporting consistency becomes challenging when multiple teams work on large or multi-site projects. This point covers strategies like using shared digital tools (e.g., mobile apps for job cards), assigning reporting duties to specific individuals, conducting regular training on documentation protocols, and creating standard operating procedures (SOPs) to align reporting across departments.

5. **Analyzing How Reporting Gaps Affect Project-Level Decisions**

   Poor documentation doesn't just cause site-level problems—it can delay billing, inventory planning, or client updates. Participants will understand how inaccurate or delayed reports impact procurement, resource planning, and scheduling. They will also learn how proactive documentation practices help project managers make faster, more informed decisions, reducing rework and disputes.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Spot the Error – Site Documentation Review Practice

Group Size: 4–5 participants per group

Materials:

- Sample sets of site documents (job cards, task checklists, inspection logs – with intentional errors)
- Markers and sticky notes
- Correction sheets or report templates

Activity Duration: 45–60 minutes

Instructions:

1. **Distribute sample documents**

   Provide each group with a printed or digital set of site documents that contain a mix of realistic errors—such as missing entries, incorrect dates, unclear work descriptions, or incomplete inspection checklists.

2. **Analyse and identify issues**

   Each group must analyse their document set and use sticky notes or highlighters to mark all the errors they can find. They must also categorize the type of error (e.g., missing info, incorrect data, formatting issue).

3. **Suggest improvements**

   Groups will then fill out a "Corrective Suggestions Sheet" where they explain how each error can be avoided in the future, suggest improvements in format or process, and note how the issue could affect overall project reporting.

4. **Presentation and discussion**

   Each group presents 2–3 major issues they found and their proposed corrective strategies. Encourage discussion and comparison of each group's findings and solutions.

Activity	Duration	Resources used
Spot the Error – Site Documentation Review Practice	45-60 minutes	Sample sets of site documents (job cards, task checklists, inspection logs – with intentional errors), Markers and sticky notes, Correction sheets or report templates etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Errors should be realistic but not too complex—e.g., unsigned logs, wrong job codes, missing time entries.
- Ask follow-up questions like “How would this error impact project billing or client reporting?” to deepen discussion.
- Use this activity to emphasize the importance of consistency in documentation formats across teams.

Exercise

Multiple Choice Questions (MCQs)

1. What is one primary responsibility of a Master Carpenter at the site level?
   a) Designing furniture for mass production
   b) Supervising labor safety and task distribution
   c) Marketing finished furniture products
   d) Transporting raw materials
   Answer: b) Supervising labor safety and task distribution

2. Which document is typically used to track daily assigned tasks on a furniture installation site?
   a) Blueprint sheet
   b) Purchase order
   c) Task sheet
   d) Warranty card
   Answer: c) Task sheet

3. How does proper documentation help during large-scale projects?
   a) By promoting individual competition
   b) By improving transparency and planning
   c) By reducing the need for site visits
   d) By eliminating communication needs
   Answer: b) By improving transparency and planning

4. Which of the following is an example of legal compliance on carpentry sites?
   a) Offering customer discounts
   b) Following social media guidelines
   c) Adhering to building codes and material safety norms
   d) Designing office layouts
   Answer: c) Adhering to building codes and material safety norms

Fill in the Blanks

1. The _____ is responsible for supervising on-site work and ensuring quality and safety standards are met.
   Answer: Master Carpenter

2. Job cards, task sheets, and inspection logs are examples of essential _____ used in furniture installation.
   Answer: Site-level documents

3. Leadership, ethics, and discipline among workers lead to better _____ and _____.

   Answer: Team performance, client satisfaction

4. Reporting formats help maintain _____ and allow better coordination between teams.

   Answer: workflow transparency

Match the Following:

1. Match the items in Column A with the correct items from Column B:

Column A	Column B
1. Job Card	a) Worker task allocation and hours
2. Building Code	b) Rules governing structural and safety norms
3. Task Sheet	c) Details daily furniture installation schedule
4. Inspection Log	d) Record of checks during furniture installation

Answers: 1 - a) , 2 - b) , 3 - c) , 4 - d)

2. Match the items in Column A with the correct items from Column B:

Column A	Column B
1. Non-compliance Report	a) Indicates a deviation from expected procedure
2. Large-scale carpentry project	b) Requires detailed planning and documentation
3. Labor Law	c) Protects workers' rights and working conditions
4. Reporting Gap	d) Can lead to delays in project decisions

Answers: 1 - a) , 2 - b) , 3 - c) , 4 - d)

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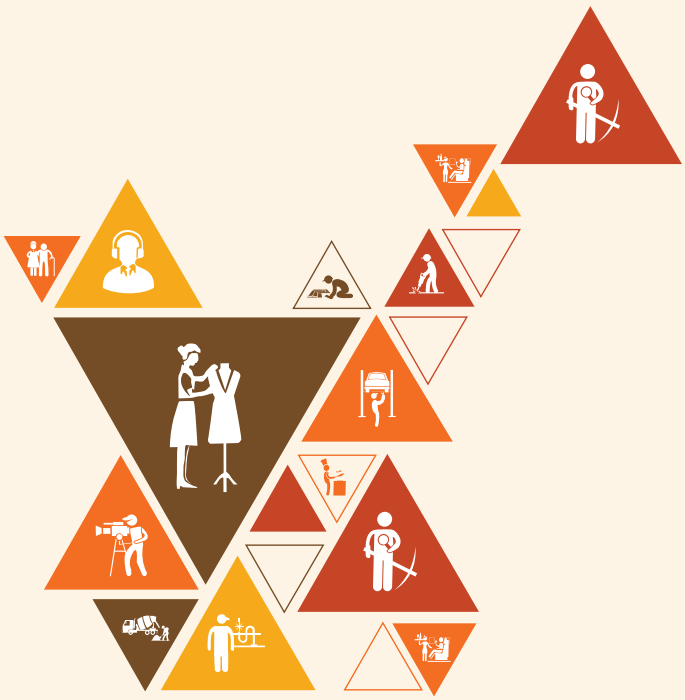
2. Defining Scope of Work and Client Communication

Unit 2.1: Conducting Client Interactions and Managing Expectations
Unit 2.2: Interpreting Client Requirements and Defining Scope of Work
Unit 2.3: Preparing Documentation for Scope Communication
Unit 2.4: Cross-Functional Coordination and Conflict Resolution



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Describe how to initiate and structure client meetings to gather expectations and design intent.
2. Record key decisions and queries during discussions in alignment with site execution needs.
3. Identify client preferences and translate them into functional inputs for layout and product types.
4. Plan structured feedback sessions with the client to capture design evolution and approval stages.
5. Review design drawings and documents to identify technical requirements and constraints.
6. Analyze client inputs and convert them into a measurable scope of work with reference to the 1BHK project.
7. List the required materials, fittings, manpower, and duration based on scope definition.
8. Adjust the scope to suit non-standard site conditions or structural limitations.
9. Draft scope summary sheets, timelines, and job briefs for team reference and client sign-off.
10. Maintain structured records of approvals, change requests, and communication history.
11. Use version-controlled formats to reflect scope changes over time.
12. Ensure proper alignment between written scope documents and verbal agreements with clients.
13. Coordinate with internal teams such as design, procurement, and execution to ensure scope clarity.
14. Identify typical causes of scope conflict across departments in residential interior projects.
15. Apply structured negotiation techniques to resolve scope-related conflicts.
16. Document final scope decisions in a format that avoids ambiguity and confusion during site work.
17. Validate that all stakeholders are aligned on the latest version of scope before moving to execution.

Unit 2.1: Conducting Client Interactions and Managing Expectations

Unit Objectives

At the end of this unit, participants will be able to:

1. Describe how to initiate and structure client meetings to gather expectations and design intent.
2. Record key decisions and queries during discussions in alignment with site execution needs.
3. Identify client preferences and translate them into functional inputs for layout and product types.
4. Plan structured feedback sessions with the client to capture design evolution and approval stages.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to conduct professional client meetings, gather design preferences, and document key decisions for smooth project execution. The unit also explains how to convert client expectations into practical design inputs and manage feedback through structured approval stages. By the end of this unit, learners will understand how to ensure clarity and satisfaction throughout the client interaction process.

Ask

Ask the participants the following questions:

- What is the first thing you should do when starting a furniture project with a new client?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Conducting Client Interactions and Managing Expectations

In this session, we will study how to professionally conduct client meetings, gather expectations, and manage feedback throughout the design and execution process. Participants will learn how to document decisions, convert client preferences into technical inputs, and maintain ongoing communication to ensure that the outcome matches the client's vision. The focus will be on establishing trust, clarity, and alignment between the client and the project team.

1. **Planning and Structuring Initial Client Meetings**

   Before any design or installation work begins, it is essential to meet with the client to understand their expectations. These meetings should be planned with a clear agenda, including questions about the type of furniture needed, the intended usage of each space, preferred materials or finishes, and any budget considerations. The carpenter should actively listen, avoid technical jargon when unnecessary, and clarify unclear preferences to build mutual understanding.

2. **Capturing Key Decisions and Clarifications**

   Every discussion with the client may include important decisions related to layouts, product types, or finish options. It is the responsibility of the carpenter or team representative to record these details carefully. Using formats such as meeting minutes, task sheets, or voice notes can help ensure all critical instructions are captured. Clarifications—such as confirming dimensions or material grades—should also be documented to avoid miscommunication between the design and execution stages.

3. **Converting Preferences into Functional Design Inputs**

   Clients often describe their preferences in terms of looks or lifestyle needs, such as "I want something easy to maintain," or "I like minimalistic design." The carpenter must translate these preferences into actionable decisions. For example, "easy to maintain" may lead to using laminated surfaces or soft-close fittings, while "minimalistic design" may suggest handleless shutters and concealed hinges. This conversion process bridges the gap between a client's idea and technical design feasibility.

4. **Managing Ongoing Feedback and Approval Stages**

   Client preferences may change or evolve throughout the project. To manage this effectively, the carpenter should plan regular feedback sessions at key project stages—such as after design drafts, material selections, or sample approvals. These sessions should include a summary of what has been finalized, what needs confirmation, and what is pending. Having clients sign off or verbally confirm approvals reduces future disagreements and ensures accountability on both sides.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Client Meeting and Expectation Management in a Furniture Project

Group Size: 4–6 participants

Materials:

- Flipchart or whiteboard
- Markers
- Sticky notes
- Scenario cards (described below)

Activity Duration: 60 minutes

Instructions:

Step 1: Form Groups & Distribute Scenario Cards

Divide participants into small groups and give each group a scenario card describing a typical client interaction situation in a furniture project.

Step 2: Group Discussion and Planning (Each group discusses the scenario using the prompts below:

- What are the key expectations of the client in this scenario?
- What information needs to be captured during the meeting?
- How should the team communicate any design or timeline limitations clearly to the client?
- How can the team maintain client satisfaction while staying realistic?

Step 3: Role Play or Group Presentation

Groups role-play a mock client meeting or explain their strategy for handling the interaction. Assign roles like carpenter, client, and site lead.

Step 4: Debrief and Sharing

Facilitator guides a short discussion across groups:

- What worked well in each approach?
- How were client expectations clarified and recorded?
- What could be improved in future meetings?

Examples of Scenario Cards

Scenario 1

The client wants a change in the laminate finish after work has started, and it may delay the schedule.

Scenario 2

The client is unclear about storage space requirements and wants guidance during the layout finalization.

Scenario 3

A corporate client demands weekly updates and quick feedback turnaround for approval.

Activity	Duration	Resources used
Client Meeting and Expectation Management in a Furniture Project	60 minutes	Flipchart or whiteboard, Markers, Sticky notes, Scenario cards (described below) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Help participants focus on real communication tools like noting down client preferences, clarifying deliverables, and handling disagreements politely.
- Encourage each group to explain how their decisions would help avoid rework or miscommunication.
- Reinforce the importance of documentation, listening skills, and professionalism in building trust with clients.

Unit 2.2: Interpreting Client Requirements and Defining Scope of Work

Unit Objectives

At the end of this unit, participants will be able to:

1. Review design drawings and documents to identify technical requirements and constraints.
2. Analyse client inputs and convert them into a measurable scope of work with reference to the 1BHK project.
3. List the required materials, fittings, manpower, and duration based on scope definition.
4. Adjust the scope to suit non-standard site conditions or structural limitations.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to interpret client inputs, read design documents, and define a clear and actionable scope of work, especially for small residential projects like a 1BHK unit. Participants will learn how to break down requirements into materials, manpower, and timelines, while also understanding how to make practical adjustments for real site conditions or design constraints.

Ask

Ask the participants the following questions:

- What does the term “scope of work” refer to in a furniture installation project?

Write down the participants’ answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points

Interpreting Client Requirements and Defining Scope of Work:

In this unit, we will discuss how to carefully interpret a client's needs and translate them into a clear and achievable scope of work. Participants will learn how to study design drawings, assess client preferences, list necessary resources, and make practical adjustments for actual site conditions. This unit helps bridge the gap between client vision and real-world execution.

1. **Review design drawings and documents to identify technical requirements and constraints**
    - Carefully examine architectural plans, furniture layouts, and elevation views.
    - Understand critical design aspects such as unit positions, heights, dimensions, and clearances.
    - Identify structural limitations like beams, columns, and wall thickness that may impact furniture placement.
    - Note service points (e.g., electrical sockets, plumbing lines) to avoid interference during installation.
    - Highlight areas with special requirements, such as curved surfaces or niche spaces, for custom design inputs.

2. **Analyse client inputs and convert them into a measurable scope of work with reference to the 1BHK project**
    - Listen actively to the client's preferences, style choices, and functional needs for each space.
    - Break down their inputs into room-wise furniture requirements (e.g., wardrobe in bedroom, modular kitchen, TV unit in living room).
    - Translate aesthetic expectations into measurable deliverables (e.g., matte finish laminate, handleless drawers).
    - Use the 1BHK reference layout to estimate how many units are needed and where they should be placed.
    - Convert ideas into clear action items that include dimensions, materials, and hardware types.

3. **List the required materials, fittings, manpower, and duration based on scope definition**
    - Prepare a bill of materials that includes boards, laminates, edge bands, adhesives, screws, and accessories.
    - Choose appropriate hardware such as drawer channels, hinges, knobs, and brackets based on usage type.
    - Estimate the number of skilled and unskilled workers needed for fabrication, polishing, and installation.
    - Break down the total work into stages (cutting, assembly, finishing) and assign expected duration to each.
    - Ensure planning accounts for delays due to material availability or client change requests.

4. **Adjust the scope to suit non-standard site conditions or structural limitations**
    - Visit the actual site to observe practical challenges like uneven walls, sloping floors, or awkward corners.
    - Make necessary changes to furniture dimensions or layout to fit real conditions without affecting usability.

- Discuss any adjustments required with the client and obtain approval for updated plans.
- Modify the bill of materials or fitting types if the site requires different mounting or anchoring methods.
- Document all changes clearly for team reference during execution and installation.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Defining Scope for a 1BHK Client Project

Group Size: 4–5 participants per group

Materials:

- Sample client brief (written form)
- Floor plan of a 1BHK apartment (printed)
- Markers, sticky notes, and sketch sheets
- Scope of work format template (can be a chart or table)

Activity Duration: 60 minutes

Instructions

1. **Distribute the scenario:**

   Give each group a sample client brief for a 1BHK apartment. The brief will mention client expectations (e.g., modular kitchen, wardrobe in each room, a shoe rack near the entrance, and TV unit in the hall).

2. **Analyse the brief and drawings:**

   Groups will read the brief and examine the given 1BHK layout. They will identify functional requirements and match them to specific furniture elements.

3. **Draft the Scope of Work:**

   Each group will list out the materials (e.g., plywood, laminates), fittings (hinges, handles), manpower needs, and expected time for execution. They should also note any assumptions made.

4. **Presentation:**

   Groups will present their scope to the class in 5–7 minutes, highlighting how they derived it from client inputs and adjusted for practical considerations like small kitchen size or load-bearing walls.

Activity	Duration	Resources used
Defining Scope for a 1BHK Client Project	60 minutes	Sample client brief (written form), Floor plan of a 1BHK apartment (printed),, Markers, sticky notes, and sketch sheets, Scope of work format template (can be a chart or table) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage all participants to speak during the group presentation.
- Remind them to think of site constraints (like limited movement space, structural columns) while preparing scope.
- Guide them to differentiate between client wish list and feasible deliverables based on layout and budget.

Unit 2.3: Preparing Documentation for Scope Communication

Unit Objectives

At the end of this unit, participants will be able to:

1. Draft scope summary sheets, timelines, and job briefs for team reference and client sign-off.
2. Maintain structured records of approvals, change requests, and communication history.
3. Use version-controlled formats to reflect scope changes over time.
4. Ensure proper alignment between written scope documents and verbal agreements with clients.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to create and maintain clear documentation that communicates the scope of work to both clients and internal teams. Participants will learn to draft scope summary sheets, job briefs, and project timelines, while also managing approvals and revisions using version-controlled formats. Emphasis will be placed on ensuring alignment between written documents and verbal agreements to avoid misunderstandings during project execution.

Ask

Ask the participants the following questions:

- What is a scope summary sheet, and why is it important in furniture installation projects?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Preparing Documentation for Scope Communication

In this session, we will study how to prepare accurate documentation that clearly communicates the scope of work between the client and the execution team. Participants will learn to draft project briefs, timelines, and version-controlled documents that reflect approvals and changes. The unit highlights the importance of aligning written scope with verbal agreements to avoid confusion and ensure project success.

1. **Drafting Scope Summary Sheets, Timelines, and Job Briefs**
    - Learners will understand how to compile key client inputs, material needs, and activity timelines into structured formats.
    - These documents act as a common reference for both the execution team and the client, helping to clarify job responsibilities and deliverables.
    - Job briefs highlight site-specific details such as access restrictions, preferred materials, or custom design requirements.

2. **Maintaining Records of Approvals, Change Requests, and Communication**
    - Participants will learn to organize and store all client communications such as feedback, design approvals, or modifications.
    - This ensures transparency in decision-making and serves as evidence in case of disputes or delays.
    - Structured logs or email trails can help trace back any agreed-upon changes or instructions.

3. **Using Version-Controlled Formats to Reflect Changes**
    - Emphasis is placed on maintaining version numbers and timestamps on all documents to distinguish between updates.
    - Older versions are archived but accessible, while the current version guides ongoing work.
    - This prevents confusion in fast-moving projects where multiple changes may occur in short intervals.

4. **Ensuring Alignment Between Written Documents and Verbal Agreements**
    - Participants will practice validating verbal discussions through summary emails or meeting notes.
    - This reduces the risk of misinterpretation and ensures that both parties have the same understanding of deliverables.
    - Effective alignment builds trust with clients and keeps the project team focused on verified expectations.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Drafting and Reviewing Scope Documentation for a Furniture Installation Project

Group Size: 4–5 participants

Materials:

- Sample client brief (1BHK layout with basic specifications)
- Blank scope summary sheet template
- Timeline chart template
- Sample change request slips
- Pens, markers, and chart paper

Activity Duration: 60 minutes

Instructions:

1. Divide participants into small groups and provide each group with a sample client brief describing a fictional 1BHK interior installation project.
2. Task 1

   Each group will:

   - Draft a scope summary sheet detailing materials, key tasks, and deliverables.
   - Create a simple timeline or job brief for team implementation.
   - Include at least one sample change request based on a fictional client revision.
3. Task 2

   Groups will exchange documents and review another team's scope summary and timeline, marking:

   - Missing details or unclear areas
   - Alignment with project brief
4. Task 3

   Each group presents:

   - Their scope documents
   - Key issues found in peer reviews
   - Suggestions for improvement

Activity	Duration	Resources used
Drafting and Reviewing Scope Documentation for a Furniture Installation Project	45-60 minutes	Sample client brief (1BHK layout with basic specifications), Blank scope summary sheet template, Timeline chart template, Sample change request slips, Pens, markers, and chart paper etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage realistic assumptions when defining materials, manpower, and timelines.
- Guide participants to maintain alignment between client inputs and document content.
- Highlight the value of peer review as a practical quality-check process in real projects.

Unit 2.4: Cross-Functional Coordination and Conflict Resolution

Unit Objectives

At the end of this unit, participants will be able to:

1. Coordinate with internal teams such as design, procurement, and execution to ensure scope clarity.
2. Identify typical causes of scope conflict across departments in residential interior projects.
3. Apply structured negotiation techniques to resolve scope-related conflicts.
4. Document final scope decisions in a format that avoids ambiguity and confusion during site work.
5. Validate that all stakeholders are aligned on the latest scope version before moving to execution.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to manage coordination between different teams involved in residential interior projects and handle conflicts that may arise during execution. The unit will focus on methods for ensuring clear communication of scope, identifying common sources of inter-departmental disagreements, and applying structured negotiation strategies to resolve them. Participants will also learn how to document and validate final decisions to ensure smooth project delivery.

Ask

Ask the participants the following questions:

- What does it mean to coordinate with other teams during a project?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Cross-Functional Coordination and Conflict Resolution

In interior installation projects, multiple teams—such as design, procurement, and execution—must work together efficiently to achieve the desired outcome. This session explores how scope clarity is maintained across departments, what causes misunderstandings, and how structured negotiation helps resolve disputes. Participants will also learn to document scope changes properly and ensure everyone is aligned before execution begins.

1. **Coordinating with Internal Teams to Ensure Scope Clarity**

   Effective project execution depends on seamless collaboration between key departments—design, procurement, and execution. A Master Carpenter must regularly communicate with the design team to understand layout and material specifications, align with the procurement team on availability and delivery schedules, and ensure that the execution team is fully briefed on the scope. Structured meetings, shared digital tracking tools, and timely updates help reduce misunderstandings and promote accountability across teams.

2. **Identifying Typical Causes of Scope Conflicts**

   Conflicts between departments often stem from a lack of timely information, client-driven changes, or overlapping responsibilities. For instance, if the design team updates a wardrobe layout after materials have already been ordered, it can create conflict between the procurement and execution teams. Misinterpretation of drawings or site constraints not reflected in the original plan can also lead to disagreement. Recognizing these causes early helps avoid costly rework and delays.

3. **Applying Structured Negotiation Techniques for Conflict Resolution**

   When conflicts arise, it is essential to use structured negotiation rather than informal or reactive conversations. This includes actively listening to each team's concerns, separating issues from personalities, and focusing on mutually beneficial solutions. For example, if two teams disagree on how to handle an unexpected beam at the site, the carpenter can propose a modified design that satisfies both structural requirements and aesthetic intent. Documenting these outcomes builds trust and sets a professional standard.

4. **Documenting Final Scope Decisions Clearly and Precisely**

   After resolving any scope-related conflicts, all changes must be documented clearly. This includes updating scope summary sheets, revised layouts, and confirmation emails or client signoffs. This ensures that no team is working on outdated information. Poor or missing documentation is one of the main reasons for execution errors, and maintaining clarity through paperwork or digital tools (like project management software) ensures smooth on-site activity.

5. **Validating Stakeholder Alignment Before Execution**

   Before the execution phase starts, the Master Carpenter must conduct a final review meeting or circulate an approval document confirming that all teams are aligned on the latest scope. This validation prevents errors like installing incorrect units or working with wrong material specifications. It also builds a shared sense of ownership and reduces confusion on-site, leading to smoother workflow and client satisfaction.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Resolving Scope Conflicts in a Residential Project Scenario

Group Size: 4–6 participants

Materials:

- Printed scenario cards (one per group)
- Notepads or worksheets
- Markers and flipchart or whiteboard

Activity Duration: 60 minutes

Instructions:

1. **Scenario Distribution**

   Each group receives a different scenario describing a scope conflict between internal teams (design, procurement, and execution) in a residential interior project.

2. **Group Discussion & Roleplay**
   - Assign team roles (e.g., design lead, site supervisor, procurement officer).
   - Identify the source of the conflict described in the scenario.
   - Roleplay a short meeting where participants negotiate and arrive at a resolution using structured communication techniques.
   - Decide how the final scope decision should be documented to prevent future confusion.

3. **Presentation**

   Each group presents:
   - The identified cause of the conflict
   - How they negotiated a resolution
   - How they planned to document and communicate the outcome

4. **Debrief and Feedback**

   Facilitator leads a discussion:
   - What worked well during negotiation?
   - What made the conflict harder to resolve?
   - How could similar conflicts be prevented in real projects?

Activity	Duration	Resources used
Resolving Scope Conflicts in a Residential Project Scenario	60 minutes	Printed scenario cards (one per group), Notepads or worksheets, Markers and flipchart or whiteboard etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Ask groups to simulate actual workplace behaviour and communication during roleplay.
- Guide participants to think about long-term implications of poor coordination or documentation.
- Ensure everyone gets a role and a chance to contribute in the group discussions.

