School of Computing

Course Cast
Focused Use Cases

Version 2.0

Revision History

Date	Version	Description	Author
11-14-07	1.0	Focused Use Cases, Use Case Diagram, Activity Diagrams	XXXXXX
12-5-07	2.0	Update	XXXXXX

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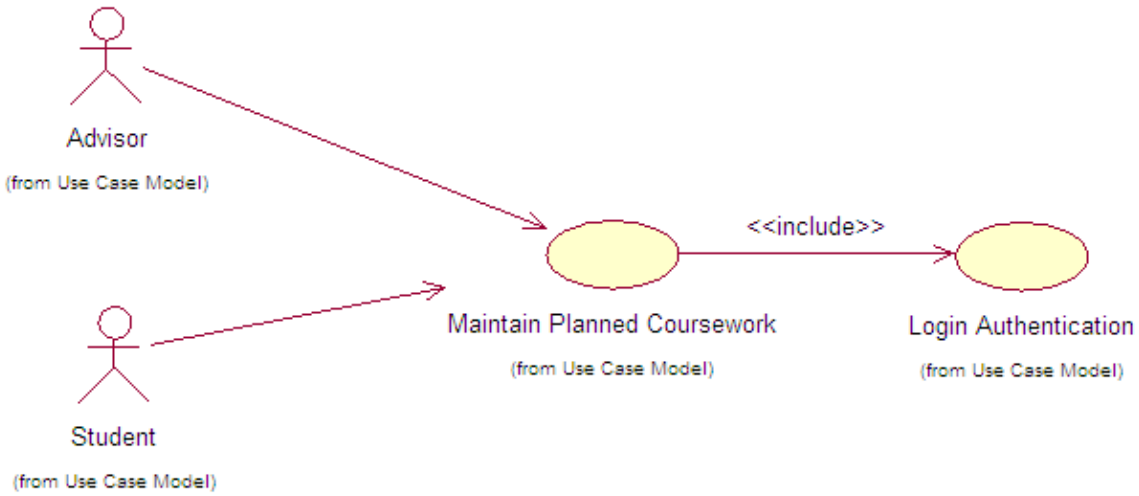
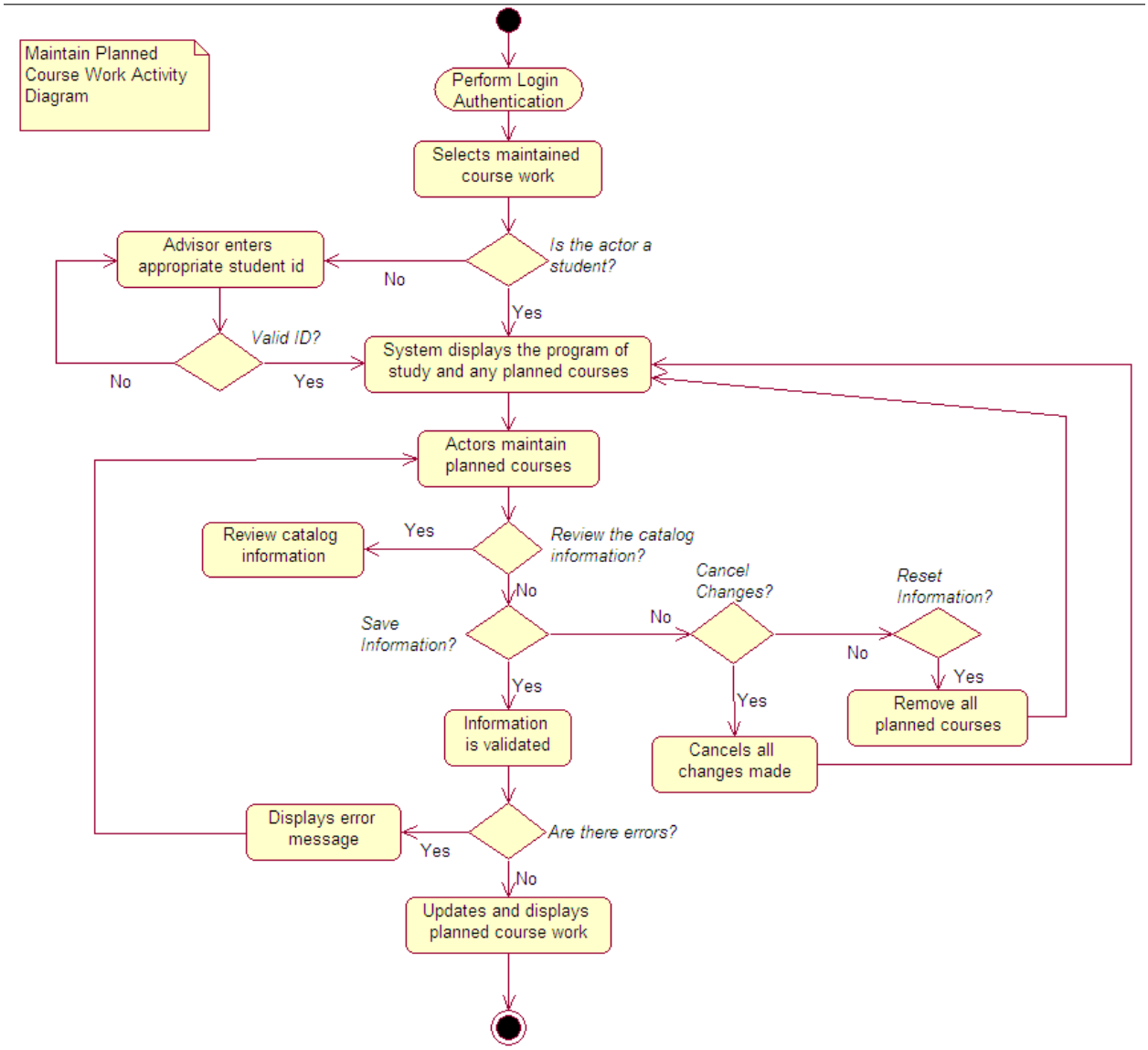
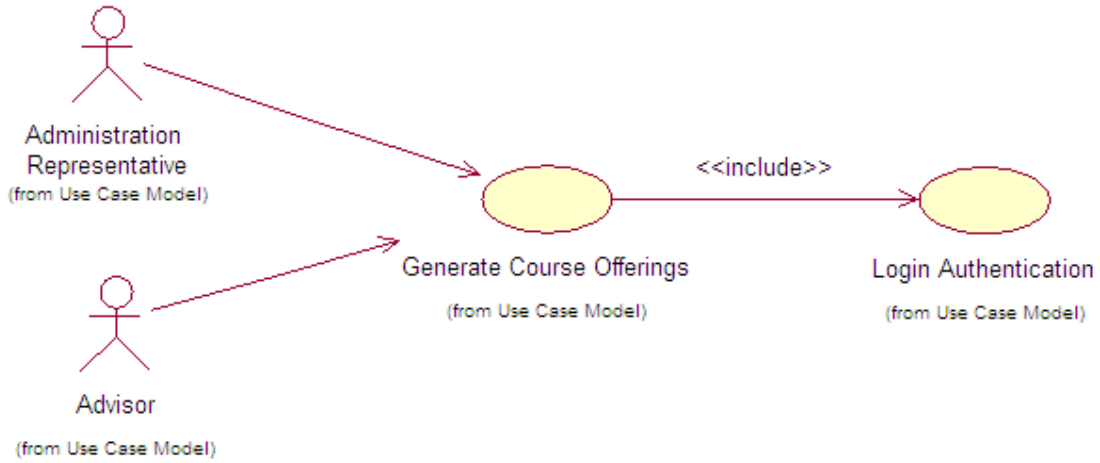


