

Course scheduling and room assignment

Automatically generates optimized course schedules and assigns appropriate classrooms based on enrollment data, instructor availability, and room capacity constraints. Reduces scheduling conflicts and maximizes resource utilization across the institution.

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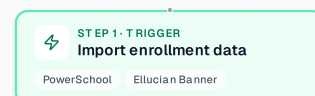


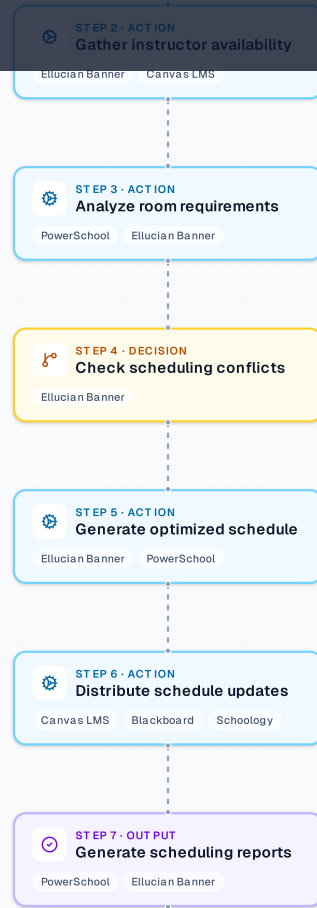
WORKFLOW TRIGGER

New semester enrollment period closes and course registration data is finalized

Visual Flow

Each node represents an automated step. Connections show how data and decisions move through the workflow.





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Step-by-Step Breakdown

Detailed explanation of each automated stage in the workflow.

1

⚡ TRIGGER

Import enrollment data

Retrieves final course enrollment numbers, student preferences, and waitlist information from the student information system. Triggers the

2

 ACTION

Gather instructor availability

Collects faculty teaching preferences, availability windows, and course assignment data from HR and academic systems. Consolidates scheduling constraints for all instructors.

Ellucian Banner

Canvas LMS

3

 ACTION

Analyze room requirements

Evaluates classroom capacity needs based on enrollment numbers and identifies special equipment requirements for each course. Cross-references with available facility inventory and booking systems.

PowerSchool

Ellucian Banner

4

 DECISION

Check scheduling conflicts

Identifies potential conflicts between instructor availability, room capacity, and time slot preferences. Routes high-conflict courses to manual review or continues with automated assignment.

Ellucian Banner

5

 ACTION

Generate optimized schedule

AI Business OS

Creates preliminary course schedule using optimization algorithms to minimize conflicts and maximize room utilization. Assigns time slots and classroom locations for each course section.

Ellucian Banner

PowerSchool

6

 ACTION

Distribute schedule updates

Publishes finalized schedules to learning management systems and sends automated notifications to faculty and students. Updates course catalogs and student portals with new information.

Canvas LMS

Blackboard

Schoology

7

 OUTPUT

Generate scheduling reports

Produces comprehensive reports showing room utilization rates, scheduling efficiency metrics, and conflict resolution summaries. Creates dashboards for administrative review and planning.

PowerSchool

Ellucian Banner



Outputs

- Optimized course schedule with room assignments

- Room utilization efficiency report

AI Business OS

- Schedule conflict resolution summary



Key Metrics

- Room utilization percentage
- Scheduling conflict count
- Time-to-schedule completion



Tools & Integrations

- PowerSchool
- Ellucian Banner
- Canvas LMS
- Blackboard
- Schoology

AI Business OS

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