Exercise

Multiple Choice Questions (MCQs)

1. What is the primary goal of the initial client meeting?
   a. Finalizing the payment schedule
   b. Discussing marketing strategies
   c. Understanding expectations and design intent
   d. Reviewing supplier contracts
   Answer: c. Understanding expectations and design intent

2. Which document is used to summarize tasks, timelines, and scope for team reference and client sign-off?
   a. Design brief
   b. Scope summary sheet
   c. Vendor invoice
   d. Warranty card
   Answer: b. Scope summary sheet

3. What should be done when a scope change is approved during the project?
   a. Ignore verbal confirmations
   b. Only update the team
   c. Update the version-controlled documentation
   d. Leave it undocumented until handover
   Answer: c. Update the version-controlled documentation

4. A structured feedback session with the client is most useful for:
   a. Requesting final payment
   b. Capturing design evolution and approvals
   c. Sending marketing surveys
   d. Confirming material deliveries
   Answer: b. Capturing design evolution and approvals

Fill in the Blanks

1. A well-documented _____ helps avoid misunderstandings between the client and execution team.
   Answer: scope of work

2. Client preferences must be translated into functional inputs for _____ and product types.
   Answer: layout

3. A _____ record of approvals and communication history ensures transparency.
   Answer: structured

4. Internal coordination with design, procurement, and execution teams helps ensure _____ clarity.

   Answer: scope

Match the Following:

1. Match the items in Column A with the correct items from Column B:

Column A	Column B
1. Job brief	a) Tracks changes and ensures consistency
2. Version-controlled document	b) Summary of task expectations and roles
3. Feedback session	c) Captures evolving client inputs
4. Conflict resolution	d) Uses negotiation and documentation

   Answers: 1 - b) , 2 - a) , 3 - c) , 4 - d)

2. Match the items in Column A with the correct items from Column B:

Column A	Column B
1. Technical requirement	a) Needed for accurate manpower planning
2. Scope adjustment	b) Adapts to non-standard site conditions
3. Materials and fittings list	c) Based on reviewed design documents
4. Site-level conflict	d) Often due to unclear inter-team roles

   Answers: 1 - c) , 2 - b) , 3 - a) , 4 - d)

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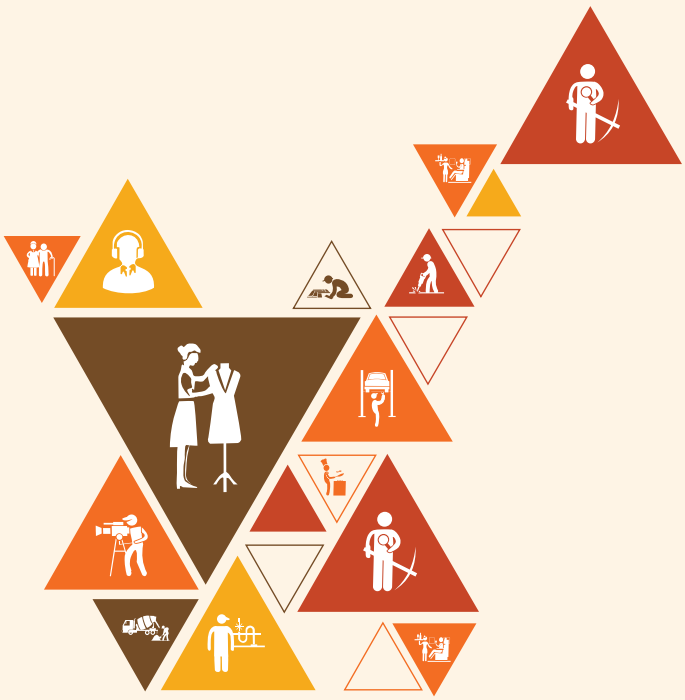
3. Project and Product Costing, Budgeting, and Financial Planning

Unit 3.1: Project Cost Breakdown and Budget Estimation
Unit 3.2: Cost Monitoring, Risk Control, and Team Awareness
Unit 3.3: Budget Analysis and Financial Reconciliation
Unit 3.4: Financial Documentation and Budget Approvals



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Break down a complete 1BHK residential carpentry project into primary cost categories such as raw materials, labor, hardware fittings, machinery usage, subcontracted services, and transportation.
2. Prepare a quantity-based cost estimate by referring to layout drawings and room-specific requirements for modular furniture.
3. Use industry-standard estimation templates to structure project budgets aligned with activity phases.
4. Explain how changes in material types or finishes impact the estimated cost at the planning stage.
5. Identify key risks that cause cost overruns in residential interior projects, including delays, redesigns, vendor issues, and wastage.
6. Suggest control mechanisms such as buffer estimation, vendor checks, and sequence planning to reduce financial risk.
7. Describe basic cost-awareness practices for on-ground team members to reduce unnecessary losses.
8. Compare the estimated budget with actual expenditures across different stages of a 1BHK installation.
9. Analyze reasons behind major cost deviations such as incorrect estimation, poor planning, or untracked material use.
10. Assist the project supervisor or finance team in reconciling records of deliveries, usage, and vendor bills.
11. Generate a final financial summary that captures deviations and learning for future planning.
12. Interpret site-level consumption data to identify avoidable costs or procedural gaps.
13. Prepare vendor-wise and phase-wise documentation for budget approval based on the 1BHK scope of work.
14. Maintain vendor rate agreements, payment status logs, and material receipt documentation as per internal protocols.
15. Compare quotations for multiple material options and justify final selections based on cost and lead time.

Unit 3.1: Project Cost Breakdown and Budget Estimation

Unit Objectives

At the end of this unit, participants will be able to:

1. Break down a complete 1BHK residential carpentry project into primary cost categories such as raw materials, labour, hardware fittings, machinery usage, subcontracted services, and transportation.
2. Prepare a quantity-based cost estimate by referring to layout drawings and room-specific requirements for modular furniture.
3. Use industry-standard estimation templates to structure project budgets aligned with activity phases.
4. Explain how changes in material types or finishes impact the estimated cost at the planning stage.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to break down the total cost of a 1BHK residential carpentry project into major components like raw materials, labor, hardware, and transportation. You will also learn how to prepare quantity-based estimates using layout drawings and use standard budgeting templates. The unit will also explain how material changes affect the overall cost at the planning stage.

Ask

Ask the participants the following questions:

- Can you name two things that are usually included in the cost of a furniture project?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Project Cost Breakdown and Budget Estimation

In this session, we will study how to estimate and plan the cost of a residential carpentry project by breaking it into categories such as materials, labor, fittings, and services. You will learn how to read layout drawings to calculate quantities, use standard templates for budgeting, and understand how material choices can affect the total project cost.

1. **Breaking down a 1BHK carpentry project into primary cost categories**
    - Participants will learn to categorize the total project cost into clearly defined components such as:
        - Raw materials (plywood, laminates, MDF, adhesives, etc.)
        - Labor (carpenters, helpers, finishers)
        - Hardware fittings (hinges, channels, handles, screws)
        - Machinery usage (tools, CNC cutting, edge banding machines)
        - Subcontracted services (polishing, PU coating, upholstery)
        - Transportation (delivery of materials, finished units, site movement)
    - This breakdown helps in transparency and better financial planning during project execution.

2. **Preparing quantity-based cost estimates using layout drawings**
    - Participants will be trained to study site layout plans and extract measurements for wardrobes, kitchens, lofts, beds, and other modular elements.
    - These measurements are then used to estimate quantities of materials, hardware, and man-hours.
    - This method helps in building accurate cost forecasts aligned with real site demands.

3. **Using industry-standard estimation templates**
    - Participants will explore templates used by professionals to compile and present cost data, including:
        - Activity-wise breakdowns (design, base structure, shutter work, finishing)
        - Room-wise allocation (kitchen, bedroom, living area)
        - Budget headers (material cost, labor, contingency)
    - Using these templates ensures clarity for clients and internal teams during budgeting and billing cycles.

4. **Explaining cost variations based on material or finish changes**
    - Participants will understand how small design or material changes can lead to significant cost implications.
        - For example: shifting from laminate to acrylic or from MDF to marine plywood increases material cost.
    - This understanding helps communicate better with clients and set clear expectations before execution.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Budget Planning for a 1BHK Carpentry Project

Group Size: 4–6 participants

Materials:

- Whiteboard or flipchart
- Markers
- Cost Scenario Cards (see examples below)
- Calculator or estimation sheets
- Sample layout drawings (1BHK furniture plan)

Activity Duration: 60 minutes

Instructions:

1. **Group Formation and Briefing**

   Divide participants into small groups and explain that each group will act as a budgeting team for a 1BHK residential carpentry project.

2. **Scenario Distribution**

   Distribute one cost scenario card and one sample layout drawing to each group. Each card presents a budget planning challenge related to raw materials, labor, fittings, or design changes.

3. **Group Discussion and Planning**

   Each group must:

   - Identify the main cost components involved in their assigned scenario.
   - Estimate which categories will be most impacted and why.
   - Use a template or whiteboard to create a brief cost breakdown for their situation.
   - Discuss how design changes or material selections might influence the total estimate.
   - Suggest one solution to control or optimize costs without affecting quality.

4. **Group Presentations**

   Each group presents their cost analysis, key impacts, and proposed cost-control strategies to the class.

5. **Debrief and Key Takeaways**

   Facilitate a class discussion. Use prompts like:

   - What cost categories were underestimated or overestimated?
   - How did each group handle cost fluctuations or constraints?
   - What insights were gained about budget estimation in carpentry projects?

Examples of Scenario Cards

Scenario 1: Your client has selected premium marine plywood for all furniture units instead of standard commercial boards. How will this affect the project's overall cost estimate? Suggest how you could justify this change or balance other categories.

Scenario 2: Due to a sudden increase in labour rates, your skilled carpenters now cost 25% more than planned. What would be your strategy to adjust the budget while meeting quality expectations?

Scenario 3: The client has requested a modular wardrobe redesign midway through planning. How will this scope change impact your cost categories and estimation process?

Activity	Duration	Resources used
Budget Planning for a 1BHK Carpentry Project	60 minutes	Whiteboard or flipchart, Markers, Cost Scenario Cards (see examples below), Calculator or estimation sheets, Sample layout drawings (1BHK furniture plan) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind participants to refer to real-world materials, standard labor categories, and fittings from earlier sessions.
- Ensure each group gets time for discussion and doesn't spend too long on calculations—focus on reasoning over perfection.
- Emphasize how budget planning directly affects decision-making, client approvals, and smooth execution.

Unit 3.2: Cost Monitoring, Risk Control, and Team Awareness

Unit Objectives

At the end of this unit, participants will be able to:

1. Identify key risks that cause cost overruns in residential interior projects, including delays, redesigns, vendor issues, and wastage.
2. Suggest control mechanisms such as buffer estimation, vendor checks, and sequence planning to reduce financial risk.
3. Describe basic cost-awareness practices for on-ground team members to reduce unnecessary losses.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to monitor project costs effectively, identify common risk factors that lead to overspending, and implement practical control measures to stay within budget. The unit also highlights how on-site team members can contribute to cost-saving by avoiding waste and improving coordination. Participants will explore strategies like buffer estimation, vendor reliability checks, and task sequencing to manage financial risks more efficiently.

Ask

Ask the participants the following questions:

- What is one simple way to avoid wastage at a furniture installation site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Cost Monitoring, Risk Control, and Team Awareness

In this unit, we will discuss how effective cost monitoring, proactive risk control, and awareness among on-site teams play a vital role in managing residential interior projects efficiently. Participants will learn how to identify common reasons for budget overruns, suggest preventive steps like buffer planning and vendor verification, and promote responsible behaviour among team members to reduce waste and financial loss at the ground level.

1. **Identifying Key Risks Causing Cost Overruns**

   Cost overruns in residential interior projects often arise due to unexpected delays, frequent design modifications, unreliable vendor supply, or excess material wastage.

   - Delays can increase labour costs and stall dependent activities.
   - Redesigns after initial planning led to changes in material and manpower requirements.
   - Vendor issues, such as late deliveries or substandard supplies, disrupt workflow.
   - Wastage of materials due to careless handling or poor measurement results in repeat procurement and cost increase.

2. **Control Mechanisms to Reduce Financial Risk**

   Preventive measures can be used to minimize budget-related risks across the project lifecycle.

   - Buffer Estimation involves allocating an extra percentage of cost and time to cover uncertainties.
   - Vendor Checks ensure that materials are procured from reliable and quality-certified sources.
   - Sequence Planning helps in scheduling tasks in logical, coordinated phases, reducing overlaps and waiting time for labour or material.

3. **Cost-Awareness Practices for On-Ground Team Members**

   Site teams play a crucial role in minimizing losses through awareness and discipline.

   - Workers should avoid careless material usage, improper storage, or repetitive rework due to negligence.
   - Supervisors must ensure clear instructions and layout references to reduce errors and avoid waste.
   - Promoting a culture of accountability—such as tracking tool usage, returning excess material, and documenting site-level issues—helps maintain control over site expenditures.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Cost Risk Assessment and Control Planning

Group Size: 4–5 participants

Materials:

- Flipchart or A3 sheets
- Coloured markers
- Sample project cost breakdown (fictional 1BHK layout)
- Risk scenario cards
- Sticky notes (2 colours: yellow for risks, green for solutions)

Activity Duration: 60 minutes

Instructions:

1. **Introduction**

   Brief the participants about the importance of tracking costs and controlling risks on-site. Share a fictional case of a 1BHK interior project with a basic cost sheet.

2. **Scenario Allocation**

   Each group receives a Risk Scenario Card describing a possible cost risk (e.g., vendor delivery delay, rework due to design change, material wastage, etc.).

3. **Analysis & Planning**

   Each group must:

   - Identify how the risk would impact the project budget.
   - Use sticky notes to list the cost impact (yellow) and control solutions (green).
   - Suggest cost-awareness actions that on-site team members can take to prevent or minimize the issue.

4. **Presentation**

   Groups will present their risk scenario, cost impact, and proposed control measures. Encourage cross-group questions.

5. **Debrief**

   Discuss which types of risks were common and which solutions were most practical. Emphasize team-level vigilance in controlling cost overruns.

Activity	Duration	Resources used
Cost Risk Assessment and Control Planning	60 minutes	Flipchart or A3 sheets, Coloured markers, Sample project cost breakdown (fictional 1BHK layout), Risk scenario cards, Sticky notes (2 colours: yellow for risks, green for solutions) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Include a mix of risks like timeline delays, vendor miscommunication, redesign requests, and procurement waste.
- Encourage participants to draw from their site experiences while suggesting cost-saving tips.
- Keep track of each phase to ensure the 60-minute cap is maintained.

Unit 3.3: Budget Analysis and Financial Reconciliation

Unit Objectives

At the end of this unit, participants will be able to:

1. Compare the estimated budget with actual expenditures across different stages of a 1BHK installation.
2. Analyze reasons behind major cost deviations such as incorrect estimation, poor planning, or untracked material use.
3. Assist the project supervisor or finance team in reconciling records of deliveries, usage, and vendor bills.
4. Generate a final financial summary that captures deviations and learning for future planning.
5. Interpret site-level consumption data to identify avoidable costs or procedural gaps.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to analyse the differences between planned budgets and actual spending in a 1BHK carpentry project. Participants will learn how to identify the causes of cost overruns, assist in reconciling financial records, and prepare summaries that highlight budget gaps and corrective measures. The focus is on developing basic financial awareness to support accurate project costing and future planning.

Ask

Ask the participants the following questions:

- Why is it important to compare actual spending with the original budget in a project?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Budget Analysis and Financial Reconciliation

In this unit, we will discuss how to compare estimated budgets with actual project expenses and understand the reasons behind cost variations in a 1BHK residential interior project. Participants will learn how to support supervisors in reconciling bills, analysing site consumption data, and creating financial summaries. This unit builds awareness about improving budget accuracy and avoiding common sources of financial loss during project execution.

1. **Comparing Estimated Budget with Actual Expenditure**

   Participants learn to track the flow of costs throughout a 1BHK furniture installation project by comparing planned costs with actual spending. This includes reviewing labour charges, material usage, vendor bills, and incidental costs to highlight areas of over- or under-spending at each stage.

2. **Analysing Reasons Behind Cost Deviations**

   This point focuses on identifying what causes differences between the planned budget and the final cost. Common reasons include incorrect quantity estimates, misjudged timelines, last-minute design changes, or lack of proper tracking of materials and services.

3. **Supporting Reconciliation with Delivery and Billing Records**

   Participants understand how to collect and cross-check documentation like vendor delivery notes, on-site material usage logs, and bills. This helps the supervisor or finance team in reconciling actual costs against approved budgets.

4. **Generating a Final Financial Summary with Learnings**

   Participants are trained to draft a project-end summary that outlines major deviations, their causes, and what lessons can be carried forward to improve accuracy in future projects. This includes noting patterns in wastage or frequent adjustments.

5. **Interpreting Consumption Data to Detect Gaps or Waste**

   This section builds the ability to read and interpret data related to daily consumption of raw materials and fittings. It helps identify procedural gaps, such as repeated cutting errors or inefficient site layout, that result in avoidable costs.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Budget vs. Actual – Reconciliation practice for a 1BHK Project

Group Size: 4–5 participants per group

Materials:

- Sample 1BHK budget sheet (estimated costs)
- Sample actual expense records (vendor bills, delivery notes, usage logs)
- Calculators or budget-tracking templates (printed or digital)
- Markers, notepads, pens

Activity Duration: 60 minutes

Instructions:

1. **Introduction**

   Provide each group with a simplified 1BHK project budget and a corresponding set of actual expense records. Briefly explain the concept of financial reconciliation.

2. **Group Task – Reconciliation and Analysis**

   Each group must:

   - Compare the estimated and actual costs line by line (e.g., plywood, labor, fittings, etc.).
   - Identify any major deviations (e.g., higher vendor bill, extra labor cost).
   - Calculate the total cost overrun or savings.
   - List possible causes for 3 major deviations.
   - Draft 2-3 corrective suggestions for future budgeting.

3. **Presentation and Debrief**

   Each group present:

   - Key differences they observed.
   - One significant lesson about planning vs. execution.
   - Recommendations for cost control in future projects.

Activity	Duration	Resources used
Budget vs. Actual – Reconciliation practice for a 1BHK Project	60 minutes	Sample 1BHK budget sheet (estimated costs), Sample actual expense records (vendor bills, delivery notes, usage logs), Calculators or budget-tracking templates (printed or digital), Markers, notepads, pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Ensure participants understand basic terms like “estimate,” “actual,” “variance,” and “reconciliation.”
- Push groups to think about real-world factors (e.g., delayed delivery, change in design) that may affect cost.
- During debriefing, tie group findings back to Unit Objectives — especially regarding future project improvement and cost awareness.

Unit 3.4: Financial Documentation and Budget Approvals

Unit Objectives

At the end of this unit, participants will be able to:

1. Prepare vendor-wise and phase-wise documentation for budget approval based on the 1BHK scope of work.
2. Maintain vendor rate agreements, payment status logs, and material receipt documentation as per internal protocols.
3. Compare quotations for multiple material options and justify final selections based on cost and lead time.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the key processes involved in financial documentation and budget approvals for a 1BHK residential carpentry project. Participants will learn how to organize vendor-wise and phase-wise budgets, maintain payment records, and handle material receipts. The unit also focuses on evaluating quotations and selecting cost-effective options based on both price and lead time. These skills are essential for ensuring financial accountability and smooth project execution.

Ask

Ask the participants the following questions:

- Why is it important to keep a record of vendor payments during a project?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Financial Documentation and Budget Approvals

In this unit, we will discuss how to prepare and maintain essential financial documents related to vendor management and project budgeting. Participants will learn to organize vendor-wise and phase-wise cost records, maintain rate agreements, track payments, and document material receipts. The unit also emphasizes comparing quotations and making justified selections based on project needs, cost, and lead time. These practices are critical for achieving transparency and accuracy in the budget approval process.

1. **Prepare vendor-wise and phase-wise documentation for budget approval based on the 1BHK scope of work**
    - Participants will learn how to create clear and structured documentation that breaks down the budget based on vendors and different phases of the project—such as raw material procurement, labor, and final finishing.
    - Emphasis is placed on aligning each cost with a specific part of the 1BHK project (e.g., kitchen, bedroom wardrobes) to ensure traceability and easier approval from supervisors or finance teams.

2. **Maintain vendor rate agreements, payment status logs, and material receipt documentation as per internal protocols**
    - This point focuses on teaching participants to systematically maintain records related to each vendor—such as agreed rates for goods/services, payment updates, and confirmation of goods received.
    - Participants will understand the importance of accurate logs to prevent disputes and ensure timely payments and accountability within the team.

3. **Compare quotations for multiple material options and justify final selections based on cost and lead time**
    - Participants will be trained to evaluate vendor quotations not only by cost but also by delivery timelines and material specifications.
    - They will practice selecting the most suitable option based on project budget constraints and execution deadlines, thereby contributing to informed procurement decisions.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Budget Approval Simulation for a 1BHK Carpentry Project

Group Size: 4–5 participants

Materials:

- Sample 1BHK project scope document
- Quotation sheets from 3 vendors (fabricated)
- Template for phase-wise budget and vendor comparison
- Markers, pens, and calculators
- Chart paper or whiteboard

Activity Duration: 60 minutes

Instructions:

1. **Project Overview Brief**

   Share a basic scope of work for a 1BHK carpentry project including kitchen cabinets, wardrobes, and storage units.

2. **Vendor Quotation Analysis**

   Distribute 3 different vendor quotations with variations in cost, lead time, and material quality. Ask each group to compare the options.

3. **Budget Drafting and Justification**

   Each group must:

   - Prepare a vendor-wise and phase-wise budget
   - Recommend one vendor per category based on cost-benefit logic
   - Justify their selection considering payment terms and timelines

4. **Presentation**

   Each group presents their budget allocation and vendor choice. Facilitator and peers ask questions about trade-offs and practical choices.

5. **Wrap-up**

   Discuss how financial documentation and comparison help avoid overspending and delays.

Activity	Duration	Resources used
Budget Approval Simulation for a 1BHK Carpentry Project	60 minutes	Sample 1BHK project scope document, Quotation sheets from 3 vendors (fabricated), Template for phase-wise budget and vendor comparison, Markers, pens, and calculators, Chart paper or whiteboard etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Ensure participants understand how to assess quotations — price, delivery time, quality, and terms.
- Push teams to go beyond cheapest price; consider long-term project impact.
- Provide a simple template to calculate and document budget approvals to keep the exercise focused and structured.

Exercise

Multiple Choice Questions (MCQs)

1. Which of the following is NOT a typical cost category in a 1BHK residential carpentry project?
   a. Raw materials
   b. Labor
   c. Travel insurance
   d. Hardware fittings
   Answer: c. Travel insurance

2. What is the main purpose of using quantity-based cost estimation?
   a. To reduce vendor payments
   b. To predict sales figures
   c. To calculate accurate project costs based on actual requirements
   d. To avoid using drawings
   Answer: c. To calculate accurate project costs based on actual requirements

3. What is a major risk that can cause cost overruns in residential projects?
   a. On-time vendor delivery
   b. Accurate documentation
   c. Frequent design changes
   d. Effective communication
   Answer: c. Frequent design changes

4. Why should phase-wise documentation be prepared for budget approval?
   a. To confuse vendors
   b. To allow flexible pricing
   c. To track costs as per execution stages
   d. To avoid submitting reports
   Answer: c. To track costs as per execution stages

Fill in the Blanks

1. The process of comparing estimated and actual expenses is called _____.
   Answer: budget reconciliation

2. Common cost control practices include vendor checks, buffer estimation, and _____.
   Answer: sequence planning

3. Changing the type of wood or surface finish can affect the _____.
   Answer: overall project cost

4. A good financial record must include material receipts, vendor bills, and _____.

   Answer: payment status logs

Match the Following

1. Match the machine/tool in Column A with its primary use in Column B:

A (Term)	B (Explanation)
1. Cost Estimation	a) Reviewing vendor bills and material usage
2. Financial Reconciliation	b) Approximating expenses using quantity and rate
3. Vendor Quotation Comparison	c) Choosing best value option for materials
4. Site Consumption Data Analysis	d) Identifying wastage and cost leakages

Answers: 1 - b) , 2 - a) , 3 - c) , 4 - d)

2. Match the items in Column A with the correct items from Column B:

A (Component)	B (Description)
1. Budget Summary Report	a) Provides breakdown of major deviations and insights
2. Scope-Based Cost Allocation	b) Links estimated costs with each defined work item
3. Vendor Rate Agreement	c) Records agreed rates for materials and services
4. Buffer Estimation	d) Helps manage uncertainties and reduce risk of overrun

Answers: 1 - a) , 2 - b) , 3 - c) , 4 - d)

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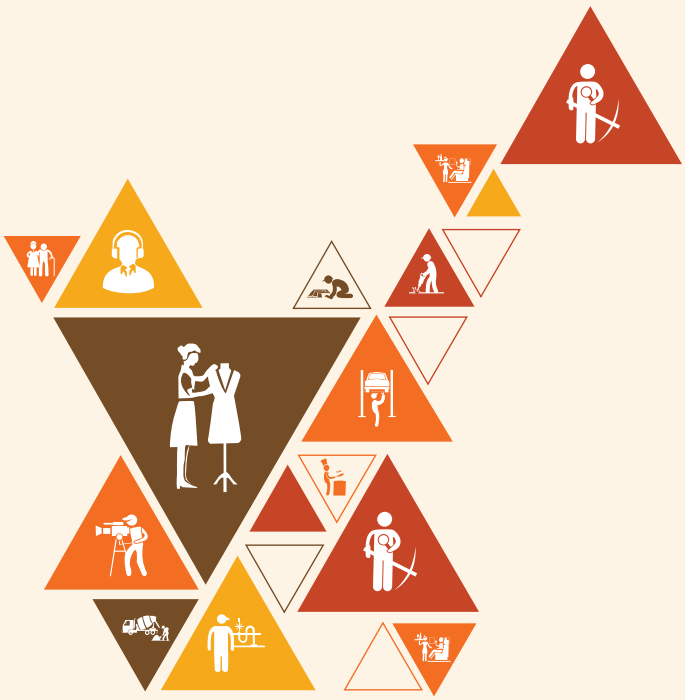
4. Resource Planning, Site Survey, and Task Allocation

Unit 4.1: Conducting Effective Site Surveys and Recces
Unit 4.2: Work Planning and Sequencing Based on Site Readiness
Unit 4.3: Manpower and Multi-site Resource Planning



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Conduct a site recce for a 1BHK residential project to map measurements, electrical layout, and space constraints.
2. Identify access challenges, ventilation, and material handling limitations before planning the work sequence.
3. Validate the completeness and accuracy of survey documentation in relation to the design drawings.
4. Record environmental and logistical observations that may influence design feasibility and material flow.
5. Analyze site layout and furniture drawings to create a step-wise work sequence.
6. Draft daily and weekly work plans with measurable milestones for the 1BHK project.
7. Reorganize planned sequences to accommodate design changes, site constraints, or delivery delays.
8. Supervise on-ground adherence to planned sequences and address misalignment or overlaps in task execution.
9. Update site readiness status for supervisors using simple visual progress formats.
10. Map the required manpower based on activity type, site phase, and skill mix in the 1BHK installation.
11. Assign tasks based on team members' competencies, experience, and speed.
12. Plan for shifting teams across multiple sites based on urgency, priority, and team availability.
13. Track task performance across assigned resources and revise allocation to remove bottlenecks.