Use Case Number:	**UC1**	
Use Case Name:	Maintain Planned Course Work	
Actor (s):	*Student*, *Advisor*	
Maturity:	Focused	
Summary:	*Students*, or an *Advisor* aiding a student, will create and maintain their *student preferences* for future semesters.	
Basic Course of Events:	**Actor Action**	**System Response**
	1. Perform **{Login Authentication}**	
		2. System displays welcome page with main features for actor to choose from.
	3. The use case begins when the Student actor selects to maintain planned coursework. **A1.**	
		4. The system displays the *student's program of study* and also returns any previously planned *course preferences*.
	5. The Student and Advisor actors select the future courses, term, day and time. (Repeat as many times as necessary.) **A2**	
	6. The Actor selects to save the information. **A3, A4**	
		7. The system validates the planned coursework entered by the Actor.

		{Validate Planned Courses}
		8. The system updates the students planned coursework in the database and informs the actor that the information was updated successfully. The use case ends.
Alternative Paths:	**A1.**	
	Actor Action	**System Response**
	1. The Advisor actor enters the student's *UNFID* for the appropriate student.	
		2. The system validates that the *UNFID*. **E2**
	3. The Advisor actor selects to maintain planned coursework.	
		Return to step 4 of the Basic Course of Events.
	A2. An actor has the ability to review catalog information for a particular course when selected.	
	A3. The actor has the ability to "Cancel" changes to return the information to the previously saved version. Returns to step 8 of Basic Course of Events.	
	A4. The actor has the ability to "Reset" information which removes all planned coursework for a student. Returns to step 8 of Basic Course of Events.	
Exception Paths:	**E1.** At **{Validate Planned Courses}** if errors (*prerequisites* not met, more than six *courses* selected for a term, planning a *course* that the *student* has already passed), the system indicates the courses where there are errors. Returns to Basic Flow Step 4. **E2.** If the system cannot find the *UNFID* in stored data, the system informs the user that their *UNFID* cannot be found and the actor is returned to step 1 of Alternate Path 1 (A1).	
Extension Points:	**Validate Planned Courses** Review of the planned *courses* compares against courses the student has already taken, currently registered for or future planned courses to verify that the *student* has met the necessary *prerequisites* or the *prerequisite* is planned. (See Business Rule 2.1) **E1**	
Triggers:	Actor wishes to input *student preferences* for future semesters.	
Assumptions:	The Advisor will not make any changes without first consulting the Student.	
Preconditions:	None.	
Post Conditions:	The updated *student preferences* are saved to stored data.	
Reference: Business Rules	2.1, 2.7, 2.8, 2.9 2.10	
Author(s):	XXXXX	
Date:	11-14-07	

