

UNIVERSITY OF
Baguio

SCHOOL OF INFORMATION TECHNOLOGY



HUMCOM1

**HUMAN-COMPUTER
INTERACTION - LECTURE**

Table of Contents

Course Overview	4
Course Code: HUMCOM1	4
Course Description: Human-Computer Interaction 1	4
Learning Competencies:	4
Module Requirements:	4
Contact Information:	5
Consultation Hours:	5
Course Schedule and Outline	5
LESSON 1: Development Environment Set-up	Error! Bookmark not defined.
1.1 What you'll need	Error! Bookmark not defined.
1.2 Development environment setup	Error! Bookmark not defined.
<i>Lesson 1 / Activity</i>	Error! Bookmark not defined.
LESSON 2: Introduction to HTML	Error! Bookmark not defined.
2.1. What is HTML?	Error! Bookmark not defined.
2.2. Relevant History	Error! Bookmark not defined.
2.3. Anatomy of an HTML Tag	Error! Bookmark not defined.
2.4. Basic HTML Document Structure	Error! Bookmark not defined.
2.5. General Guidelines	Error! Bookmark not defined.
2.6. HTML Content Models	Error! Bookmark not defined.
LESSON 3: HTML Elements Part 1	Error! Bookmark not defined.
3.1. HTML elements	Error! Bookmark not defined.
3.1.1. Element attributes	Error! Bookmark not defined.
3.1.2. HTML Headings	Error! Bookmark not defined.
3.1.3. HTML Paragraphs	Error! Bookmark not defined.
3.1.4. HTML Lists	Error! Bookmark not defined.
3.1.4.1. Ordered lists	Error! Bookmark not defined.
3.1.4.2. Unordered lists	Error! Bookmark not defined.
3.1.1.1. Definitions lists	Error! Bookmark not defined.
3.1.2. Formatting tags	Error! Bookmark not defined.
LESSON 4: HTML Semantic Elements	Error! Bookmark not defined.
4.1. HTML Semantic Elements	Error! Bookmark not defined.
LESSON 5: HTML Elements: Tables	6
5.1. HTML Table Element	6

Course Overview

Course Code: HUMCOM1

Course Description: Human-Computer Interaction 1

This course teaches students to design user interfaces based on the capabilities of computer technology and the needs of human factors. The course covers human capabilities, design principles, prototyping techniques, evaluation techniques, and the implementation of graphical user interfaces. Deliverables include short programming assignments and a semester-long individual/group project. Students design a user interface for a system and implement a prototype from a list of informal requirements. Students design a user interface by a design process based on current human-computer interaction principles.

Learning Competencies:

At end of the course, you are expected to

First Grading:

1. Setup the development environment with appropriate front-end development tools that will help in

Midterms:

2. Define cognition and its relevance in interaction design.
3. Identify means on how memory can be enhanced through technology aids
4. Enumerate ways on ways which attention affects people's ability to multitask.
5. Explain through multimedia (i.e. video, interactive presentation, etc.) what is meant by social interaction and its importance in interaction design
6. Describe how technologies can be designed to change people's attitudes and behavior.

Finals:

7. Explain the rationale and rules for an effective interface design methodology in order to establish a criteria for evaluating the quality of user interfaces.
8. Explain how to design user interfaces that anticipate what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate those actions.
9. Describe how to bring together concepts from interaction design, visual design, and information architecture to create an interface with elements that are consistent and predictable in their choices and their layout.

Module Requirements:

At the end of each module, you are expected to complete each:

1. Self-check (Quiz)
2. Assignments
3. Hands-on Activities
4. Recitation

*** All module quizzes and other activities shall be placed in a long brown envelope and submitted at the end of each module.

