كلية علوم الحاسب والمعلومات
قسم هندسة البرمجيات

S

SMARTSCHEDULE

SWE 481 Advanced Web Applications Development Project

Section:79617

Group number:3

Student name	ID
Renad Alotaibi	443200801
Rahaf samkari	443202844
Raghad Alqahtani	443200549
Ruba Alrabiah	443200453

Table of Contents

Contents

Table of figures

Schedule Demo

This section presents the core course schedules from other department for the Software Engineering undergraduate program. The tables provide a comprehensive overview of the weekly timetables for each level and group, outlining lecture timings and course codes, and section information.

These schedules assume the levels of irregular students for the current semester.
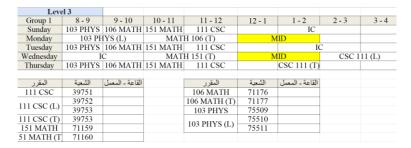
Level 3								
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3	3 - 4
Sunday	103 PHYS	106 MATH	151 MATH	111 CSC		IC		
Monday	103 PHYS (L)		MATH 106 (T)		MID			
Tuesday	103 PHYS	106 MATH	151 MATH	111 CSC		IC		
Wednesday	IC		MATH 151 (T)		MID		CSC 111 (L)	
Thursday	103 PHYS	106 MATH	151 MATH	111 CSC	CSC 111 (T)			

المقرر	الشعبة	القاعة - المعمل		المقرر	الشعبة	القاعة - المعمل
111 CSC	39751			106 MATH	71176	
111 CSC (L)	39752			106 MATH (T)	71177	
	39753			103 PHYS	75509	
111 CSC (T)	39753			103 PHYS (L)	75510	
151 MATH	71159				75511	
51 MATH (T	71160					

Figure 1: Core Courses from Other Departments – Level 3 Group 1

Group 2	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3	3 - 4
Sunday	151 MATH	111 CSC	106 MATH	103 PHYS		IC		
Monday	MATH 106 (T)		MATH 151 (T)		MID		CSC 111 (L)	
Tuesday	151 MATH	111 CSC	106 MATH	103 PHYS	CSC 111 (T)			
Wednesday	IC		103 PHYS (L)		MID			
Thursday	151 MATH	111 CSC	106 MATH	103 PHYS		IC		

المقرر	الشعبة	القاعة - المعمل		المقرر	الشعبة	القاعة - المعمل
111 CSC	25177			106 MATH	76445	
111 CSC (L)	25178			106 MATH (T)	76446	
	78685			103 PHYS	75506	
111 CSC (T)	25179			103 PHYS (L)	75507	
151 MATH	71151				75508	
51 MATH (T	71152					

Figure 2 Core Courses from Other Departments – Level 3 Group 2

Level 4							
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday	104 PHYS	244 MATH	113 CSC	303 CEN		113 CSC (T)	
Monday	113 CSC Lab				MID		
Tuesday	104 PHYS	244 MATH	113 CSC	303 CEN		IC	
Wednesday	104 PHYS Lab		244 MATH (T)		MID		303 CEN (T)
Thursday	104 PHYS	244 MATH	113 CSC	303 CEN			

المقرر	الشعبة	القاعة - المعمل		المقرر	الشعبة	القاعة - المعمل
113 CSC	25474					
113 CSC (L)	25476					
113 CSC (T)	25475					
104 PHYS	80379			303 CEN (T)	47389	
104 PHYS (L)	80380					
	80381					

Figure 3: Core Courses from Other Departments – Level 4 Group 1

Level 5							
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday		CSC 220 (T)	CSC 212				
Monday						MID	
Tuesday		CSC 220	CSC 212				CSC 212 (T)
Wednesday	CSC 220 Lab					MID	
Thursday		CSC 220	CSC 212				

المقرر	الشعبة	القاعة - المعمل				
220 CSC	56552					
CSC 220 (Lab	56553					
CSC 220 (T)	56554					
212 CSC	44122					
212 CSC (T)	44123					

Figure 4: Core Courses from Other Departments – Level 5 Group 1

Group 2	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday		CSC 212		CSC 220 (T)			CSC 212 (T)
Monday	CSC 220 Lab				MID		
Tuesday		CSC 212		CSC 220			
Wednesday					MID		
Thursday		CSC 212		CSC 220			

المقرر	الشعبة	القاعة - المعمل					
220 CSC	56555						
CSC 220 (Lab	56556						
CSC 220 (T)	56558						
212 CSC	44126						
212 CSC (T)	44127						

Figure 5: Core Courses from Other Departments – Level 5 Group 2

Level 6							
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday	IS 230			CSC 227			IS 230 (T)
Monday					MID		CSC 227 (T)
Tuesday	IS 230			CSC 227			
Wednesday	108 IC				MID		
Thursday	IS 230			CSC 227			

المقرر	الشعبة	القاعة - المعمل					
227 CSC	47399						
CSC 227 (T)	47400						
230 IS	47566						
230 IS (T)	47567						