Activity Diagram: Next Page

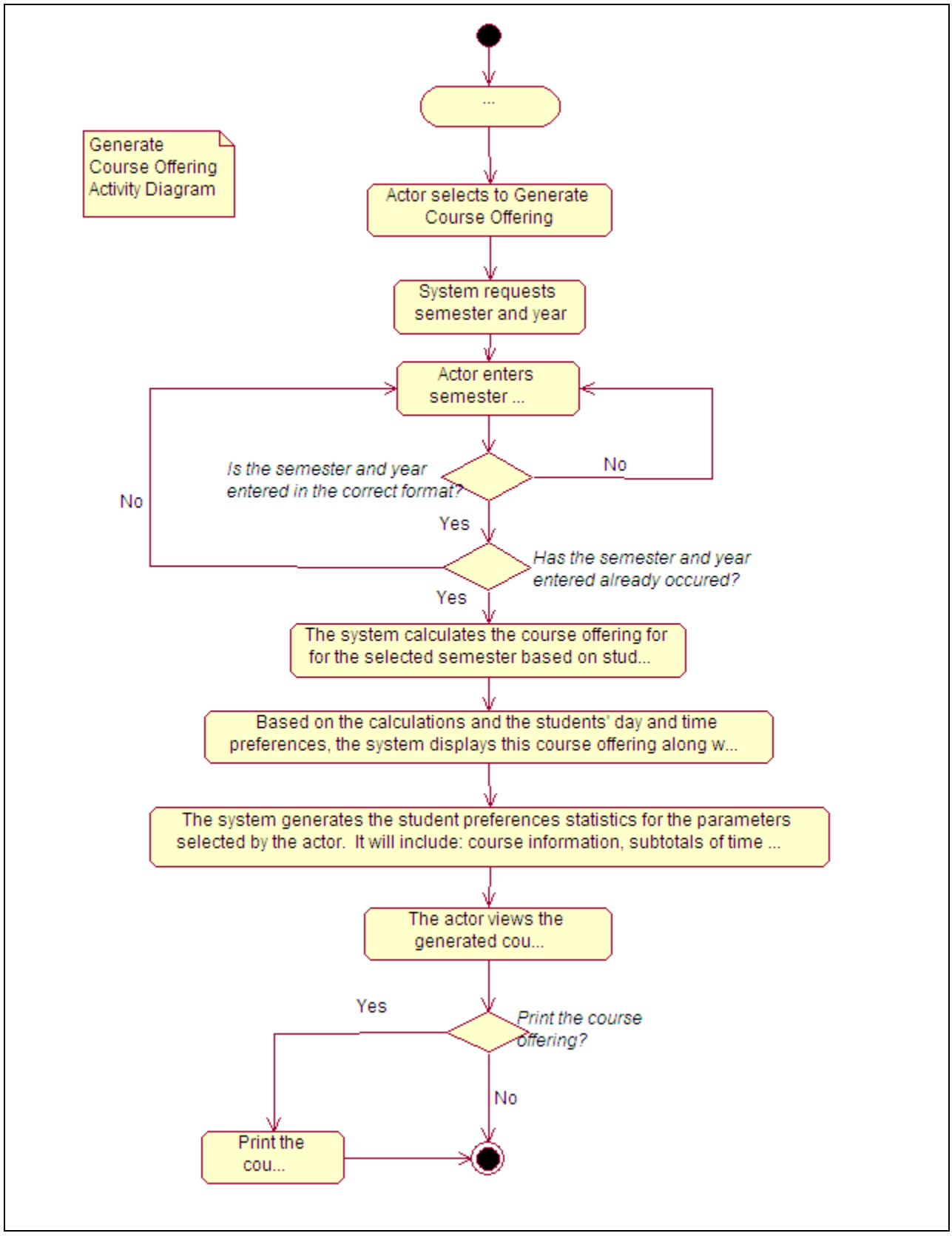


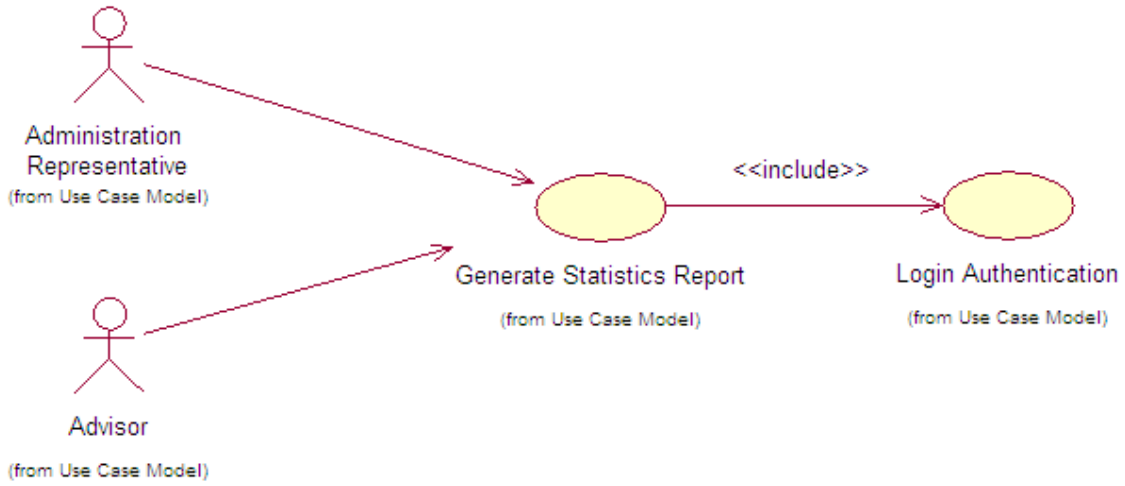


Use Case Number:	**UC2**	
Use Case Name:	Generate Course Offerings	
Actor (s):	*Advisor*, *Administration Representative*	
Maturity:	Focused	
Summary:	Administration will generate a *course offering* for a future semester based off of *student preferences*.	
Basic Course of Events:	**Actor Action**	**System Response**
	1. Perform **{Login Authentication}**	
		2. System displays welcome page with main features for actor to choose from.
	3. The Advisor or Administration Representative actor selects to generate a *course offering*.	
		4. The system requests the *semester* and year for which the *course offering* will be generated.
	5. The actor inputs the *semester* and year for which the *course offering* will be generated.	
		6. The system validates the entered *semester* and year. **E1, E2**
		7. The system calculates the *course offering* for the selected *semester* based on *student preferences*.

		The calculation assigns weights to: number of *students* who have planned a *course*, the seniority of the *student*, differentiation between *major requirements* versus *elective requirements*, and whether the *course* is used in multiple tracks.
		8. Based on the calculations and the *students'* day and time preferences, the system displays this *course offering* along with its *course information*.
		9. The system generates the *student preferences* statistics for the parameters selected by the actor. It will include: *course information*, subtotals of time and day, and totals.
	10. The actor views the generated *course offering*. **A1**	
Alternative Paths:	**A1.** From this point the actor can select to print the generated *course offering*. After that is completed the actor is returned to the same point in the flow of events.	
Exception Paths:	**E1.** If the actor enters the *semester* in an incorrect format the system prompts the user and requests another *semester*. Control returns to step 4 of the Basic Course of Events. **E2.** If the actor enters a *semester* that has already occurred, the system prompts the user and requests another *semester*. Control returns to step 4 of the Basic Course of Events.	
Extension Points:	None	
Triggers:	Actor wishes to generate a *course offering*.	
Assumptions:	*Student preferences* have been entered into the system.	
Preconditions:	The actor possesses the correct authority level.	
Post Conditions:	A *course offering* will be generated.	
Reference: Business Rules:	2.3, 2.4, 2.5, 2.6, 2.7, 2.10	
Author(s):	XXXXX	

