**Course Registration – Value Stream Mapping (VSM)**

**🎯 Case Study Overview**

This analysis explores the **course registration process** at a community college.  
The main goals are to:

* Improve student satisfaction
* Reduce helpdesk support tickets
* Shorten the registration time from **3 days to 1 day**

This case study uses **Value Stream Mapping (VSM)** to identify inefficiencies and propose a more efficient future-state process.

**🔍 Current-State Value Stream**

**Process Flow:**

[Student] --> (Log into Portal)

--> (Search for Courses)

--> (Manually Check Prerequisites)

--> (Submit Courses)

--> [System] --> (Check for Errors)

--> [Staff] --> (Manual Approval)

--> [System] --> (Payment)

--> (Email Confirmation)

**⏱️ Timings & Notes**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Step | Actor | Time | Waste Type | Notes |
| 1 | Student | 5 min | NNVA | Login issues |
| 2 | Student | 20–30 min | NNVA | Poor search UX |
| 3 | Student | 30–60 min | NNVA | Manual prerequisite check |
| 6 | Staff | 1–2 days | Waste | Manual approval bottleneck |

NNVA = Non–Value-Added but Necessary  
Waste = Pure waste (e.g., delays, rework)

**❗ Waste Identification**

* Too many **manual steps**, especially in prerequisite checking and approval
* **User interface problems** extend time required to search for courses
* **Bottlenecks** exist in manual approval by staff
* Lack of real-time error feedback increases back-and-forth between students and support

**🌟 Future-State Value Stream**

**Proposed Flow:**

[Student] --> (Smart Login)

--> (Smart Search with Filters)

--> (Auto Prerequisite Check)

--> (Smart Course Selection)

--> [System] --> (Auto Approval Based on Rules)

--> (Payment)

--> (Instant Notification)

--> [Student]

**💡 Key Improvements**

* **Automated prerequisite checking** eliminates manual review delays
* **Improved UX** for course search and selection
* **Rule-based auto-approval** speeds up processing
* **Real-time notifications** provide clarity and transparency
* **End-to-end registration time reduced to less than 1 day**

**📈 Expected Results**

* Increased **student satisfaction**
* Decreased **helpdesk ticket volume**
* Reduced **processing delays** due to fewer handoffs
* More efficient and scalable system for course registration

**📁 Files in Repository**

* Course Registration\_VSM.docx– this document (original analysis)
* current-vsm.png – visual map of current-state process
* future-vsm.png – visual map of future-state process  
  *(coming soon)*

**📌 Notes**

This analysis was completed as part of a case study in agile business analysis and lean process improvement.  
Diagrams were created using [draw.io](https://draw.io).