# CS 255 Module Two Assignment Template

## Functional Requirements

| **Functional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
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| Generates and displays web pages with specific to the student information. | The LMS is web based, and as such it must automatically generate the webpages as called by the user as needed, because each user is unique and each request by that user will also be unique. | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |
| Tracks current, previous and future classes, for each student. | The LMS displays a list of the current classes and the most recently finished classes, and up to 1 week before the start of new classes, it will display the next class. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Contains a calendar with assignment dues dates. | On the home page for the individual students home page there is a calendar that displays assignment due dats, and it is both interactive and accurate. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Connects to individual class content which the student is registered for. | Through the use of hyperlinks the individual class connate can be accessed by the individual registered student. | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |
| Conatins links and provides access to College services like Registrar, Book Store, and the library. | There are links to various college services like the registrars office for tuition payments, to the book store to purchase text books, and to the library for research. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Can generate reports about tuition, classes, credits, GPA | When particular parts of the LMS are queried properly the program will generate reports based o the requirements and requests of the user. | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |

## Nonfunctional Requirements

| **Nonfunctional Requirement** | **Rationale for Requirement** | **Source(s), APA format** |
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| Needs to display/function the same on mobile devices as on a laptop/desktop system. | The LMS service is accessible both on the Web through a web browser or though a standalone App | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |
| Must be secure to safeguard student data, payment information, etc. | There is a lot of confidential data that is required to be enrolled in the school, and the LMS gives access to edit, update, register for classes, pay bills, etc, and must do so securely. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Must be available at all times during school terms, except during scheduled maintenance. | Because the online classes are asynchronous (from my experience) the assignments can be completed anytime before their due date, so the system must have high reliability and availability. | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |
| Must support Spanish and English languages without having to refactor entire system | Since language preferences are available for the LMS system, it follows that the code that controls the system should not need to be recompiled every time there is a change of language. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Needs to be able to support various file uploads for student to submit assignments. | Because students need to upload various files and file types for various classes ,it is necessary that the LMS support various file type uploads, as well as uploads from various third party services like DropBox or Google Drive. | Dennis, A. (2011). *Systems analysis and design with UML*. Wiley ; Chichester. |
| Needs to be able to support/display third party content through a web browser, like Codio or MathLab | Depending on the class, there are various third party platforms that are utilized by students, and these third party add ons must run properly on the students computer, within reason. | Dimitris. (2020, August 27). Business Requirements vs Functional Requirements. [coara.co](http://coara.co). <https://coara.co/blog/business-requirements-vs-functional-requirements> |

## Assumptions

| **Assumption** | **Rationale for Requirement** | **Source(s), APA format** |
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| The users of the LMS system have reasonable internet access | Since this is a Web based system, it would be very difficult to access or utilize the system without online access. | Usmani, F. (2022, September 16). Assumptions and Constraints in Project Management – PM Study Circle. PM Study Circle. <https://pmstudycircle.com/assumptions-and-constraints-in-project-management/> |
| The users have a minimum level of competency for computer usage and online activities. | The LMS system is an online based learning system, users would have to have a certain familiarity with computers to get enrolled in the school and to choose classes and make payments. | Usmani, F. (2022, September 16). Assumptions and Constraints in Project Management – PM Study Circle. PM Study Circle. <https://pmstudycircle.com/assumptions-and-constraints-in-project-management/> |

## Limitations

| **Limitation** | **Rationale for Requirement** | **Source(s), APA format** |
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| The LMS can be limited by the users internet connection bandwidth or the users hardware/software/ configuration. | If the user does not have good and solid internet access, using the online system will be difficult. And if the user is using old/ outdated/ damaged hardware to access the LMS, there could be issues with display, functionality, and user interaction with the system. | Usmani, F. (2022, September 16). Assumptions and Constraints in Project Management – PM Study Circle. PM Study Circle. <https://pmstudycircle.com/assumptions-and-constraints-in-project-management/> |
| The data is only as up to date as the last update. | There are a lot of moving parts here between classes, registration, payments, and they all need to work together, or not interfere with each other, but the data is only as accurate as its last update, and can rapidly age out or become outdated rapidly in some cases. | Usmani, F. (2022, September 16). Assumptions and Constraints in Project Management – PM Study Circle. PM Study Circle. <https://pmstudycircle.com/assumptions-and-constraints-in-project-management/> |