Unit 4.1: Conducting Effective Site Surveys and Recces

Unit Objectives

At the end of this unit, participants will be able to:

1. Conduct a site recce for a 1BHK residential project to map measurements, electrical layout, and space constraints.
2. Identify access challenges, ventilation, and material handling limitations before planning the work sequence.
3. Validate the completeness and accuracy of survey documentation in relation to the design drawings.
4. Record environmental and logistical observations that may influence design feasibility and material flow.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to conduct effective site surveys and recessions for 1BHK residential carpentry projects. Participants will learn to measure spaces accurately, identify access and handling challenges, compare site conditions with design drawings, and record observations related to environmental or logistical constraints. These skills help ensure smooth planning, reduce on-site issues, and support informed decision-making before execution begins.

Ask

Ask the participants the following questions:

- Why is it important to take measurements and check the site before starting furniture installation?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Conducting Effective Site Surveys and Recces

In this session, we will study how to carry out effective site surveys and recces for residential carpentry projects, particularly for 1BHK installations. Participants will learn how to collect accurate measurements, assess site conditions, and identify potential challenges that may affect design implementation and installation flow. The unit also covers the importance of validating survey data against design drawings and recording observations that influence material handling and execution planning.

1. **Conducting Site Recce for 1BHK Projects**

   A site recce involves visiting the project location to gather critical measurements and spatial details. This includes measuring walls, ceilings, and flooring accurately, noting existing furniture or fixtures, and documenting the electrical and plumbing layout. These observations help in aligning the site conditions with the proposed furniture design and layout.

2. **Identifying Access and Handling Limitations**

   Before installation planning, it's essential to evaluate entry points like staircases, door widths, and elevator availability. This helps anticipate challenges related to transporting materials and equipment. Additionally, factors like natural lighting, ventilation, and ceiling height can influence product design and work schedules.

3. **Validating Survey Data Against Design Drawings**

   The survey data must be reviewed to ensure it matches the design drawings. Any discrepancies—such as structural beams, alignment issues, or missing measurements—should be flagged early. This prevents rework during execution and ensures the technical drawings reflect site realities.

4. **Recording Environmental and Logistical Observations**

   Observations like dust levels, humidity, surrounding construction, or noise restrictions are important. These affect material storage, finishing work, and daily operations. Recording such data allows the team to adjust workflows, protect materials, and maintain timelines efficiently.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Simulating a Site Recce and Survey for a 1BHK Project

Group Size: 4–6 participants

Materials:

- Flipchart or whiteboard
- Markers

- Printed scenario cards
- Measuring tape (optional for simulation)
- Floor plan samples (real or mock-up)
- Sticky notes

Activity Duration: 60 minutes

Instructions:

1. **Divide participants into groups.**

   Each group will act as a site survey team for a 1BHK carpentry installation project.

2. **Distribute one scenario card per group.**

   Each card presents a unique site challenge or condition to be analysed during a mock recce.

3. **Group Discussion & Planning**

   Using the given floor plan and scenario:

   - Identify what specific observations and measurements should be prioritized.
   - Discuss how the scenario could affect material handling, design feasibility, or work sequence.
   - Decide what should be documented and reported back to the design/execution team.

4. **Group Presentations**

   Each group presents:

   - The scenario challenge.
   - Their proposed observations, measurements, and action points.
   - How they would validate and document the site information.

5. **Debrief and Discussion**

   Facilitate a discussion with the following prompts:

   - What risks could arise from an incomplete or inaccurate site recce?
   - How did different teams plan to tackle space, access, or layout mismatches?
   - What site conditions most commonly affect furniture installation planning?

Examples of Scenario Card

Scenario 1:
The main entrance passage to the flat is only 30 inches wide, but the wardrobe unit planned for the bedroom measures 36 inches in width.

Scenario 2:
During the recce, you observe that the kitchen ceiling has a slope due to overhead ducts not shown in the drawing.

Scenario 3:
You find that the living room electrical sockets are misaligned compared to their locations in the design layout.

Activity	Duration	Resources used
Simulating a Site Recce and Survey for a 1BHK Project	60 minutes	Flipchart or whiteboard, Markers, Printed scenario cards, Measuring tape (optional for simulation), Floor plan samples (real or mock-up), Sticky notes etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind participants to imagine real-world conditions like staircases, ceiling beams, or ventilation grills that might be overlooked in drawings.
- Emphasize how detailed survey documentation reduces costly errors during installation.
- Encourage each group to ask questions after others present, simulating collaborative planning across teams.

Unit 4.2: Work Planning and Sequencing Based on Site Readiness

Unit Objectives

At the end of this unit, participants will be able to:

1. Analyse site layout and furniture drawings to create a step-wise work sequence.
2. Draft daily and weekly work plans with measurable milestones for the 1BHK project.
3. Reorganize planned sequences to accommodate design changes, site constraints, or delivery delays.
4. Supervise on-ground adherence to planned sequences and address misalignment or overlaps in task execution.
5. Update site readiness status for supervisors using simple visual progress formats.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to develop and adjust a step-by-step work plan for furniture installation based on the readiness of the site. Participants will learn to read layout drawings, break tasks into phases, and set achievable daily or weekly goals. We will also explore how to manage unexpected changes like delays or site constraints and how to monitor task completion using clear visual updates for supervisors.

Ask

Ask the participants the following questions:

- What kind of information can we find in a site layout or furniture drawing that helps us plan the work?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Work Planning and Sequencing Based on Site Readiness

In this session, we will study how to effectively plan, and sequence furniture installation work based on actual site readiness. Participants will learn to interpret layout drawings, draft daily and weekly task schedules, adjust work sequences when challenges arise, and supervise on-ground progress. The unit also covers techniques to communicate readiness status clearly using visual formats, ensuring smooth coordination and timely project execution in residential interior projects.

1. **Analyse site layout and furniture drawings to create a stepwise work sequence**

   Participants will learn how to carefully study layout plans and furniture drawings to break down the installation process into a logical and efficient step-by-step sequence. This helps in identifying dependencies between tasks, such as completing base cabinet installation before wall-mounted units.

2. **Draft daily and weekly work plans with measurable milestones for the 1BHK project**

   This involves creating time-bound work schedules for individual tasks and teams. Participants will prepare daily and weekly plans that include measurable checkpoints such as completion of carpentry in one room, delivery of a furniture module, or site readiness for the next phase.

3. **Reorganize planned sequences to accommodate design changes, site constraints, or delivery delays**

   Participants will be trained to adapt work schedules dynamically when unexpected events occur. This includes adjusting sequences due to material unavailability, change requests by the client, or incomplete civil/electrical work at the site

4. **Supervise on-ground adherence to planned sequences and address misalignment or overlaps in task execution**

   This point emphasizes the importance of the Master Carpenter's role in ensuring the team follows the work plan. It includes monitoring real-time execution, correcting deviations, and preventing work clashes between carpentry, electrical, or painting teams.

5. **Update site readiness status for supervisors using simple visual progress formats**

   Participants will practice using visual tools like charts, checklists, or coloured status boards to keep supervisors and clients informed about which zones or rooms are ready, under progress, or delayed, supporting better coordination and transparency.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Planning a Furniture Installation Sequence for a 1BHK Site

Group Size: 4–6 participants

Materials:

- A3-sized printed layout of a sample 1BHK project (bedroom, kitchen, and living area)
- Colour markers or pens
- Sticky notes
- Sample delivery timeline for key materials (laminates, hardware, panels)
- Blank work planning templates (daily/weekly)

Activity Duration: 60 minutes

Instructions:

1. **Scenario Setup**

   Present a scenario where participants are part of a carpentry team assigned to execute a modular installation for a 1BHK flat. Share the layout and delivery timeline.

2. **Planning Phase**
   - Each group will study the layout and material delivery timeline.
   - They will list all installation tasks (e.g., marking, base cabinet fixing, shutter fitting, etc.).
   - Using sticky notes, they will create a stepwise work sequence for 2 weeks, marking dependencies (e.g., "shutters after cabinets").
   - Participants will fill out a sample daily or weekly planner.
3. **Presentation Phase**
   - Each group will present their work plan, highlighting:
     - Key sequence decisions
     - Milestones
     - Any expected site constraints or delivery delays and how they planned for them
4. **Debrief and Feedback**

   Discuss as a class:
   - What factors influenced the task sequence?
   - How did they plan for delays or changes?
   - What tools (visual aids) helped track progress?

Activity	Duration	Resources used
Planning a Furniture Installation Sequence for a 1BHK Site	60 minutes	A3-sized printed layout of a sample 1BHK project (bedroom, kitchen, and living area), Colour markers or pens, Sticky notes, Sample delivery timeline for key materials (laminates, hardware, panels), Blank work planning templates (daily/weekly) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage participants to consider real-life challenges like shared space usage or delayed hardware delivery.
- Guide groups to build realistic sequences (e.g., electricals before cabinet fixing).
- Emphasize the use of visual tools like Gantt-style planners or coloured progress indicators.

Unit 4.3: Manpower and Multi-site Resource Planning

Unit Objectives

At the end of this unit, participants will be able to:

1. Map the required manpower based on activity type, site phase, and skill mix in the 1BHK installation.
2. Assign tasks based on team members' competencies, experience, and speed.
3. Plan for shifting teams across multiple sites based on urgency, priority, and team availability.
4. Track task performance across assigned resources and revise allocation to remove bottlenecks.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to plan, allocate, and manage manpower efficiently for a residential carpentry project, especially when work is spread across multiple sites. The unit highlights how to assign the right person for the right task, shift teams based on site priorities, and monitor productivity. It also covers how performance tracking helps in making real-time adjustments to avoid work delays and ensure timely project completion.

Ask

Ask the participants the following questions:

- What is manpower planning, and why is it important in a carpentry installation project?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Manpower and Multi-site Resource Planning.

In this session, we will study how to efficiently plan and allocate manpower for carpentry tasks in a 1BHK installation project, especially when managing multiple job sites. The unit explores how to assess activity needs, assign skilled workers, shift teams across locations based on priority, and monitor task performance to ensure smooth workflow and timely completion of work. Effective resource planning improves productivity, reduces delays, and optimizes the use of human resources.

1. **Mapping Required Manpower Based on Activity Type, Site Phase, and Skill Mix**
    - Different carpentry activities (e.g., framework, assembly, polishing) require specific skill sets and worker numbers.
    - The project is broken into phases—such as measurement, fabrication, and installation—and manpower is allocated accordingly.
    - Skilled carpenters, helpers, and finishers are planned in the right mix depending on the stage of work and complexity.

2. **Assigning Tasks Based on Team Members' Competencies, Experience, and Speed**
    - Workers should be assigned jobs that match their strengths and experience to improve efficiency.
    - For example, precision work like shutter fitting should be given to senior carpenters, while basic assembly or carrying tasks can be assigned to juniors.
    - This approach helps maintain quality while ensuring faster task completion.

3. **Planning for Shifting Teams Across Multiple Sites Based on Urgency, Priority, and Availability**
    - When multiple sites are in progress, some may need extra support during peak phases or delays.
    - Manpower can be rotated from low-priority sites to urgent ones to balance workloads.
    - Proper planning ensures no site is left under-resourced, and deadlines are met across all projects.

4. **Tracking Task Performance and Revising Allocation to Remove Bottlenecks**
    - Regular tracking of each worker's or team's output helps identify if the pace of work is slow in any area.
    - If delays occur, supervisors may increase manpower in the affected section or assign more efficient workers.
    - This proactive adjustment keeps the project moving and prevents last-minute rushes or cost overruns.

Say

Let us participate in an activity to study the unit a little more.

Activity

Group Activity: Multi-Site Manpower Allocation Challenge

Group Size: 4–6 participants

Materials:

- Printed site briefs for 3 mock 1BHK projects (Site A, B, C)
- Skill cards (e.g., Carpenter, Fitter, Supervisor, Helper)
- Task cards (e.g., Modular Wardrobe Fitting, Electrical Box Cutting, Site Clean-up)
- Whiteboard or flipchart
- Markers and sticky notes

Activity Duration: 60 minutes

Instructions:

1. **Scenario Briefing**

   Share a fictional situation with participants:

   - You are managing manpower for three concurrent 1BHK installations.
   - Each site has different progress status, urgency, and available resources.

2. **Group Task**

   Each group must:

   - Assign appropriate manpower for each task at each site based on skill levels and urgency.
   - Plan team movement across sites to manage delays and bottlenecks.
   - Track productivity and update allocations if unexpected issues arise (facilitator will give a "surprise challenge" card mid-way – e.g., one worker is absent, a delivery is delayed, etc.).

3. **Presentation and Discussion**

   Each group presents:

   - Their manpower allocation strategy
   - Challenges faced and how they restructured their plan
   - Key learnings on resource optimization

Activity	Duration	Resources used
Multi-Site Manpower Allocation Challenge	60 minutes	Printed site briefs for 3 mock 1BHK projects (Site A, B, C), Skill cards (e.g., Carpenter, Fitter, Supervisor, Helper), Task cards (e.g., Modular Wardrobe Fitting, Electrical Box Cutting, Site Clean-up), Whiteboard or flipchart, Markers and sticky notes etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage groups to think practically about skill mapping (not all workers are interchangeable).
- Introduce a time-bound twist mid-activity (e.g., a site needs emergency attention, or material delay affects workflow).
- After presentations, debrief on how proper manpower planning reduces costs and delays.

Exercise

Multiple Choice Questions (MCQs)

1. What should be the first step during a site recce for a 1BHK project?
   a. Start fixing cabinets
   b. Map measurements and note layout details
   c. Deliver raw materials
   d. Paint the walls
   Answer: b. Map measurements and note layout details

2. Which document is most useful for preparing daily and weekly work plans?
   a. Worker ID list
   b. Delivery challan
   c. Furniture layout drawing
   d. Material invoice
   Answer: c. Furniture layout drawing

3. What is a key reason to reorganize a planned work sequence on-site?
   a. To confuse the team
   b. To delay work intentionally
   c. To address design changes or site constraints
   d. To reduce worker payments
   Answer: c. To address design changes or site constraints

4. Why is manpower planning important in multi-site installations?
   a. To ensure only one person works
   b. To ignore priorities
   c. To allocate appropriate skills where needed
   d. To reduce material quantity
   Answer: c. To allocate appropriate skills where needed

Fill in the blanks

1. A site _____ helps identify measurements, access points, and installation challenges.
   Answer: recce

2. A well-structured work plan includes _____ milestones that can be measured.
   Answer: time-based

3. Poor documentation during surveys can lead to _____ in design and execution.
   Answer: mismatches

4. Tracking _____ helps supervisors assess which teams are falling behind.

   Answer: task performance

Match the Following

1. Match the machine/tool in Column A with its primary use in Column B:

Task	Description
1. Site Recce	a) Measuring space and noting layout obstacles
2. Task Allocation	b) Assigning activities based on worker skills
3. Visual Progress Format	c) Easy tracking of work completion
4. Work Sequence Reorganization	d) Adjusting tasks due to site or design changes

Answers: 1 - a) , 2 - b) , 3 - c) , 4 - d)

2. Match the items in Column A with the correct items from Column B:

Term	Purpose
1. Survey Documentation	a) Validates design alignment with site data
2. Skill Mapping	b) Assigns appropriate tasks to team members
3. Delivery Delay	c) Can disrupt the planned work sequence
4. Environmental Observation	d) Highlights issues like ventilation or light

Answers: 1 - a) , 2 - b) , 3 - c) , 4 - d)

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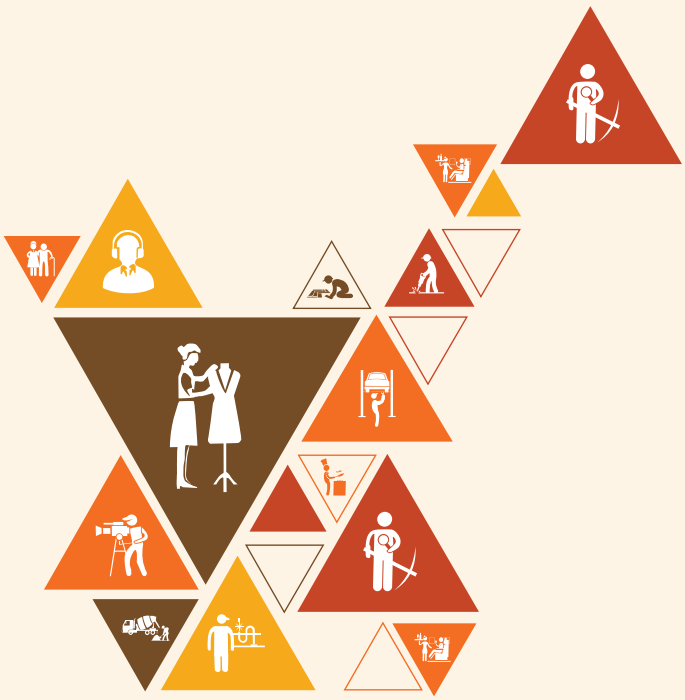
5. Product Drawings and Technical Design Interpretation

Unit 5.1: Reading and Interpreting Technical Drawings
Unit 5.2: Design Coordination and Feasibility Troubleshooting
Unit 5.3: Design Documentation and Revision Management



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Identify and explain key components of a 1BHK furniture layout, including plan views, elevations, and sectional drawings.
2. Interpret GD&T symbols, reference lines, scale markings, and tolerances specific to wood-based product drawings.
3. Translate dimensional specifications from the drawing into cutting and joining requirements on-site.
4. Develop a basic cutting and assembly plan for a modular unit based on drawing details.
5. Break down complex product drawings into manageable tasks for carpentry execution.
6. Assist junior carpenters in understanding scale, orientation, and symbols through on-site explanations.
7. Validate design dimensions against physical space during layout marking at the 1BHK site.
8. Coordinate with the design team to clarify unclear notations, resolve overlapping dimensions, or request adjustments.
9. Flag feasibility issues when drawing specifications do not align with real-space constraints, especially in corners and service areas.
10. Provide input on technical buildability before final drawing sign-off, based on site conditions.
11. Participate in reviewing physical samples or prototypes to confirm compliance with design intent.
12. Maintain organized folders for each project zone with the latest drawing versions and revision history.
13. Compare revised drawings across stages to understand changes in layout, material, or fittings.
14. Communicate updated drawings and affected work areas clearly to field staff before execution.
15. Record drawing-related errors found during execution and report them for future design improvement.
16. Train team members on locating and interpreting drawing elements relevant to their tasks.
17. Explain the consequences of drawing misinterpretation in terms of rework, delays, or material loss.

Unit 5.1: Reading and Interpreting Technical Drawings

Unit Objectives

At the end of this unit, participants will be able to:

1. Identify and explain key components of a 1BHK furniture layout, including plan views, elevations, and sections.
2. Interpret GD&T (Geometric Dimensioning and Tolerancing) symbols, dimensions, reference lines, and tolerances.
3. Translate furniture drawings into cutting and material requirement plans for different rooms.
4. Assist junior carpenters in understanding drawing portions relevant to their assigned tasks.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to read a 1-BHK furniture drawing set by recognising what plan, elevation, and section views tell us, how to decode basic GD&T symbols and tolerances, how to turn those dimensions into clear cutting lists and material tallies for each room, and how to point juniors to the exact lines and numbers they need for their daily tasks.

Ask

Ask the participants the following questions:

- Why is it important to look at all three views plan, elevation, and section before you start cutting any panels?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Reading and Interpreting Technical Drawings

1. **Identifying and explaining key components of a 1 BHK furniture layout**

   A complete drawing set shows the flat from several angles so nothing is missed during fabrication and installation. The plan view maps each cabinet footprint, appliance cavity, and circulation path as you would see them from above. Elevations zoom in on wall-mounted items, giving exact heights for switches, handles, and countertop edges. Sections slice through wardrobes or kitchen units to reveal shelf spacing, back-panel grooves, and hidden hardware.

   i. Plan equals top view for positions and clearances.

   ii. Elevation equals front view for heights.

   iii. Section equals cut-through view for internal details.

2. **Interpreting GD and T symbols, dimensions, reference lines, and tolerances**

   Geometric Dimensioning and Tolerancing tells the carpenter how precise each cut must be. A Ø symbol marks hole diameter, while ⌭ with a ± value sets its permissible variation. Reference lines anchor critical points such as centre-lines of sink bowls or hinge rows. Limit dimensions like 600 ± 1 mm show how much play is allowed before a part is rejected.

   i. Study the feature control frame to know flatness, parallelism, or perpendicularity needs.

   ii. Keep a pocket chart of common symbols for quick recall.

3. **Translating drawings into cutting and material requirement plans**

   Once dimensions are clear, the supervisor lists every panel by code, thickness, grain direction, and edge-band colour. Nesting software arranges these panels on plywood sheets for maximum yield and prints a cutting map for the saw operator. A parallel spreadsheet tallies laminate, hinges, runners, and fasteners so purchasing can order everything in one go.

   i. Colour-code rooms to match panel stacks and avoid mix-ups on site.

   ii. Update the list immediately if the client changes a dimension.

4. **Assisting junior carpenters with drawing portions relevant to their tasks**

   New team members can feel lost in a dense drawing set. The lead carpenter highlights only the zones they will handle today, marks critical lines with a highlighter, and explains dimensions in everyday language. During cutting or assembly the junior keeps the marked sheet beside the bench for quick reference.

   i. Encourage questions early to avoid wrong cuts.

   ii. Use sample off-cuts to demonstrate scale before touching expensive boards.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Drawing Relay

Group Size: 4 – 5 participants

Materials

- Printed 1-BHK drawing set (plan, elevation, section)
- Pocket GD&T symbol sheet
- Blank room-wise cutting-list template (Panel Code | Size | Edge Detail | Room)
- Highlighters in three colours
- Clipboards and pens

Activity Duration: 25 minutes

Instructions

1. **Colour-code the views (5 min)**

   Teams assign one colour to plan, one to elevation, and one to section. Each member highlights the dimensions and notes in their chosen view.

2. **Decode and mark (7 min)**

   Using the GD&T sheet, members add simple notes beside symbols (e.g., "±1 mm", "Ø 8 mm") so every tolerance is clear to the whole group.

3. **Build the room list (9 min)**

   Together, the team completes the cutting-list template, recording panel code, exact size, edge-band detail, and room location for every part shown in their highlighted areas.

4. **Peer teach-back (4 min)**

   One member acts as a junior carpenter. The team explains a single cabinet section, pointing out where each list entry appears on the drawing, then fields one follow-up question.

