Registration Pattern Analysis

1. Frequency of Registration Gaps (Days Between Registrations)

As shown in Figure 1, the median gap between registrations is 1 day, while the mean is 35.3 days due to a few outliers. Most multi-course enrollments occur within 1 day, indicating a strong tendency toward batch registration.
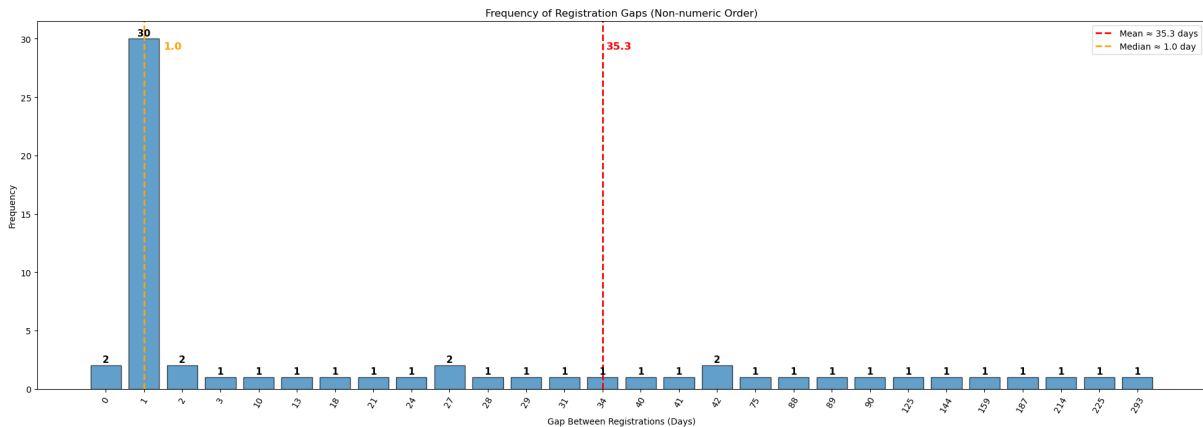

Figure 1: Frequency of Registration Gaps (Days Between Registrations)

2. Most Popular Course Combinations in Student Baskets

Figure 2 shows that *burger + pizza* is the most common bundle, followed by *nugget + sausage* and other fast-food combinations.

3. Registration Sequences with 2 Courses

Figure 3 demonstrates that *burger → pizza* is the leading sequential choice.