Figure 6: Core Courses from Other Departments – Level 6 Group 1

Level 7							
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday							
Monday					MID		
Tuesday						107 IC	
Wednesday					MID		
Thursday							

المقرر	الشعبة	القاعة - المعمل					
107 IC	44999						

Figure 7: Core Courses from Other Departments – Level 7 Group 1

Level 8							
Group 1	8 - 9	9 - 10	10 - 11	11 - 12	12 - 1	1 - 2	2 - 3
Sunday							
Monday					MID		
Tuesday							
Wednesday		108 IC			MID		
Thursday							

المقرر	الشعبة	القاعة - المعمل					
108 IC	80187						

Figure 8: *Core Courses from Other Departments*– Level 8 Group 1

Requirements

1. Functional requirements

1.1 **User**

1.1.1 The user shall be able to sign up.

1.1.2 The user shall be able to sign in.

1.1.3 The user shall be able to sign out.

1.1.4 The user shall be able to receive notifications.

1.1.5 The user shall be able to view their account information (name, email, level: if they're students, department).

1.2. **Student**

1.2.1 The student shall be able to submit elective courses preferences.

1.2.2 The student shall be able to get a suggested schedule.

1.2.3 The student shall be able to view the preliminary schedules.

1.2.4   The student shall be able to provide comments on the preliminary schedules.

1.2.5 The student shall be able to receive notifications about the schedule updates.

1.2.6 The student shall be able to receive notifications of surveys posted.

1.3. **Faculty Member**

1.3.1The faculty members shall be able to View their assigned courses schedules.

1.3.2The faculty member shall be able to provide feedback on their preliminary schedule.

1.3.3 The faculty member shall be able to receive notifications about the schedule updates.

1.4**. Teaching Load Committee T.LC**

1.4.1 The T.L.C member shall be able to review preliminary schedules for each faculty member.

1.4.2 The T.L.C member shall be able to identify overlapping teaching time slots for a faculty member.
1.4.3. The T.L.C member shall be able to collaborate in real-time with the scheduling committee.

   1.4.3.1 The T.L.C member shall be able to edit schedules (for example: overlapping teaching time slots).

   1.4.3.2 The T.L.C member shall be able to comment in real time.

6

1.4.4 The T.L.C member shall be able to add scheduling rules (e.g., breaks, electives distribution).

1.4.5 The T.L.C member shall be able to update scheduling rules.

1.4.6 The T.L.C member shall be able to delete scheduling rules.

1.5. Registrar

1.5.1 The registrar shall be able to create a record for irregular students.

1.5.1.1 The registrar shall be able to add each irregular student's information (name, id, courses from previous level so they don't fall behind).

1.5.1.2 The registrar shall be able to edit irregular student information.

1.5.2 The registrar shall be able to respond to the scheduling committee requests for more data of irregular students.

1.5.3 The registrar shall be able to declare their department's willingness to offer certain elective courses.

1.6. Scheduling Committee

1.6.1 The scheduling committee shall be able to receive notification of university timeline and deadline of schedules.

1.6.2 The scheduling committee member shall be able to enter core courses time slots received from other departments.

1.6.2 The scheduling committee member shall be able to import students' enrolment data for each semester from an external file (e.g., Excel/CSV).

1.6.3 The scheduling committee member shall be able to view students' enrolment data.

1.6.4 The scheduling committee member shall be able to view data of irregular students.

1.6.5 The scheduling committee member shall be able to request missing data of irregular students from their department registerer.

1.6.6 The scheduling committee member shall be able to add scheduling rules.

1.6.7 The scheduling committee member shall be able to update scheduling rules.

1.6.8 The scheduling committee member shall be able to delete scheduling rules.

1.6.9 The scheduling committee member shall be able to view core courses from outside the department time slots.

1.6.10 The scheduling committee member shall be able to build preliminary schedules.

1.6.11 The scheduling committee member shall be able to share the schedules with the teaching load committee.

1.6.12 The scheduling committee member shall be able to Modify schedules based on received feedback.

1.6.13 The scheduling committee member shall be able to submit schedules to the deanship after finalization.

1.7. The system

System shall include default scheduling rules (e.g., breaks, lab blocks, prerequisites) to generate an initial schedule.

1.7**.**1.the system shall be able to suggest an initial schedule for students based on their (level, elective preference, and predefined schedule rules).

1.7.2 The system should provide dashboards for statistical reporting.

   1.7.2.1The system shall provide a level overview dashboard that visualizes schedules per group in a level, along with the number of sections, the assigned instructors, and the number of students in each section.

   1.7.2.2 The system shall provide a course overview dashboard that Visualize classroom assignments to sections, number of students per section, instructors' assignments to sections.

1.7.3 The system shall be able to maintain a history of changes and versions of the schedule versions.

2.Non-functional requirements

2.1The system shall enforce role-based authentication (students, faculty member, registrar, committees).

2.2 The system shall provide a responsive user interface (UI) design that adapts to different devices (desktop, tablet, and mobile).

2.3 The system shall perform searches efficiently, optimizing response time relative to the dataset size and system load.

2.4 The system shall support mobile integration (Android app or Progressive Web App).