Activity	Duration	Resources used
Drawing Relay	25 minutes	Printed 1-BHK drawing set (plan, elevation, section), Pocket GD&T symbol sheet, Blank room-wise cutting-list template (Panel Code | Size | Edge Detail | Room), Highlighters in three colours, Clipboards and pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind teams to confirm each dimension across plan, elevation, and section to avoid hidden depth errors.
- Encourage clear arrows or symbols linking drawing areas to list rows so newcomers can trace information quickly.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 5.2: Design Coordination and Feasibility Troubleshooting

Unit Objectives

At the end of this unit, participants will be able to:

1. Coordinate with the design team to clarify drawing ambiguities or site-specific constraints.
2. Approve prototypes and physical samples in alignment with the finalized 1BHK design.
3. Flag feasibility issues based on space limitations, fitting overlaps, or layout clashes.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to raise quick questions when a drawing line or dimension seems unclear on site, how to review a small prototype such as a drawer box or corner joint to ensure colour, hardware, and gaps match the signed off 1 BHK design, and how to walk the flat with a tape measure to spot any door swing or fitting clash before full installation begins.

Ask

Ask the participants the following questions:

- Why do we build a small prototype drawer before starting full production?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Design Coordination and Feasibility Troubleshooting

1. **Coordinating with the design team to clarify ambiguities or site constraints**

   The lead carpenter reviews each drawing and lists any unclear lines, missing dimensions, or notes that conflict with real site measurements. During a short coordination call, these points are shared with the designer so updated sketches or written clarifications arrive before cutting begins. Clear photos of tight corners, uneven walls, or service pipes help the design team adjust details quickly and prevent later rework.

2. **Approving prototypes and physical samples in line with the final 1 BHK design**

   Small mock-ups such as a single drawer box or a joint sample are built from the specified materials. The supervisor checks colour, texture, hinge feel, and gap tolerance against the signed design sheet. Only when the prototype meets every requirement does the team green-light full production. A dated approval sticker on each sample ensures purchasing and the workshop use the correct material codes.

3. **Flagging feasibility issues from space limits, fitting overlaps, or layout clashes**

   Before installation, the team walks the flat with a tape measure and the latest drawing. They note tight clearances around doors, appliance cavities, and service shafts. Any clash—like a wardrobe door hitting an AC vent or two drawers crossing paths—is marked in red on the plan and shared with the designer for a quick redesign, such as shifting hinges or choosing slimmer hardware. Early detection keeps timelines and costs under control.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Find the Clash

Group Size: 4 – 6 participants

Materials:

- Printed 1-BHK drawing set (plan, elevation, section)
- Cardboard “prototype” drawer front with hinge spots marked
- Tape measure and masking tape
- Red and green sticky notes
- Clipboards and pens

Activity Duration: 30 minutes

Instructions

1. **Prototype check**

   Compare the cardboard drawer sample with its elevation drawing. Place a green note wherever size, colour mark, and hinge spacing match, or a red note where they do not.

2. **Site walk simulation**

   Use masking tape to outline the cabinet on the floor. Measure clearance to a mocked AC vent or doorway and mark any clash with a red note on the plan.

3. **Design query sheet**

   For each red note, write a clear question or suggestion to the design team, for example "Shift hinge 20 mm to clear vent grille."

4. **Quick share-back**

   A spokesperson shows one noted clash and explains the team's proposed fix.

Activity	Duration	Resources used
Find the Clash	30 minutes	Printed 1-BHK drawing set (plan, elevation, section), Cardboard "prototype" drawer front with hinge spots marked, Tape measure and masking tape, Red and green sticky notes, Clipboards and pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Check prototype dimensions against all three views—plan, elevation, and section.
- Keep queries short and solution-focused so designers can answer quickly.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 5.3: Design Documentation and Revision Management

Unit Objectives

At the end of this unit, participants will be able to:

1. Maintain organized design dockets, version-controlled drawings, and communication records.
2. Compare revisions to track design evolution and its impact on material or cost.
3. Document final sign-offs from the client and design team before initiating production.
4. Share critical changes with the on-ground team to ensure error-free execution.
5. Train team members to locate and interpret their relevant design sections quickly.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss keeping one tidy design docket with version-controlled drawings and email records, comparing old and new sheets to see how changes affect material and cost, collecting client and designer sign-offs before any cutting starts, showing updated views to the site crew so no one works from an out-of-date print, and teaching every carpenter to open the exact plan, elevation, or section they need in seconds.

Ask

Ask the participants the following questions:

- What simple mark on a drawing tells everyone it is the latest version to use?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Design Documentation and Revision Management

1. **Maintain organised design dockets, version-controlled drawings, and communication records**

   Keep every drawing, email, and meeting note in a single master docket arranged by date and revision code. Stamp the latest approved sheet with the word Current while moving older versions to an Archive folder. An index page lists each file name, date, and change note so anyone can locate a detail in seconds.

2. **Compare revisions and note cost or material impact**

   When a new drawing arrives, place it over the previous version and highlight any changed dimension or hardware detail in yellow. A margin table records extra plywood, fittings, or labour hours created by the change, giving purchasing and costing teams a clear picture before materials are ordered.

3. **Document final client and designer sign offs before production**

   After all revisions are settled, the client and design lead initial every drawing sheet and sign a single page approval form. This signed bundle becomes the Go set for the workshop; no panel is cut until the form is filed in the docket and a digital copy reaches finance for release of purchase funds.

4. **Share critical changes with the on-ground team**

   At the next toolbox talk the supervisor shows only the affected views marked with highlighter and explains what is new, perhaps a taller shutter or a shifted hinge line. Printed A3 excerpts are pinned beside the saw and edge bander so operators see the update at their work station, reducing the chance of using an outdated sheet.

5. **Train team members to find and read their design sections quickly**

   New carpenters follow a colour tab system: blue for plan, green for elevation, orange for section. During practice they race to locate a random panel code and read its size and edge detail aloud. Regular drills build speed and confidence, ensuring everyone retrieves the correct information without slowing production.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Current Stamp Challenge

Group Size: 4 – 6 participants

Materials

- Packet containing three drawing versions for the same wardrobe (Rev A, Rev B, Rev C)
- Blank change-log sheet (columns: Item, Old Size, New Size, Added Material, Cost Note)
- Stamp or sticker marked CURRENT
- Red sticky flags (outdated) and green flags (current)
- Clipboards and pens

Activity Duration: 30 minutes

Instructions

1. **Spot the latest drawing**

   Teams read the title blocks, find the highest revision letter, mark that sheet with the CURRENT sticker, and tag the two older versions with red flags.

2. **Log the changes**

   Lay the latest sheet over the previous one, list every size or hardware change on the change-log, and note any extra boards or fittings plus a quick cost note such as +₹500.

3. **Sign-off simulation**

   One member acts as the client, another as the designer; both initial the CURRENT sheet and the filled change-log to create a mock approval bundle.

4. **Site briefing drill**

   A spokesperson shows the CURRENT sheet to the "crew," points out two key changes, and tells them where to find the new section view in under one minute.

5. **Flash share-back**

   Each team shares one logged change and its material or cost effect.

Activity	Duration	Resources used
Current Stamp Challenge	30 minutes	Packet containing three drawing versions for the same wardrobe (Rev A, Rev B, Rev C), Blank change-log sheet (columns: Item, Old Size, New Size, Added Material, Cost Note), Stamp or sticker marked CURRENT, Red sticky flags (outdated) and green flags (current), Clipboards and pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Check that only one sheet carries the CURRENT mark; older versions must stay flagged red.
- Encourage clear one-line entries on the change-log so cost impact is easy to grasp at a glance.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Exercise

Multiple-choice questions

1. Which drawing view best shows the internal shelf spacing of a wardrobe?
   a. Plan view
   b. Elevation view
   c. Sectional view
   d. Perspective sketch

   Answer: c. Sectional view

2. The GD&T symbol 12 ± 0.5 on a hinge hole tells the carpenter to drill a diameter of:
   a. exactly 12 mm with zero tolerance
   b. between 11.5 mm and 12.5 mm
   c. a minimum of 12.5 mm
   d. a maximum of 11.5 mm

   Answer: b. between 11.5 mm and 12.5 mm

3. While marking a base cabinet on site you notice the wall is 5 mm shorter than the plan dimension. Your FIRST action should be to:
   a. flag the issue and seek design clarification
   b. cut all panels 5 mm shorter immediately
   c. continue work and adjust the plinth later
   d. order extra material

   Answer: a. flag the issue and seek design clarification

4. Which file management step prevents crews from building with outdated information?
   a. colour-coding edge bands by room
   b. stamping the latest drawing CURRENT and archiving older versions
   c. photocopying every revision for all workers
   d. filing drawings in any order as long as they are complete

   Answer: b. stamping the latest drawing CURRENT and archiving older versions

Fill-in-the-Blanks

1. A scale of 1 : 10 means that 5 cm on the drawing equals _____ cm in real life.

   Answer: 50

2. The GD&T symbol ⌀ tells the carpenter the size refers to the _____ of a hole.

   Answer: diameter

3. Before production starts, the latest drawing set must be stamped _____ so everyone knows it is the only version to follow.

   Answer: CURRENT

4. Coloured lines around panel edges in a nesting printout indicate the required _____ band colour for that edge.

   Answer: edge

Match the following

1. Match the machine/tool in Column A with its primary use in Column B:

Column A	Column B
1. Plan view	a) Tracks every change and who approved it
2. Feature control frame	b) Guides the saw operator for maximum yield
3. Nesting layout	c) Shows room layout from above
4. Revision log	d) Lists geometric tolerance for a specific feature

Answers: 1 - c) , 2 - d) , 3 - b) , 4 - a)

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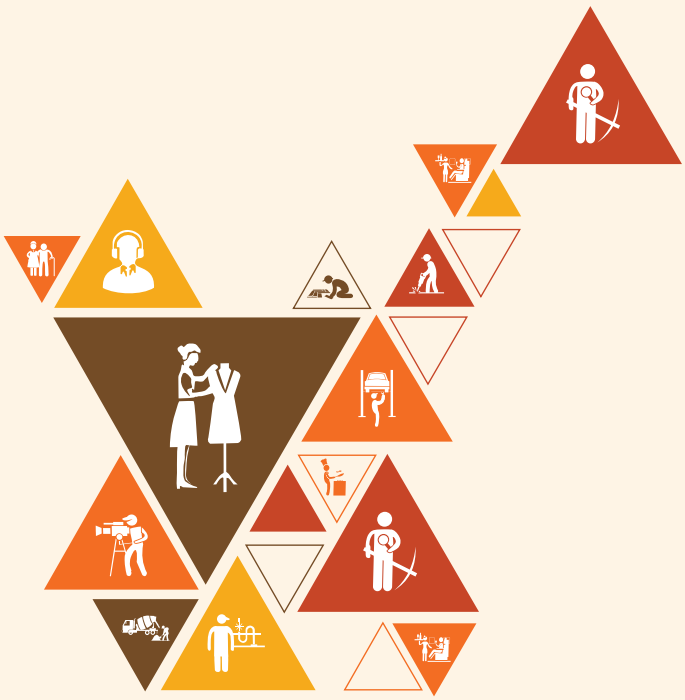
6. Vendor Coordination and Material Procurement Management

Unit 6.1: Procurement Planning and Scheduling
Unit 6.2: Vendor Coordination and Delivery Management
Unit 6.3: Vendor Evaluation and Relationship Management
Unit 6.4: Contract Negotiation and Reconciliation of Material Flow



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Prepare a material procurement plan aligned with the activity schedule of a 1BHK residential interior project.
2. Identify critical materials and fittings that require advance booking based on availability and lead time.
3. Estimate batch-wise quantities needed for various site stages and prepare a basic delivery calendar.
4. Map approved vendors to material categories and plan site deliveries to avoid congestion or idle time.
5. Coordinate with vendors to ensure timely delivery of material based on site progress and work sequencing.
6. Track batch-level delivery and cross-verify against material indent and purchase orders.
7. Verify product quality at the time of receipt and report any visible damage or mismatch.
8. Maintain a log of delivery slips and update the site-wise stock sheet.
9. Communicate delivery constraints and rescheduling needs to vendors in writing.
10. Evaluate vendor performance based on timeliness, quality, accuracy, and service response.
11. Identify gaps in vendor performance and suggest improvements during review meetings.
12. Maintain records of vendor ratings, complaints, and previous issue resolutions.
13. Participate in finalizing vendor terms related to delivery timeline, packaging quality, and payment cycle.
14. Reconcile delivered vs. billed vs. consumed material based on site registers and supervisor records.
15. Support the finance team in validating material consumption reports before processing vendor payments.
16. Document rework or returned material records and ensure stock sheets reflect changes accurately.
17. Review recurring material mismatch issues and suggest process improvements in procurement flow.

Unit 6.1: Procurement Planning and Scheduling

Unit Objectives

At the end of this unit, participants will be able to:

1. Prepare a material procurement plan aligned with the activity schedule of a 1BHK residential interior project.
2. Identify critical materials and fittings that require advance booking based on availability and lead time.
3. Estimate batch-wise quantities needed for various site stages and prepare a basic delivery calendar.
4. Map approved vendors to material categories and plan site deliveries to avoid congestion or idle time.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to turn a 1-BHK interior activity schedule into a clear procurement roadmap. You will learn to map each task to its material need, flag long-lead items for advance booking, divide orders into stage-wise batches with a simple delivery calendar, and link approved vendors to their product categories so site traffic stays smooth and crews never stand idle.

Ask

Ask the participants the following questions:

- Which document is created to ensure materials arrive in step with the project activity schedule?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Procurement Planning & Scheduling

1. **Preparing a material procurement plan aligned with the activity schedule**

   Translate every interior task from the work breakdown structure into a dated material ledger that lists quantity, specification, substitute option, and quality checkpoint. Place this ledger beside the master Gantt so the team can instantly see what must be ordered in the coming week and how any delay will influence later activities. Update the ledger during each coordination meeting to keep it fully aligned with real site progress.

2. **Identifying critical materials and fittings that require advance booking**

   Flag as critical any component without a quick local substitute, such as soft close runners, lift up stays, factory finished shutters, specialty veneers, or imported stone tops, because these often need several weeks for delivery. Compare supplier lead times with the project float and raise an alert if the margin falls below seven days. Reserve production slots through token purchase orders and keep at least one vetted alternate brand ready for emergencies.

3. **Estimating batch wise quantities and creating a delivery calendar**

   Break the total quantity take-off into batches that follow site progress so structural plywood arrives first, surface finishes follow once carcasses are ready, and hardware reaches site just before installation. Plot each batch on a delivery calendar posted at the gate, building in a two-day buffer before planned use to absorb transport hiccups. This calendar guides guards to admit only scheduled trucks, avoids congestion, and aligns cash outflow with actual consumption.

4. **Mapping approved vendors and sequencing site deliveries**

   Maintain a vendor sheet that links each material category to a small panel of prequalified suppliers and records their payment terms, warranty commitments, and response speed. Fix delivery windows so light boards move in mid-morning when the hoist is free, while heavy stone tops come late afternoon after labour peaks. Review on time arrival and rejection rates every month, replacing weak suppliers before they threaten schedule stability.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Delivery Calendar Match

Group Size: 4 – 5 participants

Materials:

- One-page 1 BHK bar-chart schedule
- Pack of “material cards” (each shows item, lead time, approved vendors)
- Blank monthly calendar grid (A3)

- Red stickers for long-lead items, green stickers for batched deliveries
- Markers

Activity Duration: 25 minutes

Instructions:

1. **Read the schedule**

   Teams note the need-by date for each major task on the bar chart.

2. **Place material cards**

   Mark any card with more than one-week lead time with a red sticker, then place every card on the calendar at least two days before its task. Group cards for the same site stage and give the batch a green sticker.

3. **Add vendor initials**

   Write the chosen approved vendor's initials beside each calendar entry so everyone sees who delivers each batch.

4. **One-minute recap**

   A spokesperson explains the calendar, highlighting red critical items and how green batches avoid gate congestion.

Activity	Duration	Resources used
Delivery Calendar Match	25 minutes	One-page 1 BHK bar-chart schedule,Pack of "material cards" (each shows item, lead time, approved vendors),Blank monthly calendar grid (A3),Red stickers for long-lead items, green stickers for batched deliveries,Markers etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind groups to place red long-lead cards first, then fill gaps with short-lead items.
- Encourage staggered deliveries so no two large batches land on the same day.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 6.2: Vendor Coordination and Delivery Management

Unit Objectives

At the end of this unit, participants will be able to:

1. Coordinate with vendors to ensure timely delivery of material based on site progress and work sequencing.
2. Track batch-level delivery and cross-verify against material indent and purchase orders.
3. Verify product quality at the time of receipt and report any visible damage or mismatch.
4. Maintain a log of delivery slips and update the site-wise stock sheet.
5. Communicate delivery constraints and rescheduling needs to vendors in writing.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the day-to-day skills needed to keep materials flowing smoothly to site. You will learn how to align vendor dispatches with the work sequence, log and verify each batch against purchase orders, check quality at the gate, update a live stock sheet, and send clear written notices whenever deliveries must be rescheduled. Together, these practices prevent site delays, overcrowded storage, and costly rework.

Ask

Ask the participants the following questions:

- When a truck brings materials to site, what should you check first— the delivery slip or the stock sheet?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Vendor Coordination and Delivery Management

1. **Coordinating vendor dispatch with live site progress**

   A supervisor turns the weekly look-ahead programme into a brief e-mail for each supplier, confirming the exact date and gate time required for the next batch. A quick phone call two days before dispatch closes the loop and allows a last-minute tweak if carpentry, electrical or painting activities slip.

   - Always end the call by sending a revised delivery slot in writing so both parties have a time-stamped record.

2. **Tracking deliveries and keeping the stock sheet honest**

   When a truck arrives, the unloading team checks its packing list against the purchase order, then the storekeeper enters the received quantity on a cloud ledger that the project manager can view in real time. A five-minute reconciliation every Friday keeps ledger, purchase order and physical stock in sync.

   - Colour-code late or short deliveries on the ledger; the red cells become an instant agenda for the next vendor follow-up.

3. **Verifying quality at the gate**

   Before materials cross the threshold, a quick visual inspection for specification match, finish defects or transit damage prevents problem items from reaching the work zone. Photos of any defect, attached to the e-mailed goods-received note, start the replacement process without delay.

   - Quarantine suspect items in a labelled corner so they cannot be fitted by mistake.

4. **Communicating constraints and rescheduling needs**

   If the hoist is down or another trade blocks access, the site team e-mails an updated slot and asks the supplier to acknowledge before the truck leaves the factory. This written trail protects both parties from blame and keeps the wider schedule transparent.

   - Copy procurement and accounts on all reschedule mails so payment holds and credit notes can be issued promptly.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: "Vendor Delivery Coordination Challenge"

Group Size: 4 – 6 participants

Materials:

Whiteboard or flip-chart, markers, sticky notes (various colours), scenario cards (see below)

Activity Duration: 45 minutes

Instructions:

1. **Divide participants & state objectives**

   Explain that the task is to practise vendor coordination, delivery tracking, quality checking, stock-sheet updating, and written rescheduling.

2. **Brief refresher**

   Review the five unit objectives and the basic document flow: delivery slip → quality check → stock ledger → vendor e-mail.

3. **Scenario discussion & planning**

   Give each group one scenario card and these prompts:

   - Which step in the delivery workflow is affected?
   - How will this impact work sequencing or storage?
   - What record must be updated?
   - What message must be sent to the vendor, and who is copied?

   Teams capture their answers on sticky notes and draft a concise vendor e-mail.

4. **Group presentations**

   Each team briefly shares its scenario and proposed actions; peers may ask one question.

5. **Debrief & key takeaways**

   Discuss which action most reduced delay risk and why accurate logs and clear e-mails matter.

Scenario Cards (examples)

i. **Scenario 1:** A laminate truck arrives two hours early, conflicting with a heavy quartz-top delivery already booked for the hoist.

ii. **Scenario 2:** Packing list shows 50 soft-close hinges, but the purchase order calls for 75.

iii. **Scenario 3:** Several plywood sheets are dented on arrival; the driver claims they left the warehouse in perfect condition.

Activity	Duration	Resources used
"Vendor Delivery Coordination Challenge"	45 minutes	Whiteboard or flip-chart, markers, sticky notes (various colours), scenario cards (see below) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Provide simple templates for stock sheet, delivery slip, and vendor e-mail so learners focus on decisions, not formatting.
- Keep a visible timer and announce halfway and two-minute warnings to maintain pace.
- During debrief, ask, “Which single step in your solution prevented the biggest potential delay?” to link back to unit objectives.

Unit 6.3: Vendor Evaluation and Relationship Management

Unit Objectives

At the end of this unit, participants will be able to:

1. Evaluate vendor performance based on timeliness, quality, accuracy, and service response.
2. Identify gaps in vendor performance and suggest improvements during review meetings.
3. Maintain records of vendor ratings, complaints, and previous issue resolutions.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss building a straightforward scorecard that measures a supplier's on-time deliveries, product quality, order accuracy, and service response; spotting weak areas to raise in review meetings; and keeping clear records of ratings, complaints, and past fixes so the team can choose vendors with confidence.

Ask

Ask the participants the following questions:

- What simple tool do we create to record each vendor's on-time delivery, product quality, and service response?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Vendor Evaluation and Relationship Management

1. **Evaluating vendor performance**

   A simple scorecard tracks how closely a supplier meets promised delivery dates, the percentage of items rejected for defects or wrong specifications, and the speed with which service calls or replacement requests are resolved. By updating these figures after every batch, the project team gains a rolling view of timeliness, quality, accuracy, and responsiveness without waiting for quarterly reviews.

2. **Identifying gaps and suggesting improvements**

   Before each vendor-review meeting, compile the last month's scorecard into a one-page summary that highlights late dispatches, high rejection rates, or slow warranty responses. Present concrete evidence—such as dated photographs or marked delivery slips—then agree on a corrective step (for example, adding extra packing or confirming dispatch 48 hours in advance) and record the commitment with a target date for follow-up.

3. **Maintaining vendor records**

   Store every scorecard, complaint log, and resolution note in a shared digital folder labelled by supplier name. A master rating sheet, updated quarterly, groups vendors as preferred, probation, or blocked based on twelve-month performance trends. This living archive keeps the whole team aligned and ensures future purchase orders are placed with data-backed confidence.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Vendor Scorecard Dash

Group Size: 4 – 6 participants

Materials:

Hand-out of recent delivery data, blank vendor-scorecard template, flip-chart or whiteboard, markers

Activity Duration: 45 minutes

Instructions:

1. **Briefing** - Explain that each team will convert raw delivery data into a scorecard, spot weak areas, and propose one improvement action per vendor.
2. **Scorecard Build** - Rate each supplier on timeliness, quality, accuracy, and service response using a simple 1-to-5 scale.
3. **Gap Analysis & Action Plan** - Identify the lowest score for every vendor and agree on a realistic corrective step with a target date.

4. **Vendor Ranking** – Classify suppliers as Preferred, Probation, or Blocked on the flip-chart and note one-line justification.
5. **Share-back** – Present rankings and actions; peers may ask one quick question before the next team begins.

Activity	Duration	Resources used
Vendor Scorecard Dash	45 minutes	Hand-out of recent delivery data, blank vendor-scorecard template, flip-chart or whiteboard, markers etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Provide ready-made templates so learners focus on analysis, not formatting.
- Keep a visible timer and announce two-minute warnings to maintain pace.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 6.4: Contract Negotiation and Reconciliation of Material Flow

Unit Objectives

At the end of this unit, participants will be able to:

1. Participate in finalizing vendor terms related to delivery timeline, packaging quality, and payment cycle.
2. Reconcile delivered vs. billed vs. consumed material based on site registers and supervisor records.
3. Support the finance team in validating material consumption reports before processing vendor payments.
4. Document rework or returned material records and ensure stock sheets reflect changes accurately.
5. Review recurring material mismatch issues and suggest process improvements in procurement flow.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to negotiate clear vendor terms for delivery timelines, packing quality and payment stages, how to match gate-entry slips, invoices and issue registers to reconcile delivered, billed and consumed quantities, how to help finance certify material usage before payments, how to log rework or returns in the stock sheet, and how to spot recurring mismatches so the procurement flow keeps improving.

Ask

Ask the participants the following questions:

- Why is it useful to compare the materials delivered to site with the materials actually used on site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Contract Negotiation and Reconciliation of Material Flow

1. **Finalising vendor terms**

   Negotiate clauses that reflect on-site realities by showing vendors recent delivery data to justify reasonable lead times and robust packaging standards. Tie payment milestones to certified installation progress so cash leaves only when work is visible, and include retention or penalty clauses to keep vendors accountable for delays or damage.