4. Registration Sequences with 3 Courses

As shown in Figure 4, only a handful of students follow three-step sequences, the most popular being *burger → pizza → fried_chicken*.
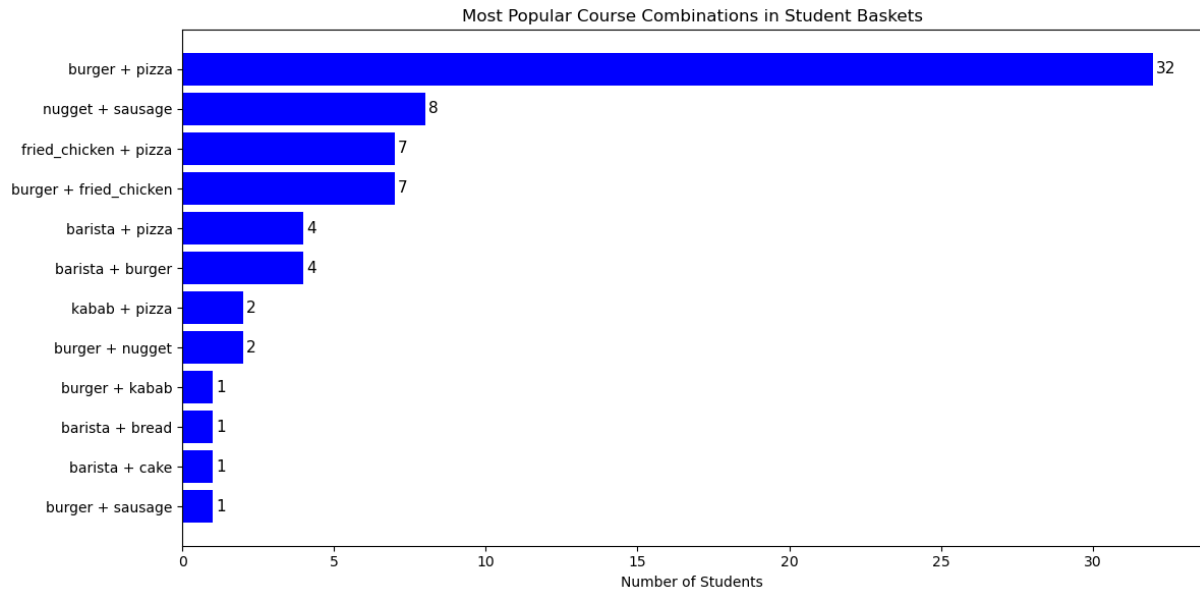
Figure 2: Most Popular Course Combinations in Student Baskets
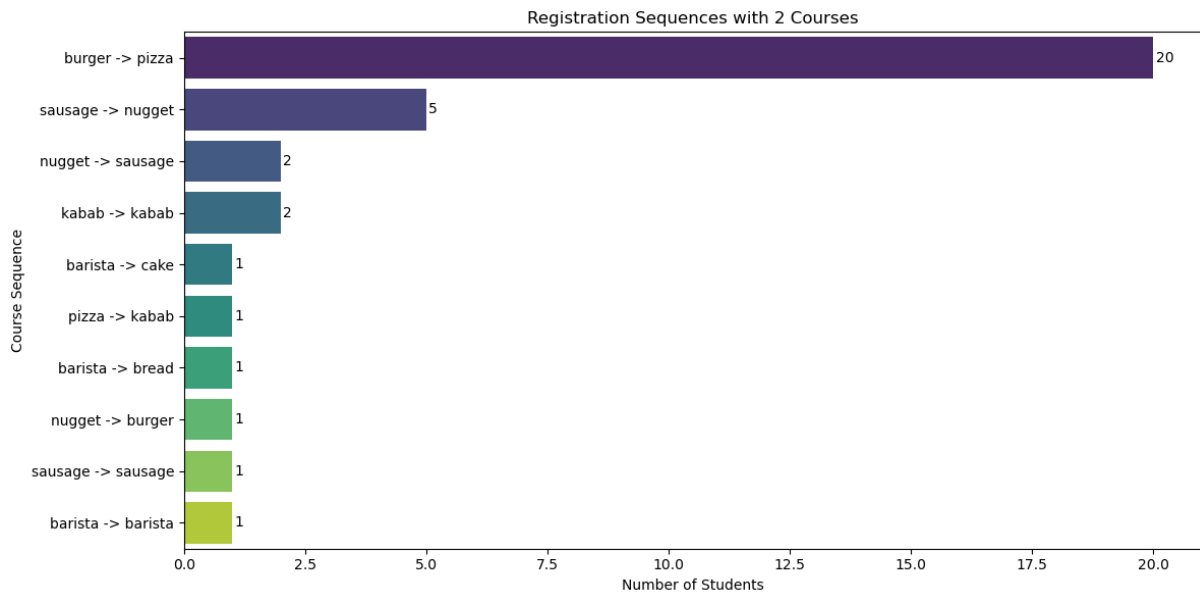

