**Product Backlog**

### 

### **User Story 1**

**Story:** As a **student**, I want to **search for available summer courses by department, instructor, or course number** so that I can **quickly find the classes that fit my academic plan**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Essential for students to locate and compare classes. Without search capability, registration cannot occur.
* **Business Impact:** Enhances the student experience and directly supports enrollment and tuition revenue.
* **Dependency Considerations:** Depends on accurate course, instructor, and department data being available in the database. Must be implemented before course enrollment features.
* **Time Sensitivity:** High; search functionality must be available before registration windows open.

**Acceptance Criteria:**

* Students can search for courses by **department**, **instructor name**, or **course number**.
* The system displays all matching **sessions** with key details (course name, section, instructor, modality, available seats).
* Search results update dynamically when filters are changed.
* Students can clear or refine filters to start a new search.
* If no results match, the system displays a “No courses found” message.

### **User Story 2**

**Story**:  
 As an **academic advisor,** I want to **override prerequisites and enroll students directly in the course registration system** so that I can **get students enrolled in the correct classes**.

**Priority**: High

**Justification**:

1. **Stakeholder Value:** Academic advisors need the ability to override certain permissions blocking students from enrolling in classes; for example, prerequisite requirements.
2. **Business Impact:** Advisors resolve registration issues that prevent students from accessing required courses, improving satisfaction and reducing administrative bottlenecks.
3. **Dependency Considerations:** Depends on core functionality for student, course, and session data to be available.
4. **Time Sensitivity:** High; enrollment is deadline-driven and time-critical.

**Acceptance Criteria:**

* An advisor can search for a student by ID or name.
* The advisor can view the student’s enrolled and blocked courses.
* An advisor can override a prerequisite for a selected course.
* The advisor can enroll the student successfully.
* The system displays a confirmation message when the override is completed.

**User Story 3 – Instructor View of Enrolled Students**

**Story:** As an **instructor**, I want to **view the list of students registered in each of my sessions** so that I can **prepare course materials and manage class rosters**.

**Priority:** Medium (dependent on timeline toward the start of classes)

**Justification:**

* **Stakeholder Value:** Important for instructors to manage class rosters, but secondary to the core registration process.
* **Business Impact:** Supports instructors in preparing course materials and maintaining accurate records of enrolled students.
* **Dependency Considerations:** Depends on student enrollment data being available and linked to each session.
* **Time Sensitivity:** Moderate; required before classes begin but not at the start of the registration period.

**Acceptance Criteria:**

* Instructors can log in and view the list of sessions assigned to them.
* Instructors can select a session and view a list of enrolled students (names and IDs).
* The system displays current enrollment numbers versus maximum capacity.
* If no students are enrolled, the system displays “No students currently enrolled.”
* Instructors can refresh or update the view to see the latest roster.

**User Story 4 – Instructor View of Student Academic History**

**Story:** As an **instructor**, I want to **view each student’s previous course enrollments and GPA** so that I can **better understand their preparation and academic background**.

**Priority:** Low

**Justification:**

* **Stakeholder Value:** Helpful for academic planning and student engagement, but not essential for course delivery.
* **Business Impact:** Minimal; improves instructor experience but has no direct effect on registration or revenue.
* **Dependency Considerations:** Depends on student academic record and historical enrollment data being stored and accessible.
* **Time Sensitivity:** Low; can be implemented in a later release after core registration features.

**Acceptance Criteria:**

* Instructor can access a student’s academic profile from the class roster.
* The profile displays previously completed courses and GPA.
* Data is view-only; instructors cannot modify student records.
* If no data is available, the system displays “No prior academic records found.”

**User Story 5 – Student Course Planning**

**Story:** As a **student**, I want to **view and save future courses I plan to take** so that I can **organize my academic path and stay on track for graduation.**

**Priority:** Medium

**Justification:**

* **Stakeholder Value:** Helpful for students to organize long-term course schedules and ensure prerequisite planning.
* **Business Impact:** Enhances student satisfaction and encourages continued enrollment.
* **Dependency Considerations:** Depends on accurate course catalog and prerequisite data being available in the system.
* **Time Sensitivity:** Low; planning features can be added after initial registration functions are live.

**Acceptance Criteria:**

* Student can browse and mark courses as “planned” for future terms.
* Planned courses are saved to the student’s profile for later review.
* System displays prerequisite information and availability status.
* Student can remove or update planned courses.
* Feature is view-only for future sessions (no actual enrollment yet).