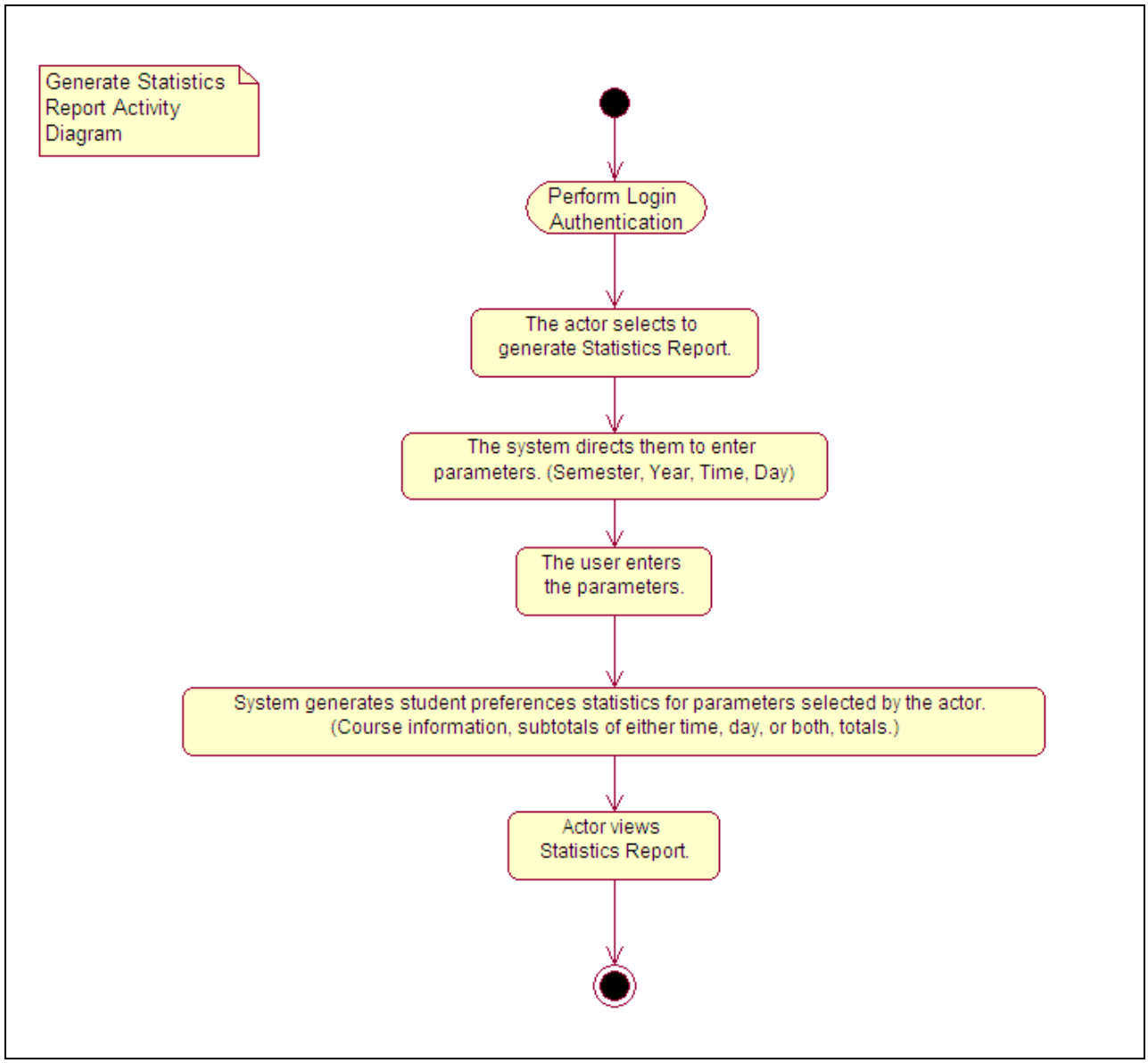
Date:	11-14-07
Activity Diagram:	

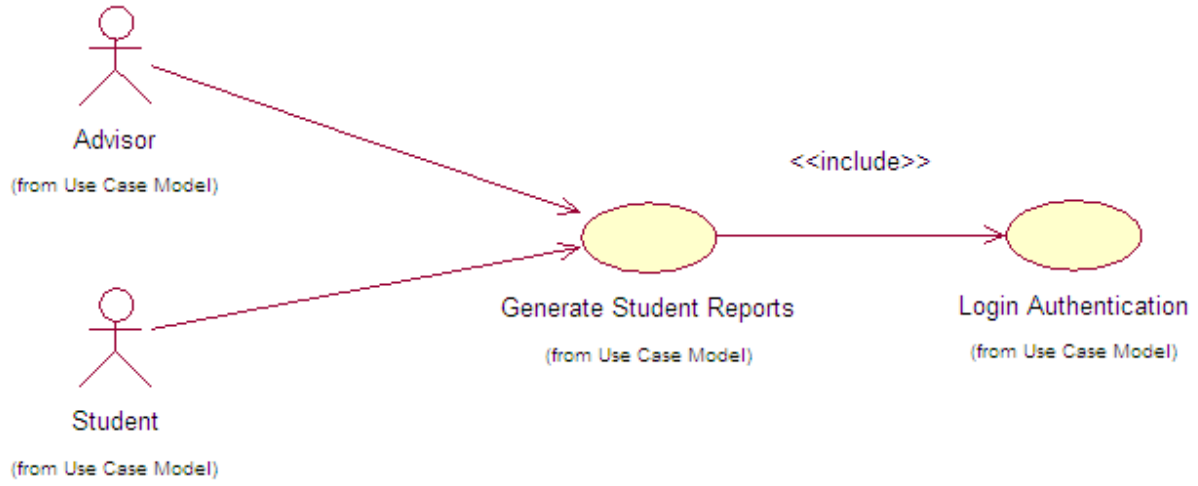

Generate Course Offering Activity Diagram
...
Actor selects to Generate Course Offering
System requests semester and year
Actor enters semester ...
Is the semester and year entered in the correct format?
No
No
Yes
Has the semester and year entered already occured?
Yes
The system calculates the course offering for for the selected semester based on stud...
Based on the calculations and the students' day and time preferences, the system displays this course offering along w...
The system generates the student preferences statistics for the parameters selected by the actor. It will include: course information, subtotals of time ...
The actor views the generated cou...
Yes
Print the course offering?
No
Print the cou...



