

Project Scheduling and Controls – Course 101

Importance of Effective Construction Schedule Management

1. Trade Coordination → optimize manpower, minimize delays to trades, avoid inefficiency claims
2. Proactive Risk Management → evaluate potential delay impacts, implement mitigations
3. On-Time Project Delivery → track critical scope, maintain accountability, meet University targets

Contractual Schedule Requirements, Deliverables & Processes

(See UC General Conditions to the Construction Agreement - Section 3.9, and Specifications for particular Contract type)

Contractor shall **plan, develop, supervise, control, & coordinate the performance of the Work** so that its progress will permit completion within the Contract Time.

Schedule Deliverables

1. Preliminary Contract Schedule (after Contract Award)
2. Updated Contract Schedule (Monthly, see Specs)
3. Submittal Schedule (Aligned with Contract Schedule)

Schedule Requirements

1. Suitable for monitoring progress of the Work.
2. Includes information about timing for University decisions and furnished items.
3. Provides sufficient detail to demonstrate adequate planning for the Work.
4. Represents a practical plan to perform and complete the Work within the Contract Time.

Schedule Reviews, Compliance and Accountability

Schedule Review Checklist*

*Specification requirements may differ depending on the Contract type.

- ✓ Updated Contract Schedule
- ✓ Status Report & Narrative
- ✓ Look-Ahead Schedules
- ✓ Proper Formatting
- ✓ Sufficient Detail
- ✓ Technical Acceptability
- ✓ Achievability and Accuracy
- ✓ Alignment with Contract Time

Contractual Non-Compliance Consequences

- Contractor fails to submit a construction schedule per the Contract → University may withhold payments from Contractor (Long Form Contract - General Conditions, Section 9.4.3)
- Contractor fails to meet Contract Schedule milestone dates → University may correct such failure at Contractor's expense (Long Form Contract - General Conditions, Section 2.4.1)
- Contractor's critical scope falls behind > 30 days (unexcusably) → University may terminate the Contract (Long Form Contract - General Conditions, Section 13.2.1)

Schedule Tracking and Key Performance Indicators

A **work breakdown structure** organizes overall project scope into discrete stages of work.

Schedule **logic ties** demonstrate the relationship & dependencies between construction activities.

The **critical path** is the longest sequence of dependent activities that are driving project completion.

Variances to contract milestones and baselines can indicate schedule risks.

| | |
|--|---------------------------------|
| | - On schedule from baseline |
| | - Delayed from baseline |
| | - Critical Path delayed from BL |

| Contract Milestone | Baseline Schedule | Current Schedule | Variance from BL | Trending |
|--------------------|-------------------|------------------|------------------|----------|
| 11-Feb-19 | 01-Mar-19 | 20-Feb-19 | (9) | ↓ |
| 01-Nov-18 | 01-May-17 | 03-Jul-17 | 63 | ↓ |
| 01-Mar-19 | 01-Mar-19 | 01-Mar-19 | - | ↓ |