

# REQUIREMENTS SPECIFICATION

## 1. Introduction

ABC is an *online registration system* available in XYZ. The aim of this project is to study and analyze this current system running in the academic institution. On the basis of the analysis performed our goal is to develop a requirements specification document that supports all the functional and non-functional requirements with improvements suggested for the current deficiencies.

### 1.1 Purpose

The purpose of the requirements specification document is to specify all requirements for the current *registration system* as well as those requirements that are suggested as improvements for the current system. This will help the software designers in developing this system in accordance with the requirements given in this specification.

### 1.2 Scope

The scope of this document is to specify requirements for the current registration system and the improvements that are suggested during the analysis of this system. In this document we will cover:

- Functional requirements for the current registration system and improvements for the system
- Non-functional requirements
- Constraints or assumptions of the specification

## 2. Overview

ABC is an online *registration system* available in XYZ. This course *registration system* provides a one window operation to all the stakeholders of the system that specifically include the students, academics officer, and the teachers. The system provides customized interfaces for the mentioned stakeholders where their queries regarding the registration, result modules, etc. can be adequately and efficiently handled.

## Product Functions

➔ The *registration system* provides the following functions:

The students can perform the following functions:

- Register courses online
- Add/drop course(s)
- Place a survey/thesis request

- Withdraw course
- Freeze a semester
- Course replacement

➔ The Academic Officer can perform the following functions:

- Set registration settings (creation of new semester, adding courses, setting registration permissions)
- Verifies the student information
- Changing student registration status
- Creation and updation of teachers' and students' profile
- Generate reports

➔ The teacher can perform the following functions:

- View profile
- Accept/reject survey/thesis request
- Set courses preferences

### 3. Functional Requirements

#### FR01: New Semester Creation

Req. No.	Functional Requirements
FR01-01	The system shall enable the Academic Officer to create the new semester in the beginning of the academic calendar that has two cycles each year - Spring and Fall. The new semester to start is automatically selected by the system.
FR01-02	The system shall remove all the previous pending registration requests. This option is given to the academic officer at the time of new semester creation. If the academic officer selects this option, then the pending registration requests of the previous semesters is removed.
FR01-03	The system shall allow the Academic Officer to set the status of all the currently registered students to 'Allowed'. This will make the registration permission available to all the students.

FR01-04	The system shall enable the Academic Officer to set the status of all unregistered students to 'Disabled'. All the students whose registration status was previously set as 'Disabled' won't be allowed to register in the current semester.
FR01-05	The system shall enable the Academic Officer to remove grading/attendance details for the offered courses completed before the new semester.
FR01-06	The system shall allow the academic officer to disable the option of adding/editing of lectures and evaluations for the courses to be offered before the new semester.

#### **FR02: New Semester Course Detail**

<b>Req. No.</b>	<b>Functional Requirements</b>
FR02-01	The system shall enable the Academic Officer to add course for a new semester from the existing list of courses. The academic officer selects the semester, department, course name and enters section, maximum seats and course outline for this course.
FR02-02	The system shall enable an academic officer to edit the course(s). The academic officer enters the details for the offered course which includes quizzes, assignments, projects, monthly, final weights, scaling factor and the grading scheme. The academic officer assigns a teacher to a course by selecting the name of teacher, role and control. The academic officer also selects the batches who can view the course while registering online.
FR02-03	The system shall allow the academic officer to remove the course(s) from the offered list of courses for the new semester.
FR02-04	The system shall allow the academic officer to view the course list.

#### **FR07: Request Student Course Registration**

FR07-01	The system shall provide an interface to the students where they can place online registration requests.
FR07-02	The system shall display a list of courses from which the student can perform registration.
FR07-02-01	The system shall display list of all the courses offered to that batch and department.
FR07-02-02	The system shall display list of all courses that the student has withdrawn and are

	being offered in the current semester.
FR07-02-03	The system shall display list of all courses that the student can repeat and are being offered in the current semester.
FR07-02-04	The system shall not display any course to the student whose pre-requisite has not been studied by the student.
FR07-03	The system shall allow a student to select courses from the list displayed.
FR07-04	The system shall not allow a BSc student to register less than three courses.
FR07-05	The system shall not allow a BSc student to register more than five courses.
FR07-06	The system shall not allow an MSc student to register less than two courses.
FR07-07	The system shall not allow an MSc student to register more than three courses.
FR07-08	The system shall allow an MSc student to register for his thesis/survey.
FR07-08-01	The system shall display a thesis/survey form to an MSc student.
FR07-08-02	The system shall display on the form student's semester, program, roll number, name, date and year on the student view.
FR07-08-03	The system shall enable the student to add his topic name, the advisor name, area of specialization and select thesis or non-thesis option on the form.
FR07-09	The system shall not allow the student to register the survey/thesis as a fourth course.
FR07-10	The system shall allow the student to submit his registration request to the academic officer.
FR07-11	The system shall not allow the student to perform online registration once the request is submitted. The registration then becomes disabled on the student view.
FR07-12	The system shall display a message to the student once his registration request has been submitted.
FR07-13	The system shall allow the student to view his registration status. It is "Pending" after the approval from the academic officer and then "Submit Fee" after the submission of dues.

**FR08: Request Student Add/Drop**

FR08-01	The system shall allow the students to make add/drop course requests.
FR08-02	The system shall display list of courses that the student can add. (This will be the same list as the registration process list plus all the courses that the student has dropped will not be visible.)
FR08-03	The system shall allow the student to select courses he wants to add.
FR08-04	The system shall not allow the student to add more courses than his registration limits.
FR08-05	The system shall enable the student to view his registered courses in the current semester.
FR08-06	The system shall allow the student to drop course(s) from the registered course(s) list of the current semester.
FR08-07	The system shall allow the student to submit his add/drop course requests to the academic officer.
FR08-08	The system shall display a message to the student once his add/drop request has been submitted.
FR08-09	The system shall display all add/drop course request status as “Pending”.
FR08-10	The system shall not allow a student to add a course once dropped, in the current semester.
FR08-11	The system shall display to the student the number of seats remaining in a course.

**FR09: Student Course Repeat**

FR09-01	The system shall enable the student to view a list of courses from his previous semesters, which he can or should repeat. It includes all the courses with grade F and grade C- or less.
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#### 4. Non-functional requirements

##### NFR01: Performance

NFR01-01	Average load time of the starting page of the system must be less than 2 second.
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##### NFR02: Security

NFR02-01	System must provide access to authorized users only that enter through the login module.
NFR02-02	System must not provide access to ANY user EXCEPT the designated user to update the database.

##### NFR03: Defects-Maintenance

NFR03-01	Post Release defects of the system must not exceed 1 critical bug per month.
NFR03-02	Post Release bug fixing should not take more than 5 hours.