



SAGINAW VALLEY

STATE UNIVERSITY®

Course Scheduling System

User Manual

Last Edited 4/17/2023



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General Information

Purpose

The purpose of this manual is to give the user instructions as to how to use the Scheduling System in the best and most efficient way. This manual will be a guide for any new or existing users to use the system.

Contents

Along with having the explanation as to how to use the application, this manual has:

- Screen display examples
- Instructions as to how to get to other screens
- Possible errors that could occur on different screens
- Each different functionality of the pages

How to Access the Website

To access the website, you will have to open any browser and type into the search bar “course-scheduling.svsu.edu” into the search bar and then press enter. This can be referenced in **Figure 1.0** below.

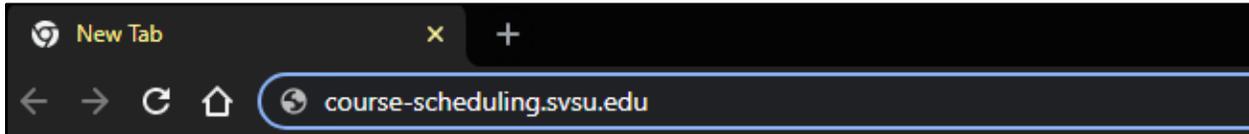


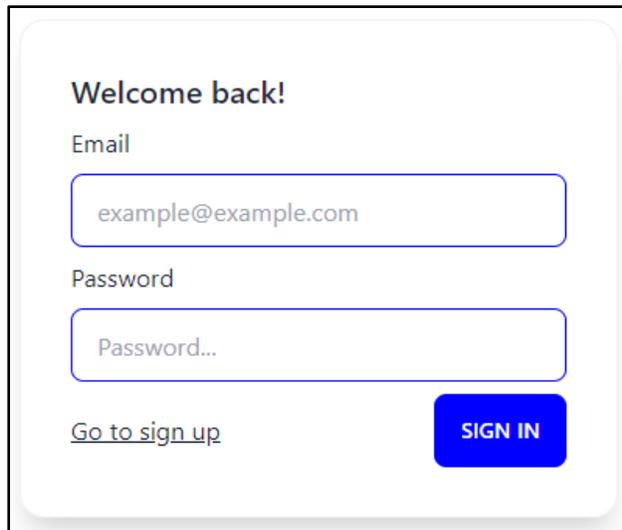
Figure 1.0

Problems When Accessing the Website

When problems arise on the website, please contact the administrators of the application:

- Sam Johnson - sgjohns1@svsu.edu
- Scott James - james@svsu.edu

Login Screen



Welcome back!

Email

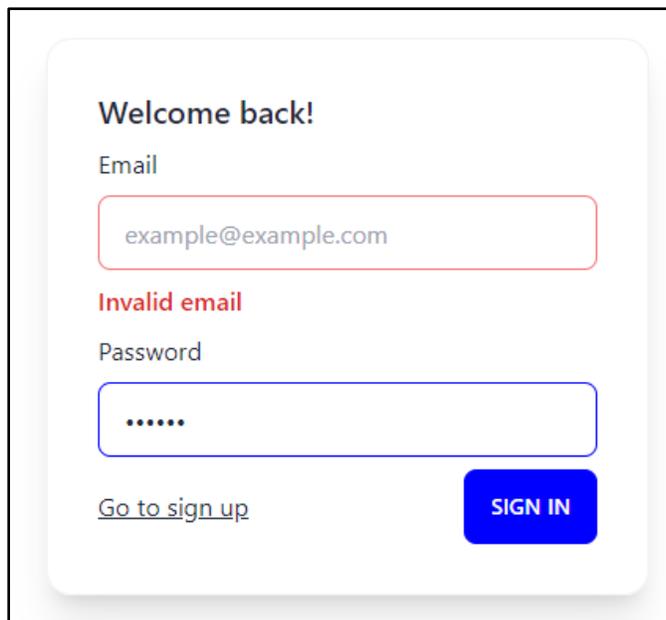
Password

[Go to sign up](#) **SIGN IN**

Figure 1.1

After you type in the “course-scheduling.svsu.edu” address into their browser, the login screen will appear as **Figure 1.1** as referenced below. If you are a returning user, you will be able to input your email and password into the specified boxes. If you are not a returning user, you will have to click the “**GO TO SIGN UP**” link that is referenced in the “Create an account” section below.

Login screen (Possible Issues)



Welcome back!

Email

Invalid email

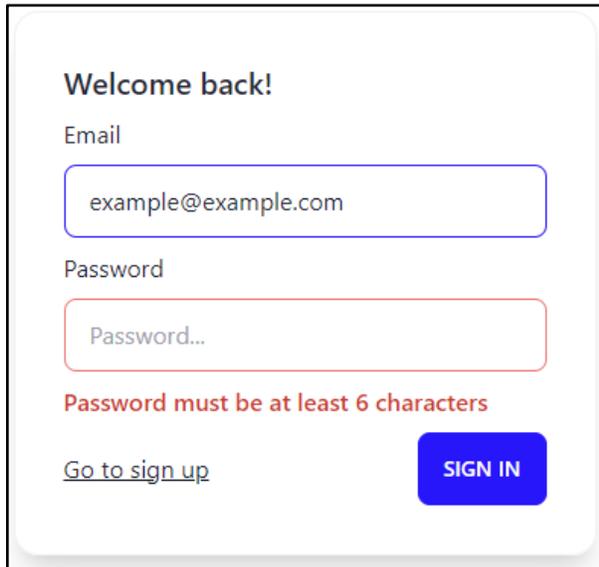
Password

[Go to sign up](#) **SIGN IN**

Figure 1.1.1

The login screen can have a variety of issues dealing with all credential issues. All the possible issues are listed below that you may encounter:

- If no email is typed into the text box, as referenced in **Figure 1.1.1**, the box will be outlined in red, and in red lettering “Invalid email” will show up.



Welcome back!

Email

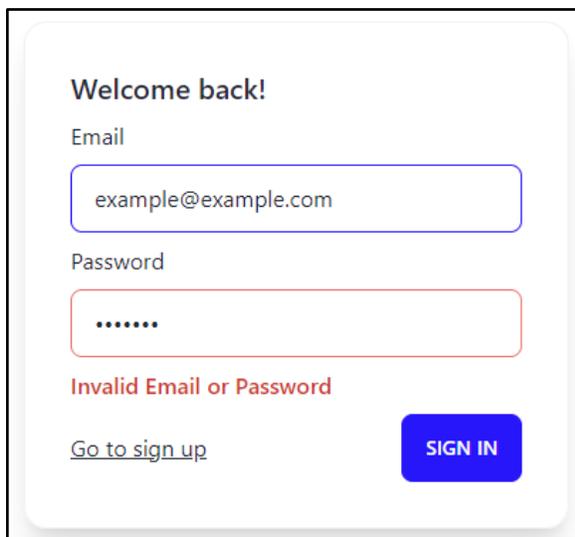
Password

Password must be at least 6 characters

[Go to sign up](#)

Figure 1.1.2

- If a password is not typed into the text box, as referenced in **Figure 1.1.2**, the box will be outlined in red, and in red lettering “Password must be at least 6 characters” will show up.
- If both an email and password are inputted into the textboxes, and one is incorrect, by default the password textbox will be highlighted in red, and in red lettering “Invalid Email or Password” as referenced by **Figure 1.1.3**.



Welcome back!

Email

Password

Invalid Email or Password

[Go to sign up](#)

Figure 1.1.3

Create an Account

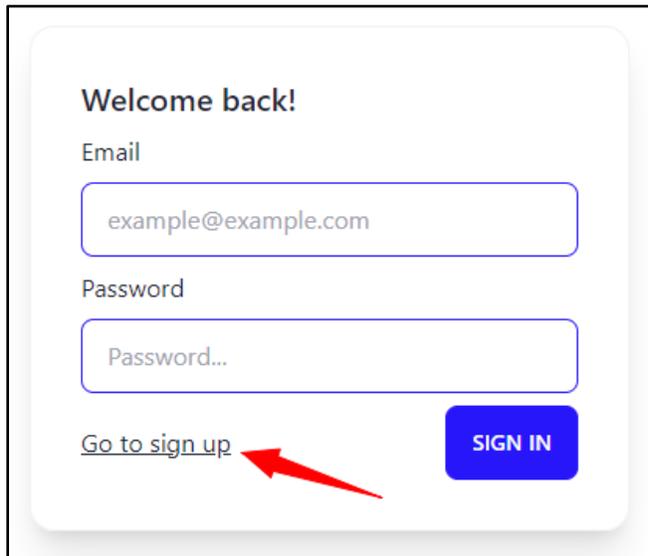


Figure 1.2 shows a login interface. At the top, it says "Welcome back!". Below that are two input fields: "Email" with the placeholder "example@example.com" and "Password" with the placeholder "Password...". At the bottom left, there is a link "Go to sign up" with a red arrow pointing to it. At the bottom right, there is a blue button labeled "SIGN IN".

Figure 1.2

After you click “**GO TO SIGN UP**” the next screen that will show up is referenced in **Figure 1.2.1** below. You will be asked to first put in your username that you want to set it as. After that, click the drop down and select your department. Next, input your email, which should be your SVSU email. Then finally input your password. Once done, click the gray “**SIGN UP**” button and you will be brought back to the first screen in **Figure 1.2**.

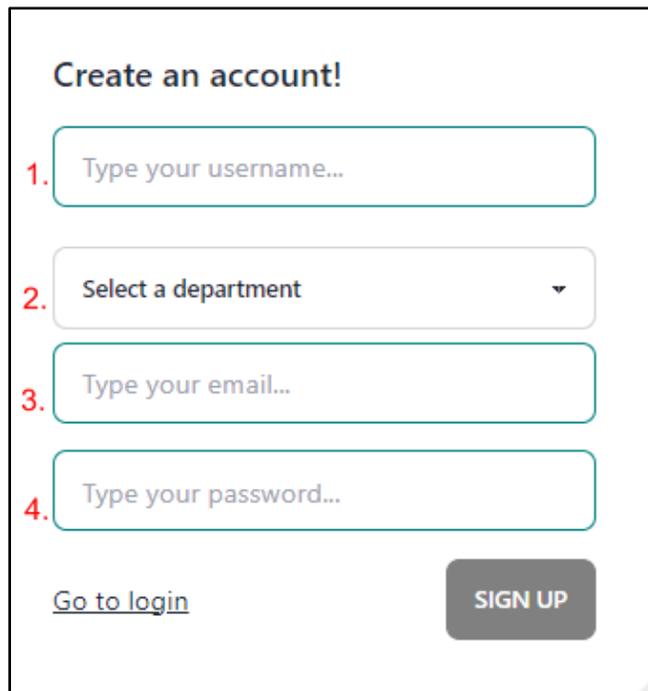


Figure 1.2.1 shows a "Create an account!" form. It has four numbered steps: 1. "Type your username..." (input field), 2. "Select a department" (dropdown menu), 3. "Type your email..." (input field), and 4. "Type your password..." (input field). At the bottom left, there is a link "Go to login". At the bottom right, there is a gray button labeled "SIGN UP".

Figure 1.2.1

Projects Page

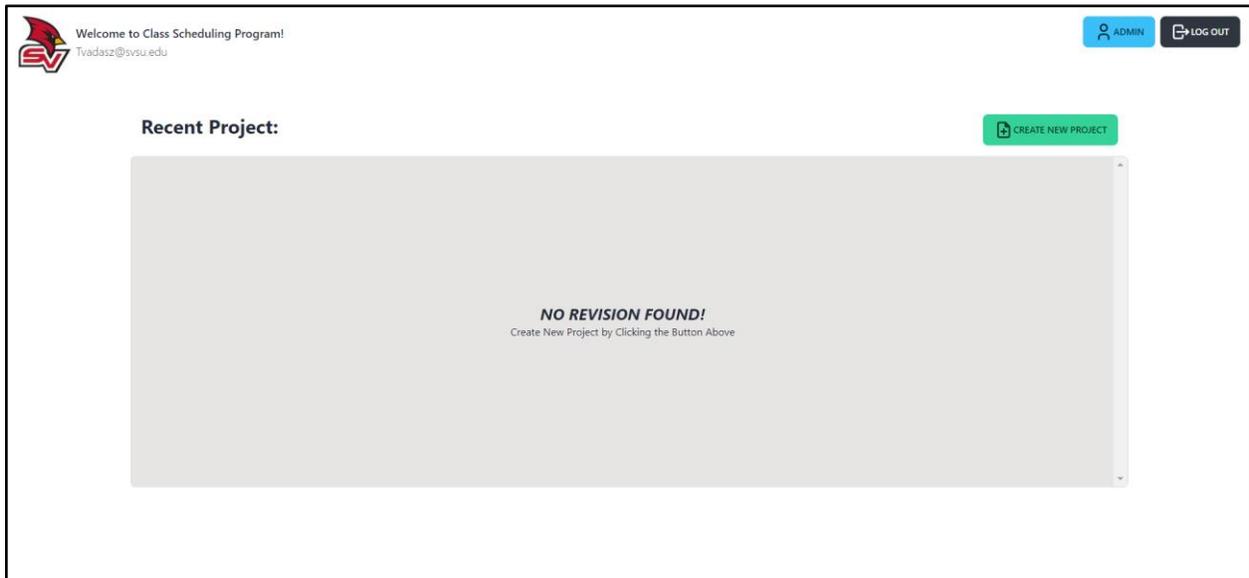


Figure 1.2.2

After successfully logging in, you will be brought to the projects page screen. In this screen, you will be able to access the admin pages, log in or out, and import new schedules.

Importing Schedules

Importing schedules is how you will get the main functionality of this application. To start and open the import screen, click the green **“CREATE NEW PROJECT”** button, as referenced below by the red arrow in **Figure 1.3**.

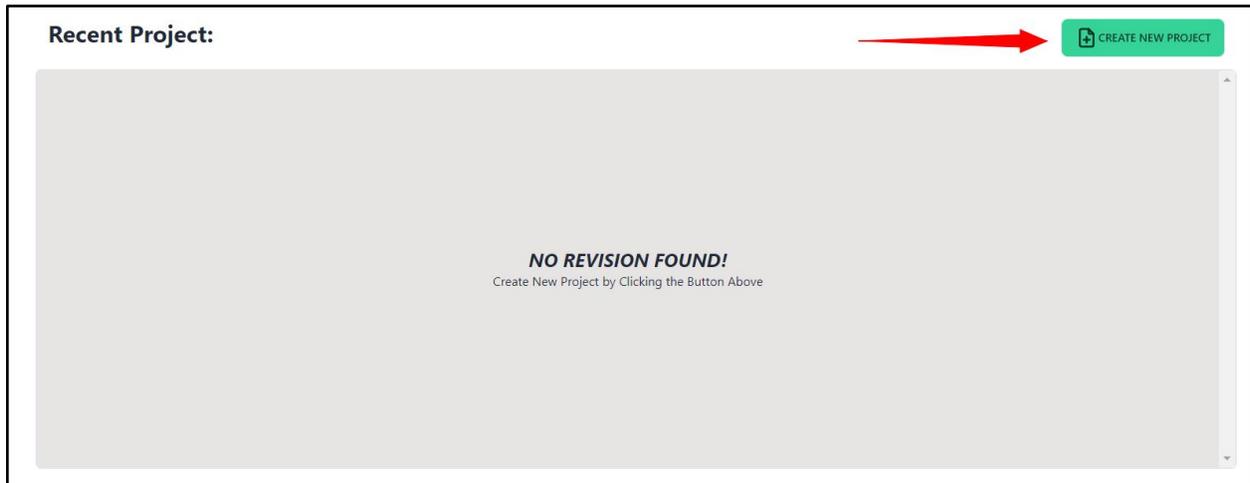


Figure 1.3

Once the button is clicked the Import screen will pop up. The next step is to click the **“CHOOSE FILE”** button as referenced in **Figure 1.3.1** below.

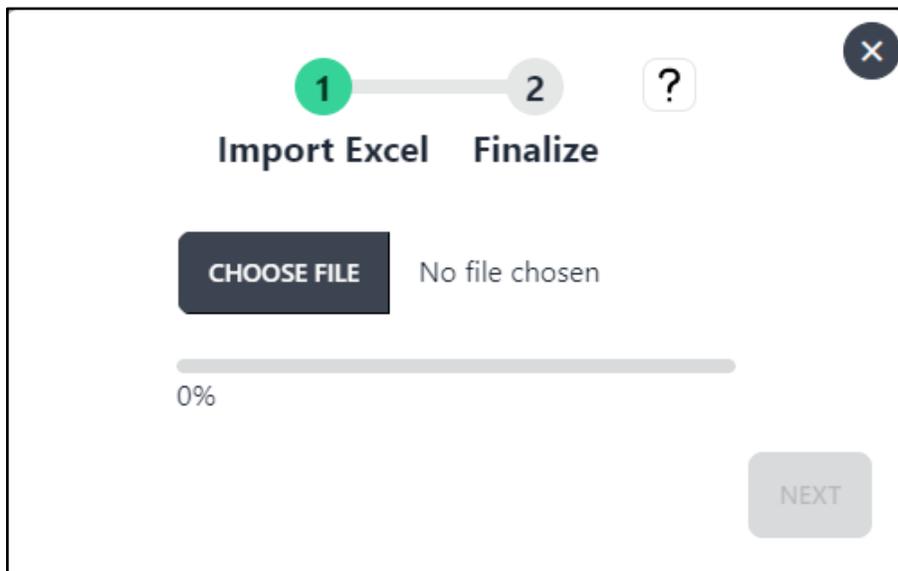


Figure 1.3.1

Once clicked it will open your file explorer, and the next step would be to pick a valid excel file to import into the application. The one that will be used throughout this user-manual experience is the “Winter 2023” schedule.



Figure 1.3.2

The excel file should contain 27 columns that follow the standards in the table below. A course can also have multiple times and locations (or none, depending on if the course is online). **Bold values** in the table denote one of the possible values in the columns for each row.

Name of Column in Excel	Description
What has Changed?	Notes for what has changed on this course. <i>This will be generated by this application for newly added courses, deleting, or modifying a course.</i> Example: Changed Date
Section ID	Section ID Number for the course. This is automatically generated by the registrar.
Term	Term that this course will be taken in. Example: 23/WI
Division	Groups of Departments within SVSU. Example: SC
Department	Department that the courses correlate too. Example: CS
Subject	Subject that the course correlates too. Example: CIS
Course Number	The course number that the course correlates too. Example: 301
Section	The section that the course correlates too. Example: 90
Start Date	The start date of the course. Example: 8/8/22
End Date	The end date of the course

	Example: 12/14/22
Credits	How many credits the course is. It can have <i>1-4 credits</i> Example: 4
Title	What the title of the course is. Example: Introduction to Java programming
Course Time/Location Block (each time and location of a course is separated by a newline)	
Campus/Location	Where the course is located Online (ONL) or at the university (UC)
Faculty	What faculty is teaching the course
Instruction Method	How this course is being taught, Lecture (LEC) or Lab (LAB)
Course Meeting Instruction/Method 2	Online (ONL), hybrid (HYBRID), or lecture (LEC)
Building	What building the course is located in Example: SE (for Science East)
Room	What room the course is located in Example: 100
Start Time	What time the course starts Example: 8:30 AM
End Time	What time the course ends: Example: 10:20 AM
Days	The days a course can occur. M = Monday T = Tuesday W = Wednesday R = Thursday F = Friday Example: MW or TR
Course Meeting Pattern Start Date	Start date of the meeting Example: 10/2/22
Course Meeting Pattern End Date	End date of the meeting

	Example: 10/2/22
End of course time & location	
Printed Comments	Comments for printing Example: Also in room 232
Capacity	Capacity of a course Example: 30
Notes for academic affairs	Notes for academic affairs Example: Moved to SE 124

Then to get to the next screen, click the **“NEXT”** button as referenced in **Figure 1.3.3** below.

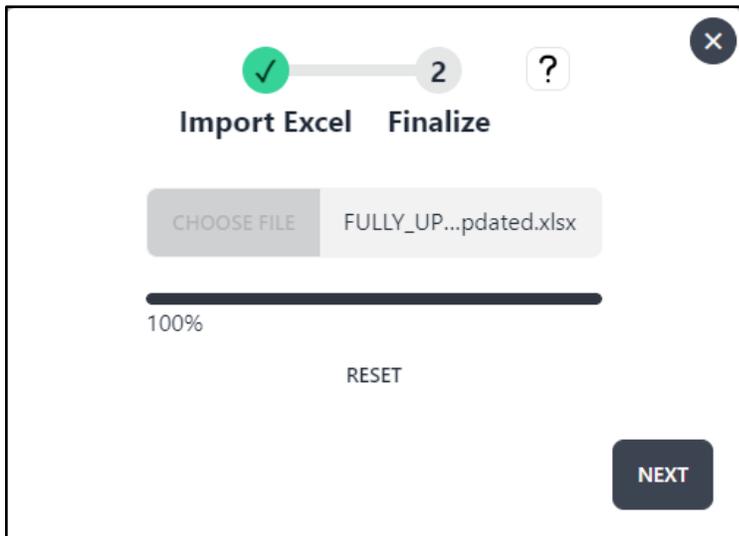


Figure 1.3.3

Finally, once the **“NEXT”** button is clicked you will be brought to the screen where you finalize all the information that is going to be put into the web application. In this screen you will be required to input information into the text boxes at the top of each column. There are drop downs for each, and each textbox has its correct input to click. For example, in the “Term” column, in the third column, you would click “Term.” Some are more intuitive than others. For ease of understanding, there is a list below of each one that should be selected for each column.

2 ?
 Import Excel Finalize

Columns	SELECT WHAT IS TO BE...	SEC ID (DO NOT EDIT...)	TERM	DIV	DEPT	SUBJ	
•What Has Changed?	WHAT HAS CHANGED?	SECTION ID	TERM	DIVISION	DEPARTMENT	SUBJECT	
•Section ID							
•Term		116068	23/WI	SC	CS	CIS	30
•Division		116069	23/WI	SC	CS	CIS	31
•Department		116070	23/WI	SC	CS	CIS	35
•Subject		116071	23/WI	SC	CS	CIS	35
•Course Number		116072	23/WI	SC	CS	CIS	36
•Section	Instruction mode and day change	116073	23/WI	SC	CS	CIS	42
•Title		116154	23/WI	SC	CS	CS	10
•Instruction Method		116155	23/WI	SC	CS	CS	11
•Faculty	Instructor change						
•Campus/Location							
•Credits							
•Capacity							
•Start Date							

* Hold SHIFT key to scroll horizontally

Name: Select Revision (Not Required):

Figure 1.3.4

SELECT WHAT IS TO BE... WHAT HAS CHANGED?	SEC ID (DO NOT EDIT... SECTION ID	TERM TERM	DIV DIVISION	DEPT DEPARTMENT	SUBJ SUBJECT
CRS COURSE NUMBER	SEC SECTION	SECTION START DATE START DATE	SECTION END DATE END DATE	CR CREDITS	TITLE (30 CHAR. LIM... TITLE
STATUS	LOC CAMPUS/LOCATION	FACULTY (INCLUDE FL... FACULTY	INSTR METH INSTRUCTION METHOD	MTG PTRN METHOD COURSE METHOD/ME...	BLDG BUILDING
ROOM ROOM	START TIME START TIME	END TIME END TIME	DAYS DAYS	MTG PTRN START DATE COURSE/MEETING STA...	MTG PTRN END DATE COURSE/MEETING EN...
SHARED ROOM GROUP	NUMBER OF WEEKS	XLST SECTION IDS	XLST CAP	PRINTED COMMENTS (A... PRINTED COMMENTS	CRS CAP (CONTACT DE... CAPACITY
					NOTES FOR ACADEMIC A... NOTES FOR ACADEMI...

Figure 1.3.5

NOTE The drop downs that are left blank, should be left blank, and should not have any information input into them.

As you continue to input the correct information into the dropdowns above each column, on the left, there is a box that will tell you what you have left to input. If you compare **Figure 1.3.5**, you will notice that the columns that have been input are no longer showing. Remember to use the scroll bar under the columns to access all the columns and input all the information into the drop downs.

Columns:

- Course Number
- Section
- Title
- Instruction Method
- Faculty
- Campus/Location
- Credits
- Capacity
- Start Date
- End Date
- Building
- Room
- Start Time
- End Time
- Days

1. SELECT WHAT IS TO BE... WHAT HAS CHANGED?	2. SEC ID (DO NOT EDIT... SECTION ID	3. TERM TERM	4. DIV DIVISION	5. DEPT DEPARTMENT	6. SUBJ SUBJECT
	116167	23/WI	SC	CS	CS
	116168	23/WI	SC	CS	CS
	116169	23/WI	SC	CS	CS
	116170	23/WI	SC	CS	CS
Delete	116171	23/WI	SC	CS	CSIS
End time adjusted	116172	23/WI	SC	CS	CSIS
Day change and end time adjusted	116173	23/WI	SC	CS	CSIS
Add		23/WI	SC	CS	CSIS

Name: Select Revision (Not Required):

Figure 1.3.6

Once all the information is inputted into the text boxes above each required column, the left side telling you what still needs to be inputted will go away, and the **“FINALIZE”** button will go green. Make sure to input a name into the **“NAME”** text box so it is easily referenced and click the green finalize button. If this happens to be a different version of an already imported excel file, make sure to click the “select revision” text box so it will show up under the previous version as well.

Import Excel Finalize

SELECT WHAT IS TO BE... WHAT HAS CHANGED?	SEC ID (DO NOT EDIT... SECTION ID	TERM TERM	DIV DIVISION	DEPT DEPARTMENT	SUBJ SUBJECT	CRS COURSE NUMBER
	116167	23/WI	SC	CS	CS	433
	116168	23/WI	SC	CS	CS	446
	116169	23/WI	SC	CS	CS	451
	116170	23/WI	SC	CS	CS	471
Delete	116171	23/WI	SC	CS	CSIS	501
End time adjusted	116172	23/WI	SC	CS	CSIS	586
Day change and end time adjusted	116173	23/WI	SC	CS	CSIS	633
Add		23/WI	SC	CS	CSIS	697

Name: Select Revision (Not Required):

Figure 1.3.7

Importing Schedules (Possible Issues)

There are quite a few issues that could happen when importing your schedule. A few of them are listed below:

- Make sure to select a valid excel file, not just any excel file will work. It must be formatted in the correct way so all of the information will be inputted correctly.
- Make sure to input all the column headers information into the drop downs. If you do not, the “**FINALIZE**” button will never go green and you will not be able to import the excel file.
- Make sure to input a valid name into the “**NAME**” Text box, if you do not the finalize button will not put you through to the next screen.
- Make sure you input all admin information before importing a schedule.
- Make sure to input the admin information first, followed by the department information before faculty, and campus information before buildings.

The screenshot shows the 'Import Excel' interface with a progress indicator at the top showing step 2 of 2. A red arrow points to the 'Errors Found!' section on the left, which lists several validation errors:

- title:** String must contain at least 7 character(s)
- capacity:** Number must be greater than or equal to 1
- locations:** Building '12:20 PM' does not exist!
- faculty:** Faculty member '4' does not exist!

The main table displays the following data:

SELECT WHAT IS TO BE...	SEC ID. (DO NOT EDIT...)	TERM	DIV	DEPT	SUBJ
SECTION ID	WHAT HAS CHANGED?	TERM	DIVISION	DEPARTMENT	SUBJECT
Instructor change	116159	23/WI	SC	CS	CS
Instructor change	116160	23/WI	SC	CS	CS
Add new section	116161	23/WI	SC	CS	CS
Instructor change	116162	23/WI	SC	CS	CS
Instructor, room change	116163	23/WI	SC	CS	CS
	116164	23/WI	SC	CS	CS

At the bottom, there is a 'Name' text box containing 'Testtt' and a 'Select Revision (Not Required)' dropdown menu. A green 'FINALIZE' button and a red 'CANCEL' button are located at the bottom right.

Figure 1.4

New Project Pages

Home Page

The home page of the website is where the “main menu” is. This is where you can get directed to any other page of the scheduler. This page can be viewed as an “overview” to the scheduler as a whole and will thus be an indication of the main functions necessary to run the scheduler smoothly. A view of the home page can be viewed below in **Figure 2.0**.

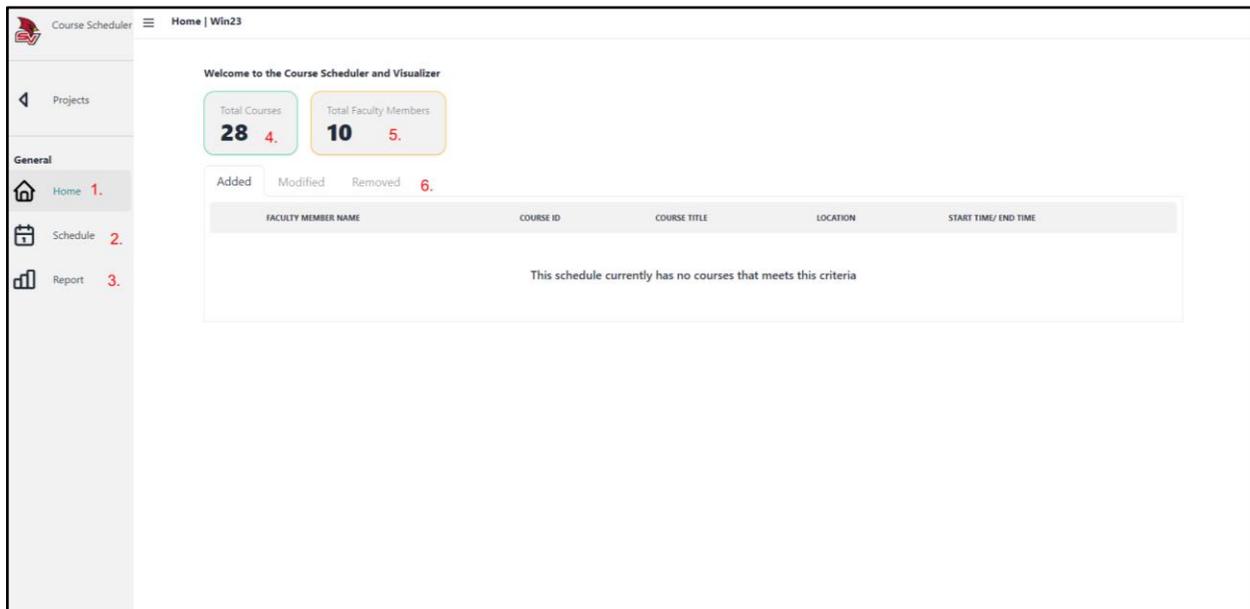


Figure 2.0

The home page is sectioned off into a few sections. Throughout the site, you have the general navigation menu on the left where you can navigate right to the current home page, marked by “1”. You can get directed to the Schedule itself, marked by “2” or the Report page, marked by “3”.

Another function of the home page is to view the total number of courses currently present in the schedule, marked by “4”. This in turn allows you to view the total numbers of faculty members present in the schedule, which is marked by “5”.

The last function of the home page, marked by “6”, is the ability to view the additions, changes, modifications, revisions, or deletions made to the schedule itself. It is tabbed by the additions of what course or faculty was added. Same goes for the removal with the specific course or faculty. The modifications, however, show what was changed within the schedule that was different from being added or removed.

Schedule Page

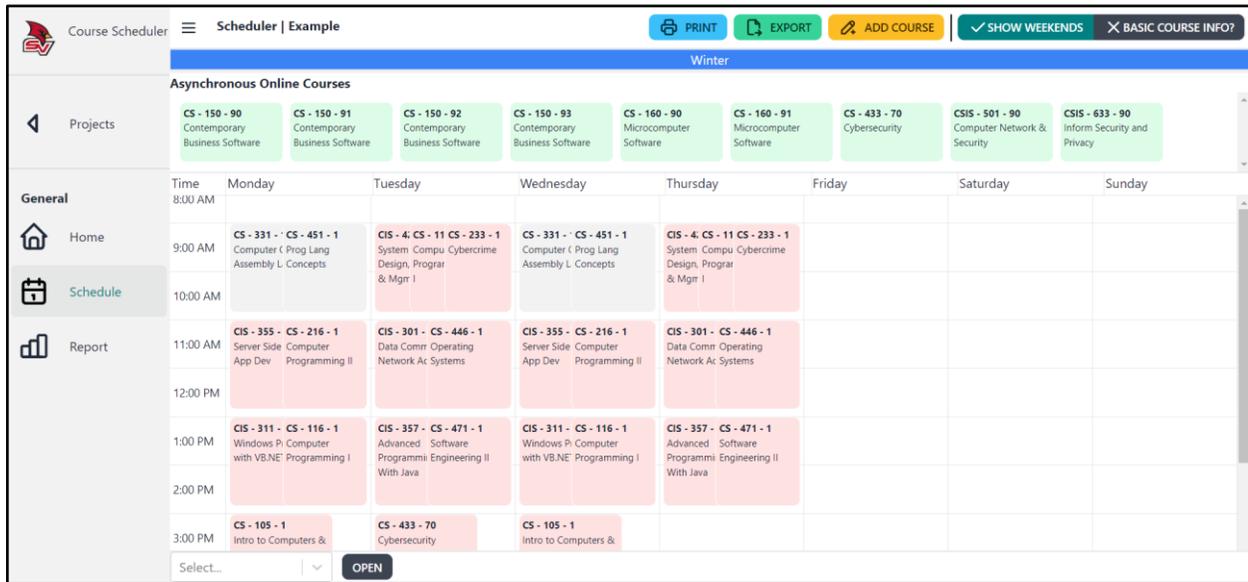


Figure 2.1

The scheduling home page has multiple different functionalities. The first and most obvious one being, this is where you can see all of the classes that are scheduled for that semester. The one in the figure above is for the winter semester. The asynchronous classes are above the synchronous classes at the top. Then along the top border you have the option to print, export, or add a course. Along with a toggle on or off option to show weekends as referenced in **Figure 2.1** above or show basic course info when mousing over specific classes.

Adding Course Placement

Add Course Placement
✕

Section Identifier

Title

Term Year Credits Start Date End date

Department Subject Course Section Faculty Member

Fall Semester
 Winter Semester
 Spring Semester
 Summer Semester

Changes

Academic Affairs

Department

Time & Locations ADD LOCATIONS

A course must have at least 1 time & location

ADD

Figure 2.1.1

To add a course to the schedule, click the yellow **“ADD A COURSE”** button in the top right of the screen. When doing so, the “add course placement” prompt will come up. This is where you will ultimately put in all the information for the course. This includes, title of the course, year, how many credits, start and end date, what department it is a part of, subject of the course, course number, section, and faculty member. Then there are optional boxes on the side for comments, if need be, one being for changes, one being for academic affairs, and one being for the department.

Time & Locations **ADD LOCATIONS**

M T W TH F Sat Sun

Course Online

Start Time: 8:30 AM to End Time: 10:30 AM

Building: UC - Science East (SE) Room: 146

A course must have at least 1 time & location

Figure 2.1.2

Then once all that information is input correctly, you need to click the **“ADD LOCATIONS”** button above, as referenced by the red arrow in figure above. This is where you will input the days of the week the class will be held on, the start and end time, if it is an online course, what building it is in, and the room number. Then once all that information is put in correctly, the course will be added and will show up on the schedule with any other classes that are there. For ease of seeing the class, a fall semester was created to show the course and how it looks in the figure below.

Time	Monday	Tuesday	Wednesday
8:00 AM			
9:00 AM	CS - 100 - 1 Example		CS - 100 - 1 Example
10:00 AM			
11:00 AM			
12:00 PM			
1:00 PM			

Figure 2.1.3

In the figure below, this shows on the right what it will look like if you mouse over any course. For consistency, the course that has been made is what is being shown. It will list all the information that the course has. Keep in mind, section ID is not going to show up if course was recently added as referenced in **Figure 2.1.4** below. That is not set by any users.

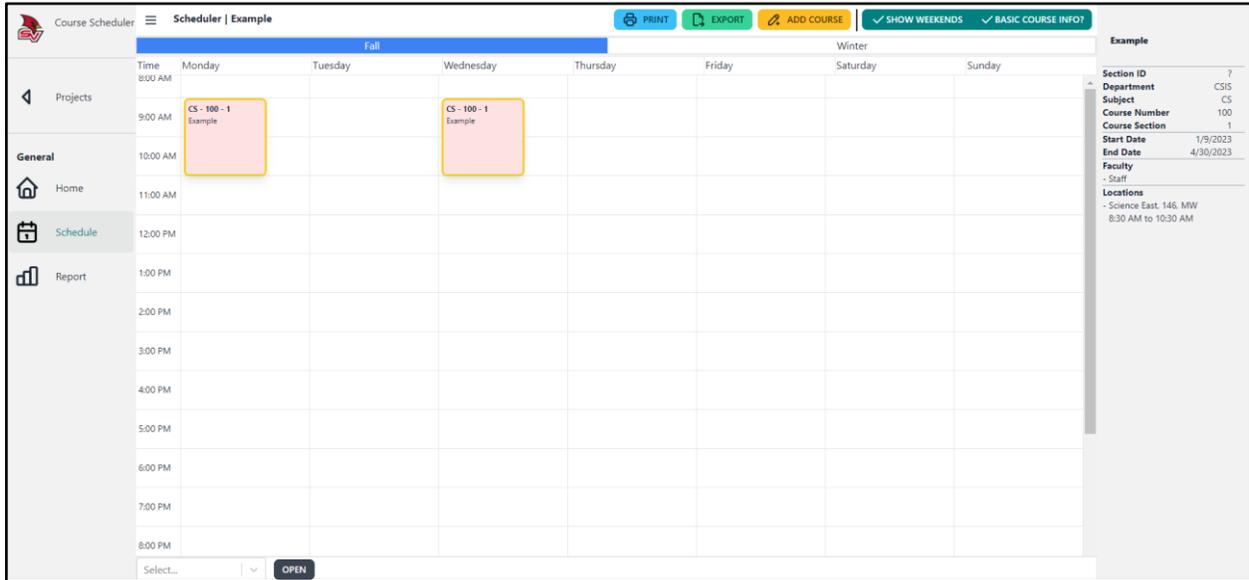


Figure 2.1.4

Adding a Course Placement (Possible Issues)

Adding a course can come with a lot of possible issues if you are not careful. For the best chance of adding a course correctly, make sure to read over what you input into the “add course placement” window in figure . This is the best way to ensure that everything is correctly inputted. Also make sure to select the days you want to add times for a selected class. A few other possible errors are referenced below in **Figure 2.2.1**.

The screenshot shows a web form titled "Add Course Placement" with a close button in the top right corner. The form is divided into several sections:

- Section Identifier:** A text input field.
- Title:** A text input field.
- Term Year:** A text input field.
- Credits:** A text input field with a red "Required" label below it.
- Start Date:** A date input field with the value "03/27/2023".
- End date:** A date input field with the value "02/26/2023".
- Department:** A dropdown menu with "Enter Department" and a red "Select a department" label below it.
- Subject:** A dropdown menu with "Enter Subject" and a red "Select a subject" label below it.
- Course:** A text input field with a red error message: "Course must be 3 numbers, ending in an optional letter and/or optional '!'" below it.
- Section:** A text input field.
- Faculty Member:** A dropdown menu with "Enter Faculty" and a red "Select a semester" label below it.
- Semester Selection:** Four radio buttons for "Fall Semester", "Winter Semester", "Spring Semester", and "Summer Semester". A red "Select a semester" label is below them.
- Time & Locations:** A section with a dark grey background and an "ADD LOCATIONS" button.
 - Days:** Radio buttons for M, T, W, TH, F, Sat, Sun. A red note says "If a course is in person, select day(s)."
 - Start Time:** A time input field showing "8:30 AM".
 - End Time:** A time input field showing "10:30 AM".
 - Course Online:** A checkbox.
 - Building:** A dropdown menu with "Enter Building" and a red "Select a semester" label below it.
 - Room:** A text input field.
- Changes:** A large empty text area on the right side.
- Academic Affairs:** A large empty text area on the right side.
- Department:** A large empty text area on the right side.

Figure 2.2.1

Print Option

To print out the schedules, you must click the blue **“PRINT”** button located at the top of the schedule page as referenced by the numbers **“1”** and **“2”** in **Figure 2.3** below. This brings up a sub-menu to select which schedule to print.

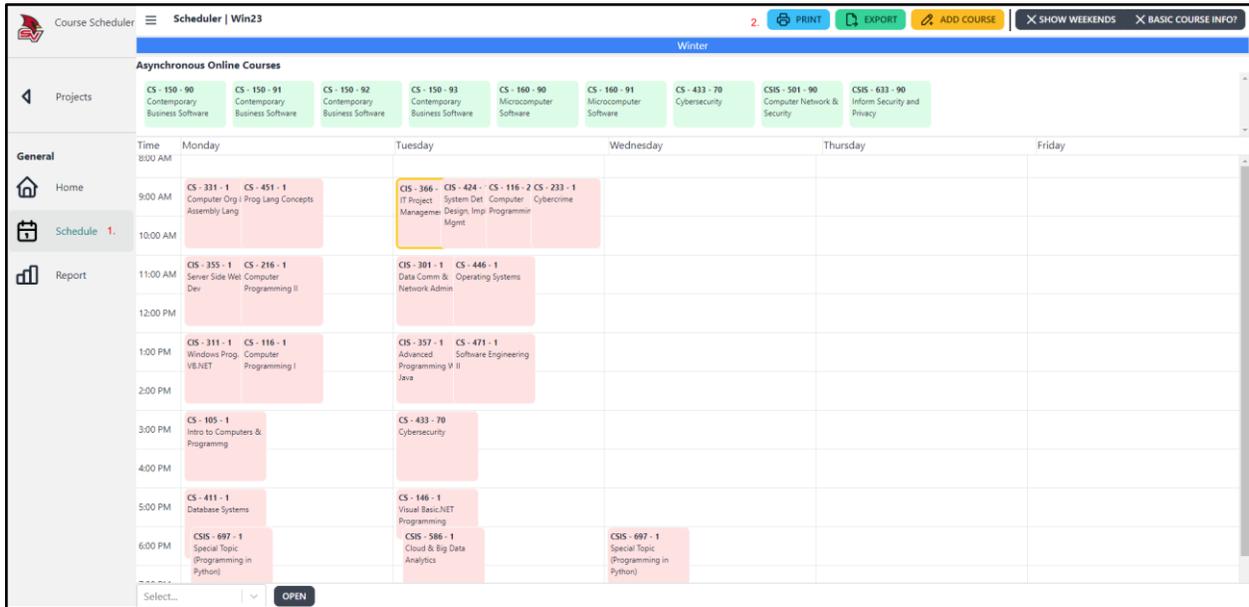


Figure 2.3

After clicking the **“PRINT”** button, you are given the choice of printing the top calendar or the bottom calendar as referenced in **Figure 2.3.1** below by the numbers **“1”** and **“2”**.

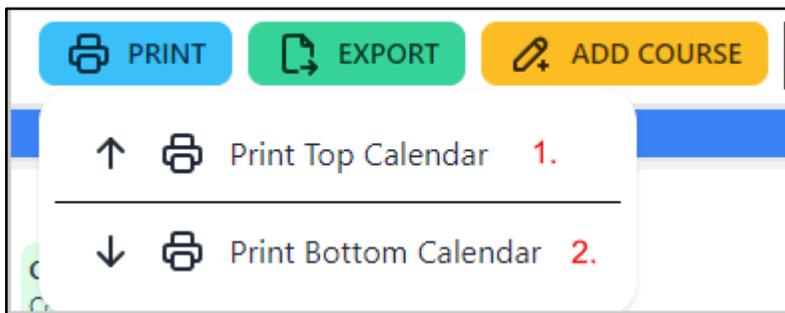


Figure 2.3.1

Once you have selected which calendar to print, they are prompted with the standard print screen for their designated OS. The figure below represents Windows 10.

Asynchronous Online Courses

Time	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
9:00 AM	CS - 33 CS - 451 - 1 Compu Prog Lang Org & Concepts Assembl Lang	CS CS CS - 233 - IT I - 1 Co 1 Ma Sys Prc Cybercrim De I De Imc			
10:00 AM					
11:00 AM	CIS - 3 CS - 216 - 1 Server Computer Web Ap Programming Dev II	CIS - 3 CS - 446 - 1 Data C. Operating & Netw Systems Admin			
12:00 PM					
1:00 PM	CIS - 3 CS - 116 - 1 Windows Computer Prog. & Programming VB.NET I	CIS - 3 CS - 471 - 1 Advanc Software Program Engineering With Ja II			
2:00 PM					
3:00 PM	CS - 105 - 1 Intro to Computers & Programmg	CS - 433 - 70 Cybersecurity			
4:00 PM					
5:00 PM	CS - 411 - 1 Database Systems	CS - 146 - 1 Visual Basic.NET Programming			
6:00 PM	CSIS - 697 - 1 Special Topic (Programming in Python)	CSIS - 586 - 1 Cloud & Big Data Analytics	CSIS - 697 - 1 Special Topic (Programming in Python)		
7:00 PM					
8:00 PM					
9:00 PM					
10:00 PM					

Print Settings Panel:

- Print: 2 sheets of paper
- Destination: Microsoft Print to PDF
- Pages: All
- Layout: Portrait
- Color: Color
- More settings: [Dropdown arrow]
- Buttons: Print, Cancel

Figure 2.3.2

Export Option

To export the schedules, you must click the green “**EXPORT**” button located at the top of the “Schedule” page as referenced by the numbers “1” and “2” in **Figure 2.4** below. This downloads the schedule to your computer.

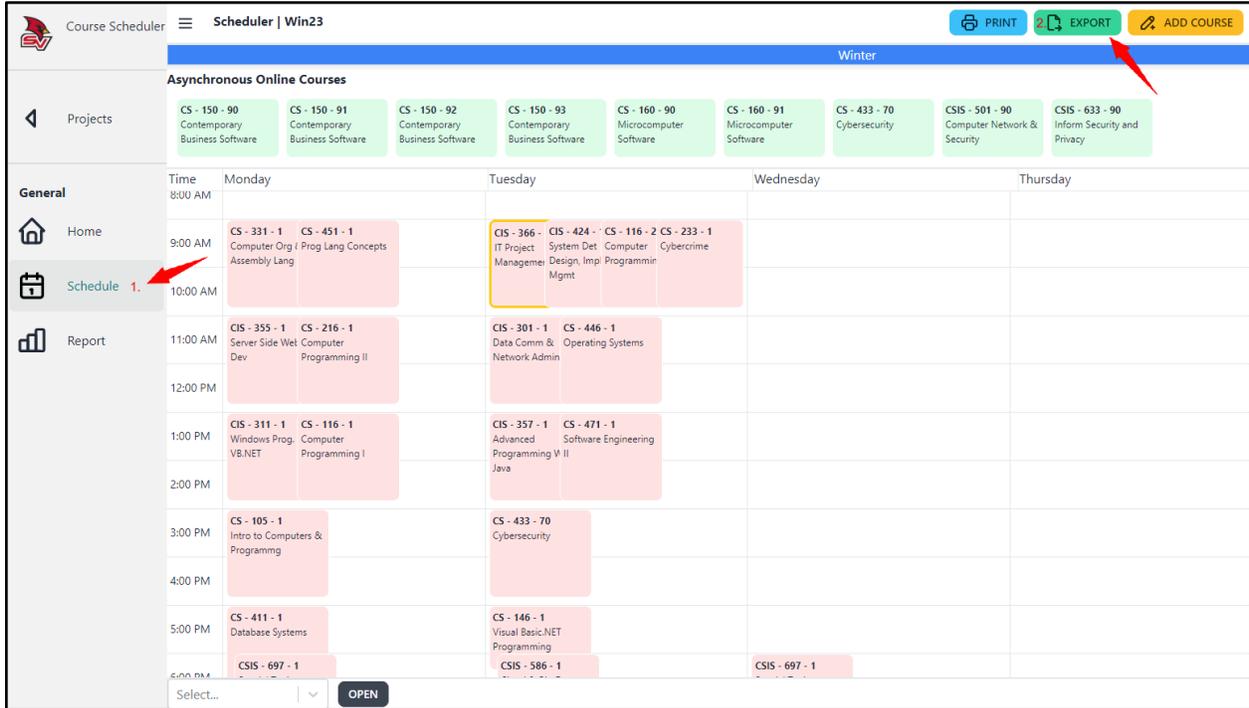


Figure 2.4

Report Page

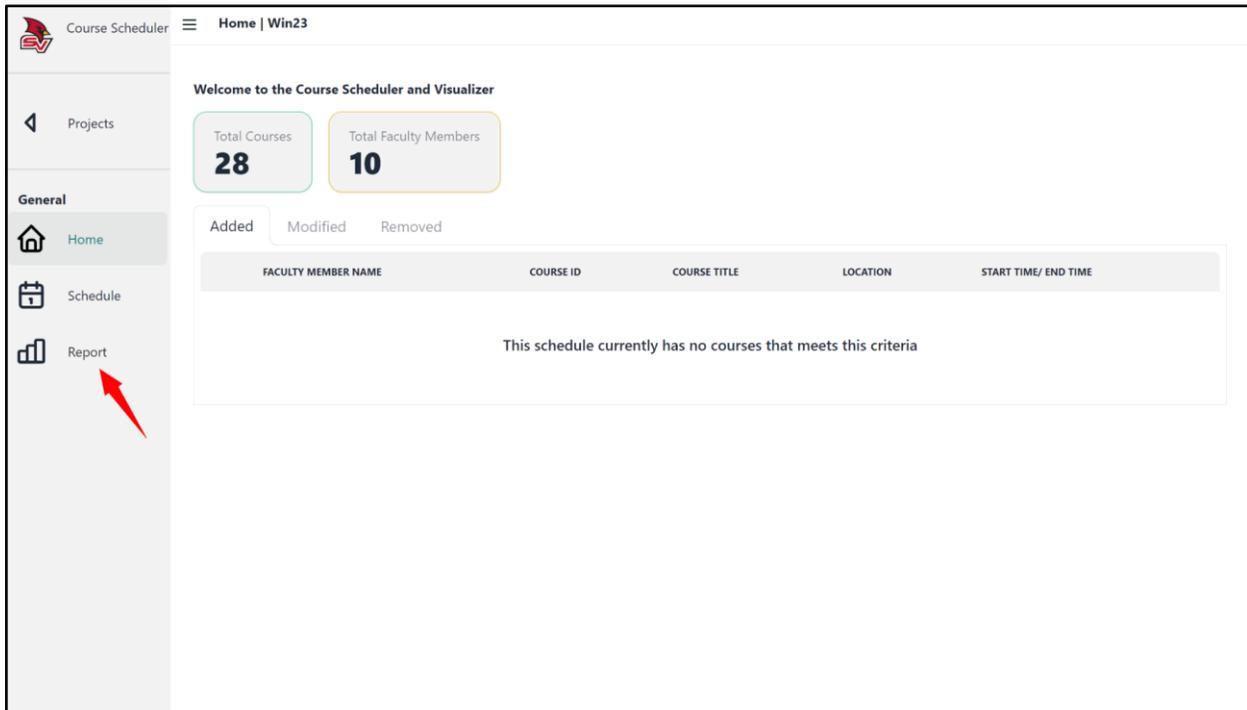


Figure 2.5

To locate the Report page, you will need to access it through the side bar menu after clicking the designated project from the home menu. This can be found where the red arrow is pointing at in **Figure 2.5** above.

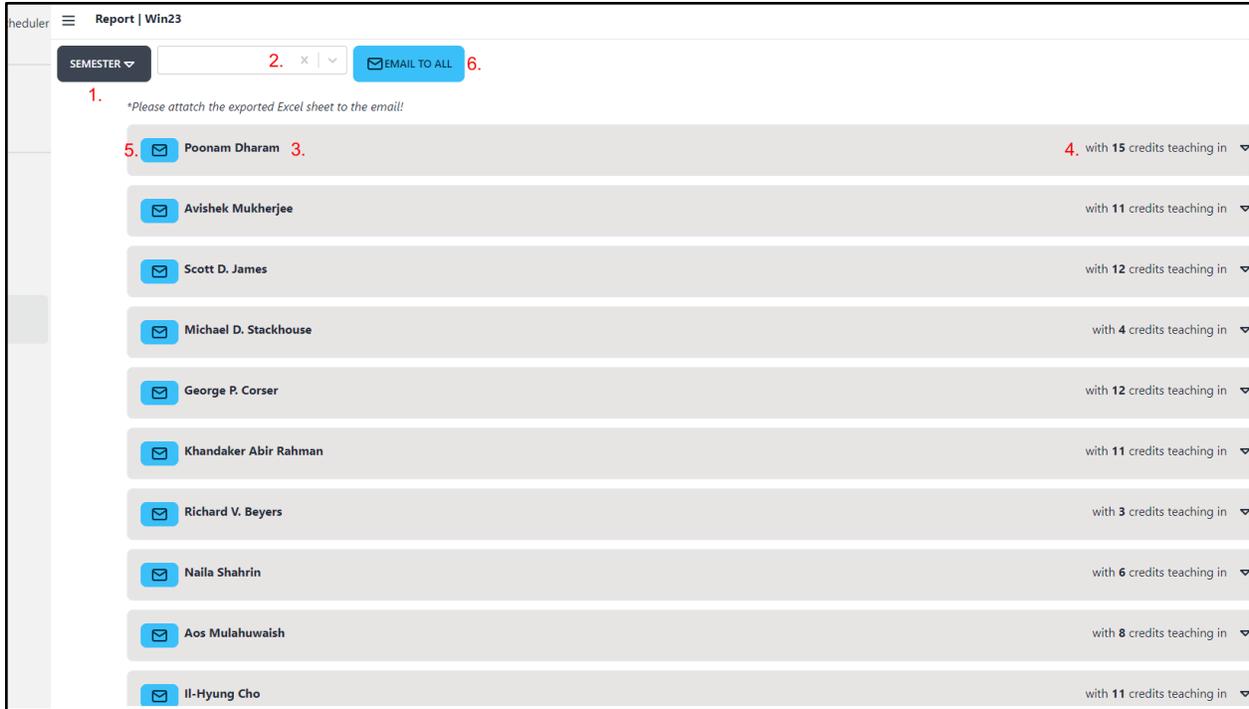


Figure 2.5.1

Once on the report page, you will see many different functions listed as referenced in **Figure 2.5.1**.

1. Filtering by the semester, marked by “1” can show which semester you are working in.
2. By filtering depending on the department, can display only those based on the department listed, marked by “2”.
3. The professor’s name, marked by “3” categorizes the classes taught by that specific professor which allows you to create a drop down listing the various classes taught by the professor in the given semester.
4. The professor’s total credit count can be viewed where it is marked “4”.
5. If you need to email the professor with their specific schedule and courses, you will click the blue email button marked by “5”.
6. The email feature can be extended to include all the professors listed with the blue “EMAIL TO ALL” button marked by “6”.

Filtering by Semester

This is predetermined based upon the schedule you have given and is automatically chosen. You can double check you are in the correct semester by clicking the drop-down menu. As referenced in **Figure 2.5.2**.

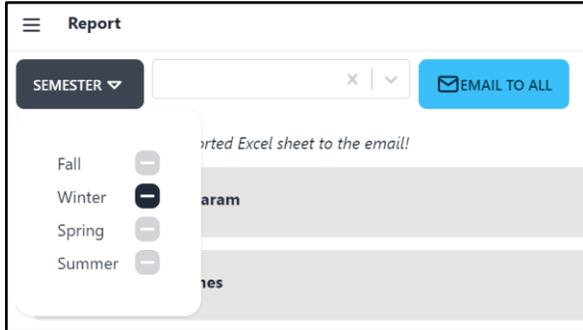


Figure 2.5.2

Filtering by Department

If you are uploading a schedule by a specific college that contains many different departments, you can filter these results using the drop-down menu and clicking the specific department. This function can be referenced in **Figure 2.5.3** below.

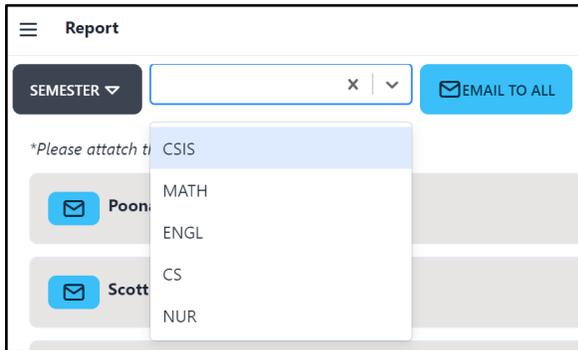
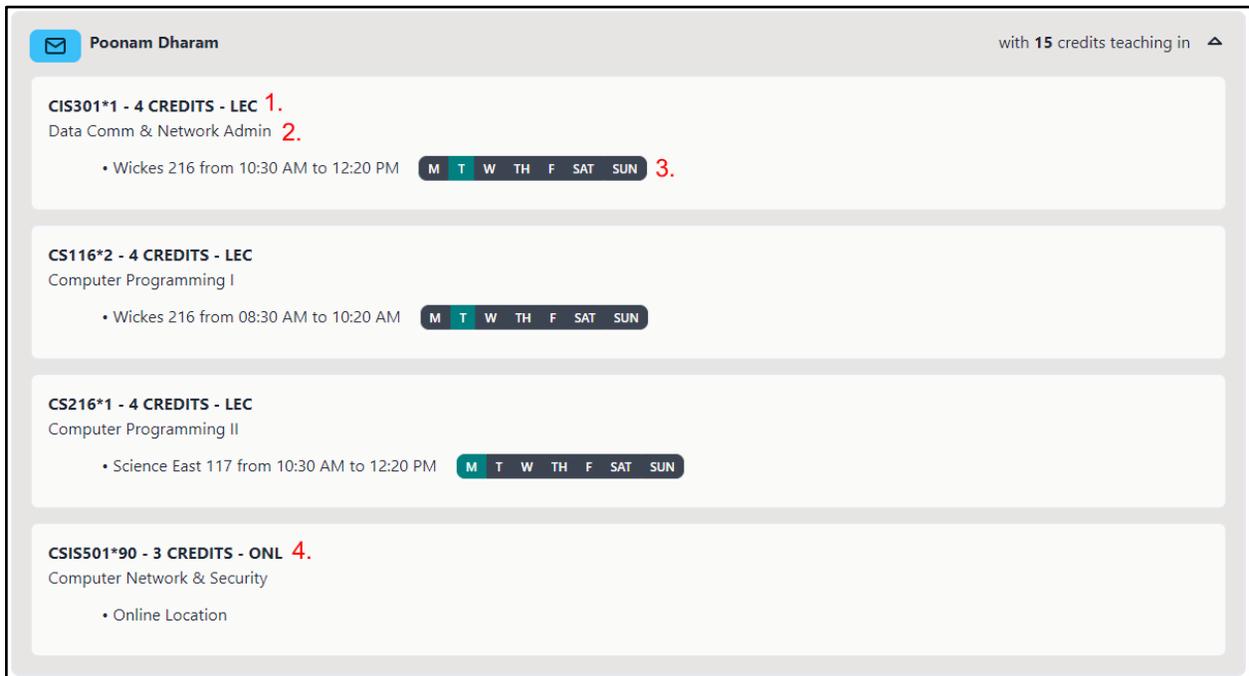


Figure 2.5.3

Viewing Professor-Specific Information

You can view the professor information by clicking on the drop-down from the entire professor list referenced in **Figure 2.5.4**. The section will organize all the classes being taught by that specific professor.

Based on the specific professor, you can view how many credits they are teaching in that semester in addition to the class-specific information referenced in **Figure 2.5.4**. The classes are broken down into class ID, credit hours, and class presentation type marked by “1”. The detailed class name is marked by “2”. The class location, when on the main campus, class time, and the class days is marked by “3”.



Poonam Dharam with 15 credits teaching in ▲

- CIS301*1 - 4 CREDITS - LEC 1.**
 Data Comm & Network Admin **2.**
 • Wickes 216 from 10:30 AM to 12:20 PM **M T W TH F SAT SUN 3.**
- CS116*2 - 4 CREDITS - LEC**
 Computer Programming I
 • Wickes 216 from 08:30 AM to 10:20 AM **M T W TH F SAT SUN**
- CS216*1 - 4 CREDITS - LEC**
 Computer Programming II
 • Science East 117 from 10:30 AM to 12:20 PM **M T W TH F SAT SUN**
- CSIS501*90 - 3 CREDITS - ONL 4.**
 Computer Network & Security
 • Online Location

Figure 2.5.4

Emailing a Specific Professor

If you choose to email a specific professor about their class load, you will need to click the blue email button that resides next to their name on the professor list drop-down. You will then be prompted with what email application you choose. The email will then be populated with the information that is referenced from **Figure 2.5.4** into the email referenced below in **Figure 2.5.5**.

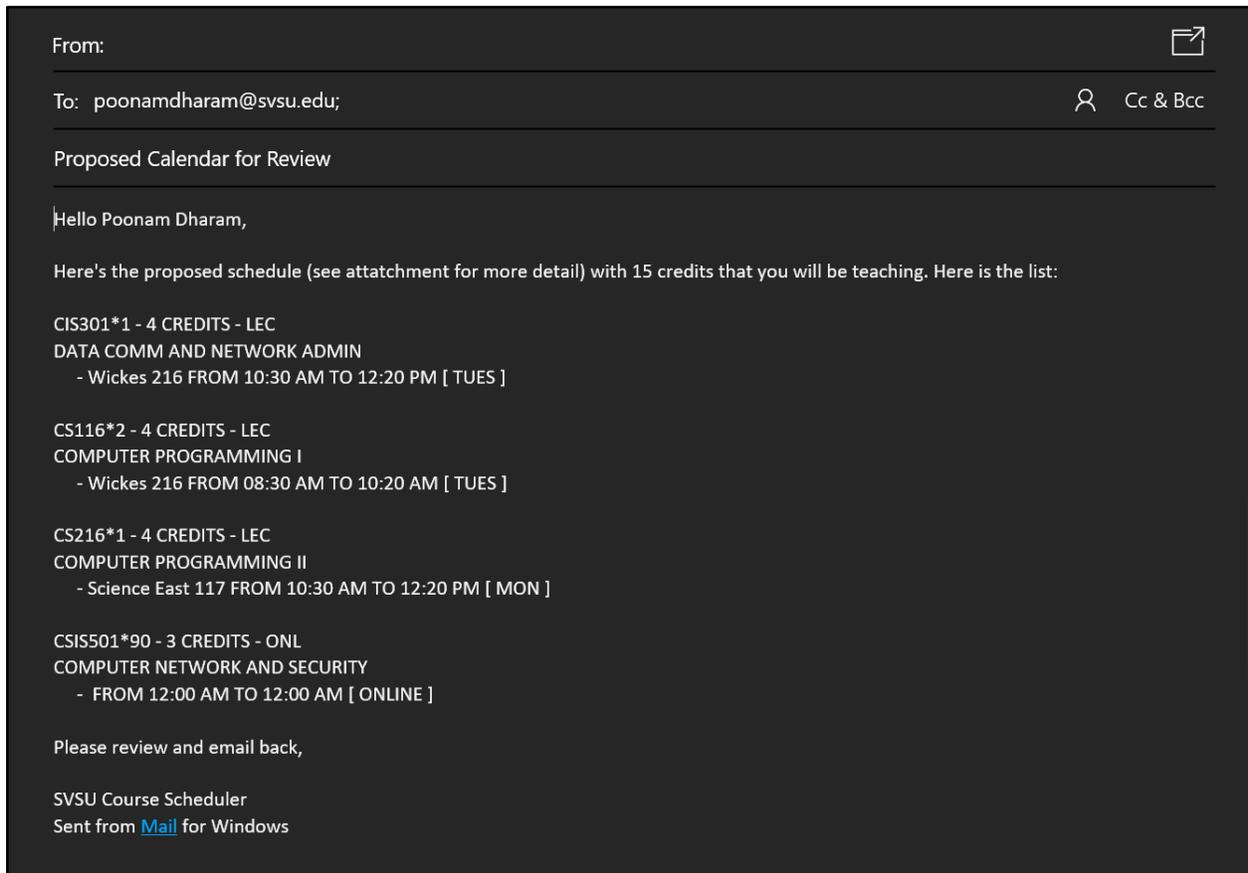


Figure 2.5.5

The email is broken down into each of the classes with the same information provided in the application. The email will not be sent out until you review all of the information, and you click the send button in the specified email application.

Emailing all Professors in Selected Semester

If you choose to email all the professors in the drop-down list on the specified semester, the same email prompt will be given and thus populating the email with every professor email. Instead of each professor getting their run-down of the courses they are offered, the entire schedule will be sent via an Excel file where added modifications will be indicated.

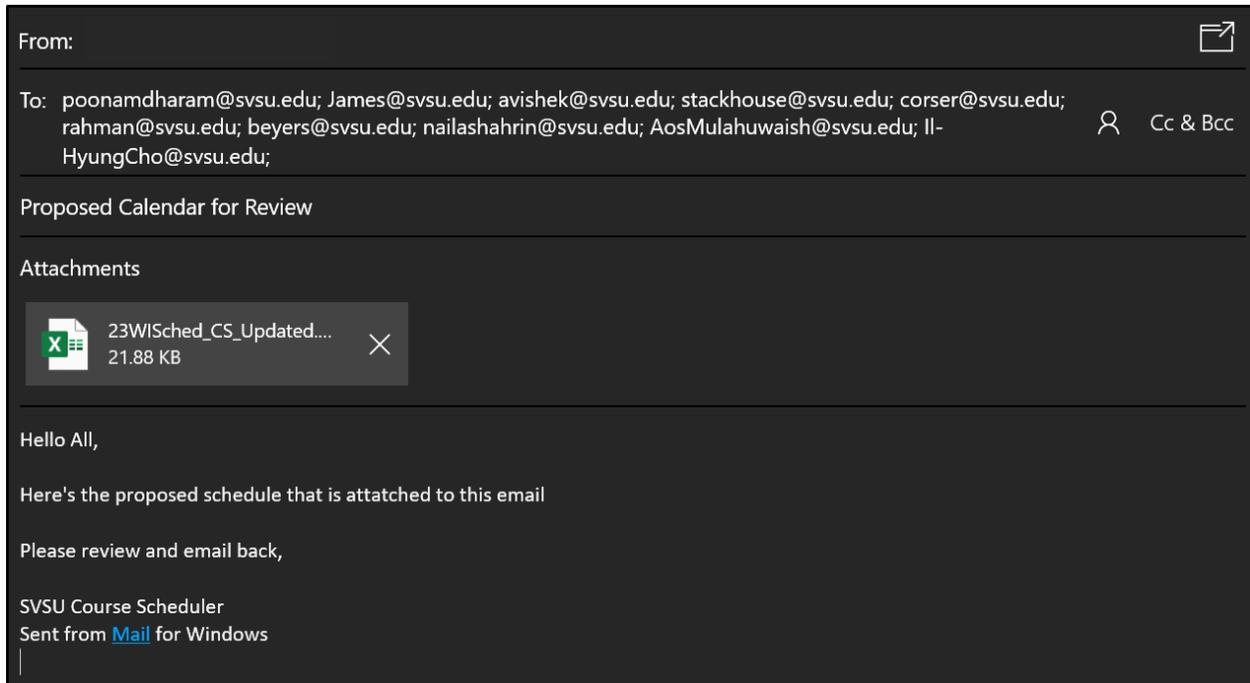


Figure 2.5.6

Once again, the email will not be sent out until you review it and click the **“SEND BUTTON”**.

Admin Pages

The Admin Screens are where qualified users will be able to Add, Edit, or Remove specific information from the application. Such as Course, faculty, building, and department information. You can access these screens by clicking the “ADMIN” button on the projects page that is referenced in **Figure 3.0** below and referenced by the red arrow.



Figure 3.0



Figure 3.1

Departments/Subjects Page

The Departments/Subjects Screen is a screen that will open up after you click the “ADMIN” button that is in **Figure 3.0** as discussed above, and then click the “DEPARTMENTS” button as referenced in **Figure 3.2** below. In this screen you can add new departments or subjects, edit and remove existing departments or subjects, and search by name or subjects for departments as well.

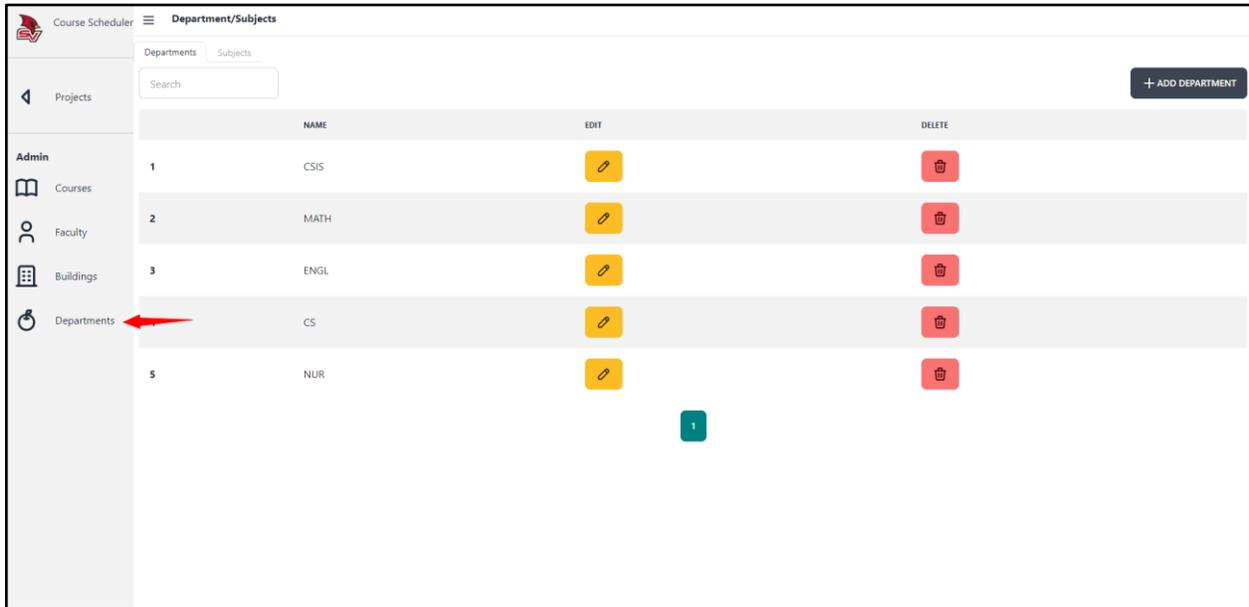


Figure 3.2

Searching for a Subject

To search for a subject, click the search bar while on the “**SUBJECTS**” tab as referenced by “**1**” in **Figure 3.2.1** below, then type in your desired subject as referenced by “**2**”.

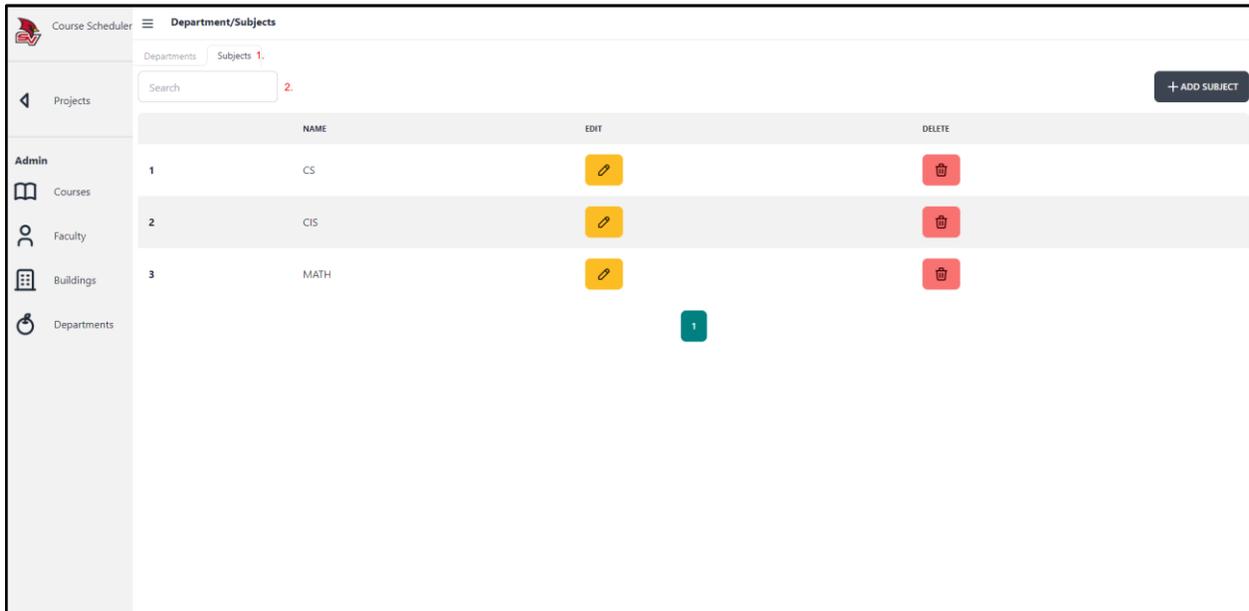


Figure 3.2.1

Adding a Subject

To add a new subject, click the black button in the upper right corner of the “**SUBJECTS**” tab labeled “**+ ADD SUBJECT**” as referenced in **Figure 3.2.2** below. This will bring up a sub-menu where you enter in the name of the subject.

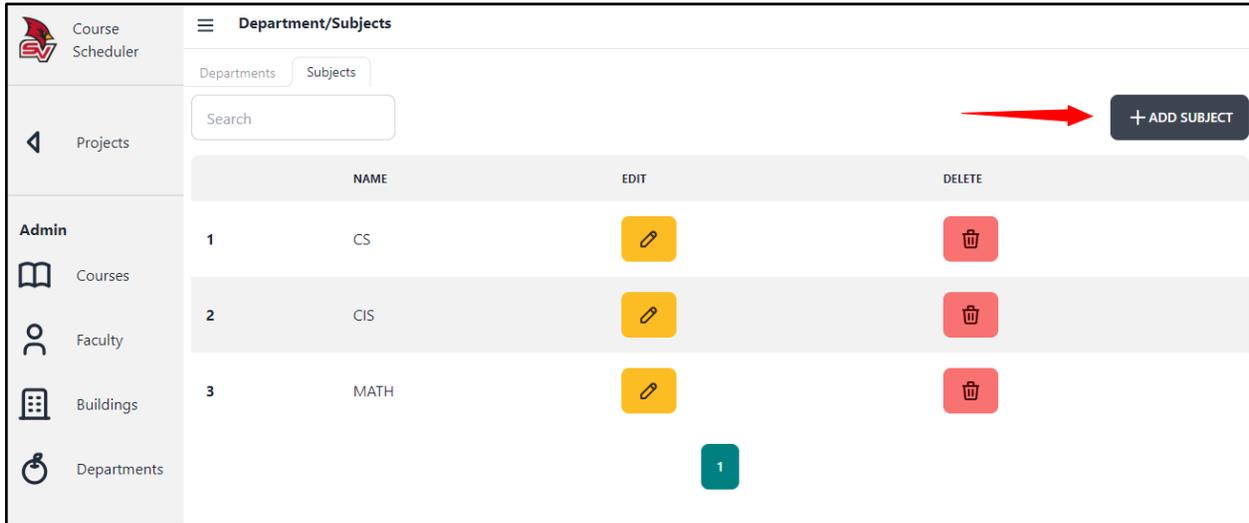


Figure 3.2.2

When adding a new subject, you enter in the name of the subject as referenced by the number “1” in **Figure 3.2.3** below. To add the subject, you click the green “**ADD**” button as referenced by the number “2”. To leave this menu, click the “**X**” in the top right as referenced by the number “3”.

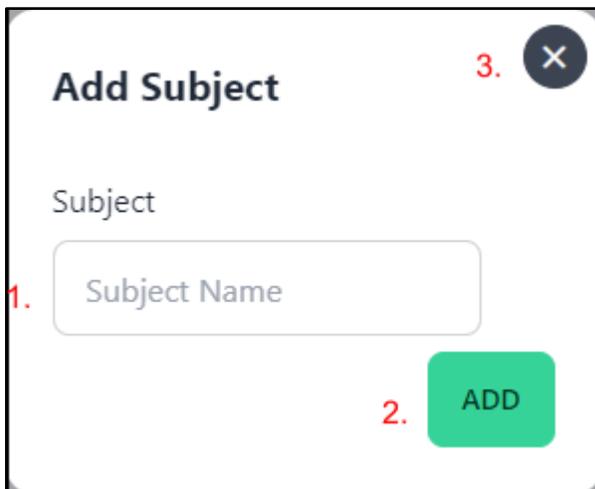


Figure 3.2.3

Editing a Subject

To edit a subject, while on the “**SUBJECTS**” tab as referenced by “1” in **Figure 3.2.4** below. Then click on the yellow pencil under the “**EDIT**” column of the desired subject you wish to edit referenced by “2”. This will open a sub-menu, where you edit the name of the subject.

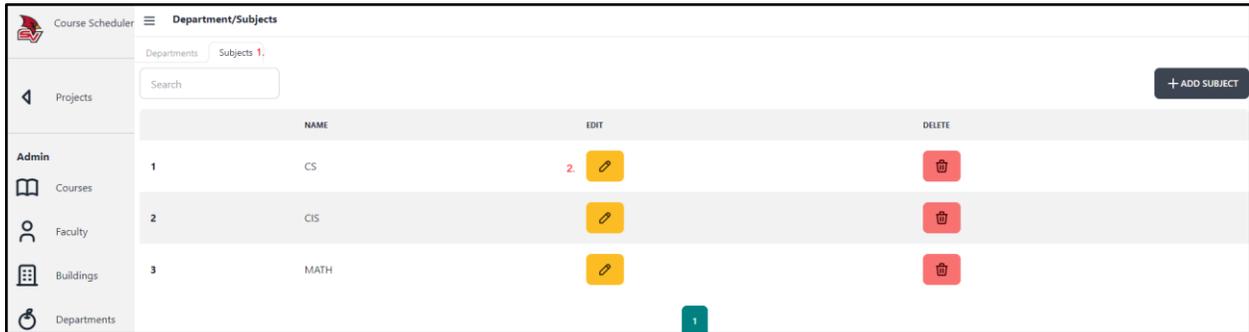
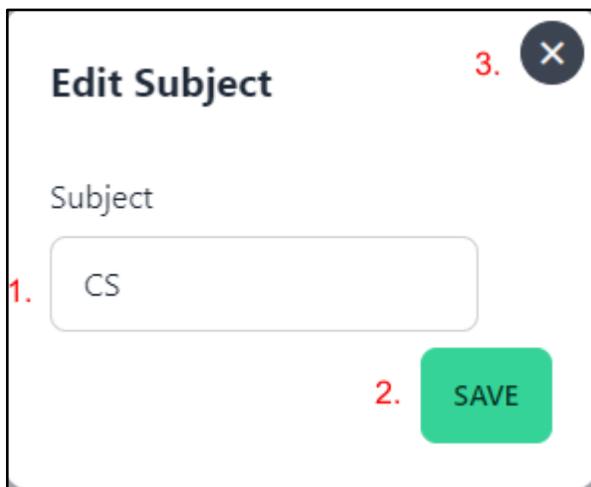


Figure 3.2.4



When editing a subject, you change the name of the subject as referenced by the number “1” in **Figure 3.2.5** below. To save the changes , click the green “**SAVE**” button as referenced by the number “2”. To leave this menu, click the “**X**” in the top right as referenced by the number “3”.

Figure 3.2.5

Deleting a Subject

To delete a subject, while on the “**SUBJECTS**” tab as referenced by “**1**” in **Figure 3.2.6** below, click on the red trash can under the “**DELETE**” column of the desired subject you wish to remove. This is referenced by the “**2**”. This will open a sub-menu, where you confirm the removal of the subject.

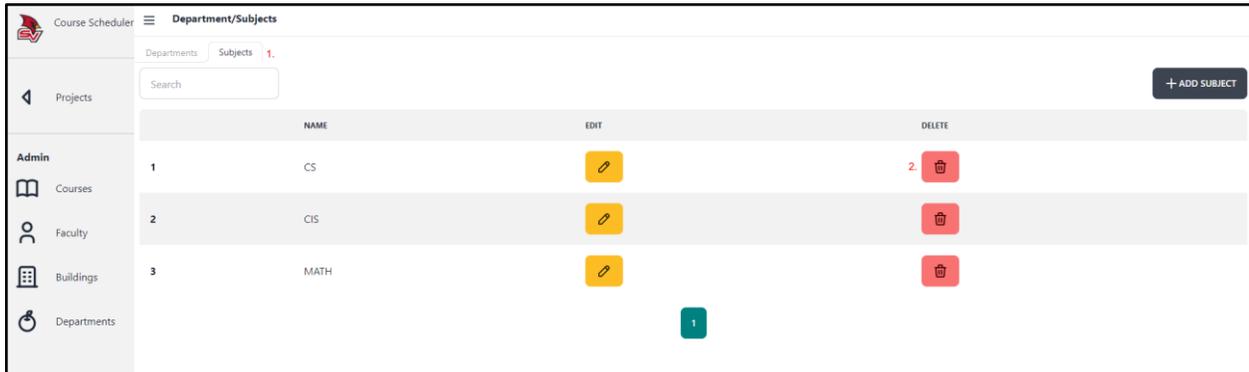


Figure 3.2.6

When deleting a subject, you are prompted with a sub-menu. Click the red button labeled “**CANCEL**” to cancel the deletion as referenced by the “**1**” in **Figure 3.2.7** below. Click the green button labeled “**CONFIRM**” to confirm the deletion as referenced by the “**2**”. To leave this menu click the “**X**” in the top right as referenced by the number “**3**”.

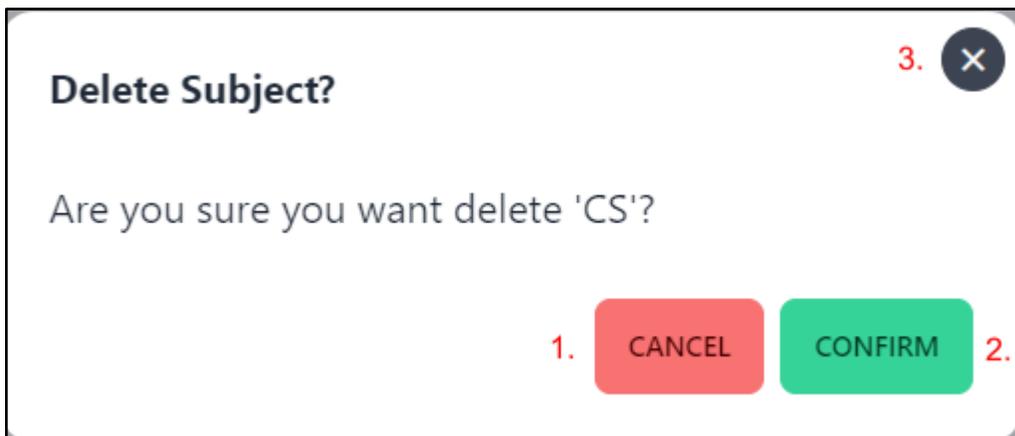


Figure 3.2.7

Searching for a Department

To search for a department, click the search bar while on the “**DEPARTMENTS**” tab as referenced by “1” in **Figure 3.2.8** below, type in your desired department as referenced by “2”.

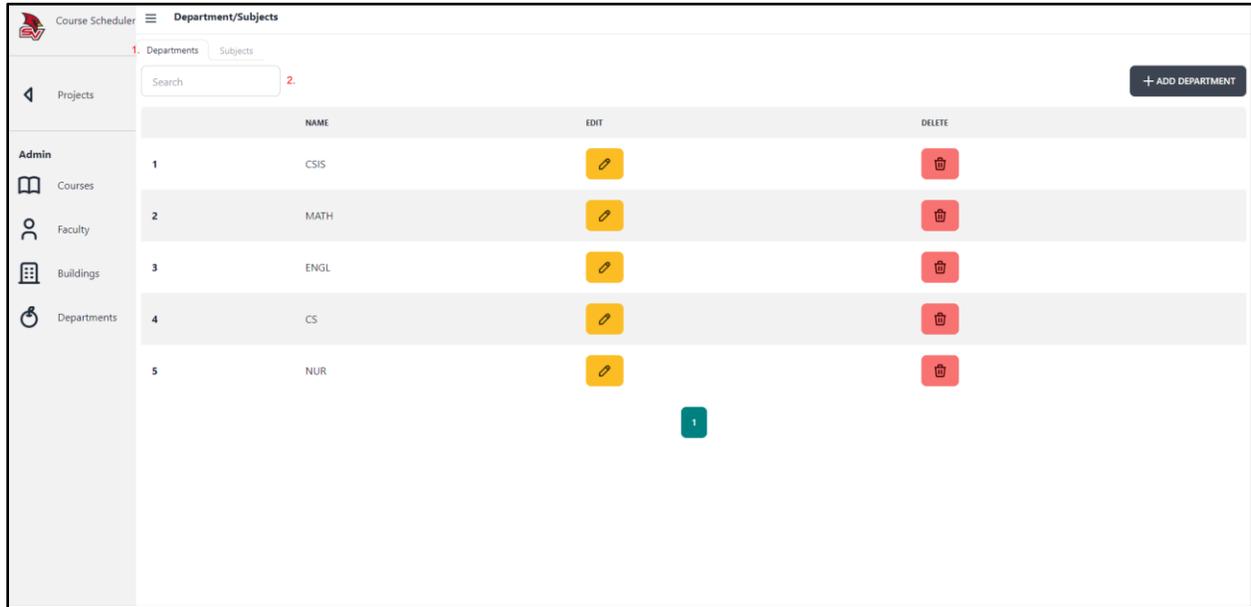


Figure 3.2.8

Adding a Department

To add a new department, click the black button in the upper right corner of the “DEPARTMENTS” tab labeled “+ ADD DEPARTMENT” as referenced in **Figure 3.2.9** below. This will bring up a sub-menu where you can enter in the name of the department.

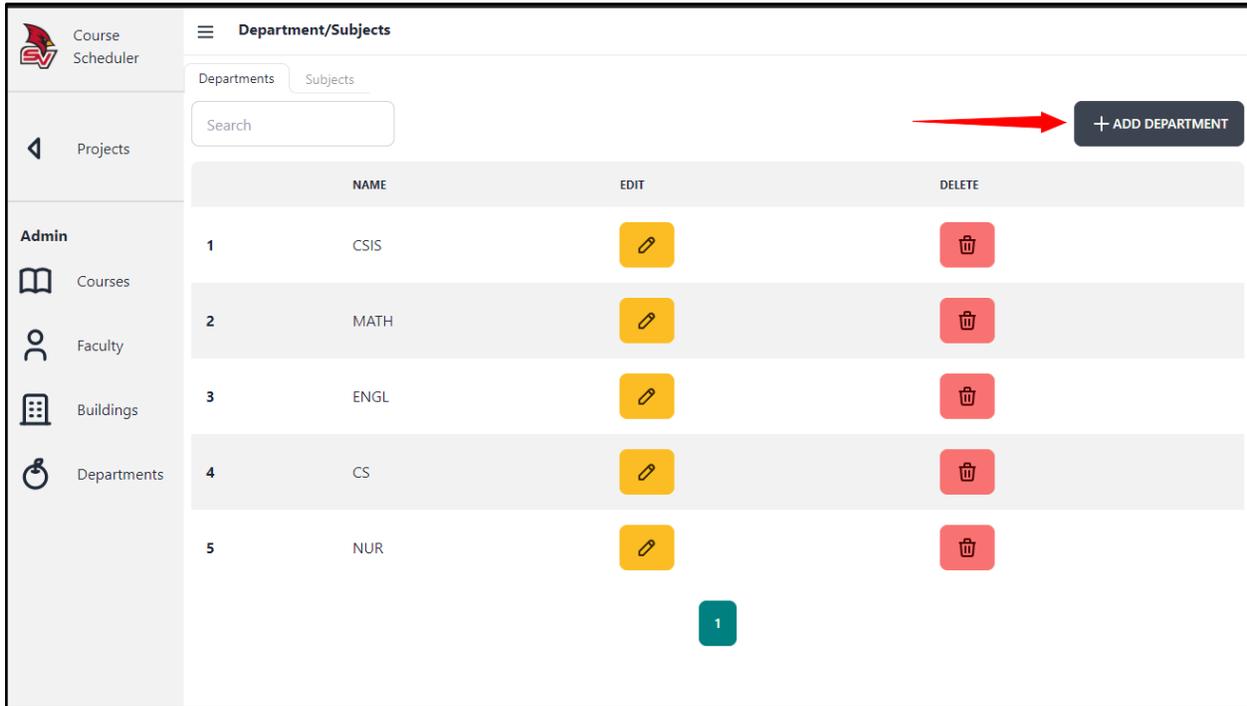


Figure 3.2.9

When adding a new department, you enter in the name of the department as referenced by the number “1” in **Figure 3.2.10** below. To add the department, click the green “ADD” button as referenced by the number “2”. To leave this menu, click the “X” in the top right as referenced by the number “3”.

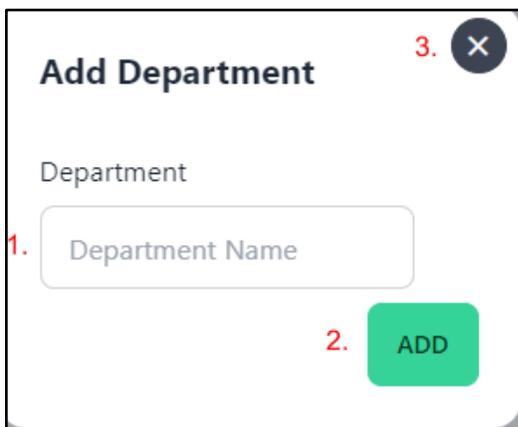


Figure 3.2.10

Editing a Department

To edit a subject, while on the “**DEPARTMENTS**” tab as referenced by “**1**” in **Figure 3.2.11** below, click on the yellow pencil under the “**EDIT**” column of the desired department you wish to edit. This is referenced by the “**2**”. This will open a sub-menu, where you edit the name of the department.

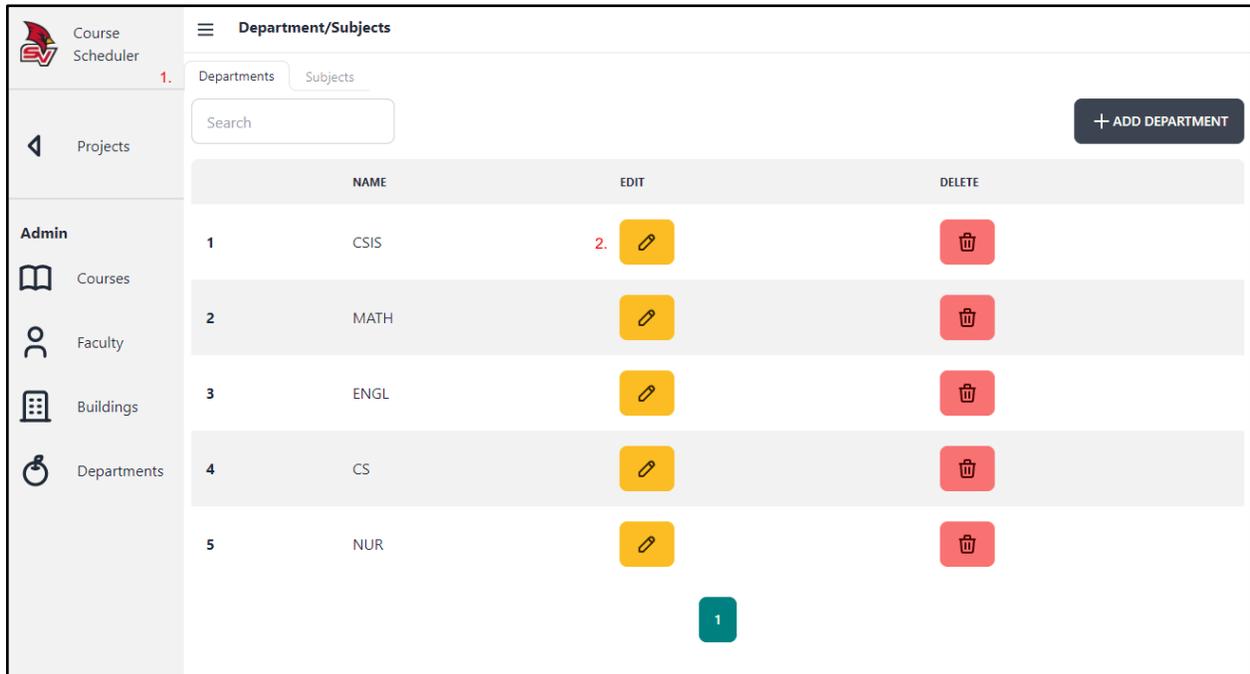


Figure 3.2.11

When editing a department, you change the name of the department as referenced by the number “**1**” in **Figure 3.2.12** below. To save the changes , click the green “**SAVE**” button as referenced by the number “**2**”. To leave this menu, click the “**X**” in the top right as referenced by the number “**3**”.

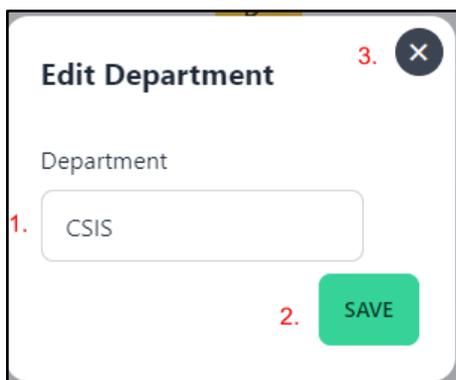


Figure 3.2.12

Deleting a Department

To delete a department, while on the “**DEPARTMENTS**” tab as referenced by “**1**” in **Figure 3.2.13** below, click on the red trash can under the “**DELETE**” column of the desired department you wish to remove referenced by “**2**”. This will open a sub-menu and you can confirm the removal of the department.

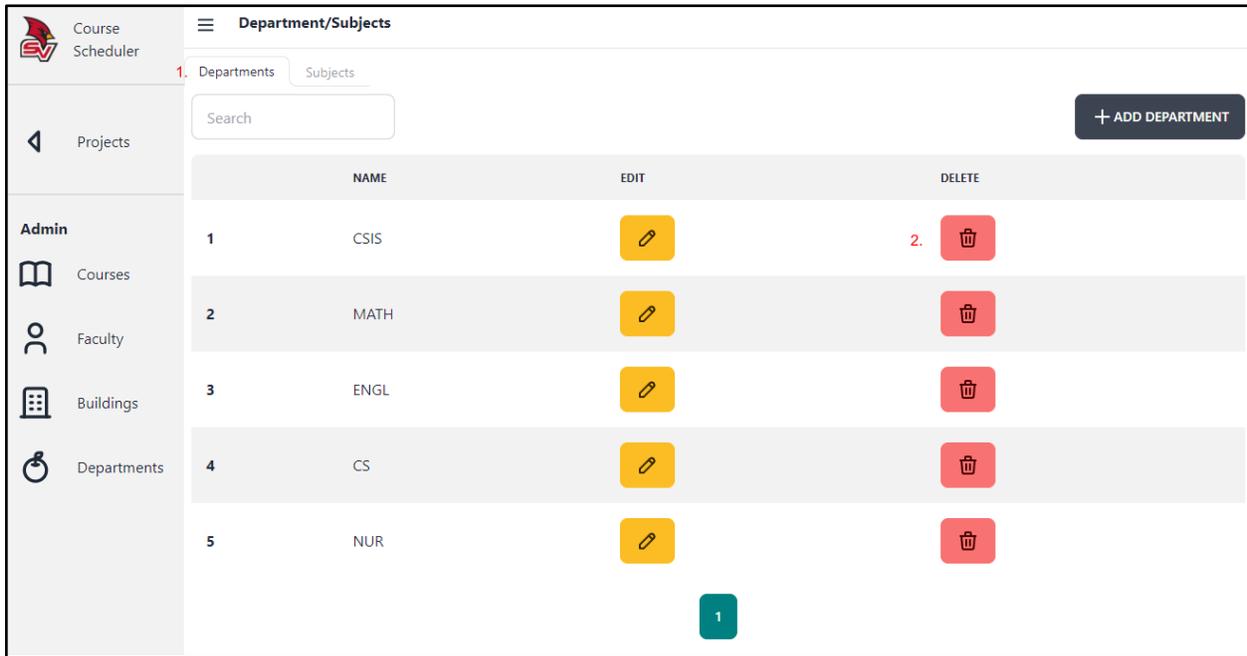


Figure 3.2.13

When deleting a department, you are prompted with a sub-menu. Click the red button labeled “**CANCEL**” to cancel the deletion as referenced by the “**1**” in **Figure 3.2.14** below. Click the green button labeled “**CONFIRM**” to confirm the deletion as referenced by the “**2**”. To leave this menu, click the “**X**” in the top right as referenced by the number “**3**”.

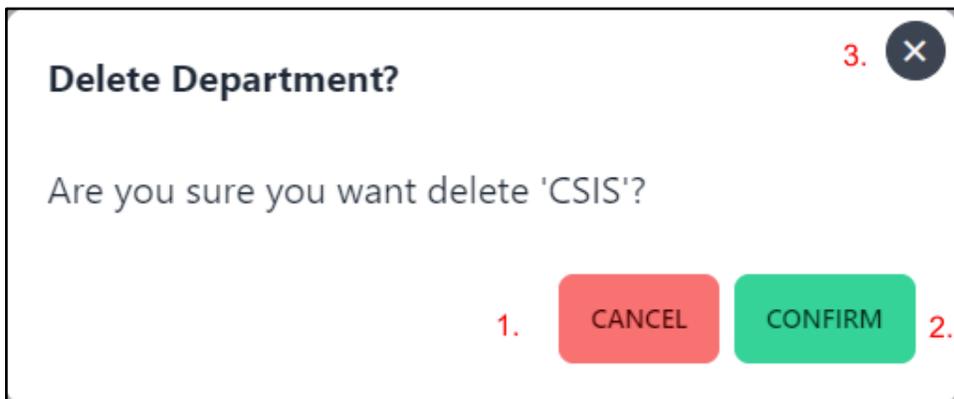


Figure 3.2.14

Faculty Page

The Faculty Screen is the default screen that will open after you click the “**ADMIN**” button that is in **Figure 3.0**. If for some reason you are not in this screen initially or click to another screen and want to get back to it, click the “**FACULTY**” tab on the left, as referenced by the red arrow in **Figure 3.3** below. In this screen you can add new faculty, edit and remove existing faculty, and search by name for faculty as well.

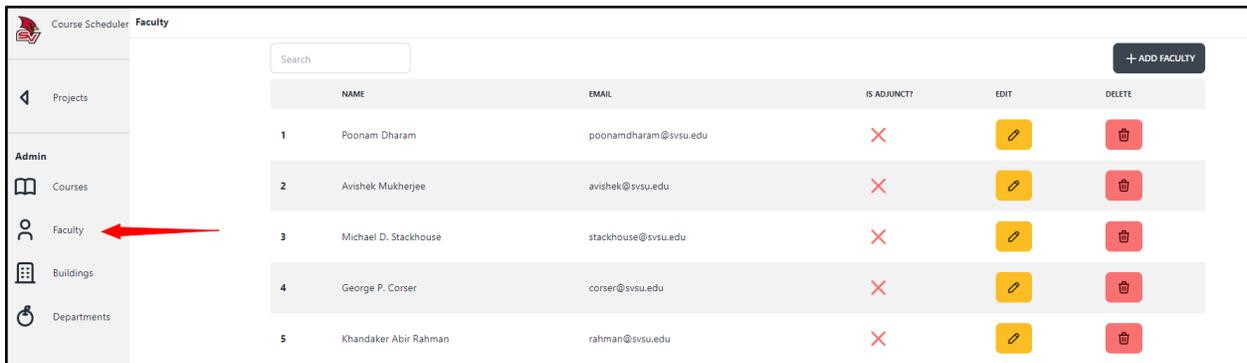


Figure 3.3

Adding a Faculty Member

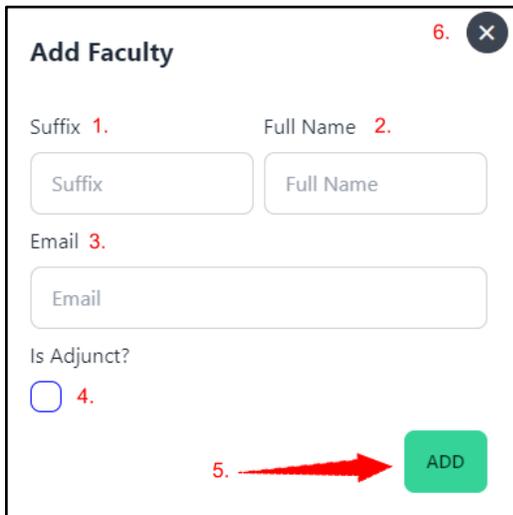


Figure 3.3.1

To add a new faculty member, click the black button in the upper right corner of the “**FACULTY**” tab labeled “**+ ADD FACULTY**” as referenced in **Figure 3.3**. This will bring up a sub-menu where you can enter in the faculty members Suffix, Full Name, Email, and if the faculty is Adjunct or not, as referenced in **Figure 3.3.1** above.

Editing a Faculty Member

To edit a faculty member, while on the “**FACULTY**” tab, you can click the yellow “**EDIT**” button shown as a pencil and referenced in **Figure 3.3.2** below.

	NAME	EMAIL	IS ADJUNCT?	EDIT	DELETE
1	Poonam Dharam	poonamdharam@svsu.edu	×		
2	Avishek Mukherjee	avishek@svsu.edu	×		
3	Michael D. Stackhouse	stackhouse@svsu.edu	×		
4	George P. Corser	corser@svsu.edu	×		
5	Khandaker Abir Rahman	rahman@svsu.edu	×		
6	Richard V. Beyers	Beyers@svsu.edu	×		
7	Naila Shahrin	NailaShahrin@svsu.edu	×		
8	Aos Mulahuwaish	AosMulahuwaish@svsu.edu	×		
9	Il-Hyung Cho	Il-HyungCho@svsu.edu	×		

Figure 3.3.2

Edit Faculty 6.

Suffix 1. Full Name 2.

Email 3.

Is Adjunct?
 4.

5.

In this submenu, as referenced in **Figure 3.3.3** below, you can change the faculty members Suffix, Full Name, Email, and Adjunct Status. In the top right of the submenu, you can click “**X**” to close the menu. In the bottom right of the submenu, you can click the green “**Save**” button to save any changes they have made on the selected faculty.

Figure 3.3.3

Removing a Faculty Member

To remove a faculty member, while on the “**FACULTY**” tab, you can click the red “**DELETE**” button shown as a trashcan and referenced in **Figure 3.3.4** below.

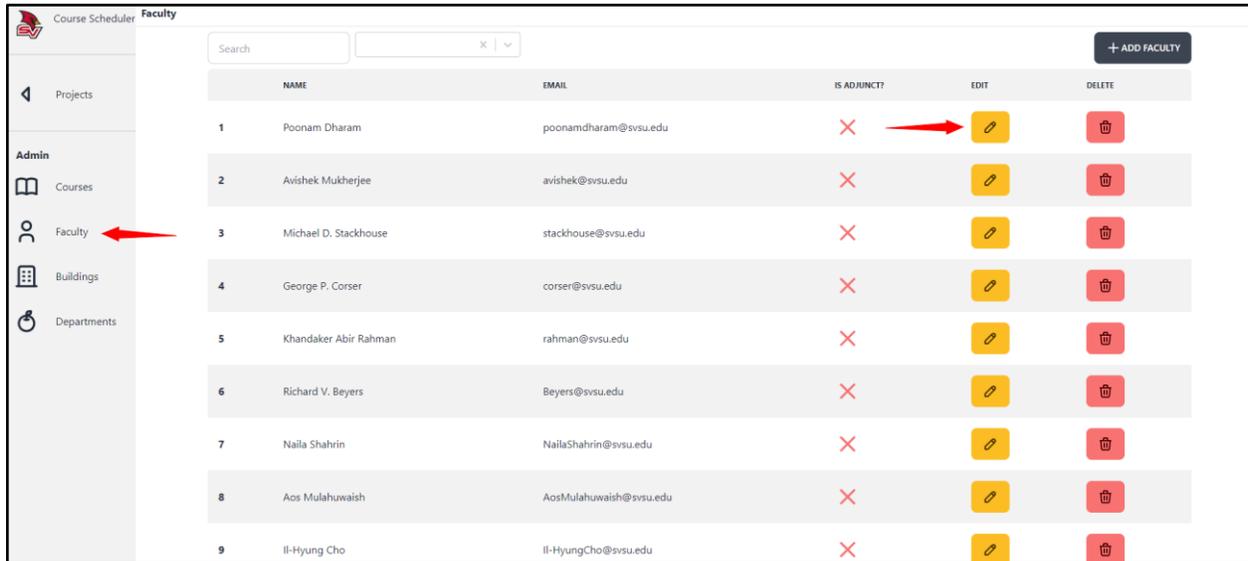


Figure 3.3.4

In this submenu, you can remove a faculty member from the system by clicking on the red trash can button. By doing so, a prompt is brought up with a confirmation screen. You have two options, clicking the green “**Confirm**” button as referenced in **Figure 3.3.5** by the number “**3**”. If you want to cancel the deletion, they can click the red “**Cancel**” button by the number “**2**”. If you want to close the menu, they can click “**X**” in the upper right corner of the submenu referenced by the number “**1**”. Keep in mind that if a faculty member is currently scheduled to teach a class in the corresponding semester, the faculty will not be able to be deleted.

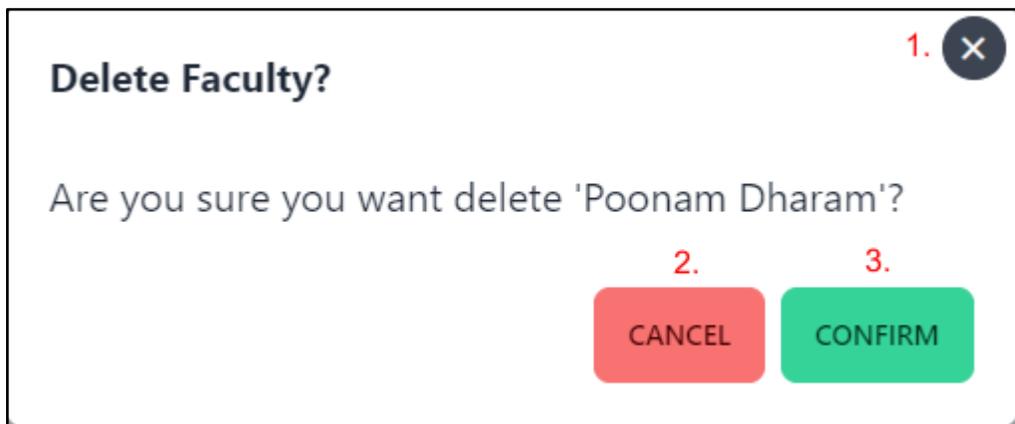
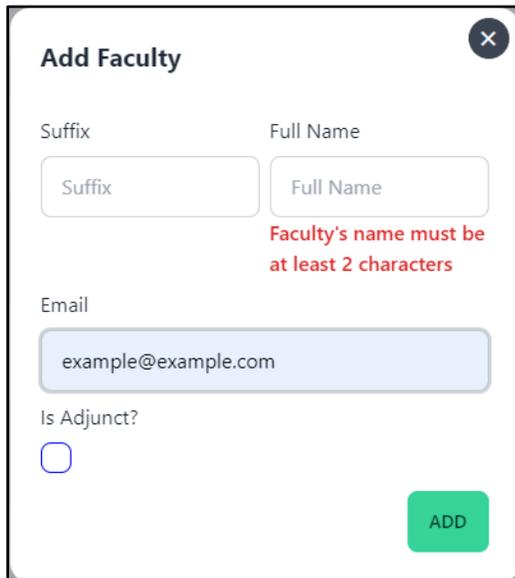


Figure 3.3.5

Faculty Screen (Possible Issues)

The faculty screen can be challenging if the inputs are not correct. Below is a list of the issues that could potentially arise.



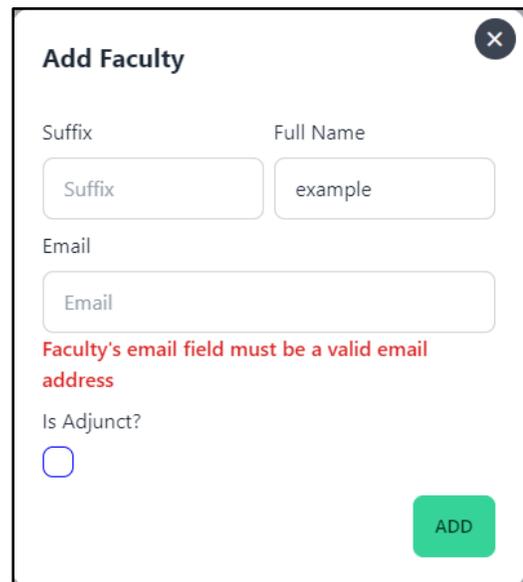
The screenshot shows a modal window titled "Add Faculty" with a close button (X) in the top right corner. It contains the following fields and elements:

- Suffix:** A text input field with the placeholder text "Suffix".
- Full Name:** A text input field with the placeholder text "Full Name". Below this field, a red error message reads: "Faculty's name must be at least 2 characters".
- Email:** A text input field containing the email address "example@example.com".
- Is Adjunct?:** A radio button that is currently unselected.
- ADD:** A green button located at the bottom right of the form.

- If no name is typed into the text box, as referenced in **Figure 3.3.6** below, "Faculty's name must be at least 2 characters" will appear in red text.

Figure 3.3.6

- If no email is typed into the text box, as referenced in **Figure 3.3.7** below, "Faculty's email field must be a valid email address" will appear in red text.



The screenshot shows a modal window titled "Add Faculty" with a close button (X) in the top right corner. It contains the following fields and elements:

- Suffix:** A text input field with the placeholder text "Suffix".
- Full Name:** A text input field containing the text "example".
- Email:** A text input field with the placeholder text "Email". Below this field, a red error message reads: "Faculty's email field must be a valid email address".
- Is Adjunct?:** A radio button that is currently unselected.
- ADD:** A green button located at the bottom right of the form.

Figure 3.3.7

Courses Guidelines Page

The course guidelines screen can be accessed by clicking the “**COURSES**” tab on the left, as referenced by the red arrow in **Figure 3.4** below. In this screen you can Add a course and its guidelines, edit all course information, and Delete courses from the schedule.

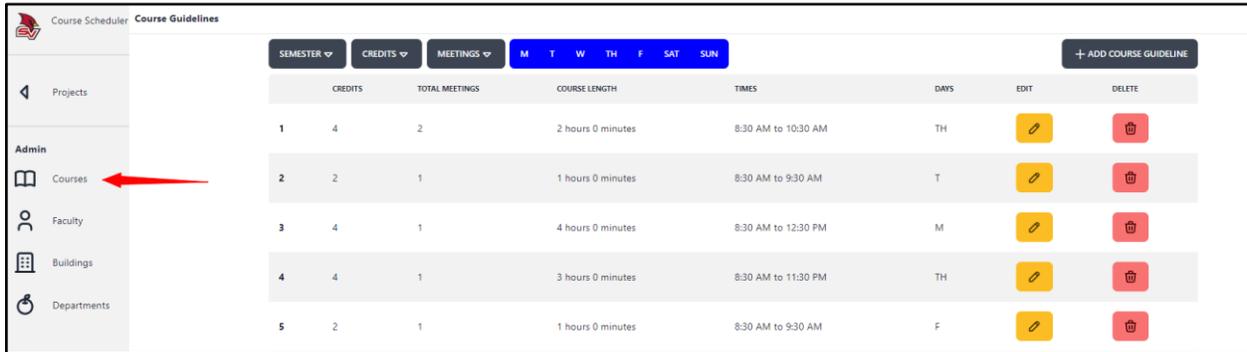


Figure 3.4

Add a Course

The Add Course button can be found in the top right of the Courses screen, as referenced below in **Figure 3.4.1**. Once clicked, the image referenced in **Figure 3.4.2** will pop up to allow you to add a new course to the schedule.

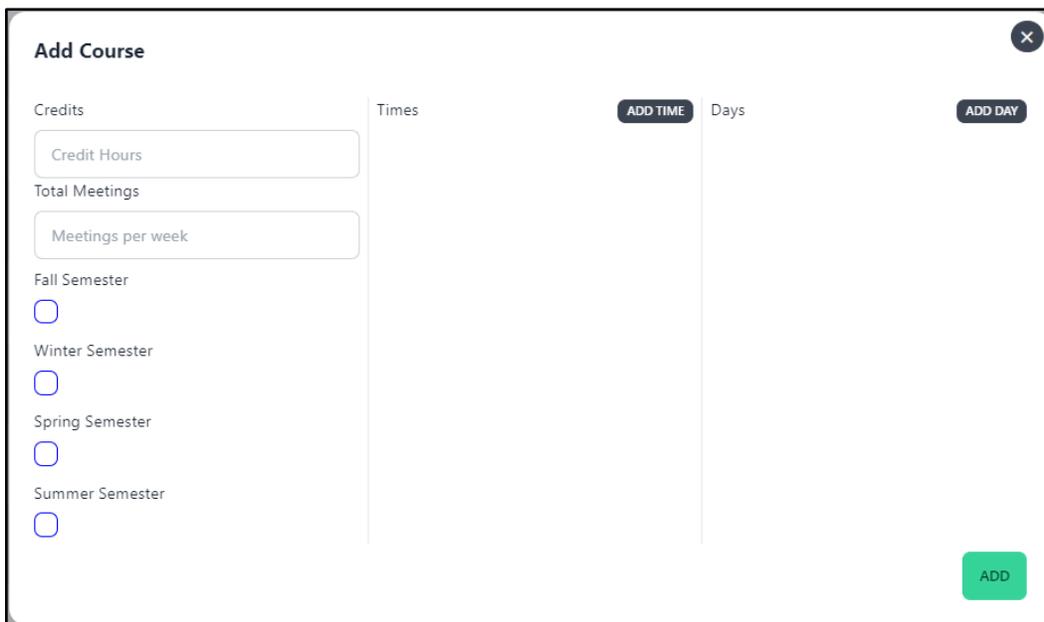


Figure 3.4.1

In **Figure 3.4.2**, you can see the process of adding a course to the schedule. In the first column referenced by the “1”, you can add the number of credit hours, how many meetings per week, and what semester this course should be offered in.

Add Course

Credits **1.**

4

Total Meetings

2

Fall Semester

Winter Semester

Spring Semester

Summer Semester

Times **ADD TIME**

Days **ADD DAY**

ADD

Figure 3.4.2

In the next column over to the right, referenced by the “2”, is where you can add in a time to the course. If you click the “**ADD TIME**” button right under the 2, this will pop up a spot where you can select your start and end times as referenced in **Figure 3.4.3** below. It will default to the start time being at 8:30 AM, and end time being at 10:20 AM. To change the time, click into the respective text boxes for the hours and minutes. Then to change it from AM to PM click into the drop down box and select PM.

Add Course

Credits

Credit Hours

Total Meetings

Meetings per week

Fall Semester

Winter Semester

Spring Semester

Summer Semester

Times

ADD TIME

Start Time

8 :30 AM

End Time

10 :20 AM

Days

ADD DAY

ADD

Figure 3.4.3

The final column over to the right, referenced by the “3” is where you will be able to select your days. If you click the “**Add Day**” button under the 3, this will pop up a spot where you are able to select your required days. All you must do is click the checkbox under each day for the day that you would like to have the class scheduled on, as referenced in the figure below. Then once you have completed all three columns, click the “**ADD**” button as referenced by the “4” to add that course to schedule.

Add Course

Credits

Total Meetings

Fall Semester

Winter Semester

Spring Semester

Summer Semester

Times

ADD TIME

Days

M T W TH F SAT SUN

ADD DAY

3.

4.

ADD

Figure 3.4.4

Then once you click add with all the correct information inputted, the class will be added and will show up as referenced in **Figure 3.4.5** below.

Course Guidelines

SEMESTER ▾ CREDITS ▾ MEETINGS ▾

M T W TH F SAT SUN

+ ADD COURSE GUIDELINE

	CREDITS	TOTAL MEETINGS	COURSE LENGTH	TIMES	DAYS	EDIT	DELETE
1	4	2	1 hours 50 minutes	8:30 AM to 10:20 AM	M W		

< 1 2

Figure 3.4.5

Adding a Course (Possible Issues)

Adding a course has its variety of issues if everything is not inputted correctly. Below are the variety of issues that could arise.

- If you are attempting to create a course and do not input the credit hours, or the meetings per week, you will be prompted to do so by red lettering saying “required” under both text boxes as referenced in **Figure 3.4.6** below.

The screenshot shows the 'Add Course' form with the following details:

- Credits:** Input field contains '1'. Below it, the word 'Required' is written in red.
- Total Meetings:** Input field contains '2'. Below it, the word 'Required' is written in red.
- Semesters:** Radio buttons for 'Fall Semester', 'Winter Semester' (selected), 'Spring Semester', and 'Summer Semester'.
- Times:** Start Time is '8 :30 AM', End Time is '10 :20 AM'.
- Days:** Checkboxes for 'M', 'T', 'W', 'TH', 'F', 'SAT', 'SUN'. 'M' and 'W' are checked.

Figure 3.4.6

- If you are attempting to create a course and do not select a semester, you will be prompted with a message in red lettering saying, “Select at least one semester.”

The screenshot shows the 'Add Course' form with the following details:

- Credits:** Input field contains '4'.
- Total Meetings:** Input field contains '2'.
- Semesters:** Radio buttons for 'Fall Semester', 'Winter Semester', 'Spring Semester', and 'Summer Semester' are all unselected.
- Times:** Start Time is '8 :30 AM', End Time is '10 :20 AM'.
- Days:** Checkboxes for 'M', 'T', 'W', 'TH', 'F', 'SAT', 'SUN'. 'M' and 'W' are checked.
- Error Message:** 'Select at least one semester.' is written in red below the semester options.

Figure 3.4.7

- If you are attempting to create a course and do not click the “**ADD TIME**” button, you will be prompted with a message in red lettering saying, “At least one time is required.”

The screenshot shows the 'Add Course' form with the following fields and options:

- Credits:** Input field containing '4'.
- Total Meetings:** Input field containing '2'.
- Semester Selection:**
 - Fall Semester:
 - Winter Semester:
 - Spring Semester:
 - Summer Semester:
- Times:** Section with an 'ADD TIME' button and a red error message: "At least one time is required."
- Days:** Section with an 'ADD DAY' button and a row of checkboxes for days of the week: M (checked), T, W (checked), TH, F, SAT, SUN. A trash icon is present to the right.
- ADD:** A green button at the bottom right.

Figure 3.4.8

- If you are attempting to create a course and select a time for the course that has the start time before the end time, you will be prompted with a message in red lettering saying, “End time cannot occur before start time!”

The screenshot shows the 'Add Course' form with the following fields and options:

- Credits:** Input field containing '4'.
- Total Meetings:** Input field containing '2'.
- Semester Selection:**
 - Fall Semester:
 - Winter Semester:
 - Spring Semester:
 - Summer Semester:
- Times:** Section with an 'ADD TIME' button and a red error message: "End time cannot occur before start time!". It includes:
 - Start Time: Input field with '10 :20 AM' and a dropdown arrow.
 - End Time: Input field with '8 :30 AM' and a dropdown arrow.
- Days:** Section with an 'ADD DAY' button and a row of checkboxes for days of the week: M (checked), T, W (checked), TH, F, SAT, SUN. A trash icon is present to the right.
- ADD:** A green button at the bottom right.

Figure 3.4.9

- If you are attempting to create a course and do not click the “**ADD DAY**” button, you will be prompted with a message in red lettering that says “Required.”

The screenshot shows the 'Add Course' form with the following fields and options:

- Credits:** Input field containing '4'.
- Total Meetings:** Input field containing '2'.
- Semesters:**
 - Fall Semester:
 - Winter Semester:
 - Spring Semester:
 - Summer Semester:
- Times:**
 - Start Time: 8 :30 AM
 - End Time: 10 :20 AM
- Days:** A section with a red error message "Required" and an "ADD DAY" button.
- Buttons:** "ADD TIME" (with trash icon), "ADD" (green), and a close "X" button.

Figure 3.4.10

- If you are attempting to create a course and do not click checkboxes for the days of the course, you will be prompted with a message in red lettering that says, “Select at least one day.”

The screenshot shows the 'Add Course' form with the following fields and options:

- Credits:** Input field containing '4'.
- Total Meetings:** Input field containing '2'.
- Semesters:**
 - Fall Semester:
 - Winter Semester:
 - Spring Semester:
 - Summer Semester:
- Times:**
 - Start Time: 8 :30 AM
 - End Time: 10 :20 AM
- Days:** A section with checkboxes for M, T, W, TH, F, SAT, SUN, a red error message "Select at least one day.", and an "ADD DAY" button.
- Buttons:** "ADD TIME" (with trash icon), "ADD" (green), and a close "X" button.

Figure 3.4.11

Courses Screen Filtering Options

There are a few other filtering functionalities of the courses screen that should be highlighted and will be marked below.

- If you want to filter by just a certain semester, click the “**SEMESTER**” button in the top left, as referenced by the red arrow in the figure below, and then you can select and unselect each semester you want to.

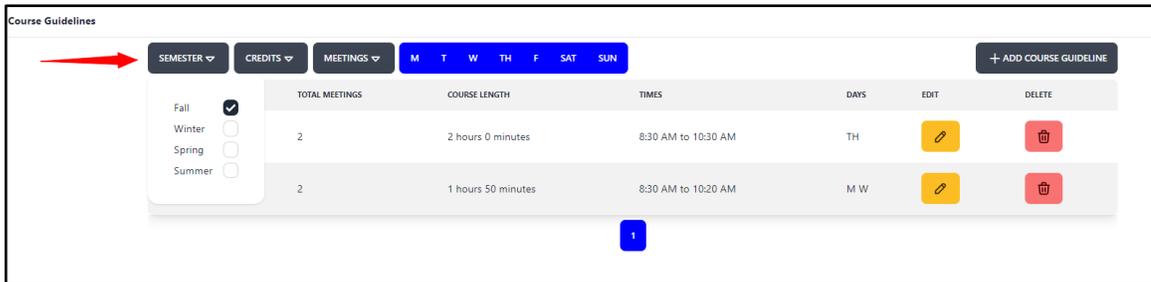


Figure 3.4.12

- If you want to filter by just a certain number of credits, click the “**CREDITS**” button in between the semester and meetings button, then you are able to select the max and min number of credits you want to see.

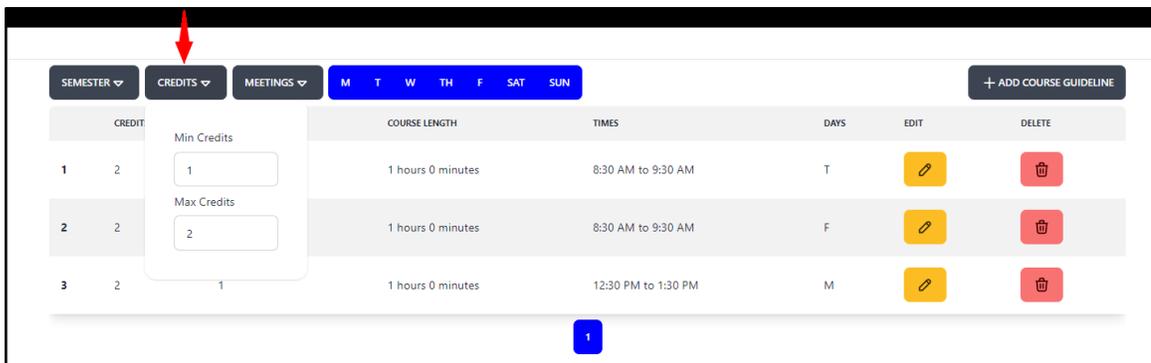


Figure 3.4.13

- If you want to filter by just a certain number of meetings, click the “**MEETINGS**” button as referenced by the red arrow in the figure below, and then you can select the max and min number of credits you want to see.

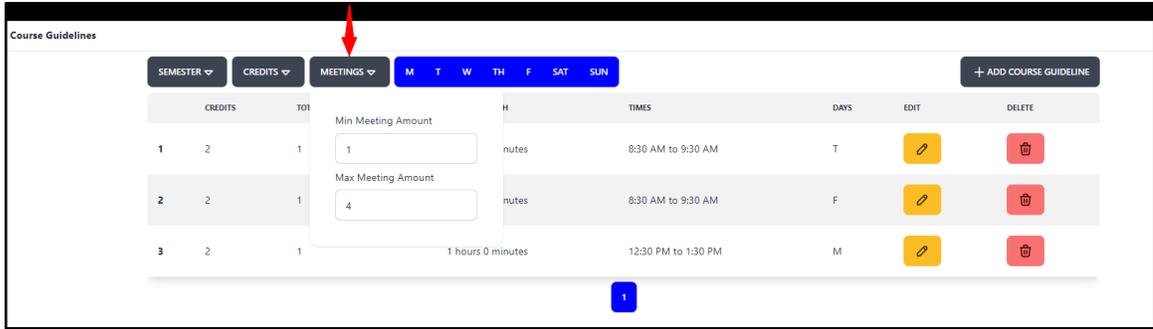


Figure 3.4.14

- If you want to filter by just specific meeting days, by default everyday will be selected, so if you don't want to see certain days click on those days. The blue color will mean that the day is selected, and the gray color will mean that it is not selected. This can be referenced in **Figure 3.4.15** below.

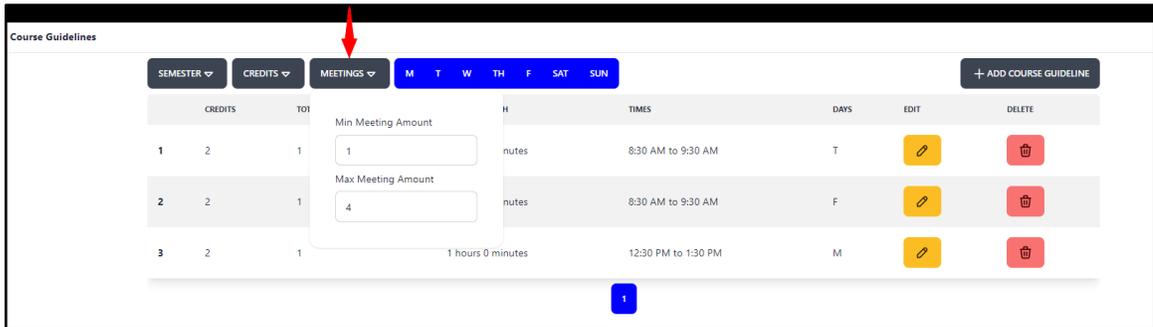


Figure 3.4.15

Buildings Page

The Buildings Screen can be accessed by clicking the “**BUILDINGS**” tab on the left, as referenced by the red arrow in **Figure 3.5** below. In this screen you are able to add a building, edit current buildings information, and remove specific buildings from the schedule.

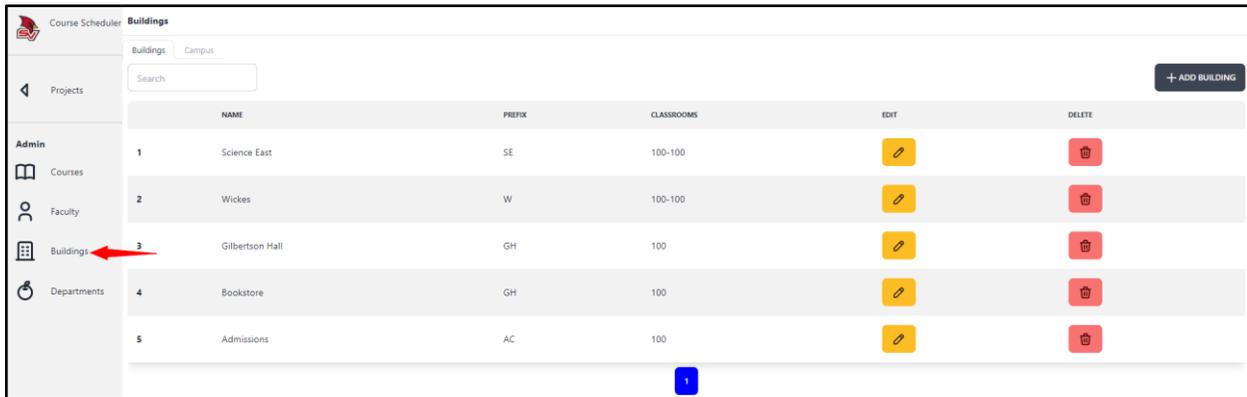


Figure 3.5

Adding a Building

Add Building
✕

Name **1.**

Prefix **2.**

Classrooms **3.**

Campus **4.**

To add a building to the building list, click on the “**+ ADD BUILDING**” button on the upper right part of the buildings tab in the admin page as referenced in **Figure 3.5.1**.

After clicking on the button, you are then prompted with a pop up with all the options associated with the building as referenced above in **Figure 3.5.1**. In the box labeled **1**, you will insert the name of the building. In box **2**, you will add the prefix correlated with that building. In box **3**, you will enter the classroom numbers that reside in the specified building. Then in the dropdown labeled **4**, you will select the campus the building resides on.

Figure 3.5.1

Add Building ✕

Name

Prefix

Classrooms

Campus

ADD

Figure 3.5.2

After you have filled in all the required fields referenced in **Figure 3.5.2**, you can go ahead and press the green “**ADD**” button and it will be added to the list as referenced in **Figure 3.5.3** below.

Buildings

Buildings Campus

+ ADD BUILDING

	NAME	PREFIX	CLASSROOMS	EDIT	DELETE
1	Science East	SE	100-100	✎	✖
2	Wickes	W	100-100	✎	✖
3	Gilbertson Hall	GH	100	✎	✖
4	Bookstore	GH	100	✎	✖
5	Admissions	AC	100	✎	✖
6	Pioneer	P	100-130	✎	✖

1

Figure 3.5.3

Adding a Building (Possible Issues)

Add Building ✕

Name

Building name can be alphabetical, and include dashes and white spaces

Prefix

Building prefix must be at least 1 character

Classrooms

Must contain a single room number like: 143 or a single range like: 20-40 or a list of rooms like: 1,10,30a-40c

Campus

 ▼

A valid campus must be selected.

If you are attempting to add a building to the list of buildings, you might run into one of the four possible errors if you fail to enter information in one of the four parameters as referenced in **Figure 3.5.4**.

To be able to fix each of these issues is right in the error message. For the name, you would need to add a name that is alphabetical that can include dashes and white space. The prefix must have at least one character that is representative of the building being added. Classrooms must contain a single room or a range of rooms that are alphabetical. The only exception to this is when adding in classrooms that may include an alphabetical character following a numbered classroom (for example 30a-40c). Lastly, a campus must be selected because a building will not appear off a campus.

Figure 3.5.4

Editing a Building

	NAME	PREFIX	CLASSROOMS	EDIT	DELETE
1	Science East	SE	100-100		
2	Wickes	W	100-100		
3	Gilbertson Hall	GH	100		
4	Bookstore	GH	100		
5	Admissions	AC	100		
6	Pioneer	P	100-130		

Figure 3.5.5

Let's say you forgot to enter a piece of information or that you needed to go change one of those pieces of information. You will press the yellow edit button as referenced in **Figure 3.5.5** above. In **Figure 3.5.6** below, we wanted to edit the number of classrooms. You can change the amount and then press save to save your changes.

Edit Building ✕

Name

Prefix

Classrooms

Campus

SAVE

Figure 3.5.6

Editing a Building (Possible Issues)

Edit Building ✕

Name

Prefix

Classrooms

Must contain a single room number like: 143 or a single range like: 20-40 or a list of rooms like: 1,10,30a-40c

Campus

Figure 3.5.7

If you are to edit one of the buildings, you will run into the same error message as adding a building. The same parameters are expected if you enter a wrong piece of information that doesn't fulfill the requirements. If so, you will get the error message as referenced in **Figure 3.5.7**. To fix this error, you will need to enter information that matches the expected input.

Removing a Building

	NAME	PREFIX	CLASSROOMS	EDIT	DELETE
1	Science East	SE	100-100		
2	Wickes	W	100-100		
3	Gilbertson Hall	GH	100		
4	Bookstore	GH	100		
5	Admissions	AC	100		
6	Pioneer	P	100-130		

Figure 3.5.8

To remove a building, you will simply press the red trash can button on the right side as referenced in **Figure 3.5.8** above, and then a prompt will appear verifying your intended choice as referenced below in **Figure 3.5.9**.

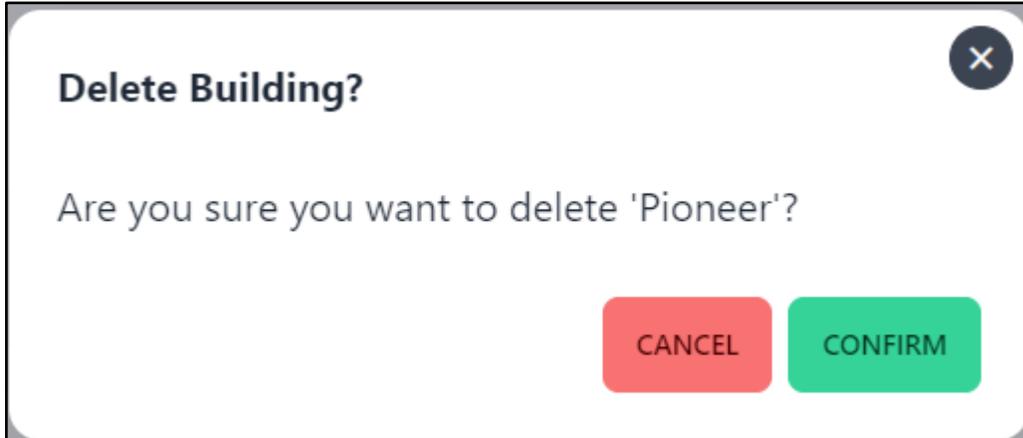


Figure 3.5.9

Once you click confirm, the specified building to delete will then be removed from the list of buildings.

Deployment of the Application

Deployment of this applications requires the following knowledge of said technologies:

- Virtual Private Servers
- Docker
- Linux (Ubuntu)
- Git
- Nginx
- MySQL

This will go over the process of installing the application:

1. Have a machine/VPS capable of running a Docker compatible Linux system. Ubuntu Server is recommended for this application and the latest version can be installed from <https://ubuntu.com>.
2. After setting up the Ubuntu Server, Docker can be installed for Ubuntu <https://docs.docker.com/engine/install/ubuntu/>
3. Get a copy of the application software from one of [administrators of the application](#) (pg. 4) and install it on the Ubuntu Server either via file transfer service or via a **git clone** command, although this may require access for private repositories within the use of git. A **git clone** may be pulled from the following URL: <https://github.com/CISCapstone2023/svsu-course-scheduler.git>. You will be prompted for your username and GitHub password or classic personal access token if 2FA is enabled.
4. Once the application source code is located on the machine, [environment variables](#) can be changed in the **docker-compose.yml** which is located in the root folder of the application source code.
 - a. Change the database password and the database name
 - b. Generate the JavaScript Web Token (JWT) secret for the authentication
5. Next, create a volume for the MySQL container to write data out to so that it may remain persistent among containers with the following command:
\$ docker volume create mysql-course-scheduler-vol
6. Building the application can be done by running the command in a terminal or via ssh and navigating to the svsu-course-scheduler directory:
\$ docker compose up -d
7. Once the application has compiled, the network has been built, and the containers are running, configuration of the proxy within the Nginx container will be required.
8. Enter the following command to open a bash session in the Nginx container:
\$ docker exec -t -i svsu-course-scheduler-webproxy-1 /bin/bash
9. First, navigate to **/etc/nginx** and make a directory named "ssl" to store SSL certificates if they are to be used:
\$ mkdir ssl

10. Next, navigate to `/etc/nginx/conf.d/default.conf` to set up the server configuration file as listed:

```
server {
    listen    80;

    server_name course-scheduling.svsu.edu;

    location / {
        proxy_pass http://192.168.120.21:3000;
    }

    #error_page 404          /404.html;

    # redirect server error pages to the static page /50x.html
    #
    error_page 500 502 503 504 /50x.html;
    location = /50x.html {
        root /usr/share/nginx/html;
    }

    # proxy the PHP scripts to Apache listening on 127.0.0.1:80
    #
    #location ~ \.php$ {
    #    proxy_pass http://127.0.0.1;
    #}

    # pass the PHP scripts to FastCGI server listening on 127.0.0.1:9000
    #
    #location ~ \.php$ {
    #    root    html;
    #    fastcgi_pass 127.0.0.1:9000;
    #    fastcgi_index index.php;
    #    fastcgi_param SCRIPT_FILENAME /scripts$fastcgi_script_name;
    #    include fastcgi_params;
    #}

    # deny access to .htaccess files, if Apache's document root
    # concurs with nginx's one
    #
    #location ~ /\.ht {
    #    deny all;
    #}
}
```

```
server {  
    listen          443 ssl;  
  
    server_name     course-scheduling.svsu.edu;  
  
    ssl_certificate  /etc/nginx/ssl/course-scheduler.crt;  
    ssl_certificate_key /etc/nginx/ssl/course-scheduler.key;  
    ssl_protocols   TLSv1 TLSv1.1 TLSv1.2 TLSv1.3;  
    ssl_ciphers     HIGH:!aNULL:!MD5;  
  
    location / {  
        proxy_pass http://192.168.120.21:3000;  
    }  
}
```

11. After the configuration file has been completed, navigate back to the host command line and if TLS certificates are available, copy them to the `/etc/nginx/ssl` directory with the following commands:
 \$ docker cp foo.crt <container_id>:/etc/nginx/ssl/foo.crt
 \$ docker cp foo.key <container_id>:/etc/nginx/ssl/foo.key
12. After the config file has been completed and the TLS certificate files have been copied to the container, first test the config and then reload the file to implement it with the following commands:
 \$ docker exec svsu-course-scheduler-webproxy-1 nginx -t
 \$ docker exec svsu-course-scheduler-webproxy-1 nginx -s reload
13. The web application should now be live and accessible at the IP of the server on either port 80 or port 443.