Use Case Number:	**UC3**	
Use Case Name:	Generate Statistics Report	
Actor (s):	*Advisor*, *Administration Representative*	
Maturity:	Focused	
Summary:	*Advisors* or an *Administration Representative* will generate a Statistics Report based on *student preferences*.	
Basic Course of Events:	**Actor Action**	**System Response**
	1. Perform **{Login Authentication}**.	
		2. System displays welcome page with main features for actor to choose from.
	3. The Advisor or Administration Representative actor selects to generate Statistics Report.	
		4. The system directs them to enter parameters. Parameters are: Semester, Year, Time and/or Day.
	5. The user enters the parameters.	
		6. The system generates the *student preferences* statistics based on information stored in the database for the parameters selected by the actor. It will include: *course information*, subtotals of time, day or both, and totals.

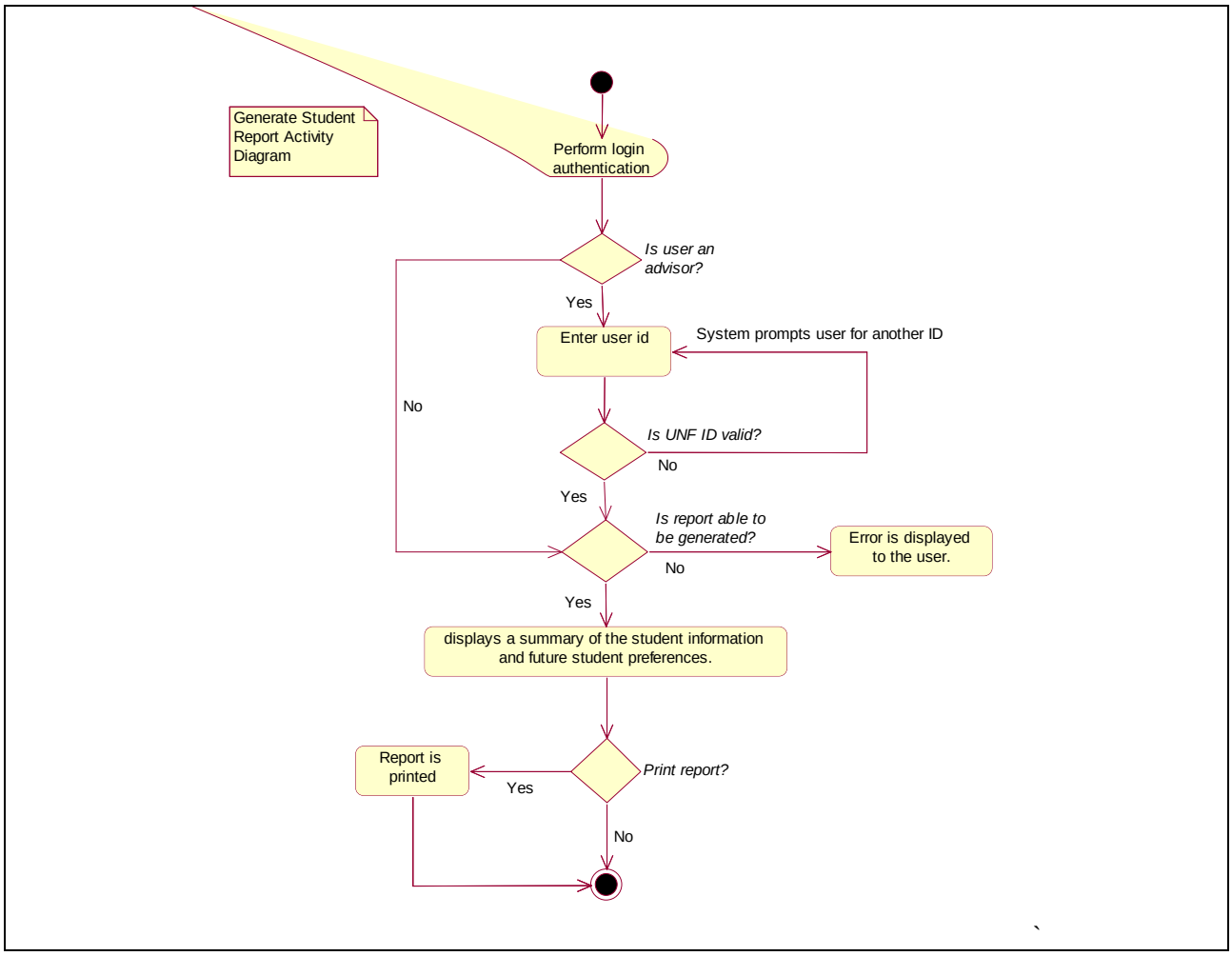
	6. The actor views the administrative report. The use case ends here. **A1**	
Alternative Paths:	**A1.** From this point the actor can select to print the generated Statistics Report. The use case ends here.	
Exception Paths:	None	
Extension Points:	None	
Triggers:	The actor wishes to generate Statistics Report.	
Assumptions:	*Student preferences* have been entered into the system.	
Preconditions:	None	
Post Conditions:	A Statistics Report will be generated.	
Reference: Business Rules	None	
Author(s):	XXXXXX	
Date:	11-14-07	
Activity Diagram:		