Contact Information:

emartinez@e.ubaguio.edu

<https://www.facebook.com/kreipinoy>

Consultation Hours:

Course schedule

Course Schedule and Outline

Lecture		Duration (Hours)	Requirements
Week 1	Development Environment Set-up Introduction to HTML5	3	✓ GitHub Account ✓ Published home page
Week 2	HTML Elements Part 1	3	✓
Week 4-5		3	✓
Week 6	First Grading Exam	2	
Week 7		2	✓
Week 8		2	✓
Week 9-10		3	✓
Week 10-11		3	✓
Week 11	Midterm Exam	2	
Week 13-14		4	✓
Week 15-17		6	✓
Week 18	Final Exam	2	

LESSON 5: HTML Elements: Tables

Duration: 1.5 hour

About this lesson: At the end of this lesson you are expected to:

1. Define HTML table elements.
2. Use table elements to structure webpage content.

3.1. HTML Table Element

- It is an HTML structure for creating rows and columns. It is used for lists, specifications and other tabular data as well as to locate elements on the page.
- The `<tr>` elements are the data containers in the table.
- The `<td>` elements can contain all sorts of HTML elements like text, images, lists, other tables, etc.
- A table header is defined with the `<th>` tag. By default, table headings are bold and centered.

3.2. HTML Table Attributes

Property name	values	Description
align	left center right	Alignment of table according to surrounding text
bgcolor	rgb(x,x,x) ->x=0-255 #xxxxxx ->x=0-9,a-f colorname	Background color for a table or cell
border	integer (pt, px, %)	Adds a border or specifies the weight of the border
cellpadding	px	Space between the cell wall and content
cellspacing	px	Space between cells
frame	void above below hsides	Which borders should be visible
colspan	integer	Specifies how many columns to merge
rowspan	integer	Specifies how many rows to merge
caption	<code><caption></caption></code>	Add a caption to a table
width	px, %	Width of the table

3.3. Example

Example 1. HTML Table with only width attribute

```
<h3>Simple Table: Width Attribute</h3>
<table width='300px'>
  <thead>
    <tr>
      <th>First Name</th>
      <th>Last Name</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Pedro</td>
      <td>Santiago</td>
      <td>50</td>
    </tr>
    <tr>
      <td>Eva</td>
      <td>Sales</td>
      <td>94</td>
    </tr>
    <tr>
      <td>John</td>
      <td>Doe</td>
      <td>80</td>
    </tr>
  </tbody>
</table>
```

First Name	Last Name	Age
Pedro	Santiago	50
Eva	Sales	94
John	Doe	80

Example 2. HTML Table with border attributes

```
<h3>Simple Table: Width and Border</h3>
<table width='300px' border='2pt'>
  <thead>
    <tr>
      <th>First Name</th>
      <th>Last Name</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>Pedro</td>
      <td>Santiago</td>
      <td>50</td>
    </tr>
    <tr>
      <td>Eva</td>
      <td>Sales</td>
      <td>94</td>
    </tr>
    <tr>
      <td>John</td>
      <td>Doe</td>
      <td>80</td>
    </tr>
  </tbody>
</table>
```

Table Example

localhost:3000/Examples/le...

Simple Table: Only Width

First Name	Last Name	Age
Pedro	Santiago	50
Eva	Sales	94
John	Doe	80

Example 3. HTML Table with border and bgcolor attributes

```
<table width='300px' border='2pt' bgcolor='lightblue'>
  <thead>
    <tr>
      <th>First Name</th>
      <th>Last Name</th>
      <th>Age</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td bgcolor='white'>Pedro</td>
      <td bgcolor='white'>Santiago</td>
      <td bgcolor='white'>50</td>
    </tr>
    <tr>
      <td>Eva</td>
      <td>Sales</td>
      <td>94</td>
    </tr>
    <tr>
      <td>John</td>
      <td>Doe</td>
      <td>80</td>
    </tr>
  </tbody>
</table>
```

Table Example

localhost:3000/Example...

Simple Table: Width, Border, Background

First Name	Last Name	Age
Pedro	Santiago	50
Eva	Sales	94
John	Doe	80

Example 4-5. HTML Table with colspan and rowspan attributes

Before

Table Example

localhost:3000/Example...