2. **Reconciling delivered, billed and consumed quantities**

   At each month-end, match gate-entry slips and supervisor issue records with vendor invoices. A colour-coded tracker flags any over-billing or unrecorded usage so discrepancies can be queried immediately with either the supplier or the site team, well before accounts are closed.

3. **Supporting finance with consumption validation**

   Condense the reconciliation into a one-page certification sheet that lists verified quantities, outstanding queries and recommended payment holds. Attach signed delivery slips, photographs and email trails so the finance team has a clear audit path when releasing or withholding stage payments.

4. **Recording rework and returns**

   Whenever material is mis-cut or rejected, log the event in a rework-return register, adjust the stock ledger the same day and file photos plus the vendor's acknowledgement. These records ensure credit notes are traceable and prevent the same items from reappearing in later bills.

5. **Reviewing recurring mismatches and improving the process**

   Every quarter, analyse discrepancy trends—late goods-receipt posting, vague variant codes or frequent specification swaps. Present root causes at the procurement review and propose fixes such as barcode tagging, daily micro-reconciliations or tighter purchase-order language to reduce future billing disputes and streamline material flow.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: "Quick Match Drill"

Group Size: 3 – 4 participants

Materials:

One set per team containing a sample delivery slip, vendor invoice, stock-issue log, and a blank three-way-match sheet; pens or markers

Activity Duration: 15 minutes

Instructions:

1. **Briefing**

   Explain that the task is to spot any mismatch between what was delivered, billed, and consumed, then decide one corrective action.

2. **Three-Way Match**

   Teams fill the match sheet, comparing quantities and item codes across the three documents. Highlight any variance.

3. **Action & Documentation**

   Note the root cause (late GRN, mis-pick, wrong invoice line) and draft a single-sentence fix, such as "Hold 10 % of payment until credit note issued."

4. **Rapid Share-back**

   Each team states its biggest discrepancy and proposed fix in thirty seconds.

Activity	Duration	Resources used
"Quick Match Drill"	15 minutes	One set per team containing a sample delivery slip, vendor invoice, stock-issue log, and a blank three-way-match sheet; pens or markers etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Hand out pre-formatted match sheets so learners focus on analysis, not layout.
- Keep a visible timer; announce a two-minute warning to maintain pace.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Exercise

Multiple-choice questions

1. A document that ties each 1 BHK activity date to its required materials is called the
   a. work breakdown structure
   b. task sheet
   c. stock ledger
   d. material procurement plan

   Answer: d material procurement plan

2. Which of the following items most often needs advance booking because of long lead time?
   a. Standard nails
   b. Imported soft-close drawer runners
   c. General-purpose adhesive
   d. Sanding paper

   Answer: b Imported soft-close drawer runners

3. When a truck arrives on site, the first action the storekeeper should take is to
   a. file the delivery slip
   b. update the vendor scorecard
   c. match the packing list to the purchase order
   d. photograph the driver's licence

   Answer: c match the packing list to the purchase order

4. In a vendor scorecard, service response is best measured by
   a. number of items delivered per trip
   b. days taken to replace defective goods
   c. total invoice value
   d. length of payment cycle

   Answer: b days taken to replace defective goods

Fill in the blanks

1. A _____ delivery calendar divides material requirements into stage-wise consignments that match site progress.

   Answer: batch-wise

2. Delivered, billed and _____ quantities must be compared to complete a three-way material reconciliation.

   Answer: consumed

3. Each signed delivery slip is filed and its quantities are posted the same day to the site-wise _____ sheet.

   Answer: stock

4. Vendor performance is usually rated on timeliness, quality, accuracy and _____ response.

   Answer: service

Match the following

Match each term in Column A with the most suitable description in Column B.

Column A	Column B
1. Lead time	a) Book tracking sheet that shows zone, current trade and next trade
2. Rework register	b) Days needed between order placement and delivery
3. Delivery tracker	c) Log that records items cut wrongly or returned to supplier
4. Shared task sheet	d) Table that records purchase-order reference, promised date and actual receipt

Answers: 1 - b), 2 - c), 3 - d), 4 - a).

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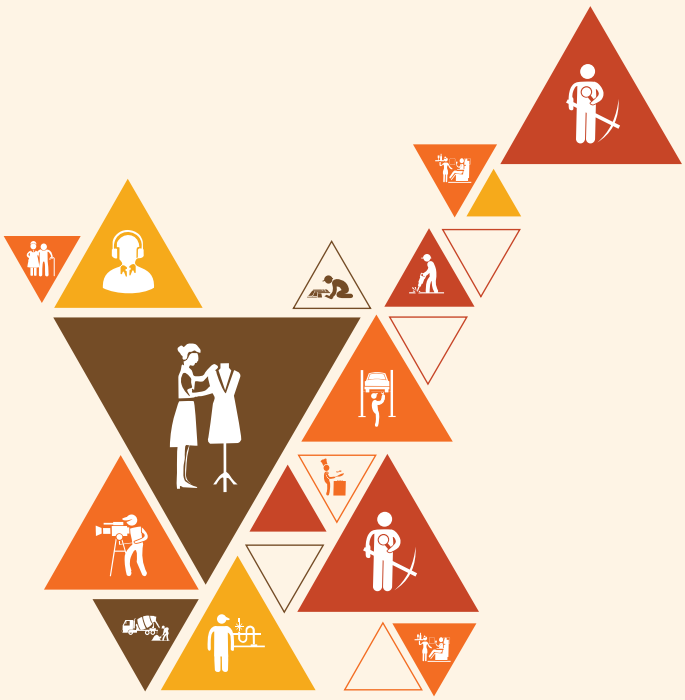
7. Team Management, Monitoring, and Work Supervision

Unit 7.1: Role Allocation and Daily Work Monitoring
Unit 7.2: Performance Review and Quality Alignment
Unit 7.3: Mentorship, Leadership, and Succession Development
Unit 7.4: Cross-functional Collaboration and Workflow Optimization



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Allocate daily tasks for cutting, assembly, and installation based on 1BHK work schedules.
2. Brief the team on daily goals using clear and task-specific instructions.
3. Track on-site task completion and record deviations from the plan.
4. Conduct end-of-day reviews to summarize progress and pending work.
5. Maintain performance logs and attendance sheets for tracking team contribution.
6. Compare actual vs. expected outputs and identify efficiency gaps.
7. Define basic KPIs to assess quality, safety adherence, and work speed.
8. Align work execution with pre-defined quality standards for residential carpentry.
9. Provide real-time feedback to improve output consistency and avoid rework.
10. Guide junior carpenters using demonstrations and correction techniques.
11. Identify potential team leads based on behavior, initiative, and reliability.
12. Apply mentorship methods to improve skill sharing and team adaptability.
13. Coordinate with external teams (e.g., electricians, plumbers) to align sequence and reduce delays.
14. Resolve on-site scheduling or zone conflicts through collaborative task adjustments.
15. Maintain a shared task sheet documenting inter-departmental dependencies and resolutions.

Unit 7.1: Role Allocation and Daily Work Monitoring

Unit Objectives

At the end of this unit, participants will be able to:

1. Allocate daily tasks for cutting, assembly, and installation based on 1BHK work schedules.
2. Brief the team on daily goals using clear and task-specific instructions.
3. Track on-site task completion and record deviations from the plan.
4. Conduct end-of-day reviews to summarize progress and pending work.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to turn the 1-BHK schedule into clear daily task sheets, run a brief morning huddle that spells out cutting, assembly, and installation targets, monitor progress in real time while noting any slips, and finish each shift with a quick review that logs achievements and carry-overs so tomorrow's plan is accurate and the crew stays focused.

Ask

Ask the participants the following questions:

- What short meeting at the start of the workday helps the crew understand today's targets?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Role Allocation and Daily Work Monitoring

1. **Allocate daily tasks for cutting, assembly and installation**

   Each evening the supervisor reviews the one BHK schedule, confirms which rooms other trades will release, and matches the next day's crew to the work ahead. A task sheet is prepared that links every carpenter and helper to a specific location, quantity and finish time for activities such as cutting carcass panels, assembling drawer boxes and hanging kitchen shutters. The sheet reaches the storekeeper so materials are staged before the team arrives. Limiting assignments to work that can be finished within a single shift prevents half-done clutter, while pairing junior helpers with senior carpenters builds skill without slowing progress.

2. **Brief the team on daily goals with task-specific instructions**

   The shift begins with a five-minute toolbox talk beside a floor plan. The supervisor states clear numeric targets, for example six wardrobe carcasses or fourteen kitchen shutters, and notes any shared tools or electrician overlaps. Lead carpenters repeat their key deliverables to confirm understanding, then the group reviews personal protective equipment and new site hazards. Using action verbs such as cut, assemble, fix and inspect keeps objectives concrete and measurable so everyone starts with the same priorities.

3. **Track on-site task completion and record deviations**

   Progress is captured in real time with a pocket checklist or shared mobile sheet. The supervisor ticks tasks as they finish and jots a quick reason whenever something slips, such as a miscut panel or a blocked corridor. Recording start and finish times highlights small delays that grow into bottlenecks, and attaching photographs of errors provides evidence for later discussion. Real-time notes also allow rapid labour redeployment or material requests before issues escalate.

4. **Conduct end-of-day reviews to summarise progress and pending work**

   At shift-end the crew reviews the task board, marking each item complete, partial or pending and stating why any work rolled over. A dated progress photo goes into the client folder, and shortages or tool repairs are listed for the morning. The supervisor emails a concise summary to the project manager and procurement so the next plan rests on accurate shared information. This daily ritual maintains accountability, keeps stakeholders informed and gives the incoming crew a clear starting point.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Daily Task Board Simulation

Group Size: 4 – 6 participants

Materials:

- Printed one BHK work schedule for the next day
- Blank task-sheet template (one per team)
- Small whiteboard or flip-chart and markers
- Sticky notes labelled Completed and Delayed

Activity Duration: 30 minutes

Instructions:

1. **Task allocation and board set-up**

   Each team studies the printed schedule, fills a task sheet that assigns cutting, assembly and installation work to individual crew members, then copies the plan to the whiteboard.

2. **Morning huddle role-play**

   One member acts as supervisor and briefs the team on today's targets using clear task-specific statements. Peers confirm understanding by repeating their key deliverables.

3. **Progress tracking**

   The facilitator announces three surprise events such as late plywood delivery or corridor blockage. Teams move sticky notes on their board to Completed or Delayed and write a quick reason beside any slip.

4. **End of shift review**

   Teams summarise what was finished and what rolled over, then list one action for the next morning that will close the gap. Each group presents its board in thirty seconds.

Activity	Duration	Resources used
Daily Task Board Simulation	30 minutes	Printed one BHK work schedule for the next day,Blank task-sheet template (one per team),Small whiteboard or flip-chart and markers,Sticky notes labelled Completed and Delayed etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Provide ready-made templates so participants focus on decisions rather than formatting.
- Keep a visible timer and signal two-minute warnings to maintain pace at each stage.
- During the debrief ask which early adjustment prevented the biggest delay to reinforce the value of live monitoring and clear communication.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 7.2: Performance Review and Quality Alignment

Unit Objectives

At the end of this unit, participants will be able to:

1. Maintain performance logs and attendance sheets for tracking team contribution.
2. Compare actual vs. expected outputs and identify efficiency gaps.
3. Define basic KPIs to assess quality, safety adherence, and work speed.
4. Align work execution with pre-defined quality standards for residential carpentry.
5. Provide real-time feedback to improve output consistency and avoid rework.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss keeping clear attendance and performance logs for every carpenter, comparing the day's actual output with planned targets to spot efficiency gaps, setting a few easy-to-track KPIs for quality, safety and speed, checking each task against the approved residential carpentry standards, and giving on-the-spot feedback so mistakes are fixed immediately and rework is avoided.

Ask

Ask the participants the following questions:

- Why do we compare the team's actual daily output with the planned target?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Performance Review and Quality Alignment

1. **Maintain performance logs and attendance sheets**

   A master attendance sheet records every carpenter's start time, break, and shift-end, while a parallel performance log captures the day's assigned task and actual output. Using the two documents together shows who was present, what each person produced, and where unplanned gaps appeared.

   i. Include site zone, task description, quantity completed, and any hindrance noted by the supervisor.

   ii. Review both sheets weekly so payroll, scheduling, and training needs rely on verified data.

2. **Compare actual versus expected outputs and spot efficiency gaps**

   At the close of each shift the supervisor tallies completed pieces against the day's target. Any shortfall is coded by cause material delay, rework, skill mismatch, so patterns surface quickly. A simple chart that tracks daily completion percentages reveals chronic bottlenecks and highlights crews that consistently exceed expectations.

3. **Define basic KPIs for quality, safety, and speed**

   Key performance indicators keep measurement simple and visible. Common site KPIs include pieces cut per hour, rework percentage, number of safety observations closed without incident, and average installation time per cabinet. Posting KPI scores on a board near the toolbox-talk area builds healthy competition and shows how individual effort lifts overall productivity.

4. **Align execution with residential carpentry quality standards**

   Work is checked against a short, pre-defined quality checklist covering edge finish, hinge alignment, gap tolerance, and surface cleanliness. Samples or mock-ups stay on site as visual references so every carpenter can compare active work to the approved standard. Deviations trigger immediate touch-ups before the next stage proceeds.

5. **Provide real-time feedback to maintain consistency and cut rework**

   Supervisors walk the floor at key checkpoints after cutting, mid-assembly, final installation and give concise feedback on alignment, finish, or pace. Corrections made on the spot prevent defects from travelling downstream, while acknowledging well-executed tasks boosts morale and anchors good habits. A brief end-of-day note summarises recurring issues so tomorrow's briefing targets them directly.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Performance Scoreboard Sprint

Group Size: 3 – 4 participants

Materials:

- Sample attendance-and-output log for a single shift (one set per team)
- Blank KPI scoreboard template (one per team)
- Pocket calculator or smartphone
- Flip-chart sheet or small whiteboard with markers
- Green and red sticky dots

Activity Duration: 25 minutes

Instructions:

1. **Data transfer** -Teams copy each carpenter's hours worked, pieces produced, rework pieces and safety observations from the sample log onto the KPI template.
2. **KPI calculation** -Using the template formulas, teams compute three metrics: pieces per labour-hour, rework percentage and closed safety observations. They tag each KPI with a green dot if it meets the benchmark printed on the sheet and a red dot if it falls short.
3. **Gap analysis and feedback** -Teams circle the widest red-dot gap and write one concise, real-time feedback sentence that would help the crew close it on the next shift. They add this feedback beside the KPI on the board.
4. **Rapid share-back** -Each team spends thirty seconds showing its scoreboard, naming the biggest gap and reading out its feedback sentence.

Activity	Duration	Resources used
Performance Scoreboard Sprint	25 minutes	Sample attendance-and-output log for a single shift (one set per team),Blank KPI scoreboard template (one per team),Pocket calculator or smartphone,Flip-chart sheet or small whiteboard with markers,Green and red sticky dots etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Supply the KPI templates already formatted so learners focus on analysis rather than layout.
- Keep a visible timer; call a two-minute warning before each stage ends to maintain momentum.
- In debrief, ask “Which KPI was hardest to meet and how will your feedback help the crew improve tomorrow?” to reinforce the link between measurement, feedback and quality alignment.

Unit 7.3: Mentorship, Leadership, and Succession Development

Unit Objectives

At the end of this unit, participants will be able to:

1. Guide junior carpenters using demonstrations and correction techniques.
2. Identify potential team leads based on behavior, initiative, and reliability.
3. Apply mentorship methods to improve skill sharing and team adaptability.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

correct errors immediately, and build confidence in juniors; how to recognise future team leads by watching for initiative, reliability, and good peer communication; and how simple buddy systems, rotating roles, and end-of-day reflections spread skills through the crew and prepare reliable successors for greater responsibility.

Ask

Ask the participants the following questions:

- What is one quick way to spot a junior carpenter who might grow into a team leader?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Mentorship, Leadership, and Succession Development

1. **Guiding junior carpenters through demonstrations and correction techniques**

   A Master Carpenter first breaks complex tasks into clear steps, performs each action slowly while narrating tool choice and safety points, then invites the junior to repeat the sequence under close observation. Corrections are offered immediately and specifically, for example adjusting saw angle or clamp pressure, so mistakes are fixed before they become habits. Positive reinforcement follows each improved attempt, building confidence and accelerating skill acquisition.

2. **Identifying potential team leads based on behaviour, initiative, and reliability**

   Daily site interactions provide the best evidence of leadership potential. Individuals who arrive early, organise their workspace without prompting, and calmly solve small problems before they escalate signal initiative. Consistent attendance records, accurate task completion, and willingness to take responsibility for group output all indicate reliability. Observing how a carpenter communicates with peers and supports slower colleagues further reveals whether the person can inspire trust and coordinate small crews.

3. **Applying mentorship methods to improve skill sharing and team adaptability**

   Structured mentorship pairs experienced carpenters with juniors for defined periods, rotating the pairs so knowledge circulates across the team. Brief end-of-day reflection sessions let mentors share what was learned and outline the next skill target, keeping progress visible. Occasional role swapping, such as letting a junior lead a simple installation under supervision, strengthens adaptability and tests readiness for greater responsibility. Documenting each mentee's milestones in a simple logbook ensures that training is systematic rather than incidental.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Buddy-Coach Demo

Group Size: 4 – 6 participants

Materials:

- Small off-cut boards or cardboard pieces for a mock joint
- Measuring tape and pencil
- Observation checklist template (one per team)
- Timer or phone stopwatch

Activity Duration: 35 minutes

Instructions:

1. Divide each team into mentors and juniors then agree on a simple task such as marking and cutting a lap joint.
2. Mentors perform the task slowly while explaining each step and safety point. Juniors watch and note key actions on the checklist.
3. Juniors repeat the task while mentors give immediate, specific corrections, for example adjusting saw angle or clamping force.
4. Swap roles so every participant mentors once and practises once. After both rounds, the team circles one individual who showed clear initiative, reliable execution, and supportive communication.
5. Conclude with a two-minute reflection where each mentor gives one positive observation and one improvement tip to the junior.

Activity	Duration	Resources used
Buddy-Coach Demo	35 minutes	Small off-cut boards or cardboard pieces for a mock joint,Measuring tape and pencil,Observation checklist template (one per team),Timer or phone stopwatch etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind mentors to use clear, encouraging language instead of lectures so juniors feel comfortable asking questions.
- Observe interactions quietly and highlight during debrief where specific feedback improved technique in real time.
- Capture any standout leadership behaviours and discuss how such traits signal readiness for future team-lead roles.

Unit 7.4: Cross-functional Collaboration and Workflow Optimization

Unit Objectives

At the end of this unit, participants will be able to:

1. Coordinate with external teams (e.g., electricians, plumbers) to align sequence and reduce delays.
2. Resolve on-site scheduling or zone conflicts through collaborative task adjustments.
3. Maintain a shared task sheet documenting inter-departmental dependencies and resolutions.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to bring carpenters, electricians, plumbers, and other trades into a single planning rhythm, agree on precise hand-offs so no one waits for workspace, solve sudden zone clashes through quick on-site huddles, and keep a live task sheet that shows every team where they fit in the day's sequence and what dependencies still need attention.

Ask

Ask the participants the following questions:

- How can different trades quickly see when a work zone will be free for them?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Cross-functional Collaboration and Workflow Optimization

1. **Coordinate with external teams to align sequence and reduce delays**

   A weekly lookahead session brings carpenters, electricians, plumbers and painters around a shared floor plan. The Master Carpenter displays a colour coded Gantt chart that places carpentry tasks beside cable pulls and plumbing rough-ins, confirms material drop points and clarifies access paths. By agreeing on precise hand off dates each trade arrives just-in-time, work overlaps shrink and no crew wastes hours waiting for a clear workspace.

2. **Resolve on-site scheduling or zone conflicts through collaborative adjustments**

   When two trades converge on the same area, for example plumbers needing the vanity wall while carpenters are fixing mirror frames, the supervisor calls a brief face-to-face huddle at the location. Together the teams weigh task duration, tool set-up requirements and downstream dependencies, then adjust the sequence or divide the zone so both can progress safely. This immediate negotiation prevents idle time and protects the overall project timeline.

3. **Maintain a shared task sheet documenting interdepartmental dependencies and resolutions**

   A cloud-based sheet lists every zone, the trade currently in charge, the next trade waiting and any restraints such as curing time or inspection clearance. Supervisors update status from mobile devices and add concise notes like “countertop drilled, electrician can install sockets after two o’clock”. Because all teams consult the same live document misunderstandings fade and each shift starts with an accurate map of who works where and when.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Trade Sequencing Challenge

Group Size: 4 – 6 participants

Materials:

- Printed floor plan of a 1-BHK flat divided into clear zones
- Task cards for carpentry, electrical, plumbing, and painting activities (one set per team)
- Blank shared task-sheet template (one per team)
- Sticky notes in two colours labelled Free and Occupied
- Small whiteboard or flip-chart with markers

Activity Duration: 30 minutes

Instructions:

1. **Initial sequencing**

   Teams place task cards on the floor plan in the order they believe each trade should work, then copy this sequence onto the shared task sheet.

2. **Conflict resolution drill**

   The facilitator announces two unexpected events, for example a late plumbing inspection or an electrical cable snag. Teams call a quick huddle, rearrange tasks or split zones to keep all trades moving, and update their task sheet and sticky notes to show the new plan.

3. **Review and share-back**

   Each team presents its updated task sheet, explains one key adjustment, and states how the change avoids delay for the next trade.

Activity	Duration	Resources used
Trade Sequencing Challenge	30 minutes	Printed floor plan of a 1-BHK flat divided into clear zones,Task cards for carpentry, electrical, plumbing, and painting activities (one set per team),Blank shared task-sheet template (one per team),Sticky notes in two colours labelled Free and Occupied,Small whiteboard or flip-chart with markers etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind groups to note every hand-off time on the task sheet so dependencies stay visible.
- Watch how quickly teams call huddles and document changes; highlight the fastest clear decision during debrief.
- Ask participants which simple tool or habit helped them spot and solve zone conflicts most effectively.

Exercise

Multiple-choice questions

1. The five-minute morning meeting that sets clear targets for the crew is called the
   a. shift ledger
   b. toolbox talk
   c. Gantt review
   d. vendor huddle

   Answer: b. toolbox talk

2. Which document best helps compare actual pieces produced with the planned target at the end of a shift?
   a. attendance sheet
   b. material indent
   c. performance log
   d. purchase order

   Answer: c. performance log

3. A practical Key Performance Indicator for safety on a carpentry site is
   a. metres of laminate used per day
   b. number of closed safety observations
   c. total overtime hours
   d. average payment cycle to vendors

   Answer: b. number of closed safety observations

4. When two trades need the same zone at the same time, the first step a supervisor should take is to
   a. escalate directly to the client
   b. issue a written delay notice
   c. call an on-site huddle and adjust tasks
   d. remove one trade from the schedule completely

   Answer: c. call an on-site huddle and adjust tasks

Fill in the blanks

1. A simple _____ sheet records who was present, their start time, and their completed output for the day.

   Answer: attendance

2. Immediate, specific feedback given while a junior repeats a demonstrated task helps prevent _____ later in the workflow.

   Answer: rework

3. Comparing daily output to planned targets highlights efficiency _____ that can be closed with better sequencing or training.

   Answer: gaps

4. All trades update a live _____ task sheet so everyone can see current zone ownership and the next hand-off.

   Answer: shared

Match the following

Column A	Column B
1. Buddy system	a) Log that tracks piece count, defects, and completion time
2. KPI board	b) Quick meeting used to settle zone clashes face to face
3. Performance log	c) Pairing an experienced carpenter with a junior for guided practice
4. Conflict huddle	d) Wall display that shows quality, safety, and speed metrics

Answers: 1 - c), 2 - d), 3 - a), 4 - b).

