

Actors identified for the Grader System, with original use cases.

Actor: Registrar

1. Define course offerings
Enter information (dept, number, name and instructor) for each course offering to be held in the current term.
2. Manage course offering roster (initial/add/drop)
Initially load the list of all students enrolled in each course offering; then add or drop students, one at a time, to a course offering with existing enrollment.
3. Obtain final grades
Registrar requests final grades and the system is to send grade information for all course offerings not previously recorded. For each course offering with status = "final", provide the identity of the course offering (such as course number) followed by a stream of (student, final letter grade) for all students in the course offering, then indicate end-of-students for the course offering. Upon receiving the recorded signal from the registrar, set the status for the course offering to "recorded" and begin providing next course offering as above until all course offerings with a state of final have been recorded.

Actor: Student

4. View course offering marks (raw scores/grade to date)
For selected course offering, display leaf level work items or components, corresponding max scores and this student's raw scores (to date). Display also composite percentage achieved to date (per weightings of the grading policy).
5. View sorted marks for a work item
For selected course offering, student selects a work item. (Note that this is for work items only, not for components, if this is a work item with multiple components, system calculates summary score for the work item.) Display all work item scores from the course offering in descending order, highlighting the student's individual score.
6. Assess team contributions
Student selects which team-graded work item to assess; system displays members of student's team; student enters text describing teamwork and assessing each team member's contributions.

Actor: Grader

7. Enter raw scores (with turn-in date)
Grader selects a leaf level work item or component. System displays student names. Grader enters the raw scores and turn-in dates for students. If the turn-in date is missing, later than current date, or later than the too late date, reject the entire entry. If the work item is to be team scored, then the system displays the teams (as a list of students' names for the team members, clearly indicating separation of the teams). Grader selects the appropriate team and enters the score for the team with the turn-

in date. When the raw score for a team is entered, the system duplicates it as the raw score for each team member for that work item/component.

8. Set max points for work item

Grader selects this function and is displayed a table with all work items and max points field for each work item or component (at the leaf level). Grader enters or replaces max points to be entered and OK's changes when done.

Actor: Instructor

9. Manage teams

For each team, instructor enters or selects the students who are members of that team. To revise teams, select one or more team members to remove from the team, and then enter new teams as above.

10. Manage work items and components

Instructor may define work items, define components, set due dates, tag a work item as a team work item, and make any changes desired in existing work items or components. All changes will be reflected in the grading policy, max points, and raw score items to be displayed.

11. Instructor identifies grader for a course offering

Instructor authorizes a person to perform grader functions for the selected course offering. Optionally, the system may warn instructor if the designated grader is a student in the course offering. (Note that registrar defines course offerings and identifies instructors, but does not participate in hiring of graders.)

12. Delegate certain functions to grader

Instructor may delegate functions to grader. the grader may then perform these delegated functions as if in the role of the instructor actor. Indicate which functions are to be delegated and OK the set of entries.

13. Throw out a work item Instructor may indicate that a work item is thrown out. (This means that the students need not perform this work item and that it will not be assigned a positive weight in any grading policy.) Display will include list of work items or menu of work items.

14. Manage grading policy

Instructor may define a grading policy, edit weightings in the grading policy. Display will include a list of work items, with weights that must sum to 100%.

15. Manage raw scores

Instructor may edit raw scores (previously entered by grader), adjust a raw score (may not be changed by the grader), and enter raw scores. Interface will have matrix of students by work items with raw score values.

16. Manage final course offering grades (letter grades)

Using the grading policy, system computes and displays sorted list of numeric final grades. Instructor sets break points for indicated letter grades, and system assigns final letter grade for each student accordingly.

17. Finalize course offering grades (sign off)

Instructor selects course offerings to be marked as having final grades, thereby changing the status of the course offering to final. (This course offering will then be in the list of final course offerings the next time the registrar obtains final grades.)

18. Change a final grade (after recorded)

Instructor may change a final letter grade for a student in a course offering that has been recorded. The system will change the status of the course offering (back) to final.

Actor: All users (student, grader, or instructor)

19. Set user session and set course offering