

## 1. User Registration and Login Flow

This diagram outlines the initial steps a user takes to access the system, covering both registration for new users and login for existing users. The process starts and immediately checks if the user has registered (Decision Node). If No, the user must click register. This leads to the confirm register form activity. The system then checks if the form is ok (Decision Node). If No, the user is taken back to the confirm register form activity to correct the details (Self-loop for error correction). If Yes, the user proceeds to login. If Yes (the user has registered), the user bypasses registration and proceeds directly to login. After the login activity, a final check is performed (Decision Node, likely checking login credentials). If Yes (login successful), the process ends. (An implicit "No" branch for login failure would typically loop back to the login step, but is not explicitly shown).

## 2. User Data Editing Flow

This diagram illustrates how users (Admin vs. Student) modify information, focusing on security and data validation. The process starts and the user performs the login activity. The system immediately checks who is editing (Decision Node) to determine the user role: Admin or Student. If Admin, the user can access the admin edits any student info activity. This leads to the edit everything activity. If Student, the user can only access the student edits its own info activity. This is limited to information the student can edit: contact info, password (Activity Node). Both editing paths converge on save changes. After saving, the system performs a check data validation (Decision Node). If valid, the system updates the database and displays a success message. The process then ends. If invalid, the system branches to show error, which requires the user to fix the error. This path loops back to the save changes step, repeating the validation until the data is valid.

## 3. Grade Viewing and Reporting Flow

This diagram details the steps a student takes to view their academic records and generate reports. The process starts with login, followed by open student portal. The student must click grades menu. The student faces a choice (Decision Node): view all grades or select current term. If select current term, the system shows current grades. If all grades, the student must choose between current term (leading to show current grades), or past term (leading to show past grades and show complete transcript). All viewing paths converge on display grades table. From the displayed table, the student can choose an option (Decision Node): print or view in table. If print, the system will generate a PDF which then flows to return to portal. If view in table, the system will show grades as a table which also flows to return to portal. The process ends upon returning to the portal.

## 4. Fee Payment Flow

This diagram shows the process for students accessing the financial section and making a payment. The process starts with login, followed by access payment section. The system performs a check outstanding balance (Decision Node). If No outstanding balance, the system displays no outstanding fee and the process ends. If Yes, the user can view fee details. Next, the user must select payment method (Decision Node): credit or online banking. If credit, the user enters card details. If online banking, the user enters banking credentials. Both methods proceed to process payment. The system checks if the payment was successful (Decision Node). If No, the system displays error message and offers a retry option, looping back to select payment method. If Yes, the system generates receipt, updates student record, and displays success message. The process ends afterward.

## 5. Course Management Flow

This diagram illustrates the flow for administrative course actions and student course selection. The process starts with login, followed by manage course activity. The system checks if the course is created (Decision Node). If Yes, the system proceeds to update course. If No, the system proceeds to create course. Both paths lead to search course. The user then faces criteria for searching (Decision Node): search by credit hours, search by another criterion, or search by name. All search criteria lead to a validation step (Decision Node) where the system checks if the course was found. If No, the system displays error and the process loops back to search course. If Yes, the user can choose course followed by exchange course activity. The process ends after the course exchange is completed.