
Department of
Computer Science and Engineering

# Title: Creating Lists, Table, Forms using HTML Tags

Web Programming Lab

CSE 302


Green University of Bangladesh

# 1 Objective(s)

- Introduce the ordered and unordered list tag.
- Reinforce our understanding of ordered and unordered lists through creation
- To implement tables using various attributes like rowspan and colspan using HTML
- To implement an interactive form using HTML.

# 2 Problem analysis

## 2.1 Lists

This manual will help the students to learn to create lists, table, forms using HTML tags. In this manual, were going to be looking at a few new tags that help us organize lists of related content. Using the built in ul, ol and li HTML tags however, we can group related list content together. We call such a grouping a "list."

- In HTML, we create lists using the <ul> tag, which stands for unordered list, along with the <li> tag for each list item.
- To make a list, we write out the opening and closing <ul> tags, and inside them, well add <li> tags, each listing a single ingredient.
- If we wanted convert it to a list, it would look like, instead of just having each item show up on a new line, the content will also be slightly indented and a bullet will appear next to each of them.
- In situations where we want items to be displayed in a specific, numbered order, we will want to use the ordered list tag, which is written as <ol> instead of <ul>. Both use <li> tags inside, but this time, <ol> will display a numbered list instead of bullets.

## 2.2 Table

Tables are made up of data that is contained within columns and rows, and HTML supplies several different elements for defining and structuring these items. At a minimum a table must consist of <table>, <tr> (table row), and <td> (table data) elements. For greater structure and additional semantic value, tables may include the <th> (table header) element and a few other elements as well. When all of these elements are working together, they produce a solid table.

## 2.3 Forms

HTML Forms are required, when we want to collect some data from the site visitor. For example, during user registration you would like to collect information such as name, email address, credit card, etc. A form will take input from the site visitor and then will post it to a back-end application such as PHP script etc. The back-end application will perform required processing on the passed data based on defined business logic inside the application. There are various form elements available like text fields, textarea fields, drop-down menus, radio buttons, checkboxes, etc.

# 3 Creating List, Table and Forms using HTML Tags

## 3.1 Using HTML tags to create lists

- **Unordered HTML List**

```
Example:
 <!DOCTYPE html>
 <html lang="en">
    <head>
        <title>Creating List</title>
    </head>
<body>
```

```
    <h2>Unordered HTML List </h2>
 <ul>
   <li>Square</li>
   <li>Circle</li>
   <li>Disc</li>
   <li>None</li>
</ul>
    <h3>Nested Unordered lists</h3>
<ul type="Square">
   <li>Sandwiches</li>
  <ul>
    <li>Ham and Cheese</li>
    <li>Grilled Cheese</li>
  </ul>
    <li>Snacks</li>
  <ul>
    <li>Nacho Cheese French Fries</li>
    <li>Cheese and crackers</li>
  </ul>
</ul>
</body>
</html>
```