**User Story 6 – Student Schedule Timeline**

**Story:** As a **student**, I want to **view a weekly timeline of all the courses I’ve registered for** so that I can **see any conflicting class times before finalizing my schedule.**

**Priority:** Medium

**Justification:**

* **Stakeholder Value:** Helps students compare class times and avoid schedule conflicts. Without this visibility, registration errors may occur.
* **Business Impact:** Improves student satisfaction and reduces manual course change requests.
* **Dependency Considerations:** Depends on student enrollment data and accurate session schedule information.
* **Time Sensitivity:** High; needed during registration periods when students are actively building schedules.

**Acceptance Criteria:**

* Student can view all registered courses displayed by day and time.
* The schedule view highlights any time overlaps or conflicts between sessions.
* Student can click a course in the timeline to see session details (course number, instructor, modality).
* The view automatically updates when the student adds or drops a course.
* If no courses are registered, a message displays “You have no active enrollments.”

**User Story 7 – Instructor Contact Information Update**

**Story:** As an **instructor**, I want to **update my office hours and contact information** so that **students can easily reach me during the course**.

**Priority:** Low

**Justification:**

* **Stakeholder Value:** Improves communication between instructors and students, supporting engagement and accessibility.
* **Business Impact:** Enhances user experience but is not critical to registration or core operations.
* **Dependency Considerations:** Independent of core registration functionality.
* **Time Sensitivity:** Low; can be implemented later without disrupting other features.

**Acceptance Criteria:**

* Instructor can view their current contact information (email, office hours, location, etc.).
* Instructor can edit and save changes to contact details.
* Updated information is displayed to students in the course/session view.
* System confirms successful updates with a message.
* Only authorized instructors can modify their own information.

**User Story 8 – Administrator Enrollment Dashboard**

**Story:** As an **administrator**, I want to **view a dashboard showing real-time enrollment statistics** so that I can **monitor system performance, identify high-demand courses, and adjust capacity as needed.**

**Priority:** Medium

**Justification:**

* **Stakeholder Value:** Important for staff oversight and decision-making, though not required for core student or instructor operations.
* **Business Impact:** Enables administrators to monitor system health, identify high-demand courses, and make data-driven adjustments to resources or section capacity.
* **Dependency Considerations:** Depends on accurate, up-to-date enrollment data being collected and refreshed in real time.
* **Time Sensitivity:** Moderate; valuable during registration periods but not required for initial system operation.

**Acceptance Criteria:**

* Administrator can log in and access a dashboard view.
* Dashboard displays real-time enrollment numbers per course and section.
* Dashboard shows system performance indicators (e.g., current user load or latency).
* High-demand courses are visually highlighted or sortable.
* Data refreshes automatically at regular intervals or on-demand.
* If data is unavailable, the dashboard displays an appropriate message (e.g., “Data temporarily unavailable”).

**User Story 9 – Instructor Updates Course Modality**

**Story:** As an **instructor**, I want to **set or update my course modality (e.g., in-person, hybrid, or online)** so that **students know how the course will be delivered**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Ensures transparency and helps students plan their schedules and logistics around delivery format.
* **Business Impact:** Reduces administrative coordination and supports accurate course listings for students and advisors.
* **Dependency Considerations:** Independent but enhances search, display, and student enrollment features.
* **Time Sensitivity:** Moderate; must be ready before course registration starts.

**Acceptance Criteria:**

* Instructor can view current modality for each course session they teach.
* Instructor can select a new modality option (In-person, Hybrid, or Online).
* The update is saved and reflected in the course listing visible to students.
* The system confirms successful updates with a message.
* Only authorized instructors can edit modality for their assigned sessions

**User Story 10 – Administrator Sets Maximum Class Sizes**

**Story:** As an **administrator**, I want to **set and update maximum class sizes for each session** so that **enrollment automatically closes when capacity is reached**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Crucial for maintaining fair access and preventing over-enrollment in classes.
* **Business Impact:** Prevents logistical and compliance issues, ensures classroom capacity limits are respected, and maintains equitable student access.
* **Dependency Considerations:** Supports and interacts directly with the enrollment process.
* **Time Sensitivity:** High; must be configured before registration opens.

**Acceptance Criteria:**

* Administrator can set an initial maximum student capacity when creating a session.
* Administrator can edit the maximum capacity prior to registration opening.
* Once the maximum is reached, the system automatically prevents additional enrollments.
* System displays a clear message (e.g., “Enrollment closed — class is full”).
* Changes to class size are reflected immediately in the course listings and search results.

**User Story 11 – Administrator Enrollment Reports**

**Story:** As an **administrator**, I want to **generate reports showing total enrollment numbers by department** so that I can **analyze registration trends and plan future course offerings**.