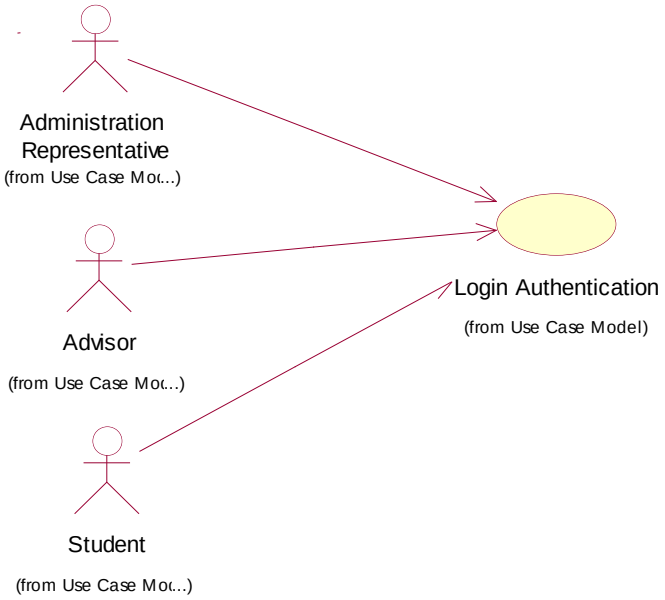

Generate Statistics Report Activity Diagram
Perform Login Authentication
The actor selects to generate Statistics Report.
The system directs them to enter parameters. (Semester, Year, Time, Day)
The user enters the parameters.
System generates student preferences statistics for parameters selected by the actor. (Course information, subtotals of either time, day, or both, totals.)
Actor views Statistics Report.



Use Case Number:	**UC4**	
Use Case Name:	Generate Student Report	
Actor (s):	*Student*, *Advisor*	
Maturity:	Focused	
Summary:	Actors will be able to generate a report summarizing student *course* history and future *student preferences*.	
Basic Course of Events:	**Actor Action**	**System Response**
	1. Perform **{Login Authentication}**	
		2. System displays welcome page with main features for actor to choose from.
	3. The Student actor selects to generate the student report consisting of specific student information and the student's course preferences. **A1.**	
		4. The system displays a summary of the *student information* and future *student preferences*. **E1**
	5. The use case ends at this point. **A2**	

Alternative Paths:	**A1.**	
	Actor Action	**System Response**
	1. The Advisor actor enters the student's *UNFID* for the appropriate student.	
		2. The system validates that the *UNFID*. **E2**
	3. The Advisor actor selects to generate the student report consisting of specific student information and the student's course preferences.	
		Return to step 4 of the Basic Course of Events.
	A2. The actor can print the summary report. The use case ends at this point.	
Exception Paths:	**E1.** The system is unable to retrieve and display the student's information. The error is displayed to the user. **E2.** If the system cannot find the *UNFID* in stored data, the system informs the user that their *UNFID* cannot be found and the actor is returned to step 1 of Alternate Path 1 (A1).	
Extension Points:	None	
Triggers:	The actor wishes to generate student report.	
Assumptions:	*Student preferences* have been entered into the system.	
Preconditions:	None	
Post Conditions:	A student report may be generated.	
Reference: Business Rules:	None	
Reference: Risks	None	
Author(s):	XXXXXX	
Date:	11-14-07	
Activity Diagram:		


Generate Student Report Activity Diagram
Perform login authentication
Is user an advisor?
Yes
No
Enter user id
System prompts user for another ID
Is UNF ID valid?
No
Yes
Is report able to be generated?
No
Error is displayed to the user.
Yes
displays a summary of the student information and future student preferences.
Print report?
Yes
Report is printed
No



