AMMAN ARAB UNIVERSITY

Faculty of Information Technology

TRACE

SCHEDULE MANAGEMENT

DATE: JANUARY 1, 2026

Project Title: TRACE - Transfer Recognition and Automated Course Engine

Project Start Date:
November 1, 2025

Projected Finish Date:
June 15, 2026

Students

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Amman - Jordan
2025/2026

1. Estimation Approach

1.1 Estimation Methodology

The project used **Three-Point Estimation (PERT)** to calculate expected durations for all activities.

PERT Formula: Expected Duration (TE) = (Optimistic + 4 × Most Likely + Pessimistic) / 6

1.2 Working Assumptions

- Working hours per day: 5.5 hours (average of 5-6 hours)
- Working days per week: 5 days (Sunday through Thursday)
- Team size: 2 members working in parallel when possible
- Risk buffer: 20% included in complex activities

2. Activity Time and Effort Estimate

Activity ID	Activity Name	Duration (Days)	Effort (Person-Days)	Responsible
1.	**PROJECT MANAGEMENT**	**175**	**175**	
1.1	Project Initiation	10	10	Both
1.2	Project Planning	21	21	Both
1.3	Monitoring & Control	134	134	Rasha
1.4	Project Closing	10	10	Both
2.	**REQUIREMENTS AND DESIGN**	**45**	**42**	
2.1	Requirements Analysis	15	20	Both
2.2	System Architecture Design	10	12	Both
2.3	Database Design	10	10	Rasha
2.4	User Interface Design	10	10	Sdra
3.	**SYSTEM DEVELOPMENT**	**86**	**102**	
3.1	Development Environment Setup	5	5	Both
3.2	Core System Modules	81	97	
3.2.1	Authentication and User Management	10	10	Rasha
3.2.2	Course Management Module	10	10	Sdra
3.2.3	Transfer Request Module	10	10	Sdra
3.2.4	Course Matching Engine	19	19	Rasha
3.2.5	Evaluation and Approval Module	22	32	Both
3.2.6	Report Generation Module	10	15	Both
3.3	System Integration	15	15	Both
4.	**TESTING AND QA**	**45**	**50**	
4.1	Test Planning	5	5	Both
4.2	Unit & Integration Testing	15	20	Both
4.3	System Testing	15	15	Both
4.4	User Acceptance Testing	10	10	Both
5.	**DOCUMENTATION**	**22**	**26**	
5.1	Technical Documentation	7	7	Rasha
5.2	User Manuals	10	14	Sdra
5.3	Training Materials	5	5	Sdra
6.	**DEPLOYMENT**	**20**	**22**	
6.1	Deployment Planning	5	5	Both
6.2	Production Environment Setup	5	5	Both
6.3	System Deployment and Go-Live	5	6	Both
6.4	User Training	5	6	Both

Note: Activity 1.3 (Monitoring and Control) runs parallel throughout the project.
Total Effort: 417 person-days