Figure 3: Registration Sequences with 2 Courses

5. Course Registration Network

Figure 5 displays the overall registration network, highlighting transition pathways between courses.
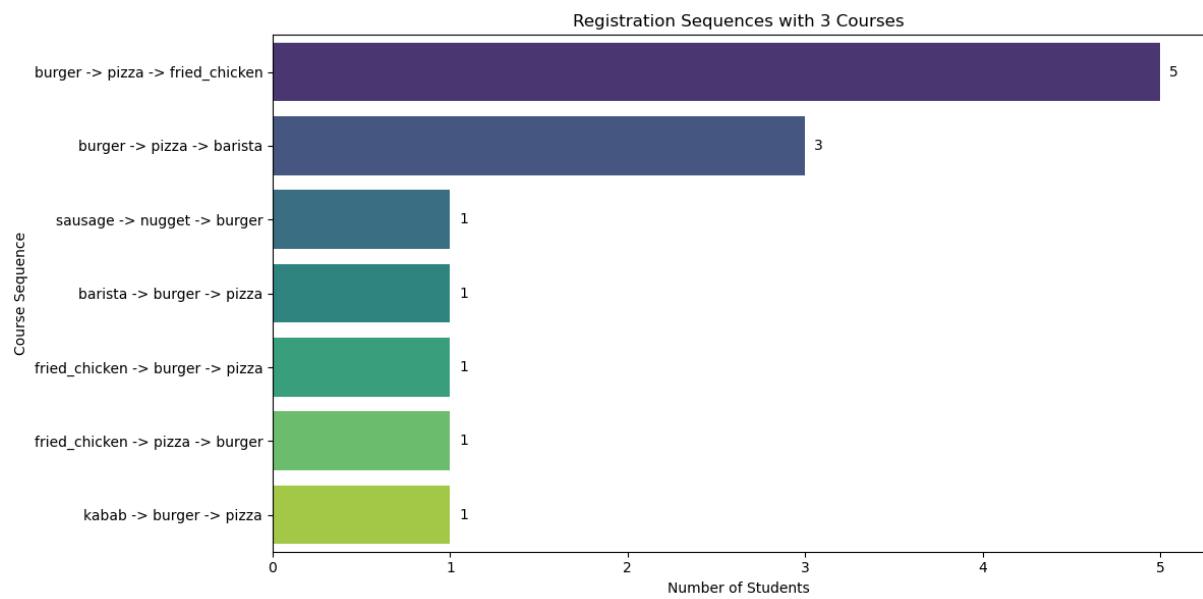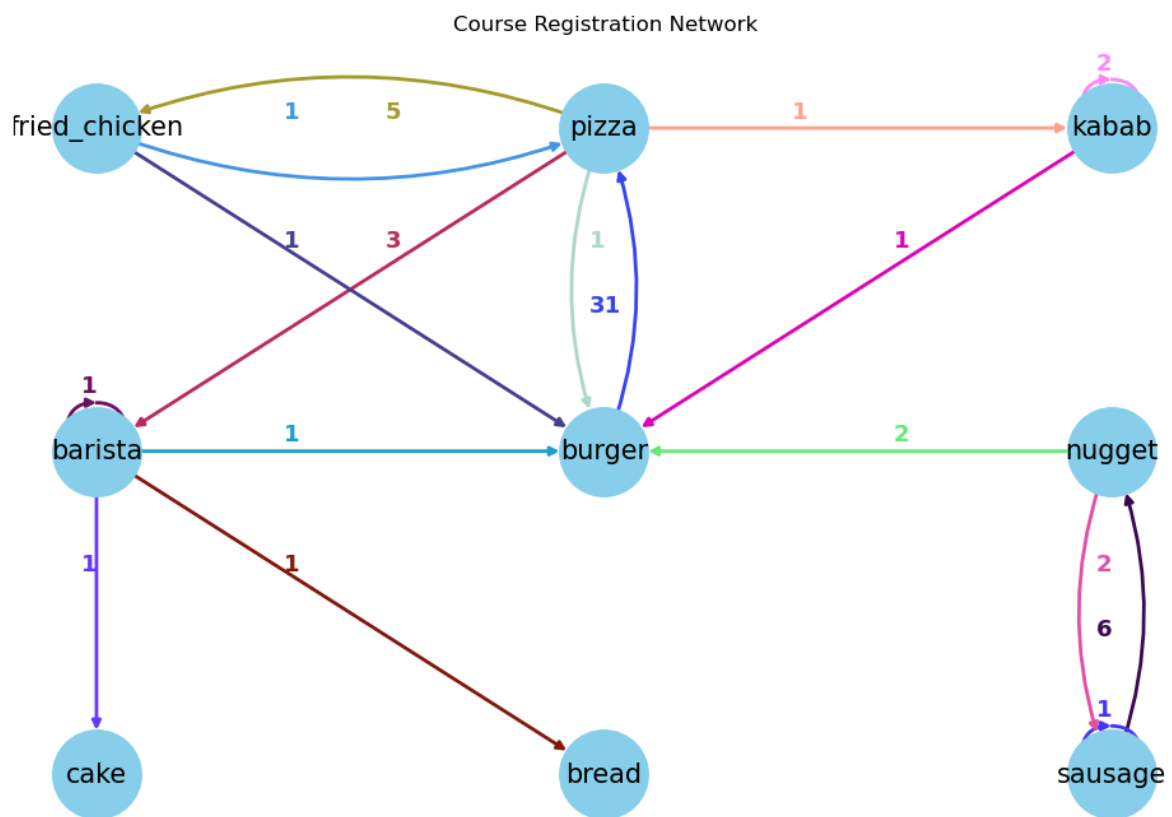
Figure 4: Registration Sequences with 3 Courses

Figure 5: Course Registration Network

Summary

- Most multi-course registrations happen within 1 day, showing planned or bundled registrations.

- Burger and pizza courses dominate both combinations and sequences.

- These findings are valuable for designing bundles, recommending next courses, and understanding the actual learning journey.