**Course and Lab Allocation System**

**(Deliverable 2)**

**(List of Requirements)**

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**1. A list of complete requirements:**

1. The system should allow faculty members to view and select the courses they want to teach for the upcoming semester or academic year.
2. The system should allow the lab committee to view and select the labs they want to supervise or teach for the upcoming semester or academic year.
3. The system should provide an interface for the timetable committee to lab committee and HOD functionalities.
4. The system will allow the HOD to decide the teachers for courses.
5. The system will get timetable’s first version as an input.

1. The system should provide an interface for faculty members to view the schedules of the courses and labs they are teaching or supervising, including details such as times, venue, enrollment numbers.
2. The system should allow the timetable committee to view the schedules of all instructors and venues of all departments having conflicts.

**7.1.** The system should allow the timetable committee to prefer the non-prefered slots of permanent faculty(soft) first than non-prefered slots of visiting faculty(hard) in removing clashes if necessary.

1. The system will allow the instructors(courses and lab) to select up to 5 courses they want to teach and 2 slots they don't want to teach.

**8.1.** The system will allow the instructor (courses and lab) to give the hard/soft preference of the time slots if any.

1. The system will allow the lab committee to add lab instructors as per time availability and preferences.

**9.1.** The system should show the list of lab instructors in ranking order(grade and past experience) for allocation.

**9.2.** The system should notify the lab committee if the allocation is not equal in a single lab i.e. each lab should have senior and junior rank based lab instructors and one of the two lab instructors should be permanent.

1. The system should show error pop ups on the system interface where necessary and notifications if someone wants to change the allocation so that there will be no clash in the desired allocation.
2. The system will allow the timetable committee to plan the number of sections each course will have.
3. The system will be able to make the first version of the timetable.
4. The system will allow the academic manager of each department to make the list of courses of that department.

**13.1.** The system will then allow the departments to assign permanent and visiting instructors to each course.

**13.1.1.** The system will allow the instructors of different departments to teach in multiple departments as well.

1. The system should allow the lab committee and timetable committee to separate out labs and courses from a timetable respectively.

**14.1.** The system should reflect the changes in the lab's and course’s file if any changes are made in timetable’s latest version.

**14.2**. The system should notify the lab and timetable committee if the changes led to clashes in preferences of instructors.

1. The system should have a hiring form for the lab instructors to apply.

**15.1.** The hiring form should be simple and have basic questions like course/lab grade,cga,availability, preferences.

**15.2.** The system should store the record of lab instructors for future reference and hiring.

**Non functional :**

1. The system should have a simple interface and database oriented as we want to upgrade our system from excel.
2. The system ought to be expandable and capable of supporting an increasing number of users and courses as required.
3. Users' data, including login passwords, private information, and other sensitive data, should be secure and private on the system
4. The system should be 90% functional in 8 weeks.(Last deliverable)

**Some basic non-functional requirements are :**

* The system should have secure data storage and transfer protocols.
* Password should be
* The system should be implemented in python.

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**2. A Requirements-Source Traceability Matrix**

| **Requirements #** | **Sources** |
| --- | --- |

| **Requirements #** | **Stakeholder 1** | **Stakeholder 2** | **Stakeholder 3** |
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**3. A list of conflicting requirements and the requirements that require further meetings**

| **Conflicting Requirements** | **Sources** |
| --- | --- |

| **Conflicting Requirements** | **Stakeholder 1** | **Stakeholder 2** | **Stakeholder 3** |
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| 4 **,** 13.1 | * 4 | * 13.1 |  |
| 5 **,** 12 | * 5 | * 12 | * 5 |
| 9 **,** 9.1 | * 9   States that allocation on time availability and preference. |  | * 9.1   States that allocation on grade and past experience. |
| 15 **,** 15.1 **,** 15.2 | No details were discussed that hiring was also be catered by the system |  | * 15 * 15.1 * 15.2 |
| 13.1 **,** 13.1.1 |  | * 13.1 * 13.1.1   This may lead to conflict that this task should not be under department’s control as instructors can teach in different departments. |  |