Senior ASP.NET MVC task

Create a university courses registration system with the following functionality:

1. The system will have 3 tabs/links (log in, sign in and manage courses)
2. A student can log in to the system and once he is logged in he will see a list of courses he is registered to and a list of courses he can register to. If it's a new student he can sign up to the registration site with an email & password.
3. By clicking a course that he is not registered to, a course registration confirmation popup will open as a popup/modal dialog with 2 buttons (ok/cancel). If the user press ok only the registered courses list will be updated (both in the application data storage & UI).
   If the user trying to register to a course he is already registered an error message will appear as a popup/modal dialog.
4. On the manage courses allow any student to add/edit/delete courses (to prevent more complexity no need for the student to have an administrator privileges)

Instructions

1. Design the system prior to developing it to fit testability, reusability, performance, multithreading (Tiers/Interfaces/models etc…)
2. Make sure that your design follow the MVC pattern (separation of concerns)
3. Design the system's database (create a small default set of courses/students and registered courses for students)
4. If you make any assumption write it down
5. Document your code.
6. When possible make Ajax calls.
7. Passing data with JSON is an advantage
8. Start the development with an empty ASP.NET MVC template
9. The system functionality be compatible (functionality + layout) to the following browsers (Chrome, Firefox, IE11).
10. The application should be easily testable
11. Implement validations where necessary (think about which validation are required, e.g email should be in an email format) and show a relevant error message if the validation didn't passed.
12. Create a custom ActionFilter that will check on each action, once a student is registered, if his session is expired. The attribute will accept a controller name & an

action name, and will redirect the student to that url with the corrent request route data if the session is expired.

13. No yellow screen (unhandled exception) should be displayed. Present a default error page if such thing happens (should not happen).

14. Create at least one extension method