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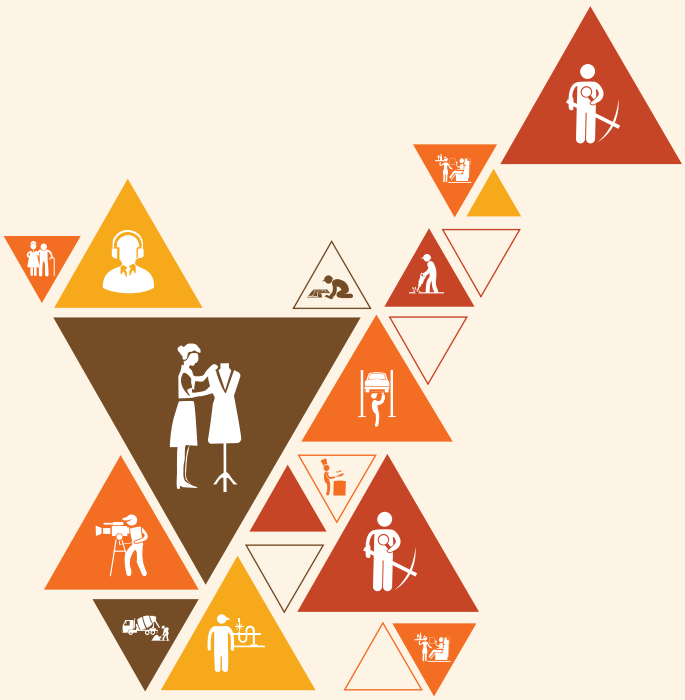
8. Quality Control and Final Installation Supervision

Unit 8.1: Quality Planning and Inspection across Project Stages
Unit 8.2: Final Installation
Unit 8.3: Final Inspection and Handover
Unit 8.4: Defect Management and Process Improvement



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Define quality benchmarks for fit accuracy, finish, and joinery strength in a 1BHK interior project.
2. Conduct inspections at each stage: material receipt, cutting, assembly, and pre-installation.
3. Record inspection findings and flag deviations for correction.
4. Align quality checks with client-approved design specifications.
5. Supervise the final fitting and alignment of all installed furniture at the 1BHK site.
6. Validate all dimensions, openings, and clearances before client walkthrough.
7. Generate final checklists and organize documents for client approval.
8. Coordinate client-side inspections and respond to last-minute feedback.
9. Ensure that all fittings, finishes, and functions meet project quality expectations.
10. Document and categorize post-installation defects with photographs and remarks.
11. Supervise corrective work and ensure timely closure of rework points.
12. Maintain defect logs and link them with material or workmanship sources.
13. Share lessons learned with the team to avoid repeat issues.
14. Propose process updates to reduce defect recurrence in future projects.

Unit 8.1: Quality Planning and Inspection across Project Stages

Unit Objectives

At the end of this unit, participants will be able to:

1. Define quality benchmarks for fit accuracy, finish, and joinery strength in a 1BHK interior project.
2. Conduct inspections at each stage: material receipt, cutting, assembly, and pre-installation.
3. Record inspection findings and flag deviations for correction.
4. Align quality checks with client-approved design specifications.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss turning client-approved drawings into clear quality benchmarks for fit, finish, and joinery strength, building quick checks into every stage material receipt, cutting, assembly, and pre-installation logging inspection results so any defect is tagged and fixed before work moves forward; and keeping all checks aligned with the latest design specifications so the final product meets the customer's expectations the first time.

Ask

Ask the participants the following questions:

- Why should materials be inspected immediately after they arrive on site?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Quality Control and Final Installation Supervision

1. **Define quality benchmarks for fit accuracy, finish, and joinery strength**

   Quality planning starts by turning client-approved drawings into measurable limits. Fit accuracy is expressed in millimetres for door gaps, drawer reveals, and carcass squareness. Finish benchmarks specify sheen level, grain direction, and the number of permissible surface blemishes, while joinery strength is stated as the minimum load a shelf or hinge must carry without deflection. All targets sit on one reference sheet kept on site so every carpenter knows the acceptance line before work begins.

2. **Conduct inspections at material receipt, cutting, assembly, and pre-installation**

   Inspection is woven into the workflow. Boards are checked on arrival for moisture, warp, and edge damage, dimensions and edge-band quality are verified after cutting, carcasses are tested for square and flush joints at assembly, and a final pre-installation review confirms hardware alignment and surface finish. Catching discrepancies at the earliest possible stage prevents rework and keeps downstream activities on schedule.

3. **Record inspection findings and flag deviations for correction**

   Each inspection uses a concise checklist with pass or fail boxes and a comments field. Any deviation, such as an oversize panel or chipped laminate, is logged immediately, assigned to a responsible person, and given a rectification deadline. A coloured tag on the physical item together with a matching note in the digital log ensures that no non-conforming part moves forward until correction is verified.

4. **Align quality checks with client-approved design specifications**

   Measurements and finish standards always trace back to the signed design package. Mock-ups or master samples stay on site as visual guides, and inspectors keep printouts of critical drawing details for instant comparison. When the client revises a specification, the quality sheet, checklists, and site samples are updated that same day so every future inspection tests against the latest requirement.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Inspection Checklist Drill

Group Size: 3 – 4 participants

Materials:

- Benchmark sheet for fit, finish, and joinery strength (one per team)
- Four-stage inspection checklist (material receipt, cutting, assembly, pre-installation)
- Ten mock component cards showing “pass” and “fail” conditions (photographs or small samples)

- Pass and Deviation stickers
- Clipboards and pens

Activity Duration: 20 minutes

Instructions:

1. Teams spread the ten component cards across the table and use the benchmark sheet to decide which inspection stage each card belongs to.
2. Working through the cards, participants complete the checklist for the correct stage, tagging each item Pass or Deviation and writing one clear remark for every deviation found.
3. When all cards are checked, teams review their own Deviation notes and agree on one root cause and one preventive action that would eliminate the defect earlier in the workflow.
4. Each team presents its preventive action in thirty seconds.

Activity	Duration	Resources used
Inspection Checklist Drill	20 minutes	Benchmark sheet for fit, finish, and joinery strength (one per team) Four-stage inspection checklist (material receipt, cutting, assembly, pre-installation),Ten mock component cards showing “pass” and “fail” conditions (photographs or,Pass and Deviation stickers,Clipboards and pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind groups to consult the benchmark sheet before judging a sample so decisions stay consistent with client specifications.
- Encourage concise, factual remarks on the checklist to make follow-up easy.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 8.2: Final Installation

Unit Objectives

At the end of this unit, participants will be able to:

1. Read and confirm the latest layout drawings to know the exact position and clearance for every item.
2. Plan the installation sequence and co-ordinate with other trades so floors, walls, electrical points, and finished surfaces stay protected.
3. Follow safe handling practices and use the right tools to lift, place, level, and anchor each component securely.
4. Adjust moving parts (hinges, slides, locks) until everything works smoothly and sits flush.
5. Record any touch-ups, safety issues, or open points in an installation log for the final inspection.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the key steps involved in carrying out a final inspection after furniture installation. This includes checking layout drawings, coordinating with other workers on-site, safely handling and placing components, adjusting moving parts for smooth operation, and documenting any issues. The unit helps participants understand how to ensure everything is completed neatly, safely, and ready for handover.

Ask

Ask the participants the following questions:

- Which simple tool tells you whether a shelf is perfectly level during final inspection?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Final Inspection

In the final phase of furniture installation, a thorough inspection is carried out to ensure that all components are correctly placed, securely fixed, and fully functional. This step helps verify that the work meets design specifications, safety standards, and client expectations. It involves reviewing layout drawings, coordinating with other trades, checking the condition of surfaces, fine-tuning movable parts, and recording any pending tasks. A well-executed final inspection ensures a smooth handover and reflects the quality of craftsmanship.

1. **Final Inspection: Confirming Layout and Clearances**
    - Refer to the latest approved layout drawings before beginning installation.
    - Verify the exact position of each furniture item as per design requirements.
    - Ensure that all items have adequate clearance from walls, electrical fittings, and openings.
    - Checking these details early helps avoid misplacement, alignment issues, or rework.
2. **Final Inspection: Coordinating Work to Protect Finishes**
    - Plan the installation sequence carefully to avoid disturbing completed work like flooring, paint, or tiles.
    - Coordinate with other trades such as electricians, plumbers, and painters to avoid clashes.
    - Ensure surfaces are protected with covers or padding before moving heavy items.
    - Performing tasks in the correct order helps maintain a clean and damage-free site.
3. **Final Inspection: Ensuring Safe Handling and Installation**
    - Use safe lifting techniques and tools like clamps, levels, and drills during installation.
    - Wear protective gear such as gloves and safety shoes to prevent injury.
    - Lift and position components carefully to avoid scratches or damage.
    - Anchor every component securely and confirm that it is level and stable.
4. **Final Inspection: Adjusting Moving Parts for Smooth Operation**
    - Inspect all hinges, drawer slides, and locks for smooth functionality.
    - Adjust fittings so that doors and drawers open easily and close evenly.
    - Ensure that all movable parts sit flush with adjacent surfaces.
    - Proper alignment improves both appearance and user experience.
5. **Final Inspection: Recording Issues and Touch-Ups**
    - Conduct a detailed inspection to identify unfinished areas, loose fittings, or visible defects.
    - Note all observations in an installation log or checklist.
    - Highlight any safety concerns, such as sharp edges or unstable components.
    - Use the log to plan final touch-ups and ensure nothing is left pending before handover.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Final Inspection Walkthrough

Group Size: 4–6 participants per group

Materials Required

- Printed layout drawings or floor plans
- Sample furniture setup or printed images of installed furniture with minor issues (e.g., uneven alignment, unadjusted hinges)
- Final inspection log sheets or checklists
- Clipboards and pens

Activity Duration: 45–60 minutes

Activity Instructions

1. Provide each group with a layout drawing and either a real mock-up or images of an installed furniture unit.
2. Ask the groups to conduct a final inspection by referring to the drawing, checking each component's position, alignment, and finish.
3. Participants must note any installation errors, missing elements, or safety concerns in the inspection log sheet.
4. Groups will then present their inspection findings and explain how they would handle the identified issues before handover.

Activity	Duration	Resources used
Final Inspection Walkthrough	45 – 60 minutes	Printed layout drawings or floor plans,Sample furniture setup or printed images of installed furniture with minor issues (e.g., uneven alignment, unadjusted hinges),Final inspection log sheets or checklists,Clipboards and pens etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Explain how to use the layout drawing to verify furniture positioning, spacing, and orientation.
- Encourage each participant to take an active role (e.g., inspector, note-taker, presenter).
- Conclude with a discussion on why proper final inspection improves client satisfaction and reduces post-installation complaints.

Unit 8.3 Final Inspection and Handover

Unit Objectives

At the end of this unit, participants will be able to:

1. Carry out a structured quality check on strength, alignment, finish, and safety compliance of all installed items.
2. Create, assign, and close a snag list, making sure every issue is fixed and signed off.
3. Prepare all handover documents like manuals, warranties, certificates, and care tips and package them for the client.
4. Explain basic use, cleaning, and maintenance to the client or end user and collect their formal sign-off.
5. Capture client feedback and lessons learned to improve future projects.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss the final procedures involved in completing a furniture installation project. This includes conducting a quality check for strength, finish, and alignment, preparing and closing a snag list, organizing handover documents like manuals and warranties, briefing the client on usage and maintenance, and collecting feedback. These steps ensure the work is complete, safe, and ready for client approval.

Ask

Ask the participants the following questions:

- What is the purpose of doing a final check before handing over a project to the client?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Final Inspection and Handover

In this session, we will discuss the final steps taken before formally handing over a completed furniture installation project. These steps include conducting a thorough quality check of all installed items, resolving any remaining issues, preparing and organizing handover documents, and explaining product usage and maintenance to the client. The process ends with collecting the client's sign-off and feedback, ensuring the project is completed to their satisfaction and ready for use.

1. **Check Quality of Installation**
   - Inspect all installed furniture components for physical strength and structural stability.
   - Verify that each item is properly aligned according to layout drawings.
   - Check the surface finish for scratches, chips, or rough edges.
   - Ensure safety features are in place, with no sharp corners or loose parts.
   - Confirm that all units are securely fixed and ready for use.
2. **Create and Complete the Snag List**
   - Record any incomplete, damaged, or misaligned items in a snag (punch) list.
   - Assign each point to responsible personnel for correction.
   - Recheck each item after it has been resolved to confirm proper completion.
   - Obtain supervisor/client approval for each resolved issue before closing the list.
   - Ensure no open points remain before moving to handover.
3. **Prepare All Handover Documents**
   - Gather all necessary documents such as user manuals, warranty cards, and care guides.
   - Include any required compliance certificates or installation checklists.
   - Organize documents neatly in a folder or handover packet.
   - Ensure the client receives and understands the purpose of each document.
   - Maintain a copy for record-keeping or future reference.
4. **Explain Usage and Collect Client Sign-Off**
   - Brief the client on how to use and maintain key furniture components.
   - Demonstrate the operation of drawers, hinges, locks, or other special fittings.
   - Provide tips on cleaning methods suitable for different surfaces.
   - Ask the client to inspect the installation and confirm satisfaction.
   - Collect their formal sign-off to close the project officially.
5. Capture Feedback for Future Improvement
   - Ask the client to share their experience regarding installation quality and service.
   - Note both positive feedback and any concerns or suggestions.
   - Discuss the team's performance, timelines, and overall client satisfaction.
   - Record lessons learned for internal improvement.
   - Use this input to enhance planning and execution in future projects.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Conducting a Final Inspection and Handover Role Play

Group Size: 4–6 participants per group

Materials Required

- Sample snag list template
- Printed layout drawings or images of a completed furniture setup
- Mock handover documents (manuals, warranty cards, client sign-off form)
- Pens, clipboards, and feedback sheets

Activity Duration: 45–60 minutes

Activity Instructions

1. Assign roles within each group—Inspector, Installer, Client, and Recorder.
2. Provide a scenario that includes a finished furniture installation with a few visible issues (e.g., a misaligned door, missing manual, or an unpolished surface).
3. The "Inspector" and "Installer" work together to identify issues and fill the snag list.
4. The "Client" is then walked through the handover, where the Installer explains usage, presents documents, and collects formal sign-off.
5. Finally, the "Client" provides verbal or written feedback on the process.

Activity	Duration	Resources used
Conducting a Final Inspection and Handover Role Play	45 – 60 minutes	Sample snag list template,Printed layout drawings or images of a completed furniture setup,Mock handover documents (manuals, warranty cards, client sign-off form),Pens, clipboards, and feedback sheets etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Explain each participant's role clearly before starting to ensure active involvement and realistic interaction.
- Encourage observation and note-taking by other group members during the role-play for a debrief discussion.
- Conclude with a reflection on how real-world handovers can affect client satisfaction and how well-prepared documentation supports professionalism.

Unit 8.4: Defect Management and Process Improvement

Unit Objectives

At the end of this unit, participants will be able to:

1. Document and categorize post-installation defects with photographs and remarks.
2. Supervise corrective work and ensure timely closure of rework points.
3. Maintain defect logs and link them with material or workmanship sources.
4. Share lessons learned with the team to avoid repeat issues.
5. Propose process updates to reduce defect recurrence in future projects.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss how to run the last round of fitting checks, measure every opening and clearance before the client arrives, compile a neat handover pack with checklists and warranty papers, guide the client through the finished flat while noting any final tweaks, and confirm that every hinge, handle, and surface meets the promised quality standard so the project can close without rework.

Ask

Ask the participants the following questions:

- Which simple tool tells you whether a shelf is perfectly level during final inspection?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Final Inspection and Handover

1. **Supervise the final fitting and alignment of installed furniture**

   The supervisor walks every room with a spirit level and feeler gauge, testing that cabinet doors align, drawers glide smoothly, shelves sit level, and hardware is tightened to the specified torque. Any minor adjustment on hinges, runners, or support legs is made immediately so the installation presents a uniform, professional finish.

2. **Validate all dimensions, openings, and clearances before the client walkthrough**

   Critical points such as appliance cavities, wardrobe depths, and door swing arcs are re-measured against the signed drawings. Clearances for skirting, switches, and service access are confirmed to avoid last-minute obstructions, ensuring the client's appliances and utilities will fit without modification.

3. **Generate final checklists and organise documents for client approval**

   A consolidated handover pack is prepared that includes the completed inspection checklist, material warrantees, care instructions, colour codes, and any change-order records. This pack allows the client to verify each item quickly and provides a reference for future maintenance or warranty claims.

4. **Coordinate client-side inspections and respond to feedback**

   A mutually convenient walkthrough is scheduled, and the supervisor leads the client zone by zone, noting comments on a prepared snag sheet. Minor issues such as a soft-closing damper's tension are corrected on the spot, while any larger adjustments receive a clear timeline and responsible person before the client departs.

5. **Ensure all fittings, finishes, and functions meet project quality expectations**

   Every hinge, handle, and slide is cycled several times to confirm smooth operation; finishes are inspected under adequate lighting for uniform colour and sheen; and protective films are removed only after the client's acceptance. When all checks pass, the site is cleaned, and the signed handover documents mark the formal completion of the 1BHK interior project.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Final Handover Drill

Group Size: 3 – 5 participants

Materials

- Mini floor-plan of a 1 BHK interior
- Mock snag checklist template including items for alignment, clearance and finish

- Spirit level or small bubble level, measuring tape, sticky note tags (Pass, Fix), clipboards and pens
- Sample handover folder containing warranty cards and care instructions

Activity Duration: 25 minutes

Instructions

1. **Set-up and role assignment**

   Each team chooses a Supervisor, a Client Representative and one or two Inspectors.

2. **Room-by-room check**

   Inspectors test shelf level, door alignment and appliance openings with the level and tape, tagging each point Pass or Fix on the snag checklist while the Supervisor records findings.

3. **Client walkthrough role-play**

   The Supervisor leads the Client Representative through the findings, correcting one easy defect on the spot and agreeing on deadlines for any remaining fixes. Completed snag sheet and handover folder are presented for signature.

4. **Debrief**

   The team discusses which item took longest to verify and how the checklist or folder could make the next handover smoother.

Activity	Duration	Resources used
Final Handover Drill	25 minutes	Mini floor-plan of a 1 BHK interior,Mock snag checklist template including items for alignment, clearance and finish,Spirit level or small bubble level, measuring tape, sticky note tags (Pass, Fix), clipboards and pens,Sample handover folder containing warranty cards and care instructions etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Encourage precise measurements and immediate minor adjustments to mirror real site practice.
- Remind the “client” to ask simple questions so the Supervisor practises clear explanations.
- In the debrief highlight how a well-prepared folder and calm walkthrough build client confidence and speed project closure.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Exercise

Multiple-choice questions

1. Which tool is MOST useful for checking shelf level during the final fitting stage?
   a. Torque wrench
   b. Spirit level
   c. Moisture meter
   d. Laser distance measurer

   Answer: b. Spirit level

2. A deviation discovered during the cutting stage should be recorded on the inspection sheet and then:
   a. Flagged for immediate correction
   b. Added to the vendor scorecard
   c. Ignored until the client visit
   d. Sent to the finance team

   Answer: a. Flagged for immediate correction

3. Which document is handed to the client at the end of a successful walkthrough?
   a. Daily attendance sheet
   b. Vendor delivery calendar
   c. Purchase order log
   d. Final checklist and warranty folder

   Answer: d. Final checklist and warranty folder

4. When analysing defect logs, grouping problems by “Material” or “Workmanship” helps the team to:
   a. Calculate labour costs
   b. Increase vendor lead times
   c. Identify root causes quickly
   d. Review payment cycles

   Answer: c. Identify root causes quickly

Fill in the blanks

1. Fit accuracy, finish quality, and joinery strength are examples of _____ benchmarks.

   Answer: quality

2. Before the client walkthrough, all _____ and clearances must be re-measured to match drawing specifications.

   Answer: dimensions

3. A coloured tag on a faulty panel plus an entry in the digital log ensures the defect remains _____ until it is fixed.

   Answer: visible

4. Sharing photos of a recent defect in the toolbox talk turns the mistake into a _____ opportunity for the team.

   Answer: learning

Match the following

Column A	Column B
1. Pre-installation inspec-tion	a) Lists each defect, its cause, and closure date
2. Snag sheet	b) Measures door gaps, hinge alignment, and surface finish be-fore handover
3. Defect log	c) Real-time correction of client comments during walkthrough
4. Client feedback fix	d) Notes minor faults found during client tour

Answers: 1 - b), 2 - d), 3 - a), 4 - c).

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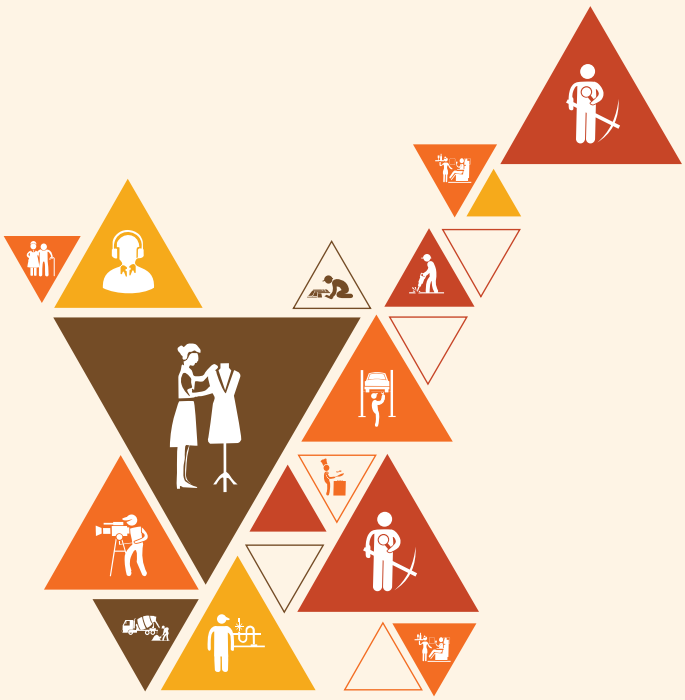
9. Sustainability, Workplace Safety, and Industry Standards

Unit 9.1: Sustainable Resource Use and Waste Management
Unit 9.2: Safety Supervision and Emergency Preparedness
Unit 9.3: Safety Communication and Performance Reporting



Key Learning Outcomes

At the end of this module, participants will be able to:

1. Promote responsible use of raw materials and accurate cutting to minimize waste during 1BHK project execution.
2. Identify recyclable items and plan for reuse of scrap boards and off-cuts.
3. Implement waste segregation practices based on municipal and site-level protocols.
4. Recommend alternatives to reduce environmental impact during furniture installation.
5. Ensure proper use of PPE, material stacking, and tool handling at the 1BHK site.
6. Conduct site safety briefings and monitor adherence to safety signage and SOPs.
7. Train the team to respond to fire, electrical, or minor medical emergencies.
8. Conduct internal safety audits and update the team on protocol changes.
9. Create site-level emergency plans based on layout and access conditions.
10. Develop monthly safety dashboards to track incidents and near misses.
11. Communicate safety data and improvement areas to department heads.
12. Review changes in environmental or safety regulations and share updates with site teams.
13. Suggest layout or workflow changes to improve compliance and worker safety.

Unit 9.1: Sustainable Resource Use and Waste Management

Unit Objectives

At the end of this unit, participants will be able to:

1. Promote responsible use of raw materials and accurate cutting to minimize waste during 1BHK project execution.
2. Identify recyclable items and plan for reuse of scrap boards and off-cuts.
3. Implement waste segregation practices based on municipal and site-level protocols.
4. Recommend alternatives to reduce environmental impact during furniture installation.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss planning every cut so each plywood sheet gives maximum yield, sorting usable off-cuts for future filler pieces, setting up clear colour-coded bins that match local recycling rules, and choosing greener options such as water-based glue and reusable corner pads. These steps keep costs down, meet municipal norms, and lessen the environmental footprint of a 1-BHK furniture installation.

Ask

Ask the participants the following questions:

- What quick check should you make before cutting a board so you do not waste material?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Sustainable Resource Use and Waste Management

1. **Promote responsible use of raw materials and accurate cutting**

   Begin each project with a precisely nested cutting list generated in layout software so sheet goods are sliced with minimal off-cut. Mark every board clearly before sawing and double-check measurements to avoid re-cuts. Plan to harvest drawer bottoms or cabinet backs from the same sheet to maximise yield and lower waste.

2. **Identify recyclables and reuse scrap boards and off-cuts**

   Collect usable off-cuts such as long strips and clean corner pieces in labelled racks for later use as filler blocks, cleats, or jig material. Sort clean cardboard, plastic wrap, and excess metal hardware into separate bins destined for recycling partners. Clear signage above each bin guides the crew to drop items in the correct container without hesitation.

3. **Implement waste segregation to meet site and municipal rules**

   Place colour-coded containers at convenient points: green for wood, blue for paper and card, red for mixed plastics, and yellow for metals. Brief the team at the start of each shift and display a pictorial guide near the bins. Schedule regular pickups to keep piles small and prevent cross-contamination, which in turn lowers disposal costs.

4. **Recommend low-impact alternatives during installation**

   Select water-based adhesives and low-VOC sealants instead of solvent options, specify E0 grade boards when budgets allow, and swap single-use plastic corner guards for reusable foam pads. Whenever possible, purchase hardware in bulk cartons rather than individual blister packs, further cutting down on plastic waste and packaging volume.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Material Saver Challenge

Group Size: 4 to 6 participants

Materials:

- A3 sheet diagram of a plywood board
- Set of paper cut-out shapes representing cabinet parts
- Bag of image cards showing scrap items such as off-cuts, plastic wrap, metal hinges
- Blank coloured bin labels: wood, plastic, metal, mixed
- Marker pens and glue stick

Activity Duration: 30 minutes

Instructions:

1. **Smart cutting plan**

   Teams place the paper part shapes on the board diagram, moving pieces until they achieve the highest yield with the least empty space. When satisfied, glue the shapes in place and note the percentage of board area used.

2. **Scrap sort relay**

   Spread the image cards face down. One by one, team members flip a card, decide if the item can be reused or recycled, and place it under the correct coloured bin label. The aim is to finish sorting before the timer ends without misplacing any card.

3. **Green alternative pitch**

   Discuss and write one simple change that would lower environmental impact on site, for example switching to water-based adhesive or ordering hardware in bulk boxes. Present the idea in thirty seconds to the class.

Activity	Duration	Resources used
Material Saver Challenge	30 minutes	A3 sheet diagram of a plywood board,Set of paper cut-out shapes representing cabinet parts,Bag of image cards showing scrap items such as off-cuts, plastic wrap, metal hinges,Blank coloured bin labels: wood, plastic, metal, mixed,Marker pens and glue stick etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind teams that accurate nesting in step one directly reduces raw-material waste.
- During the share-back, ask why each group chose its green alternative and whether it fits local supplier availability.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 9.2: Safety Supervision and Emergency Preparedness

Unit Objectives

At the end of this unit, participants will be able to:

1. Ensure proper use of PPE, material stacking, and tool handling at the 1BHK site.
2. Conduct site safety briefings and monitor adherence to safety signage and SOPs.
3. Train the team to respond to fire, electrical, or minor medical emergencies.
4. Conduct internal safety audits and update the team on protocol changes.
5. Create site-level emergency plans based on layout and access conditions.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss choosing and checking the right personal protective equipment, stacking materials safely and handling tools without risk, running short daily safety briefings that keep everyone alert to signage and standard procedures, guiding the crew through simple fire, electrical and first-aid drills, carrying out monthly safety audits, and drawing a clear emergency map that shows exits, extinguishers and muster points for the entire 1BHK site.

Ask

Ask the participants the following questions:

- What item of personal protective equipment should you always put on before using any power tool?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Safety Supervision and Emergency Preparedness

1. **Ensure proper use of PPE, material stacking, and tool handling**

   A safety supervisor checks that every carpenter wears the correct personal protective equipment including helmet, safety shoes, gloves, and goggles. Materials are stacked only to shoulder height, kept clear of walkways, and secured to prevent sliding. Power tools are inspected before use, cords stay off damp floors, and blades or bits are changed only after the machine is unplugged.

   i. Spot checks during the shift catch worn-out gear early and reinforce safe habits.

   ii. Floor markings show a designated stacking zone so visitors and workers can avoid heavy loads.

2. **Conduct site safety briefings and monitor adherence to signage and SOPs**

   Each shift opens with a five-minute huddle that highlights high-risk tasks for the day, repeats key standard operating procedures, and points out any new caution signs posted on site. The supervisor walks through every zone twice daily to ensure hearing protection, lock-out tags, and warning boards are being respected.

   i. A quick quiz using random rule cards keeps the crew alert and turns safety rules into routine behaviour.

   ii. Any missed sign or unsafe act is corrected immediately to prevent accidents.

3. **Train the team to respond to fire, electrical, and minor medical emergencies**

   Carpenters practise aiming a dry chemical extinguisher at a mock fire pan, cutting power at the main breaker for an electrical short, and giving first aid for minor cuts or burns. A short question round after the drill confirms that everyone can name the three nearest extinguishers and locate the first-aid kit.

   i. Hands-on drills build calm reactions when real alarms occur.

   ii. Simple posters near each work zone display colour codes for extinguisher types and basic wound-care steps.

4. **Conduct internal safety audits and update the team on protocol changes**

   Once a month the supervisor reviews a checklist covering PPE use, tool maintenance records, and housekeeping standards. Repeat violations are logged and shared at the next briefing along with any updated rules such as a revised ladder inspection sheet or stricter phone policy near machines.

   i. Audit scores are posted on a wall chart so progress is visible to everyone.

   ii. Teams with the highest scores receive small recognition to keep motivation high.

5. **Create site-level emergency plans based on layout and access conditions**

   A floor sketch displays extinguisher points, electrical shut-offs, first-aid kits, and the quickest exit to open ground. Specific roles are assigned: one person calls emergency services, another guides workers to the muster point, and a third ensures no one is left inside. The plan is printed in large type and posted at every entrance so even visitors know what to do.

   i. Evacuation paths remain clear of stacked material at all times.

   ii. Quarterly practice runs make sure new hires understand routes and roles.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Site Safety Circuit

Group Size: 4 – 6 participants

Materials:

- Complete PPE set: helmet, goggles, gloves, shoes, ear plugs
- Mock power tool with frayed cord
- Training fire-extinguisher (or empty canister)
- First-aid kit with bandage roll
- A3 site-layout sheet showing exits, extinguishers, first-aid points
- Blank safety-audit checklist
- Timer or phone stopwatch

Activity Duration: 40 minutes

Instructions:

1. **PPE and Tool Check**

   Teams inspect the PPE set and the mock tool, mark any defects on the checklist, and replace or tag unsafe items.

2. **Morning Safety Brief**

   One member delivers a concise two-minute briefing covering high-risk tasks, mandatory PPE, and signage reminders. Team-mates rate clarity and completeness.

3. **Emergency Response Drill**

   Draw a scenario card (small fire, electric shock, minor bleed). Teams demonstrate the first response: correct extinguisher use or basic first aid, then trace the evacuation route on the layout.

4. **Mini Safety Audit**

   Using the checklist, teams inspect a taped “work zone,” record two safe practices and two hazards, and suggest quick fixes.

5. **Debrief & Improvement Note**

   Each team shares one audit finding and writes a brief protocol tweak on the layout poster for the next shift.

Activity	Duration	Resources used
Site Safety Circuit	40 minutes	Complete PPE set: helmet, goggles, gloves, shoes, ear plugs,Mock power tool with frayed cord,Training fire-extinguisher (or empty canister),First-aid kit with bandage roll,A3 site-layout sheet showing exits, extinguishers, first-aid points,Blank safety-audit checklist,Timer or phone stopwatch etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Keep the timer visible and announce each rotation so every team completes all stations.
- During debrief, connect proposed tweaks to existing SOPs to reinforce continuous safety improvement.
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Unit 9.3: Safety Communication and Performance Reporting

Unit Objectives

At the end of this unit, participants will be able to:

1. Develop monthly safety dashboards to track incidents and near misses.
2. Communicate safety data and improvement areas to department heads.
3. Review changes in environmental or safety regulations and share updates with site teams.
4. Suggest layout or workflow changes to improve compliance and worker safety.

Resources to be Used

Participant handbook, pen, notebook, whiteboard, flipchart, markers, laptop, overhead projector, laser pointer, etc.

Note

In this unit, we will discuss building a simple monthly dashboard that shows accidents and near misses at a glance, sharing those figures with department heads so action owners and deadlines are clear, turning new government safety or environmental rules into one-page briefs for the crew, and using dashboard hot spots to suggest small layout or workflow tweaks that make the site safer and fully compliant.

Ask

Ask the participants the following questions:

- Why is it helpful to look at a safety dashboard at the end of each month?

Write down the participants' answers on a whiteboard/flipchart. Take appropriate clues from the answers and start teaching the lesson.

Elaborate

In this session, we will discuss the following points:

Safety Communication and Performance Reporting

1. **Develop monthly safety dashboards to track incidents and near misses**

   At the close of each month the supervisor gathers first-aid logs, near-miss notes, and toolbox-talk attendance sheets into a simple spreadsheet. A bar chart shows how many minor injuries or tool defects occurred on each work zone while a line chart tracks near-miss trends. Colour blocks signal green for zero incidents and red for any repeat hazard. The dashboard fits on one slide so managers can grasp the safety picture at a glance.

2. **Communicate safety data and improvement areas to department heads**

   The supervisor schedules a ten-minute slot in the weekly coordination meeting to walk department heads through the dashboard. Plain language highlights one good result, such as fewer slipping incidents, and one concern, such as rising cord damages near the panel saw. Each concern is paired with a clear action, for example moving a cable hanger or adding a non-skid mat, and the responsible person and deadline are recorded in the meeting notes.

3. **Review changes in environmental or safety regulations and share updates with site teams**

   When the municipal authority issues new waste-segregation rules or the labour board updates PPE standards, the supervisor summarises the key points on a single page. During the next safety huddle the team hears what has changed, why it matters, and exactly what behaviour must follow, such as switching to different glove ratings or separating sawdust into dedicated bags. Printed hand-outs and a poster keep the message visible for the first week.

4. **Suggest layout or workflow changes to improve compliance and worker safety**

   By comparing dashboard hot spots with on-site observations the supervisor may notice that most near misses cluster near the cutting station exit. A simple layout tweak, such as widening the passage or adding a floor marking to separate tool traffic from foot traffic, moves people out of danger without slowing production. Suggestions are sketched on the site plan, costed quickly, and presented to the project manager for approval.

Say

Let us participate in an activity to explore the unit a little more.

Activity

Group Activity: Safety Dashboard Builder

Group Size: 4 – 5 participants

Materials:

- Pack of “incident cards” (each shows a date, zone, and brief description)
- Blank dashboard template with bar-chart space and notes area
- A4 site-layout sheet
- Markers and coloured stickers (red for incidents, yellow for near misses)

Activity Duration: 30 minutes

Instructions:

1. **Sort and plot**

   Teams read their incident cards, stick red or yellow dots on the site layout to mark event locations, then count totals by zone and fill the bar chart on the dashboard template.

2. **Analyse and note actions**

   Using the chart, teams circle the zone with the highest count and write two quick actions to cut incidents there, such as adding cable hooks or extra signage.

3. **Mini briefing**

   One member presents the finished dashboard and actions in one minute, as if speaking to department heads, while teammates field one follow-up question from another group.

Activity	Duration	Resources used
Safety Dashboard Builder	30 minutes	Pack of "incident cards" (each shows a date, zone, and brief description),Blank dashboard template with bar-chart space and notes area,A4 site-layout sheet,Markers and coloured stickers (red for incidents, yellow for near misses) etc.

Do

- Guide the trainees throughout the activity
- Ensure that all trainees participate in the activity

Notes for Facilitation

- Remind teams their chart should be easy to read at a glance.
- Encourage concrete, low-cost actions that could be implemented in the next week
- Answer all the queries/doubts raised by the trainees in the class.
- Encourage other trainees to answer problems and boost peer learning in the class.

Exercise

Multiple-choice questions

1. To minimise cutting waste, which method should a carpenter use?
   a. Nesting software for cut layouts
   b. Random freehand cutting
   c. Eye-ball measurements only
   d. Cutting one piece at a time without planning

   Answer: a. Nesting software for cut layouts

2. Plastic stretch-wrap removed from panels should go into which colour-coded bin?
   a. Green (wood)
   b. Yellow (metal)
   c. Red (plastic)
   d. Blue (paper)

   Answer: c. Red (plastic)

3. Which document gives managers a quick month-by-month view of incidents and near misses?
   a. Attendance register
   b. Purchase order log
   c. Material tracker sheet
   d. Safety dashboard

   Answer: d. Safety dashboard

4. When a co-worker receives a minor electric shock, the first safety action is to
   a. Apply a bandage immediately
   b. Cut power at the main breaker
   c. Hand the person a drink of water
   d. File an incident report first

   Answer: b. Cut power at the main breaker

Fill in the blanks

1. Cutting parts with nesting software helps to minimise _____.

   Answer: waste

2. Reusable off-cuts should be stored in clearly _____ racks for future use.

   Answer: labelled

3. Every worker must put on the correct _____ before operating power tools.

   Answer: PPE

4. A floor sketch that marks exits, extinguishers, and muster points is called an emergency _____.

   Answer: plan

Match the following

Column A	Column B
1. Safety dashboard	a) Five-minute start-of-shift briefing
2. Toolbox talk	b) Holds power cords clear of walkways
3. Dry-chemical extinguisher	c) Tracks incidents and near misses visual-ly
4. Cable hooks	d) Suitable for electrical or class B fires

Answers: 1 - c), 2 - a), 3 - d), 4 - b).

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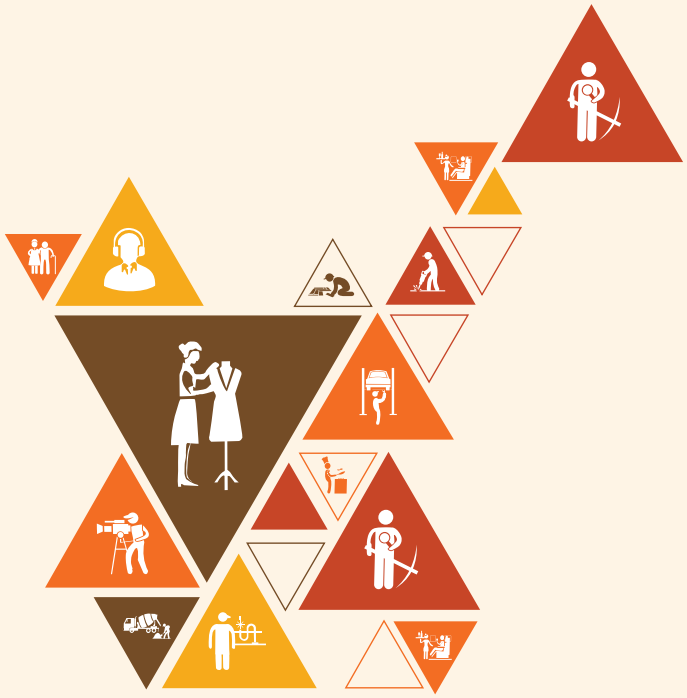
10. Employability Skills



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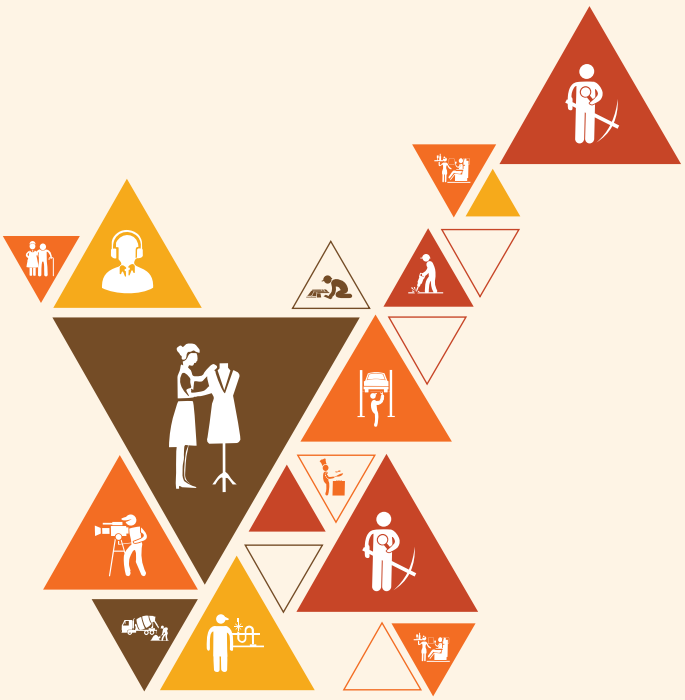
Employability Skills

11. Annexures

Annexure - I
Annexure - II
Annexure - III



Annexure - I

Training Delivery Plan

Program Name:	Master Carpenter		
Qualification Pack and reference ID	Master Carpenter-FFS/Q2204		
Version No.	1.0	**Version Update Date**	31-08-2023
Pre-Requisite License or Training:	NA		
Training Outcomes	**After completing this program, participants will be able to:** • Define different types of Architectural and Interior Projects. • Categorize and describe different raw materials and architectural hardware. • Categorize and describe different advanced power tools, equipment, and machinery. • Describe the organizational map of Furniture Industry and highlight the importance of Furniture and Fittings Installation occupation. • List the Key Result Areas of the Master Carpenter's Role. • Define the scope of work for various types of projects. • Estimate the cost of different types of Products and Projects. • Analyze and estimate the resources required for the project. • Plan, organize, and manage various tasks and teams. • Describe the vendor management principles and apply the same during project execution. • Explain the grievance redressal guidelines and conduct performance review. • Describe and examine the project design dockets and product drawings. • Prepare and review the fabrication and assembly of products for different types of projects. • Apply surface finishing techniques on different types of products. • Perform and review installation of product components and architectural hardware. • Demonstrate project and team supervision techniques. • Plan and conduct periodic quality check and handover. • Follow and ensure compliance of the Occupational Health and Safety protocols. • Explain the methods for Material Conservation and Resources Optimization. • Describe the process and significance of World Skills Competitions. • Demonstrate the process of fabrication, assembly, installation, and finishing for different types of products during On-the-Job Training.		

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
1.	Understanding the Master Carpenter's Role and Industry Compliance	Unit 1.1: Scope of the Industry and Professio-nal Responsibili-ties	1. Describe the significance of the furniture and fittings industry across residential, commercial, and institut-ional sectors. 2. Explain the key site-level responsibili-ties of a Master Carpenter in supervisory roles. 3. Discuss how leadership, ethics, and discipline affect team performance and client satisfaction.	Bridge Module(s)	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Project/ Theme Based Props as required	**T: 04:00** **P: 08:00**
		Unit1.2:- Industry Documen-tation and Reporting Structures	1. Identify key documents used in furniture installation sites, such as job cards, task sheets, and inspection -logs. 2. Describe how documen-tation supports team coordination and project scheduling. 3. Explain the -role of reporting formats in maintaining-workflow transparency. 4. Illustrate how documen-tation practices vary between mid-size and large-scale car-pentry -projects.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Project/ Theme Based Props as required	**T: 04:00** **P: 08:00**

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
		Unit 1.3: Legal Compliance and Site Regulations	1. List common legal requirements applicable to carpentry sites, including building codes and material safety norms. 2. Explain how labor law compliance and site regulations ensure safe working conditions.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Project/ Theme Based Props as required	**T: 04:00** **P: 08:00**
		Unit 1.4: Documentation Analysis and Process Improvement	1. Identify common errors in site-level documentation and reporting. 2. Explain how to evaluate documentation for accuracy and completeness. 3. Recommend corrective actions for addressing non-compliance reports. 4. Suggest ways to improve documentation practices across different teams. 5. Analyze how recurring reporting gaps affect decision-making at the project management level.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Project/ Theme Based Props as required	**T: 04:00** **P: 08:00**
2.	Defining Scope of Work and Client Communi-cation	Unit 2.1: Conducting Client Interactions and Managing Expectations	1. Describe how to initiate and structure client meetings to gather expectations and design intent.	Bridge Module(s)	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/	T: 06:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			2. Record key decisions and queries during discussions in alignment with site execution needs. 3. Identify client preferences and translate them into functional inputs for layout and product types. 4. Plan structured feedback sessions with the client to capture design evolution and approval stages.			Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/ Theme based props - for simulation as required.	
		Unit 2.2: Interpreting Client Requirements and Defining Scope of Work	1. Review design drawings and documents to identify technical requirements and constraints. 2. Analyze client inputs and convert them into a measurable scope of work with reference to the 1BHK project. 3. List the required materials, fittings, manpower, and duration based on scope definition. 4. Adjust the scope to suit non-standard site conditions or structural limitations.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/ Theme based props - for simulation as required.	T: 06:00 P: 12:00
		Unit 2.3: Preparing Document-ation for Scope Communi-cation	1. Draft scope summary sheets, timelines, and job briefs for team reference and client sign-off.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables,	T: 06:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			2. Maintain structured records of approvals, change requests, and communication history. 3. Use version-controlled formats to reflect scope changes over time. 4. Ensure proper alignment between written scope documents and verbal agreements with clients.			Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	
		Unit 2.4: Cross-Functional Coordination and Conflict Resolution	1. Coordinate with internal teams such as design, procurement, and execution to ensure scope clarity. 2. Identify typical causes of scope conflict across departments in residential interior projects. 3. Apply structured negotiation techniques to resolve scope-related conflicts. 4. Document final scope decisions in a format that avoids ambiguity and confusion during site work. 5. Validate that all stakeholders are aligned on the latest scope version before moving to execution.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	T: 06:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
3.	Project and Product Costing, Budgeting, and Financial Planning	Unit 3.1: Project Cost Breakdown and Budget Estimation	1. Break down a complete 1BHK residential carpentry project into primary cost categories such as raw materials, labor, hardware fittings, machinery usage, subcontracted services, and transportation. 2. Prepare a quantity-based cost estimate by referring to layout drawings and room-specific requirements for modular furniture. 3. Use industry-standard estimation templates to structure project budgets aligned with activity phases. 4. Explain how changes in material types or finishes impact the estimated cost at the planning stage.	Bridge Module	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	T: 06:00 P: 12:00
		Unit 3.2: Cost Monitoring, Risk Control, and Team Awareness	1. Identify key risks that cause cost overruns in residential interior projects, including delays, redesigns, vendor issues, and wastage. 2. Suggest control mechanisms such as buffer estimation, vendor checks, and sequence planning to reduce financial risk.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment,	T: 06:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			3. Describe basic cost-awareness practices for on-ground team members to reduce unnecessary losses.			Project/Theme based props - for simulation as required.	
		Unit 3.3: Budget Analysis and Financial Reconciliation	1. Compare the estimated budget with actual expenditure across different stages of a 1BHK installation. 2. Analyze reasons behind major cost deviations such as incorrect estimation, poor planning, or untracked material use. 3. Assist the project supervisor or finance team in reconciling records of deliveries, usage, and vendor bills. 4. Generate a final financial summary that captures deviations and learning for future planning. 5. Interpret site-level consumption data to identify avoidable costs or procedural gaps.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeeping Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	T: 06:00 P: 12:00
		Unit 3.4: Financial Documentation and Budget Approvals	1. Prepare vendor-wise and phase-wise documentation for budget approval based on the 1BHK scope of work.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional).	T: 06:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			2. Maintain vendor rate agreements, payment status logs, and material receipt documentation as per internal protocols. 3. Compare quotations for multiple material options and justify final selections based on cost and lead time.			Workbench, Manual Tools, Electric/ Power Tools, Housekeeping-Materials, Tools and Equipment, Project/Theme based props for simulation as required.	
4.	Resource Planning, Site Survey, and Task Allocation	Unit 4.1: Conducting Effective Site Surveys and Recces	1. Conduct a site recce for a 1BHK residential project to map measurements, electrical layout, and space constraints. 2. Identify access challenges, ventilation, and material handling limitations before planning the work sequence. 3. Validate the completeness and accuracy of survey documentation in relation to the design drawings. 4. Record environmental and logistical observations that may influence design feasibility and material flow	Bridge Module	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	T: 04:00 P: 04:00
		Unit 4.2: Work Planning and Sequencing Based on Site Readiness	1. Analyze site layout and furniture drawings to create a stepwise work sequence.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional)	T: 04:00 P: 04:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			2. Draft daily and weekly work plans with measurable milestones for the 1BHK project. 3. Reorganize planned sequences to accommodate design changes, site constraints, or delivery delays. 4. Supervise on-ground adherence to planned sequences and address misalignment or overlaps in task execution. 5. Update site readiness status for supervisors using simple visual progress formats.			Sample of Job Cards, Sample of Escalation Matrix, Organization Structure, Project/Theme based props for simulation as required.	
		Unit 4.3: Manpower and Multi-site Resource Planning	1. Map the required manpower based on activity type, site phase, and skill mix in the 1BHK installation. 2. Assign tasks based on team members' competencies, experience, and speed. 3. Plan for shifting teams across multiple sites based on urgency, priority, and team availability. 4. Track task performance across assigned resources and revise allocation to remove bottlenecks.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Workbench, Manual Tools, Electric/ Power Tools, Housekeep-ing Materials, Tools and Equip-ment, Project/Theme based props - for simulation as required.	T: 04:00 P: 04:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
5.	Product Drawings and Technical Design Interpretation	Unit 5.1: Reading and Interpreting Technical Drawings	1. Identify and explain key components of a 1BHK furniture layout, including plan views, elevations, and sections. 2. Interpret GD&T (Geometric Dimensioning and Tolerancing) symbols, dimensions, reference lines, and tolerances. 3. Translate furniture drawings into cutting and material requirement plans for different rooms. 4. Assist junior carpenters in understanding drawing portions relevant to their assigned tasks.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) N.A	T: 04:00 P: 00:00
		Unit 5.2: Design Coordination and Feasibility Trouble-shooting	1. Coordinate with the design team to clarify drawing ambiguities or site-specific constraints. 2. Approve prototypes and physical samples in alignment with the finalized 1BHK design. 3. Flag feasibility issues based on space limitations, fitting overlaps, or layout clashes.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) N.A	T: 04:00 P: 00:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
		Unit 5.3: Design Documentation and Revision Management	1. Maintain organized design dockets, version-controlled drawings, and communication records. 2. Compare revisions to track design evolution and its impact on material or cost. 3. Document final signoffs from the client and design team before initiating production. 4. Share critical changes with the on-ground team to ensure error-free execution. 5. Train team members to locate and interpret their relevant design sections quickly.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) N.A	T: 04:00 P: 00:00
6.	Vendor Coordination and Material Procurement Management	Unit 6.1: Procurement Planning and Scheduling	1. Prepare a material procurement plan aligned with the activity schedule of a 1BHK residential interior project. 2. Identify critical materials and fittings that require advance booking based on availability and lead time. 3. Estimate batch-wise quantities needed for various site stages and prepare a basic delivery calendar.	FFS/N2206 – Prepare the worksite for on-site operations	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Sample of budget and cost estimate forms	T: 08:00 P: 16:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			4. Map approved vendors to material categories and plan site deliveries to avoid congestion or idle time.				
		Unit 6.2: Vendor Coordination and Delivery Management	1. Coordinate with vendors to ensure timely delivery of material based on site progress and work sequencing. 2. Track batch-level delivery and cross-verify against material indent and purchase orders. 3. Verify product quality at the time of receipt and report any visible damage or mismatch. 4. Maintain a log of delivery slips and update the site-wise stock sheet. 5. Communicate delivery constraints and rescheduling needs to vendors in writing.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Sample of budget and cost estimate forms	T: 08:00 P: 16:00
		Unit 6.3: Vendor Evaluation and Relationship Management	1. Evaluate vendor performance based on timeliness, quality, accuracy, and service response. 2. Identify gaps in vendor performance and suggest improvements during review meetings.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Sample of budget and cost estimate forms	