Use Case Number:	**UC5**	
Use Case Name:	Login Authentication	
Actor (s):	*Student*, *Advisor*, *Administration Representative*	
Maturity:	Focused	
Summary:	All actors will log in to Course Cast. Features are available to the actor according to *User Type* i.e. *Student*, *Advisor*, *Administration Representative*.	
Basic Course of Events:	**Actor Action**	**System Response**
	1. The actor types their *UNFID* and their *Password*.	
		2. The system will retrieve the actor's name and *User Type* from the database for the supplied *UNFID* and *Password* thus beginning a *Session*. **E1, E2**
		3. Feature availability reflects the *user type*. *Students* have access to: Student Information Course Planning Log Off

		Advisor features: Student Information Course Planning Course Offerings Statistics Log Off *Administration Representative* features: Course Offerings Statistics Log Off
		4. The system redirects the actor to the Home page.
Alternative Paths:	None	
Exception Paths:	**E1.** If the system cannot find the *UNFID* in the database, the system informs the user that their *UNFID* cannot be found and the actor is returned to the beginning of the course of events. As in other UNF systems, there is no limit to the number of times a user may attempt to log in to Course Cast. **E2.** If the system finds the *UNFID* in the database but the actor supplied *Password* does not match the *Password* in the database for the *UNFID*, the system informs the user that their *Password* is incorrect and the actor is returned to the beginning of the course of events. As in other UNF systems, there is no limit to the number of times a user may attempt to log in to Course Cast.	
Extension Points:	None	
Triggers:	The actor is visiting the website but has not yet begun a *Session*. The actor's *Session* has timed out as a result of inactivity. The actor has ended a *Session* by selecting Log Off.	
Assumptions:	None	
Preconditions:	The actor is visiting Course Cast but does not have an active *Session*. Therefore the actor has been redirected to the Log On page.	
Post Conditions:	The actor has an active *Session*. The actor is visiting the Home page. The actor has the appropriate features available.	
Reference: Business Rules	2.7, 2.8, 2.9, 2.10	

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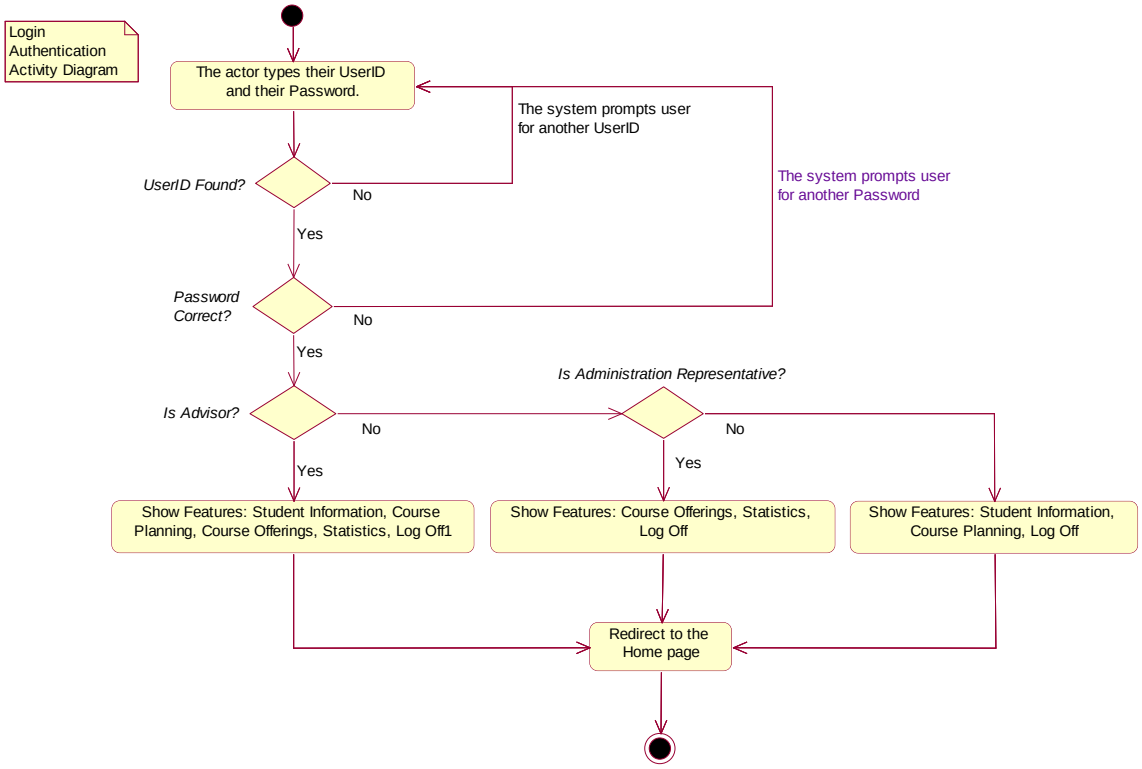
Activity Diagram: