

Construction Management Roadmap (12 Weeks)

Week 1: Introduction to Construction Management

- Overview of construction management.
 - Roles and responsibilities of a construction manager.
 - Types of construction projects.
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Week 2: Construction Project Planning

- Project lifecycle and phases.
 - Work Breakdown Structure (WBS).
 - Scheduling techniques (Gantt charts, CPM, PERT).
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Week 3: Construction Methods and Equipment

- Types of construction methods.
 - Selection and management of equipment.
 - Modern construction technologies.
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Week 4: Cost Estimation and Budgeting

- Types of cost estimates.
 - Quantity surveying basics.
 - Budget preparation and cost control techniques.
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Week 5: Construction Contracts and Legal Aspects

- Types of contracts (lump sum, cost-plus, etc.).
 - Contract administration.
 - Legal issues and dispute resolution.
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Week 6: Quality Management in Construction

- Quality planning, assurance, and control.

- Inspection and testing.
 - Standards and certifications.
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Week 7: Construction Safety Management

- Safety regulations and standards.
 - Hazard identification and risk assessment.
 - Safety planning and accident prevention.
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Week 8: Procurement and Supply Chain Management

- Material procurement process.
 - Vendor selection and management.
 - Inventory control.
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Week 9: Project Scheduling and Monitoring

- Detailed scheduling techniques.
 - Progress tracking and reporting.
 - Use of software tools.
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Week 10: Construction Equipment Management

- Equipment maintenance and management.
 - Productivity analysis.
 - Equipment replacement decisions.
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Week 11: Sustainable Construction Practices

- Green building concepts.
 - Energy-efficient construction.
 - Waste management and recycling.
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Week 12: Project / Case Study

- Prepare a project plan for a construction project.
 - Risk analysis and mitigation plan.
 - Use software like MS Project for scheduling.
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Tools and Software:

- Microsoft Project, Primavera P6
- AutoCAD, Revit
- Cost estimation software (e.g., RSMeans)