**Priority:** Low

**Justification:**

* **Stakeholder Value:** Primarily benefits administrative staff and leadership, not students or instructors.
* **Business Impact:** Supports data-driven decisions and resource allocation but is not critical for initial deployment.
* **Dependency Considerations:** Depends on accurate and complete enrollment data being available.
* **Time Sensitivity:** Low; most useful for post-registration or post-launch analysis.

**Acceptance Criteria:**

* Administrator can generate a report summarizing total enrollment by department.
* Report includes key details (department name, number of courses offered, total enrolled students).
* Data can be filtered by term or session (e.g., Summer 2026).
* Administrator can export the report to a downloadable format (e.g., CSV or PDF).
* System displays a confirmation when report generation is complete.

**User Story 12 – Student Drops or Withdraws from Course**

**Story:** As a **student**, I want to **drop or withdraw from a course** so that I can **adjust my schedule before the drop deadline**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Crucial for students to manage their schedules and workloads effectively before official drop or withdrawal deadlines.
* **Business Impact:** Improves system usability, encourages full course utilization, and supports accurate tuition and capacity management.
* **Dependency Considerations:** Depends on enrollment and (optionally) waitlist functionality being implemented.
* **Time Sensitivity:** High; must be available early in the registration cycle for maximum effectiveness.

**Acceptance Criteria:**

* Student can view a list of currently enrolled courses.
* Student can select a course and choose to drop or withdraw.
* System asks for confirmation before finalizing the drop action.
* Once dropped, the student’s schedule updates automatically.
* The system updates seat availability for that session.
* If within the withdrawal period, the system displays the appropriate status (e.g., “Withdrawn”).
* A confirmation message appears after successful completion.

**User Story 13 – Student Waitlist Availability Alert**

**Story:** As a **student**, I want to **receive an alert when a course I’m waitlisted for has an available seat** so that I can **register before it fills up again**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Ensures students don’t miss opportunities to enroll in high-demand classes once seats become available.
* **Business Impact:** Improves fairness and course utilization, helping maintain full enrollment and student satisfaction.
* **Dependency Considerations:** Depends on the waitlist and enrollment systems to track seat availability and trigger notifications.
* **Time Sensitivity:** High; alerts must function during active registration windows for maximum value.

**Acceptance Criteria:**

* Student is automatically placed on a waitlist when a class is full.
* When a seat becomes available, the system sends a notification (e.g., email or in-app alert) to the next student on the waitlist.
* Notification includes course name, section number, and enrollment instructions.
* Student can enroll directly from the alert (if capacity still allows).
* If the student does not respond within a set time window, the seat is offered to the next person on the waitlist.
* System logs all alerts and enrollment activity for audit purposes.

**User Story 14 – Instructor Messaging to Enrolled Students**

**Story:** As an **instructor**, I want to **message all students enrolled in my class through the system** so that I can **share updates or materials easily**.

**Priority:** High

**Justification:**

* **Stakeholder Value:** Enhances communication between instructors and students, ensuring timely updates and improved engagement.
* **Business Impact:** Reduces administrative workload, minimizes confusion, and supports course coordination.
* **Dependency Considerations:** Builds on existing course and student enrollment data integration.
* **Time Sensitivity:** High; needed by the start of classes to support effective communication.

**Acceptance Criteria:**

* Instructor can open a messaging interface within the system for each course they teach.
* Instructor can send a message to all students enrolled in that course.
* Students receive messages through the system (and optionally by email notification).
* Message history is saved for the instructor to review.
* System confirms when messages are successfully delivered.
* Only instructors assigned to a course can send messages to that course’s roster.

**User Story 15 – Student Filters Courses by Credit Hours**

**Story:** As a **student**, I want to **filter available courses by credit hours** so that I can **plan my workload and schedule more effectively**.

**Priority:** Medium

**Justification:**

* **Stakeholder Value:** Improves convenience and helps students manage course loads based on desired credit hours.
* **Business Impact:** Enhances the student search experience but does not affect core registration or revenue processes.
* **Dependency Considerations:** Builds upon existing course search functionality.
* **Time Sensitivity:** Low; can be implemented after main search and enrollment features are complete.

**Acceptance Criteria:**

* Students can apply a filter to search results by credit hours (e.g., 1, 3, or 4 credits).
* The system displays only courses matching the selected credit-hour filter.
* Multiple filters (e.g., by department and credit hours) can be applied simultaneously.
* Filter settings persist until cleared or reset by the user.
* If no courses match, a “No courses found” message is displayed.

**Contribution:**

### **All team members contributed to the completion of the Product Backlog**

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