ASEE DEED Vision Challenge Submission Simran Moolchandaney, Undergraduate, University of Notre Dame June 19, 2021

ASApp

As a Division I Student-Athlete I know what it is like having to juggle multiple tasks in order to fulfill the responsibilities that come with being a college student and a near to professional athlete. Trying to organize yourself can be quite overwhelming at times, that's why I came up with AthleteSmartApp, a user-friendly AI based planner that will suggest a schedule that allows you to maximize available academic resources while at the same time considering your athletic and personal demands. This app starts by importing your athletic calendar (training, travel, rehabilitation, team meetings, etc), class schedule, and corresponding state holiday calendar. It then imports each course's syllabus so that the calendar is populated with assignment due dates, exams, and office hours. Next, the underlying program will estimate the number of hours a student should devote to each course per week. This will be done on the basis of the course's number of credit hours and the user's feedback. At the end of each week, the user will complete a short survey indicating what he believes are his strongest and weakest classes (see Figure 1). This, in addition to the user's progress in a course tracked by their grade entries (see Figure 2) will allow the app to further customize how many hours a week the user should devote to a given course. Subsequently, the app will align the hours that need to be devoted to each course near office hours, assignment deadlines, and exam dates (see Figure 3). During these times, the app will also suggest what the student should work on (upcoming assignments, study for an approaching exam, or default to reviewing new material covered in class) (see Figure 4b). Upon the completion of an assignment on time (i.e. prior to its deadline), the user will be awarded with a number of stars (which will be directly proportional to the level of difficulty he estimates for the course). These rewards will be cumulative throughout each semester and can then be exchanged for monetized rewards (see Figure 4a). Since being a student-athlete can get exhausting and lead to burn outs, especially during season, AthleteSmartApp is also designed to incorporate protected time for the user to rest, be alone, or socialize. During these times, the app will be able to promote mindfulness through calm app suggestions, suggest spotify podcasts, and suggest activities to do with friends nearby based on current location (see Figure 4c).

Soar in sports and succeed at school, systematically and simultaneously.

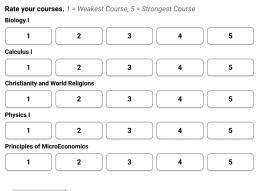
Figure 1 - End of week survey to update user's strengths and weaknesses

20th June 2021

End of Week - Weekly Check-in

Hey Simran Moolchandaney!

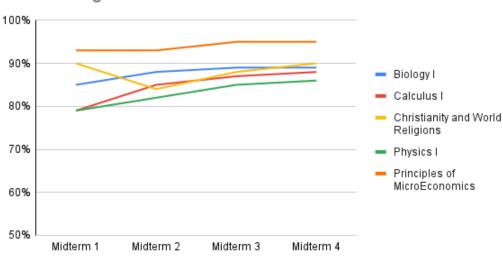
Please complete your end of week weekly check-in to further tailor and optimize next week's schedule.



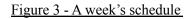
Submit

Figure 2 - User's course progress

Credit Hours	Course	Midterm 1	Midterm 2	Midterm 3	Midterm 4	Overall Change	Cumulative Average
4	Biology I	85%	88%	89%	89%	4%	88%
4	Calculus I	79%	85%	87%	88%	9%	85%
	Christianity and World Religions	90%	84%	88%	90%	0%	88%
4	Physics I	79%	82%	85%	86%	7%	83%
	Principles of MicroEconomics	93%	93%	95%	95%	2%	94%



Course Progress



	Monday	Tuesday	Wednesday	Thursday	Friday	
7 AM	Morning @ Dutdoor Track 60 mine Run	Morning @Wegbroom 60 mins Lift		Morning @Weightroom 02mms Lift	Morning @ Outdoor Track @ mess Run	
9 AM	Calculus I @ DeBartolo Hall 101 50 mins		Calculus I @ DeBartolo Hall 101 50 mins MIDTERM 3		Calculus I @ DeBartolo Hall 101 50 mins	
10 AM	Biology I @ Jordan Hall 129 50 mirs	Christianity @ Online 75 mins and World Religions	Biology I @ Jordan Hall 129 50 mms	Christianity @ Online 75 mins and World Religions PAPER 1	Biology I © Jordan Hall 129 50 nine HOMEWORK MicroEcon © Flanner Hall 237 50 nine	
Noon	PROBLEM SET	Physics I @ Haggar Hall 105 to miss Tutorial	MICROEDON (8 Hanner Hall 237 50 mms	Physics Lab @ Science Hall 206 159 mins LAB	MICPOECON (# Planner Hall 237 30 mms	
1 PM	Review Bio 46 mins Notes	Biology Lab @ Science Hall 309 150 mins	Physics I @ Jordan Hall 105 50 mine	REPORT	Physics I @ Jordan Hall 105 50 mins WORKSHEET	
3 PM	Review 45 mins Calc Notes	LAB REPORT	Review 45 mins Phys Notes	Calculus I @ Haggar Hall 411 50 mins Tutorial	Review Bio 45 mins Notes	
4 PM			Rehabilitation 30 mins		Rehabilitation 30 mins	
5 PM	Evening @Indoor Oym 150 mins Practice	Evening @ Indoor 0ym 100 mms Practice	Evening @ Indusr Byrn 150 mine Practice	Evening @ Indoor Oym 150 mins Practice	Depart for @ Team Conference Room Competition	
7 PM		MicroEcon @ Haggar Hall 101 80 mins Office				
8 PM	Calculus I @ Zoom 120 mins Office Hours	Hours Review 60 mine Econ Notes Physics @ Zoom 90 mine	Biology I @ Jordan Hall 148 120 mins Office Hours	Caloulus I @ Zoom 120 mins Office Hours Physics @ Zoom 00 mins	YOU Time 210 mins	
9 PM	Study Calc 60 mins Biology I (9) Jordan Hall 149 120 mins Office Hours	Office Hours Study Calo © nins	Ohristianity @18ney_auditorium 18ney_auditorium and World Religion Do Christianity and Wold Office Religions Paper hours 90 mm	Office Do Physics Worksheet Hours 80 min MicroEcon @ Haggar Hall 101 90 mins Office		
11 PM	Hours Do Bio HW 60 miles		Do Physics 60 mins Lab Report	Hours Review 99 mins Econ Notes		
Night						

Figure 4

a) <u>User profile</u>

b) Study notification

c) Down time notification