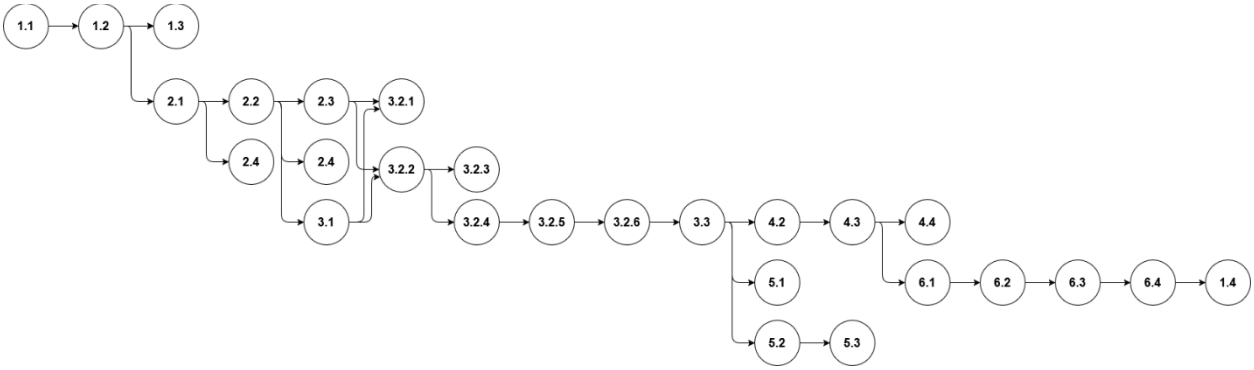
3. Activity Dependencies

Activity ID	Activity Name	Duration (Days)	Predecessors	Dependency Type
1.1	Project Initiation	10	-	FS
1.2	Project Planning	21	1.1	FS
1.3	Monitoring & Control	134	1.2	SS
2.1	Requirements Analysis	15	1.2	FS
2.2	System Architecture Design	10	2.1	FS
2.3	Database Design	10	2.2	FS
2.4	User Interface Design	10	2.2	FS
3.1	Development Environment Setup	5	2.2	FS
3.2.1	Authentication and User Management	10	2.3, 3.1	FS
3.2.2	Course Management Module	10	2.3, 3.1	FS
3.2.3	Transfer Request Module	10	3.2.2	FS
3.2.4	Course Matching Engine	19	3.2.2	FS
3.2.5	Evaluation and Approval Module	22	3.2.4	FS
3.2.6	Report Generation Module	10	3.2.5	FS
3.3	System Integration	15	3.2.6	FS
4.1	Test Planning	5	2.1	FS
4.2	Unit & Integration Testing	15	3.3	FS
4.3	System Testing	15	4.2	FS
4.4	User Acceptance Testing	10	4.3	FS
5.1	Technical Documentation	7	3.3	SS
5.2	User Manuals	10	3.3	SS
5.3	Training Materials	5	5.2	FS
6.1	Deployment Planning	5	4.3	FS
6.2	Production Environment Setup	5	6.1	FS
6.3	System Deployment and Go-Live	5	6.2, 4.4	FS
6.4	User Training	5	6.3	FS
1.4	Project Closing	10	6.4	FS

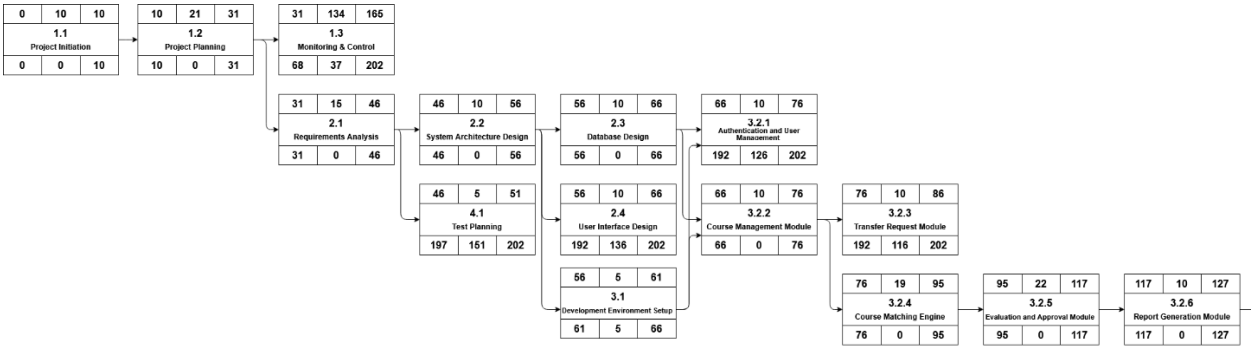
Legend:

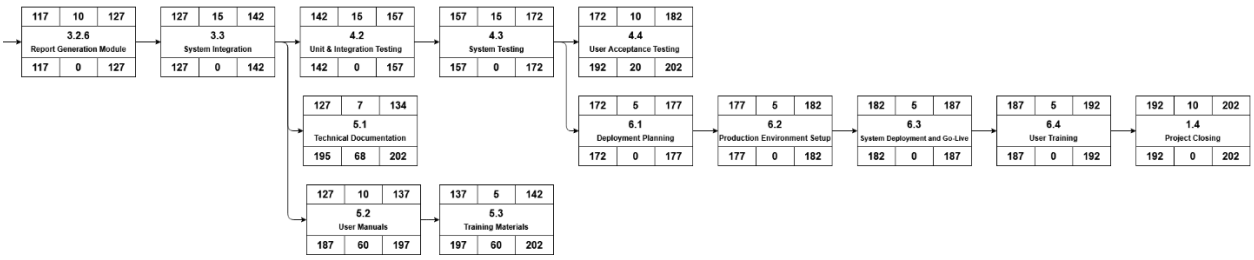
- **FS:** Finish-to-Start
- **SS:** Start-to-Start

3. Network Diagram

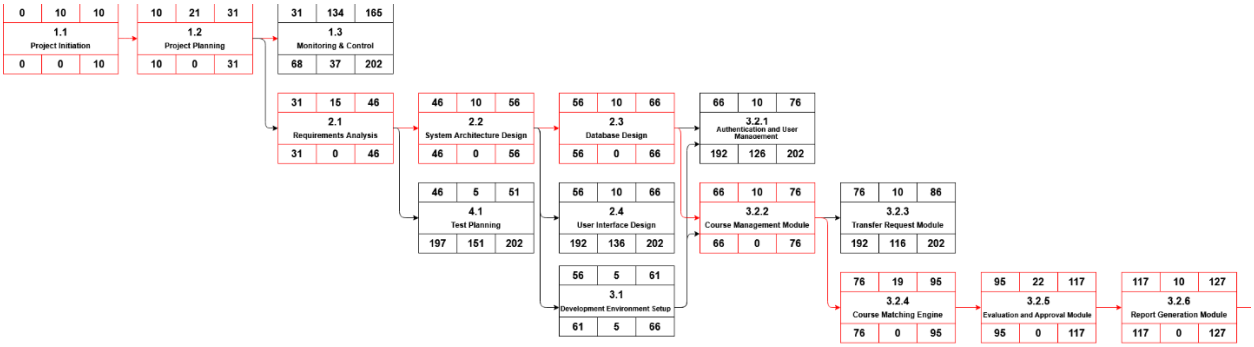


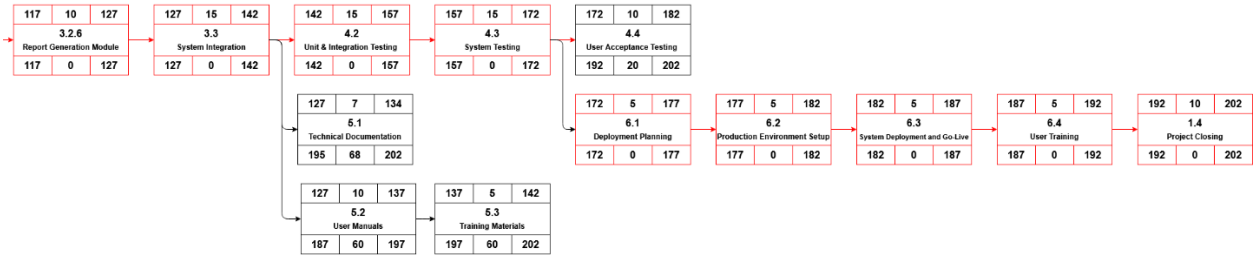
4. Forward and Backward Pass calculations:





5. Critical Path Analysis





Critical Path: 1.1 → 1.2 → 2.1 → 2.2 → 2.3 → 3.2.2 → 3.2.4 → 3.2.5 → 3.2.6 → 3.3 → 4.2 → 4.3 → 6.1 → 6.2 → 6.3 → 6.4 → 1.4

Critical Path Duration: 202 days

Critical Activities:

- All activities on the critical path have zero float

- Any delay in these activities will delay the project completion

5. Project Duration Summary:

Total Project Duration: 202 working days

Calendar Conversion:

- 202 working days ÷ 5 days/week = 40.4 weeks
- 40.4 weeks ÷ 4.33 weeks/month ≈ 9.3 months