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			3. Maintain records of vendor ratings, complaints, and previous issue resolutions.				
		Unit 6.4: Contract Negotiation and Reconciliation of Material Flow	1. Participate in finalizing vendor terms related to delivery timeline, packaging quality, and payment cycle. 2. Reconcile delivered vs. billed vs. consumed material based on site registers and supervisor records. 3. Support the finance team in validating material consumption reports before processing vendor payments. 4. Document rework or returned material records and ensure stock sheets reflect changes accurately. 5. Review recurring material mismatch issues and suggest process improvements in procurement flow.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional) Sample of budget and cost estimate forms	T: 08:00 P: 16:00
7.	Team Management, Monitoring, and Work Supervision	Unit 7.1: Role Allocation and Daily Work Monitoring	1. Allocate daily tasks for cutting, assembly, and installation based on 1BHK work schedules.	FFS/N2206 Prepare the worksite for on-site operations	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional).	T: 10:00 P: 36:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			2. Brief the team on daily goals using clear and task-specific instructions. 3. Track on-site task completion and record deviations from the plan. 4. Conduct end-of-day reviews to summarize progress and pending work.			Sample of budget and cost estimate forms	
		Unit 7.2: Performance Review and Quality Alignment	1. Maintain performance logs and attendance sheets for tracking team contribution. 2. Compare actual vs. expected outputs and identify efficiency gaps. 3. Define basic KPIs to assess quality, safety adherence, and work speed. 4. Align work execution with pre-defined quality standards for residential carpentry. 5. Provide real-time feedback to improve output consistency and avoid rework.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of budget and cost estimate forms	T: 10:00 P: 36:00
		Unit 7.3: Mentorship, Leadership, and Succession Development	1. Guide junior carpenters using demonstrations and correction techniques. 2. Identify potential team leads based on behavior, initiative, and reliability.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of budget and cost estimate forms	T: 10:00 P: 36:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			3. Apply mentorship methods to improve skill sharing and team adaptability.				
		Unit 7.4: Cross-functional Collaboration and Workflow Optimization	1. Coordinate with external teams (e.g., electricians, plumbers) to align sequence and reduce delays. 2. Resolve on-site scheduling or zone conflicts through collaborative task adjustments. 3. Maintain a shared task sheet documenting inter-departmental dependencies and resolutions.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of budget and cost estimate forms	T: 10:00 P: 36:00
8.	Quality Control and Final Installation Supervision	Unit 8.1: Quality Planning and Inspection across Project Stages	1. Define quality benchmarks for fit accuracy, finish, and joinery strength in a 1BHK interior project. 2. Conduct inspections at each stage: material receipt, cutting, assembly, and pre-installation. 3. Record inspection findings and flag deviations for correction. 4. Align quality checks with client-approved design specifications.	FFS/N2207 – Assist in the fabrication of the products at the worksite	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of job cards, Measurement and Marking Tools, Project/ Theme based props for simulation as required.	T: 08:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
		Unit 8.2: Final Installation	1. Supervise the final fitting and alignment of all installed furniture at the 1BHK site. 2. Validate all dimensions, openings, and clearances before client walkthrough. 3. Generate final checklists and organize documents for client approval. 4. Coordinate client-side inspections and respond to last-minute feedback. 5. Ensure that all fittings, finishes, and functions meet project quality expectations.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of job cards, Measurement and Marking Tools, Project/ Theme based props for simulation as required.	T: 08:00 P: 12:00
		Unit 8.3 Final Inspection and Handover	1. Carry out a structured quality check on strength, alignment, finish, and safety compliance of all installed items. 2. Create, assign, and close a snag list, making sure every issue is fixed and signed off. 3. Prepare all handover documents like manuals, warranties, certificates, and care tips and package them for the client.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample of job cards, Measurement and Marking Tools, Project/ Theme based props for simulation as required.	T: 08:00 P: 12:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			4. Explain basic use, cleaning, and maintenance to the client or end user and collect their formal sign-off. 5. Capture client feedback and lessons learned to improve future projects.				
		Unit 8.4: Defect Management and Process Improvement	1. Document and categorize post-installation defects with photographs and remarks. 2. Supervise corrective work and ensure timely closure of rework points. 3. Maintain defect logs and link them with material or workmanship sources. 4. Share lessons learned with the team to avoid repeat issues. 5. Propose process updates to reduce defect recurrence in future projects.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Sample job cards, Measurement and Marking Tools, Project/ Theme based props for simulation as required.	T: 08:00 P: 12:00
9.	Sustainability, Workplace Safety, and Industry Standards	Unit 9.1: Sustainable Resource Use and Waste Management	1. Promote responsible use of raw materials and accurate cutting to minimize waste during 1BHK project execution. 2. Identify recyclable items and plan for reuse of scrap boards and off-cuts.	FFS/N2207 – Assist in the fabrication of the products at the worksite	Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Project/Theme based props for simulation as required.	T: 08:00 P: 14:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			3. Implement waste segregation practices based on municipal and site-level protocols. 4. Recommend alternatives to reduce environmental impact during furniture installation.				
		Unit 9.2: Safety Supervision and Emergency Preparedness Final Inspection and Handover	1. Ensure proper use of PPE, material stacking, and tool handling at the 1BHK site. 2. Conduct site safety briefings and monitor adherence to safety signage and SOPs. 3. Train the team to respond to fire, electrical, or minor medical emergencies. 4. Conduct internal safety audits and update the team on protocol changes. 5. Create site-level emergency plans based on layout and access conditions.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Project/Theme based props for simulation as required.	T: 08:00 P: 14:00
		Unit 9.3: Safety Communi-cation and Perfor-mance Reporting	1. Develop monthly safety dashboards to track incidents and near misses. 2. Communicate safety data and improvement areas to department heads.		Interactive Lecture in the Class	White Board, Board Marker, Duster, Projector, Tablet, Chairs, Tables, Smart Board (Optional). Project/Theme based props for simulation as required.	T: 08:00 P: 14:00

S. No.	Module Name	Session Name	Session Objectives	NOS Reference	Methodology	Training Tools Aids	Duration
			1. Develop monthly safety dashboards to track incidents and near misses. 2. Communicate safety data and improvement areas to department heads.				
10.	Employability Skills	Employability Skills		DGT/VSQ/ N0102: Employa-bility Skills	Interactive Lecture in the Class	LCD Projector for PPT and Video Presentation, Speakers, and Whiteboard & marker	T: 60:00 P: 00:00
11.	On-the-Job Training						**60 Hours**

Annexure - II

Assessment Criteria

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role	Master Carpenter
Qualification Pack	FFS/Q2204
Sector Skill Council	Furniture and Fittings Skill Council

S No.	Assessment Guidelines
1	Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down the proportion of marks for Theory and Skills Practical for each PC.
2	The assessment for the theory part will be based on the knowledge bank of questions created by the SSC.
3	Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4	Individual assessment agencies will create unique question papers for the theory part for each candidate at each examination/training centre (as per assessment criteria below).
5	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training centre based on these criteria.
6	To pass the Qualification Pack assessment, every trainee should score a minimum of 70% of % aggregate marks to successfully clear the assessment.
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
FFS/N2220: Assist in product costing and resource planning for on-site activities of the various projects	*Interpret the scope of work for assigned projects*	**5**	**10**	**5**	-
	PC1. coordinate with internal teams to understand and define the project requirement	1	2	-	-
	PC2. identify personnel, implements, and material resources as per project requirement	1	3	1	-
	PC3. assist in creating a project implementation plan with proposed stages and timelines	1	3	3	-
	PC4. assist in the documentation of the deliverables based on the scope of the project	2	2	1	-
	Assist in coordination with internal teams and external agencies	**6**	**8**	-	-
	PC5. assist in the identification of different stakeholders and their roles in project execution	1	2	-	-
	PC6. assist in analyzing client needs and resolution of queries with appropriate remedial actions	2	2	-	-
	PC7. coordinate with client POCs for any site instructions and inspection of works	1	-	-	-
	PC8. maintain records of client interaction in accordance with organizational guidelines	2	4	-	-
	Prepare product and project cost estimates	**6**	**14**	**10**	-
	PC9. evaluate products details and production requirements based on the scope of work	2	4	3	-
	PC10. identify various tools, equipment, materials, and finishes to be employed in manufacturing the product for cost estimates	1	4	3	-
	PC11. prepare a realistic budget with appropriate allocations to the relevant cost centers involved in the manufacturing process	2	4	3	-
	PC12. instruct and guide team to ensure they perform in line with estimated cost	1	2	1	-
	Ensure arrangement of resources for conducting site survey, recce, and project execution	**7**	**19**	**10**	**7**
	PC13. plan and organize the site survey and recce in accordance with the scope of work	1	4	2	1
	PC14. supervise the measurement and marking activities during physical site survey and recce	1	4	2	1
	PC15. validate the measurement sheet based on project layout and requirements	1	4	2	1
	PC16. plan the assembly and installation requirements based on worksite conditions	2	3	2	2

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC17. ensure compliance with organizations policies, procedures, guidelines, and client requirements during site survey and recce	2	4	2	2
	NOS Total	**22**	**56**	**10**	**9**
FFS/N2221: Ensure proper work allocation and team manage-ment for the projects	*Allocate and monitor activities assigned to various teams for different projects*	**5**	**15**	**5**	-
	PC1. assist supervisor in devising an effective work monitoring plan for the project	1	3	1	-
	PC2. ensure proper demarcation of team and resources for an effective execution	1	3	1	-
	PC3. monitor the internal process and procedures for smooth working and coordination	1	3	1	-
	PC4. organize regular work review meetings with the team to get feedback and updates	1	3	1	-
	PC5. provide regular project updates to senior management	1	3	1	-
	Assist in vendor management and ensuring timely availability of resources on-site	**12**	**22**	**6**	-
	PC6. assist in evaluating the procurement plan in line with the budget and required quality	2	4	1	-
	PC7. assist in reviewing the process of inviting, comparison and selecting quotations	2	4	1	-
	PC8. assist in preparing and maintaining records related to quotations invited, bids received, and invoices	2	3	1	-
	PC9. assist in compliance of the statutory and regulatory requirements by the vendors related to the work area	2	3	1	-
	PC10. ensure proper planning and execution of loading/ unloading/ handling/ storage operations at the worksite	2	4	1	-
	PC11. ensure availability of various resources at the worksite required during project execution	2	4	1	-
	Address grievances, if any, and ensure due redressal in line with organizational guidelines	**8**	**17**	**10**	-
	PC12. assist supervisor in devising an effective grievance redressal mechanism	2	4	1	-
	PC13. ensure that queries, concerns, and requests of the colleagues are addressed efficiently and accurately in accordance with organization policies	2	3	3	-
	PC14. assist in designing a performance management system to address the grievances	2	5	3	-

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC15. conduct appropriate training of the team to ensure the quality and efficiency NOS Total	2	5	3	-
	NOS Total	**25**	**54**	**21**	**-**
FFS/N2222: Perform and review the fabrication, assembly, finishing, and installation activities for different projects	*Interpret information from project design docket and drawings*	**4**	**5**	**4**	-
	PC1. analyze the layouts and key elements of the engineering drawings	1	1	1	-
	PC2. interpret Geometric Dimensioning and Tolerancing (GD&T) symbols in the drawings	1	-	1	-
	PC3. identify the sequence of operations required for project execution based on drawing details	-	2	1	-
	PC4. explain need for any modifications/changes required in the drawing	1	2	1	-
	PC5. ensure proper storage and management of the drawings in an easily accessible place	1	-	-	-
	Supervise and review the on-site work of various teams	**6**	**11**	**7**	-
	PC6. plan the optimized processes at the various bays of the workshop to ensure smooth operations	-	2	1	-
	PC7. select the correct materials as per the drawings and specifications	1	2	1	-
	PC8. ensure that the placement of materials, tools, and equipment on the designated bays for effective work execution	-	3	1	-
	PC9. ensure that the equipment and tools in maintained appropriately	1	1	1	-
	PC10. ensure availability of appropriate personal protective equipment to all people working on the basis of the workshop	1	1	1	-
	PC11. ensure that the appropriate floor and machine guards are in place	1	1	1	-
	PC12. ensure regular cleaning and maintenance of worksite during project execution	1	1	1	-
	PC13. identify and prevent hazards and control risks at work site according to company requirements	1	-	-	-
	Perform the required fabrication, assembly, finishing and installation operations directly and/or via teams	**-**	**15**	**9**	**-**
	PC14. prepare the job cards in accordance with the production process flow	-	2	1	-
	PC15. select and safely use hand and power tools to cut joints safely and accurately	-	1	1	-

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	PC16. perform required woodworking operation based on product specifications	-	3	1	-
	PC17. prepare accurate joints and intersections with no gaps and attach the members neatly using appropriate fasteners	-	3	2	-
	PC18. accurately assemble and erect structures without damage to components, personal risk, the risk to others, or property	-	3	2	-
	PC19. perform finishing to a specification, with attention to surface finishes and avoidance of damage or unsightly marking of components	-	3	2	-
	Perform the installation operations directly and/or via teams	**-**	**13**	**7**	**-**
	PC20. perform the installation and fitting of required hardware and accessories on the product	-	8	4	-
	PC21. install the product based on design specifications and layout details	-	5	3	-
	Schedule and conduct periodic quality checks of products/projects	**4**	**10**	**5**	**-**
	PC22. plan and organize quality checks in accordance with project execution timelines	1	2	1	-
	PC23. ensure appropriate action gets taken for fault rectification in consultation with the supervisor	1	2	1	-
	PC24. check for structural strength and load- bearing capacity by applying load on the finished furniture	1	2	1	-
	PC25. ensure that all the product dimensions and finishes comply with the desired details	-	3	1	-
	PC26. ensure compliance with all the requisite documents post completion of the project	1	1	1	-
	NOS Total	**14**	**54**	**32**	-
DGT/VSQ/ N0102: Employa-bility Skills (60 Hours)	*Introduction to Employability Skills*	**1**	**1**	-	-
	PC1. identify employability skills required for jobs in various industries	**-**	**-**	-	-
	PC2. identify and explore learning and employability portals	-	-	-	-
	Constitutional values – Citizenship	**1**	**1**	-	-
	PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
	PC4. follow environmentally sustainable practices	-	-	-	-

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	Becoming a Professional in the 21st Century	**2**	**4**	-	-
	PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
	PC6. practice the 21st Century Skills such as Self-Awareness, Behavior Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
	Basic English Skills	**2**	**3**	-	-
	PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
	PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
	PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
	Career Development & Goal Setting	**1**	**2**	-	-
	PC10. understand the difference between job and career	-	-	-	-
	PC11. prepare a career development plan with short- and long-term goals, based on aptitude	1	2	-	-
	Communication Skills	**2**	**2**	-	-
	PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
	PC13. work collaboratively with others in a team	-	-	-	-
	Diversity & Inclusion	**1**	**2**	**-**	**-**
	PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
	PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
	Financial and Legal Literacy	**2**	**3**	**-**	**-**
	PC16. select financial institutions, products and services as per requirement	-	-	-	-
	PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
	PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
	PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	Essential Digital Skills	**3**	**4**	-	-
	PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
	PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
	PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-
	Entrepreneurship	**2**	**3**	-	-
	PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
	PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
	PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
	Customer Service	**1**	**2**	-	-
	PC26. identify different types of customers	-	-	-	-
	PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
	PC28. follow appropriate hygiene and grooming standards	2	3	-	-
	Getting ready for apprenticeship & Jobs	2	3	-	-
	PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
	PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
	PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
	PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
	PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
	NOS Total	**20**	**30**	**6**	-

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
FFS/N8203: Maintain health, safety, and greening practices at the worksite	*Maintain health and hygiene protocols*	**6**	**8**	**16**	**5**
	PC1. comply with health and personal hygiene- related protocols	1	1	2	1
	PC2. maintain adequate inventory of cleaning materials and consumables	1	1	2	1
	PC3. identify and report poor organizational practices concerning hygiene, food handling, cleaning	1	1	2	-
	PC4. ensure that the trash cans or waste collection points are cleared every day	1	1	2	1
	PC5. maintain records for cleanliness and maintenance schedule	-	1	2	-
	PC6. use appropriate personal protective equipment compatible with the work and compliant with relevant Occupational Health and Safety (OHS) guidelines: masks, safety glasses, head protection, ear muffs, safety footwear, gloves, aprons, etc.	1	1	2	1
	PC7. wear clean clothes as per the dress code of the worksite	-	1	2	-
	PC8. wash hands regularly using suggested material such as soap, one-use disposable tissue, warm water, etc.	1	1	2	1
	Dealing with emergencies	**2**	**4**	**8**	**1**
	PC9. use emergency equipment in accordance with manufacturers' specifications as per requirement	-	1	2	-
	PC10. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	1	1	2	-
	PC11. respond promptly and appropriately to an accident situation or medical emergency	-	1	2	-
	PC12. undertake first aid activities in case of an accident, if required and asked to do so	1	1	2	1
	Precautionary measures to avoid work hazards	**3**	**5**	**10**	**2**
	PC13. ensure that safety instructions applicable to the workplace are being followed	-	1	2	-
	PC14. monitor the usage of harmful chemicals inside the work area as per the specified guidelines only	1	1	2	-
	PC15. plan out the routine cleaning of tools, machines, and equipment	-	1	2	-
	PC16. employ an effective process to dispose off the hazardous material and wastage	1	1	2	1
	PC17. employ safe working practices to perform a lift, carry or move heavy wooden furniture and accessories from one place to another	1	1	2	1

NOS	Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
	Ensure material conservation and optimization of resources	**5**	**7**	**14**	**4**
	PC18. plan out the process to ensure optimal material utilization	1	1	2	1
	PC19. collect information on the pattern of electricity and fuel consumption	-	1	2	-
	PC20. identify possibilities of using renewable energy and environment-friendly fuels	1	1	2	-
	PC21. plan the implementation of energy-efficient systems in a phased manner	-	1	2	1
	PC22. plan and utilize the reusable materials and wastage in the process	1	1	2	1
	PC23. perform segregation of waste based on the type of material	1	1	2	1
	PC24. ensure to keep the electrical appliances in OFF position when not in use	1	1	2	-
	NOS Total	**16**	**24**	**48**	**12**

Annexure - III

Chapter Name	Unit No.	Topic Name	Page No.	Link to QR code	QR code
Module 1: Understanding the Master Carpenter's Role and Industry Compliance	Unit 1.1: Scope of the Industry and Professional Responsibilities	1.1.1. the significance of the furniture and fittings industry across residential, commercial, and institutional sectors.	44	https://www.youtube.com/live/g0whWvJ-dgg	Furniture and fittings industry
Module 1: Understanding the Master Carpenter's Role and Industry Compliance	Unit 1.3: Legal Compliance and Site Regulations	1.3.1.common-legal requirements applicable to carpentry sites, including building codes and material safety norms.	44	https://www.youtube.com/watch?v=zES7YsV9X5E	Common legal requirements
Module 1: Understanding the Master Carpenter's Role and Industry Compliance	Unit 1.4: Documentation Analysis and Process Improvement	1.4.1. common errors in site-level documentation and reporting.	44	https://www.youtube.com/watch?v=7R0lh5CiuRE	documentation and reporting
Module 2: Defining Scope of Work and Client Communication	Unit 2.1: Conducting Client Interactions and Managing Expectations	2.1.1. how to initiate and structure client meetings to gather expectations and design intent.	99	https://www.youtube.com/watch?v=7oAT0Z6LjMY	How to deal with your client?
Module 2: Defining Scope of Work and Client Communication	Unit 2.4: Cross-Functional Coordination and Conflict Resolution	2.4.3. structured negotiation techniques to resolve scope-related conflicts.	99	https://www.youtube.com/watch?v=wYb_PKTawE4	negotiation techniques to resolve scope-related conflicts

Chapter Name	Unit No.	Topic Name	Page No.	Link to QR code	QR code
Module 3: Project and Product Costing, Budgeting, and Financial Planning	Unit 3.1: Project Cost Breakdown and Budget Estimation	3.1.1. complete 1BHK residential carpentry project into primary cost categories such as raw materials, labor, hardware fittings, machinery usage, subcontracted services, and transportation.	128	https://www.youtube.com/watch?v=1TS5a-wlhY0	Interior Carpentry
Module 3: Project and Product Costing, Budgeting, and Financial Planning	Unit 3.3: Budget Analysis and Financial Reconciliation	3.3.2. reasons behind major cost deviations such as incorrect estimation, poor planning, or untracked material use.	128	https://www.youtube.com/watch?v=h8Ufcvu0nKA	Estimation Excel Sheet
Module 3: Project and Product Costing, Budgeting, and Financial Planning	Unit 3.4: Financial Documentation and Budget Approvals	3.4.2. vendor rate agreements, payment status logs, and material receipt documentation as per internal protocols.	128	https://www.youtube.com/watch?v=UAveIQe2vJ4	vendor rate agreements, payment status logs, and material receipt documentation
Module 4: Resource Planning, Site Survey, and Task Allocation	Unit 4.1: Conducting Effective Site Surveys and Recces	4.1.1. site recce for a 1BHK residential project to map measurements, electrical layout, and space constraints.	159	https://www.youtube.com/watch?v=1a8pVuDNWC4	site recce for a 1BHK residential project
Module 4: Resource Planning, Site Survey, and Task Allocation	Unit 4.2: Work Planning and Sequencing Based on Site Readiness	4.2.1. site layout and furniture drawings to create a stepwise work sequence.	159	https://www.youtube.com/watch?v=Yd41znmlC1A	furniture drawings to create a stepwise work sequence

Chapter Name	Unit No.	Topic Name	Page No.	Link to QR code	QR code
Module 5: Product Drawings and Technical Design Interpretation	Unit 5.1: Reading and Interpreting Technical Drawings	5.1.1. key components of a 1BHK furniture layout, including plan views, elevations, and sections.	170	https://www.youtube.com/watch?v=VsRElMWkCrk	components of a 1BHK furniture layout
Module 5: Product Drawings and Technical Design Interpretation	Unit 5.3: Design Documentation and Revision Management	5.3.4. critical changes with the on-ground team to ensure error-free execution	170	https://www.youtube.com/watch?v=NKG37ovkmUQ	Critical Section and Race Condition
Module 6: Vendor Coordination and Material Procurement Management	Unit 6.1: Procurement Planning and Scheduling	6.1.1. a material procurement plan aligned with the activity schedule of a 1BHK residential interior project.	205	https://www.youtube.com/watch?v=PKUIeuTETSQ	procurement plan
Module 6: Vendor Coordination and Material Procurement Management	Unit 6.3: Vendor Evaluation and Relationship Management	6.3.3. records of vendor ratings, complaints, and previous issue resolutions.	205	https://www.youtube.com/watch?v=Wu1PQ2OO7CI	Vendor Rating
Module 7: Team Management, Monitoring, and Work Supervision	Unit 7.1: Role Allocation and Daily Work Monitoring	7.1.3. on-site task completion and record deviations from the plan.	256	https://www.youtube.com/live/xuijsumCDnI	record deviations

Chapter Name	Unit No.	Topic Name	Page No.	Link to QR code	QR code
Module 8: Quality Control and Final Installation Supervision	Unit 8.1: Quality Planning and Inspection across Project Stages	8.1.3. inspection findings and flag deviations for correction.	296	https://www.youtube.com/live/xuijsumCDnI	Deviations
Module 9: Sustainability, Workplace Safety, and Industry Standards	Unit 9.1: Sustainable Resource Use and Waste Management	9.1.2. recyclable items and plan for reuse of scrap boards and off-cuts.	320	https://www.youtube.com/watch?v=FnhXEUO0SVU	How to Start Waste Material Recycling Business?

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