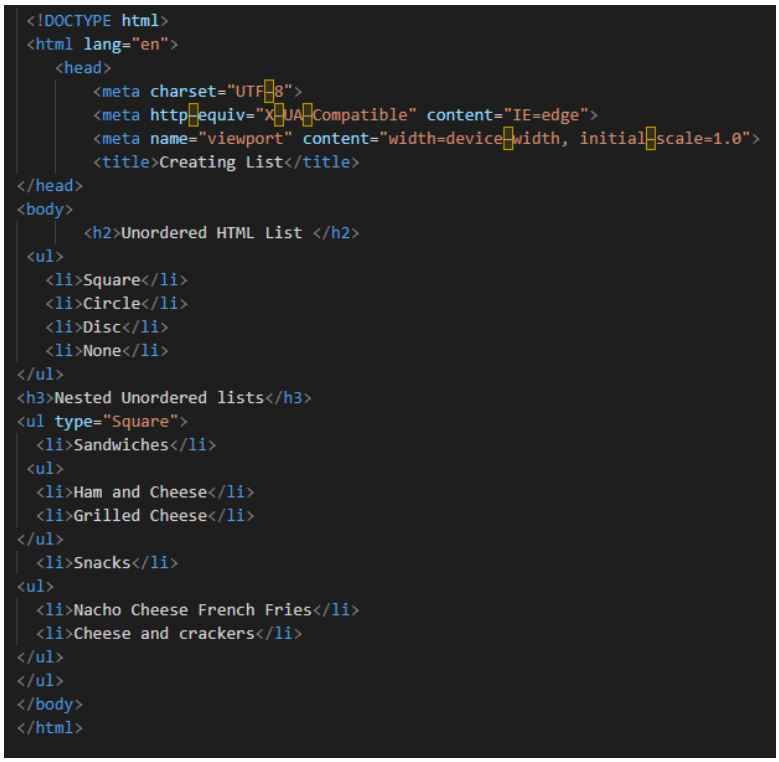



Figure 1: Unordered Lists

- **Ordered HTML List**

```
Example:
 <!DOCTYPE html>
 <html lang="en">
    <head>
        <title>Creating List</title>
    </head>
<body>
```

```
    <h2>Ordered HTML List</h2>
  <ol>
      <li>Numbers(1,2,...)</li>
      <li>Uppercase letters(A,B,...)</li>
      <li>Lowercase letters(a,b,...)</li>
      <li>Uppercase roman numbers(I,II,...)</li>
      <li>Lowercase roman numbers(i,ii,...)</li>
  </ol>
     <h3>Nested Ordered lists</h3>
  <ol>
     <li>Sandwiches</li>
      <ol type="1" start="20">
        <li>Ham and Cheese</li>
        <li>Grilled Cheese</li>
  </ol>
     <li>Snacks</li>
    <ol type="A" reversed>
        <li>Nacho Cheese French Fries</li>
        <li>Cheese and crackers</li>
    </ol>
      <li>Sushi</li>
     <ol type="I">
       <li value="4">Nacho Cheese French Fries</li>
       <li value="7">Cheese and crackers</li>
     </ol>
   </ol>
</body>
</html>
```

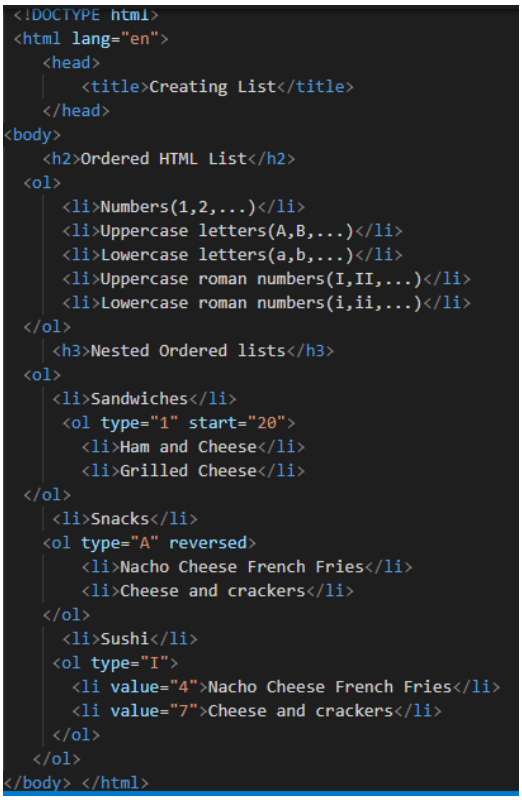



Figure 2: Ordered Lists

- **HTML Description Lists**
  - A description list is a list of terms, with a description of each term.
  - The **<dl>** tag defines the description list.
  - The **<dt>** tag defines the term (name)
  - The **<dd>** tag describes each term.

```
Example:
  <!DOCTYPE html>
 <html lang="en">
    <head>
        <title>Creating List</title>
    </head>
<body>
  <h2>HTML Description Lists </h2>
  <dl>
    <dt>CSE 302</dt>
    <dd>- Web Programming Lab</dd>
  </dl>
</body>
</html>
```

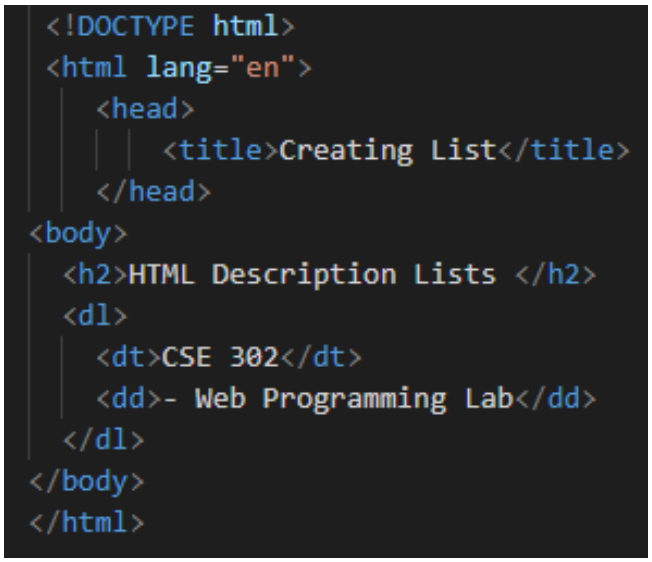



Figure 3: Description Lists

## 3.2 Creating table using HTML tags

- In HTML **<table>** tag is used to start a table while **</table>** tag indicates the end of the table **<table>** Table Structure **</table>**
- **Border** indicates the presence of the border around the table

  **<table border=1>**
- **<tr>** tag starts a row of the table and **</tr>** ends the row
- **<th>** tag is used to declare the cell of the heading row of the table and **</th>**
- **<td>** is used to create a cell inside the row while **</td>** ends the cell
- **Tables Attributes**

- height and width attributes used to fixed the table height and width
- **cellpadding** attribute is used to create a gap between the edges of a cell and its contents **<table cellpadding=30>**
- **cellspacing** attribute is used to create a space between the borders of each cell

```
Example:
<!DOCTYPE html>
<html>
    <head>
        <title>Table</title>
    </head>
    <body>

        <table border = "1" height="100" width = "100" cellpadding="10"
           cellspacing = "5">
           <caption>Student Information</caption>
            <tr>
                <th> Student ID</th>
                <th> Name</th>
                <th> Department</th>
                <th> Course</th>
            </tr>
             <tr>
                <td>212002001</td>
                <td>Mr. A</td>
                <td>CSE</td>
                <td>CSE 302</td>
             </tr>

        </table>
    </body>
</html>
```

- **Cell level attributes**
  - The **align Attribute:**

    **<td align=center,right or left>**
  - The **valign Attributes:**

    **<tr valign=top, middle or bottom>**
  - The **rowspan Attributes:** used when a cell should span across more than one rows
  - The **colspan Attribute:** used when a cell should span across more than one column.

```
Example:
<!DOCTYPE html>
<html>
     <head>
         <title>Creating Table</title>
     </head>
     <body>
            <marquee>Welcome to CSE Department</marquee>
        <h3>Student Infomation of CSE Department</h3>
         <table border="1" height="100" width="300" cellpadding="5"
            cellspacing="5">

           <tr>
```

```
                <th colspan = "4">CSE Department</th>
            </tr>
            <tr>
                  <th rowspan = "2">Student ID</th>
                  <th rowspan = "2">Name</th>
                  <th colspan = "2">Program</th>
            </tr>
           <tr>
                <td>Day</td>
                <td>Evening</td>
           </tr>
           <tr>
                <td>211002001</td>
                <td>Ms. P</td>
                <td>211D1</td>
                <td>211EA</td>
           </tr>
          </table>
     </body>
</html>
```

```
<html>
    <head>
        <title>Table</title>
    </head>
    <body>

        <table border = "1" height="100" width = "100" cellpadding="10" cellspacing = "5">
          <caption>Student Information</caption>
           <tr>
              <th> Student ID</th>
              <th> Name</th>
              <th> Department</th>
              <th> Course</th>
           </tr>
           <tr>
              <td>212002001</td>
              <td>Mr. A</td>
              <td>CSE</td>
              <td>CSE 302</td>
           </tr>

        </table>
    </body>
</html>
```

Figure 4: Creating Table using HTML(Part 1)

## 3.3 Using HTML tags to create Forms

- **<form>** tag is used to start a form and **</form>** tag is used to end a form
- We can declare a form as:
  **<form attributes>**
  form elements and layout tags
  **</form>**

- A single page can include several different forms, but you cannot nest one form inside another
- **HTML <form> Elements**
  - **<input> element** can be displayed in many ways, depending on the type attribute
    - **<input type="text">** defines a single-line text input field
    - **<input type="image">** defines an image as a submit button
    - **<input type="number">** defines a numeric input field.

```html
<!DOCTYPE html>
<html>
    <head>
        <title>Creating Table</title>
    </head>
    <body>
        <marquee>Welcome to CSE Department</marquee>
        <h3>Student Infomation of CSE Department</h3>
        <table border="1" height="100" width="300" cellpadding="5" cellspacing="5">

            <tr>
                <th colspan = "4">CSE Department</th>
            </tr>
            <tr>
                <th rowspan = "2">Student ID</th>
                <th rowspan = "2">Name</th>
                <th colspan = "2">Program</th>
            </tr>
            <tr>
                <td>Day</td>
                <td>Evening</td>
            </tr>
            <tr>
                <td>211002001</td>
                <td>Ms. P</td>
                <td>211D1</td>
                <td>211EA</td>
            </tr>
        </table>
    </body>
</html>
```

Figure 5: Creating Table using HTML(Part 2)

  - * **<input type="email">** is used for input fields that should contain an e-mail address.
  - * **<input type="password">** defines a password field
  - * **<input type="date">** is used for input fields that should contain a date.
  - * **<input type="checkbox">** defines a checkbox.
  - * **<input type="radio">** defines a radio button.
  - * **<input type="file">** defines a file-select field and a "Browse" button for file uploads.
  - * **<input type="submit">** defines a button for submitting form data to a form-handler.
  - * **<input type="reset">** defines a reset button that will reset all form values to their default values.
- **<label> Element**
  - * The <label> element defines a label for several form elements.
  - * The <label> element is useful for screen-reader users, because the screen-reader will read out loud the label when the user focus on the input element.
  - * The <label> element also help users who have difficulty clicking on very small regions (such as radio buttons or checkboxes) - because when the user clicks the text within the <label> element, it toggles the radio button/checkbox.
  - * The for attribute of the <label> tag should be equal to the id attribute of the <input> element to bind them together.
- **<select> Element**
  - * The <select> element defines a drop-down list.
  - * The <option> elements defines an option that can be selected.
  - * To define a pre-selected option, add the selected attribute to the option.
- **<textarea> Element**
  - * The <textarea> element defines a multi-line input field (a text area).
  - * The rows attribute specifies the visible number of lines in a text area.
  - * The cols attribute specifies the visible width of a text area.
- **<button> Element**
  - * The <button> element defines a clickable button.
- **HTML Input Attributes**

* The input **value attribute** specifies an initial value for an input field.
* **name attribute** assigns a name to the input control.
* The **size attribute** specifies the visible width, in characters, of an input field.
* The **maxlength attribute** specifies the maximum number of characters allowed in an input field.
* The **min and max attributes** specify the minimum and maximum values for an input field.
* The **input multiple attribute** specifies that the user is allowed to enter more than one value in an input field.
* The **input placeholder attribute** specifies a short hint that describes the expected value of an input field.
* The **input required attribute** specifies that an input field must be filled out before submitting the form.
* The **input height and width attributes** specify the height and width of an <input type="image"> element.
* The **alt attribute** is used to provide alternate text for the user, if they cannot view the image.
* The **checked attribute** specifies that an element should be pre-selected (checked) when the page loads. The checked attribute can be used with < input type=checkbox > and < input type=radio >.

```
1  <!DOCTYPE html>
2  <html>
3       <head>
4           <title>Registration Form</title>
5       </head>
6     <boby>
7         <h1> Registration Form</h1>
8           <form>
9              <input type="image" src="image/icon2.png" height="150" width
                   ="150"><br><br>
10              <label for="A">Student Name:</label><input type="text" id="
                   A" name="fname" size="20" value="Tanpia Tasnim" ><br><br
                   >
11              <label for="B">Student ID: </label><input type = "number"
                   id="B" size = "20" placeholder="Enter a number"><br><br>
12              <label for="C">Email: </label><input type="email" id="C"
                   size="20" placeholder="Enter Your Email" required><br><
                   br>
13              <label for="D">Username: </label><input type="text" id="D"
                   size="20" maxlength="15" placeholder ="Enter UserName"
                   required>
14              <br><br>
15              <label for="E">Password: </label><input type="password" id=
                   "E" size="20" placeholder="Enter Password"><br><br>
16              <label for="F">Date of Birth: </label><input type ="date"
                   id="F" size= "20" placeholder="Enter Date of Birth"><br>
17              Gender: <br>
18              <input type="radio" name="gender" value="M">Male<br>
19              <input type="radio" name="gender" value="F">Female<br>
20             Language: <br>
21              <input type="checkbox" name="language"  value="M" checked>
                   Bengali<br>
22              <input type="checkbox" name="language"  value="F">English<
                   br>
23
24             Country: <br>
25              <select name="country">
26                  <option>(Please select your Country)</option>
```

```
                    <option value="B">Bangladesh</option>
                    <option value="I">India</option>
                </select><br><br>
                <label for="G">Address:</label><br>
                <textarea rows="5" cols="30" id="G" placeholder="Enter Your
                    Present Address"></textarea><br><br>
                Attach your Documents:<br>
                <input type="file" name="Documents"><br><br>

                <input type="submit" value="Submit">
                <input type="reset" value="Reset">

            </form>
        </boby>
</html>
```

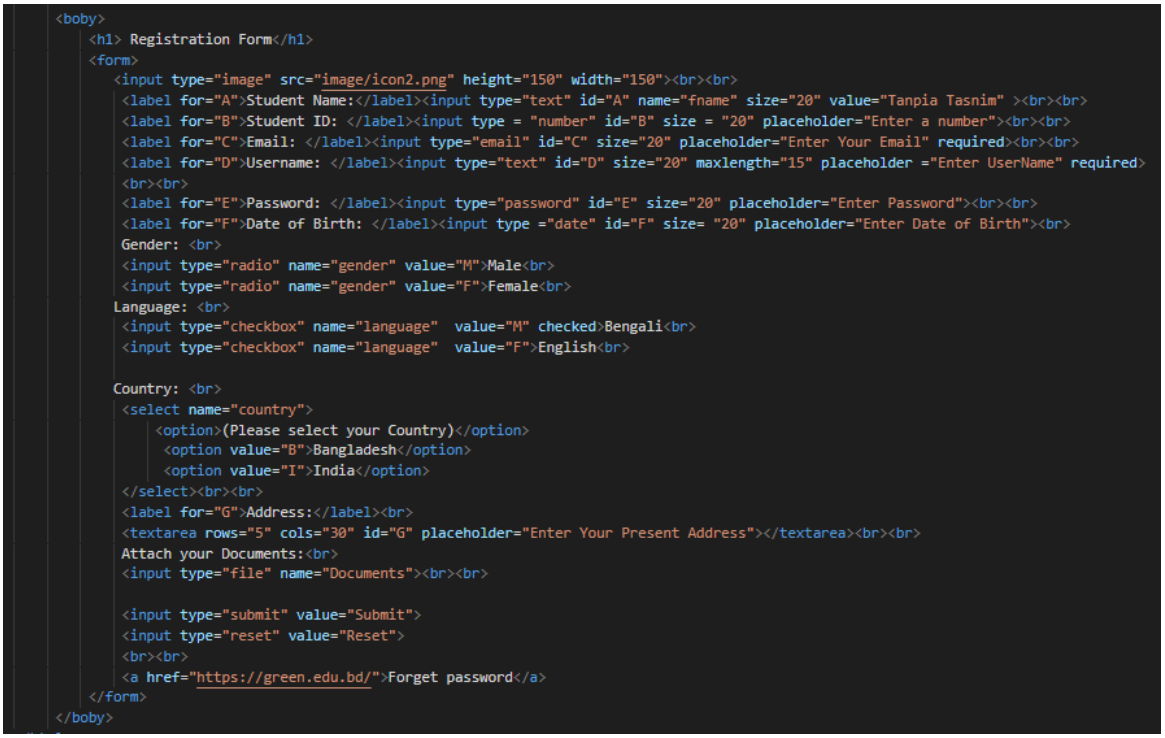



Figure 6: Registration Form

– **HTML Pattern Attributes**

  * The input **pattern attribute** specifies a regular expression that the input field's value is checked against, when the form is submitted.
  * The pattern attribute works with the following input types: **text, date, search, email, and password.**

```
            <!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0
        ">
    <title>Document</title>
</head>
<html>
```

```
    <head>
        <title>Creating Form</title>
    </head>
    <body>
        <h1>Login Form</h1>
        <form>
            Username: <input type="text" size="20" pattern="[A-Z
                ]{4}[-][0-9]{3}[-][a-z]{2}"
                        placeholder ="Enter Your Username"><br><br>
            Password: <input type = "password" size="20" pattern="[A-Z a
                -z 0-9]{3,20}"
                        placeholder="Enter Your Password"><br><br>

            <input type="submit" value="Submit"><br><br>
         </form>
    </body>
</html>
```


Figure 7: Login Form

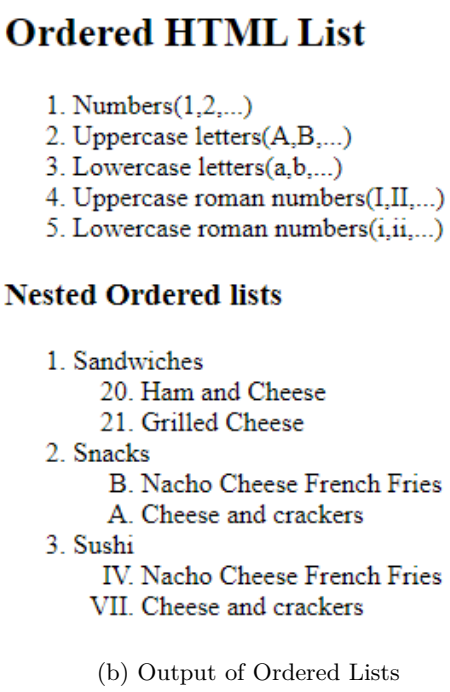
# 4 Input/Output

Output of the program is given below. **(Figure 8,9,10)**

# 5 Discussion & Conclusion

Based on the focused objective(s) to understand about creating a website using HTML the additional lab exercise made me more confident towards the fulfilment of the objectives(s).


(a) Output of Unordered Lists




(b) Output of Ordered Lists


(c) Output of Description Lists

Figure 8: Creating Lists using HTML tags

# 6 Lab Task(Please implement yourself and show the output to the instructor)

# 7 Lab Exercise (Submit as a report)

- Create an HTML page named as Routine.html. On this HTML page, you have to show the following table **(Figure 11)**

In this experiment, you have to create your own personal routine.
a) You must have to use colspan, rowspan tags.
b) Set the table border = 1.
c) Set the table in the center.
d) All the text within a cell must be in the center.

Student Information

| Student ID | Name | Department | Course |
|---|---|---|---|
| 212002001 | Mr. A | CSE | CSE 302 |

(a) Output of Table(Part 1)

**Student Information of CSE Department**

| CSE Department | | | |
|---|---|---|---|
| Student ID | Name | Program | |
| | | Day | Evening |
| 211002001 | Ms. P | 211D1 | 211EA |

(b) Output of Table(Part 2)

Figure 9: Creating Tables using HTML tags

- Create and Design a Student Admission Form in HTML.
  - **Problem analysis**
    In this problem, we have a Student Admission Form in HTML. The admission form contains some fields that are the First Name, Last Name, Email ID, Mobile Number, Address, Course, Gender, Date of Birth, City, District, certificate file, image and so on. So basically, we have to create all these fields where the user can store the information.

# 8 Policy

Copying from internet, classmate, seniors, or from any other source is strongly prohibited. 100% marks will be *deducted* if any such copying is detected.

# Registration Form

Student Name: Tanpia Tasnim

Student ID: Enter a number

Email: Enter Your Email

Username: Enter UserName

Password: Enter Password

Date of Birth: mm/dd/yyyy

Gender:
- Male
- Female

Language:
- Bengali
- English

Country: (Please select your Country)

Address: Enter Your Present Address

Attach your Documents: Choose File No file chosen

Submit Reset

(a) Output of Registration Form

# Login Form

Username: Enter Your Username

Password: Enter Your Password

Submit

(b) Output of Login Form with Pattern Attribute

Figure 10: Creating Forms using HTML tags

## Class Routine

**Teacher Name: Tanpia Tasnim**

**Department of Computer Science & Engineering**

**Green University of Bangladesh**

| Time / Day | 08:30-10:00 | 10:00-11:30 | 11:30-01:00 | 01:30-03:00 | 03:00-04:30 | 04:30-06:00 |
|---|---|---|---|---|---|---|
| Monday | CSE 300 B-1005 | | Counseling Hour | | Various committee meetings | |
| Tuesday | | Counseling Hour | Meeting with Thesis/Project Students | | | |
| Wednesday | CSE 201 B-411 | | CSE 301 D-702 | | Various committee meetings | |
| Thursday | | | Meeting with Thesis/Project Students | | Weekly AC Meeting | |
| Friday | CSE 312 B-802 | | CSE 311 B-411 | | Counseling Time | |

Figure 11: Class Routine