

template  
for  
flow of  
events

X Flow of Events for the <name> Use Case

X.1 Preconditions

X.2 Main Flow

X.3 Subflows (if applicable)

X.4 Alternative Flows

where X is a number from 1 to the number of use cases.

A sample completed Flow of Events document for the *Select Courses to Teach* use case follows.

### **1.0 Flow of Events for the Select Courses to Teach Use Case**

#### **1.1 Preconditions**

The Create Course Offerings subflow of the Maintain Courses use case must execute before this use case begins.

#### **1.2 Main Flow**

This use case begins when the professor logs onto the Registration System and enters his/her password. The system verifies that the password is valid (E-1) and prompts the professor to select the current semester or a future semester (E-2). The professor enters the desired semester. The system prompts the professor to select the desired activity: ADD, DELETE, REVIEW, PRINT, or QUIT.

If the activity selected is ADD, the S-1: Add a Course Offering subflow is performed.

If the activity selected is DELETE, the S-2: Delete a Course Offering subflow is performed.

If the activity selected is REVIEW, the S-3: Review Schedule subflow is performed.

If the activity selected is PRINT, the S-4: Print a Schedule subflow is performed.

If the activity selected is QUIT, the use case ends.

### 1.3 Subflows



#### S-1: Add a Course Offering

*The system displays the course screen containing a field for a course name and number. The professor enters the name and number of a course (E-3). The system displays the course offerings for the entered course (E-4). The professor selects a course offering. The system links the professor to the selected course offering (E-5). The use case then begins again.*

#### S-2: Delete a Course Offering

*The system displays the course offering screen containing a field for a course offering name and number. The professor enters the name and number of a course offering (E-6). The system removes the link to the professor (E-7). The use case then begins again.*

#### S-3: Review a Schedule

*The system retrieves (E-8) and displays the following information for all course offerings for which the professor is assigned: course name, course number, course offering number, days of the week, time, and location. When the professor indicates that he/she is through reviewing, the use case begins again.*

#### S-4: Print a Schedule

*The system prints the professor schedule (E-9). The use case begins again.*

### 1.4 Alternative Flows

*E-1: An invalid professor ID number is entered. The user can re-enter a professor id number or terminate the use case.*

*E-2: An invalid semester is entered. The user can re-enter the semester or terminate the use case.*

*E-3: An invalid course name/number is entered. The user can re-enter a valid name/number combination or terminate the use case.*

*E-4: Course offerings cannot be displayed. The user is informed that this option is not available at the current time. The use case begins again.*

*E-5: A link between the professor and the course offering cannot be created. The information is saved and the system will create the link at a later time. The use case continues.*

*E-6: An invalid course offering name/number is entered. The user can re-enter a valid course offering name/number combination or terminate the use case.*

*E-7: A link between the professor and the course offering cannot be removed. The information is saved and the system will remove the link at a later time. The use case continues.*

*E-8: The system cannot retrieve schedule information. The use case then begins again.*

*E-9: The schedule cannot be printed. The user is informed that this option is not available at the current time. The use case begins again.*

Use case flow of events documents are entered and maintained in documents external to Rational Rose. The documents are linked to the use case.



#### LINKING FLOW OF EVENTS DOCUMENTS TO USE CASES IN RATIONAL ROSE

1. Right-click on the use case in the browser to make the shortcut menu visible.
2. Select the Specification menu option.
3. Select the Files tab.
4. Right-click to make the shortcut menu visible.
5. Select the Insert File menu option.
6. Browse to the appropriate directory and select the desired file.
7. Click the Open button.
8. Click the OK button to close the specification.

A linked use case flow of events document is shown in Figure 3-7.

### USE CASE RELATIONSHIPS

AN ASSOCIATION RELATIONSHIP may exist between an actor and a use case. This type of association is often referred to as a *communicates association* since it represents communication between an actor and