
User instructions.

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User Instructions

Interaction Introduction

After completing the steps listed in the Installation_Instructions.pdf file, the Four-Year Plan Tracker system should now be up and running.

Now, student and advisor users can utilize the system to create, modify, or view four-year course plans.

Usage Walkthrough

1. After navigating to <https://localhost:5000/>, the user is greeted with the system landing page (seen in Figure 1). Here, the user can select a UO ID from a dropdown menu or, if the student's UO ID has not yet used the system, enter a new UO ID. After selecting or entering a UO ID, the user is brought to the course modification page (seen in Figure 2) where they can create, modify, save, and view course plans.
2. The course modification page presents the user with several different options. Here, the user can add or remove previously taken courses based on the course name, and the term and year in which the course was taken during. If any fields are left blank, then an error message is displayed.
 - a. After selecting a course name, term, and year, and then selecting the blue "Add Course" button, the course is added to the temporary course matrix (located on

the right-hand side, or bottom of the course modification page depending on the window size).

- b. The user can also remove a course based on the information they input. After selecting the course name, term, and year, and then selecting the red “Remove Course” button, the course with the corresponding information is removed from the temporary course matrix.
3. Once the user has inputted the desired courses, they can either save, or save and display the new course plan.
 - a. By selecting the “Save” button, the current course plan is saved locally (to the user’s machine) via the system’s pickling functionality. For more information on how course plans are saved, view the SRS.pdf file.
 - b. By selecting the “Save and Display” button, the current course plan is saved locally and displayed for viewing (seen in Figure 3). The final course plan is displayed in the form of matrices (one matrix per year in school, which will vary depending on courses input by the user). This page is discussed in more detail in the following step.
4. Upon selecting the “Save and Display” button, the current course forecast is saved to the user’s local machine and a course forecast matrix consisting of each year the student plans on being in school (this ultimately defaults to four matrices—one for each of the four years) is displayed (seen in Figure 3). Each of those four matrices is further split up into four terms, and each term will hold up to four courses.
 - a. By this point, the matrices in this updated page hold any courses that a user defined to have taken previously as well as all the remaining courses calculated by the Four-Year Plan Tracker forecasting algorithm. For more information on this algorithm, see the SDS.pdf file.
5. When finished using the Four-Year Plan Tracker, open the Docker Desktop application (detailed in the Installation Instructions) and “stop” the container. The next time you want to use the Four-Year Plan Tracker, open the Docker Desktop application and “start” the container. This will allow the data stored (via pickle files) on your machine to

persist within the container and load at <https://localhost:5000/> after shutting down your computer, as well as free up memory on your machine by not constantly running in the background.

- a. Keep in mind that if at any point you “remove” the container via the Docker Desktop app, the saved data will be lost. However, rerunning the run.sh script will create a new container for future use.

The screenshot shows the landing page titled "Welcome to the Four-Year Plan Tracker!". At the top, it says "Current Student: None". Below this, there are two main options for selecting a student. The first option is a dropdown menu labeled "Select Student" with a red box around it and a callout that says "Dropdown to select previously entered UO ID". The second option is an input field labeled "Enter 95 Number" with a red box around it and a callout that says "Input field to enter new UO ID". Below the input field is a "Create" button. The page also has a "Create New Student" label above the input field.

Figure 1
The Four-Year Plan Tracker landing page.

The screenshot shows the landing page titled "Welcome to the Four-Year Plan Tracker!". At the top, it says "Current Student: 951234569". Below this, there are two main sections. The left section is for adding and removing courses. It has a red box around the "Current Student" text with a callout that says "UO ID of current user". Below this, there are three dropdowns labeled "Course Name", "Term", and "Year" with a red box around them and a callout that says "Dropdowns to select name, term, and year of a specific course". Below the dropdowns are two buttons: "Add Course" (blue) and "Remove Course" (red). Below the "Add Course" button is a callout that says "Button that adds course to matrix". Below the "Remove Course" button is a callout that says "Button that removes course from matrix". The right section is for saving and displaying the plan. It has a red box around the "Save" and "Save and Display" buttons with a callout that says "Buttons to save, or save and display a potential plan". Below the buttons is a table with the following structure:

Course Name	Term	Year
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Below the table is a callout that says "Matrix where all added courses will be displayed".

Figure 2
The course plan modification page.

Four-Year Forecast

Each table displayed represents one year of courses subdivided by term. It displays all courses taken and all courses required to be taken before completion of all degrees.

	Terms			
	Fall	Winter	Spring	Summer
Year One	MATH 112 Elementary Functions	CIS 210 Computer Science I	CIS 211 Computer Science II	
	WR 121 College Composition I	MATH 231 Elements of Discrete Mathematics I	MATH 232 Elements of Discrete Mathematics II	
	SCIENCE Elective Term 1 200+	SCIENCE Elective Term 2 200+	Multicultural Elective	
	MATH 101 Foundations of Algebra and Mathematical Modeling	WR 122 College Composition II	Writing 320/321	
Year Two	CIS 212 Computer Science III	CIS 313 Intermediate Data Structures	CIS 330 C/C++ & Unix	
	MATH Elective 300+	CIS 314 Computer Organization	CIS 315 Intermediate Algorithms	
	Multicultural Elective	Social Science Elective	CIS 422 Software Methodology	
	MATH Elective 300+	CIS Elective 400+	SCIENCE Elective Term 3 200+	

Years Three and Four Continue Below

Figure 3
The course plan forecast display page.