Row and Colspan

A	B	C
1	2	3
4	5	6
7	8	9

After merging cell 1 and 2 (colspan=2)

Table Example

localhost:3000/Example...

Row and Colspan

A	B	C
1 span 2		3
4	5	6
7	8	9

```
<h3>Row and Colspan</h3>
<table width='300px' border='2pt' >
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td>1</td>
      <td>2</td>
      <td>3</td>
    </tr>
    <tr>
      <td>4</td>
      <td>5</td>
      <td>6</td>
    </tr>
    <tr>
      <td>7</td>
      <td>8</td>
      <td>9</td>
    </tr>
  </tbody>
</table>
```

Before merging cell 5 and 8

Table Example

localhost:3000/Example...

Row and Colspan

A	B	C
1 span 2		3
4	5	6
7	8	9

```
<h3>Row and Colspan</h3>
<table width='300px' border='2pt' >
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td colspan='2'>1 span 2</td>
      <!-- <td>2</td> -->
      <td>3</td>
    </tr>
    <tr>
      <td>4</td>
      <td>5</td>
      <td>6</td>
    </tr>
    <tr>
      <td>7</td>
      <td>8</td>
      <td>9</td>
    </tr>
  </tbody>
</table>
```

After merging with rowspan=2

Table Example

localhost:3000/Example...

Row and Colspan

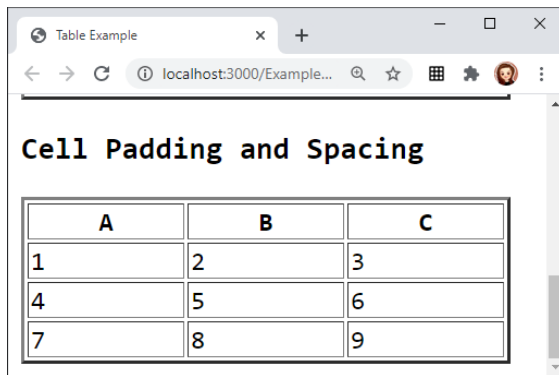
A	B	C
1		3
4	5	6
7		9

```
<h3>Row and Colspan</h3>
<table width='300px' border='2pt' >
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td colspan='2'>1 span 2</td>
      <!-- <td>2</td> -->
      <td>3</td>
    </tr>
    <tr>
      <td>4</td>
      <td>5</td>
      <td>6</td>
    </tr>
    <tr>
      <td>7</td>
      <td>8</td>
      <td>9</td>
    </tr>
  </tbody>
</table>
```

```
<h3>Row and Colspan</h3>
<table width='300px' border='2pt' >
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <td colspan='2'>1 span 2</td>
      <!-- <td>2</td> -->
      <td>3</td>
    </tr>
    <tr>
      <td>4</td>
      <td rowspan='2'>5</td>
      <td>6</td>
    </tr>
    <tr>
      <td>7</td>
      <!-- <td>8</td> -->
      <td>9</td>
    </tr>
  </tbody>
</table>
```


Example 5-6. HTML Table with cellpadding and cellspacing attribute

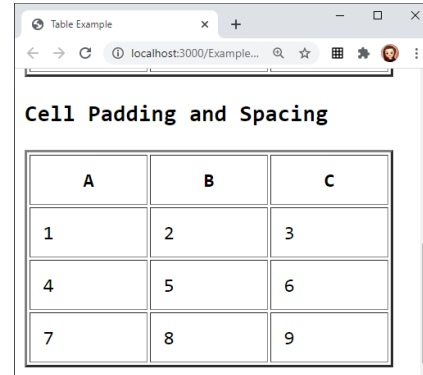
Before adding the cellpadding



A	B	C
1	2	3
4	5	6
7	8	9

```
<h3>Row and Colspan</h3>
<table width='300px' border='2pt' >
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
```

After adding the cellpadding

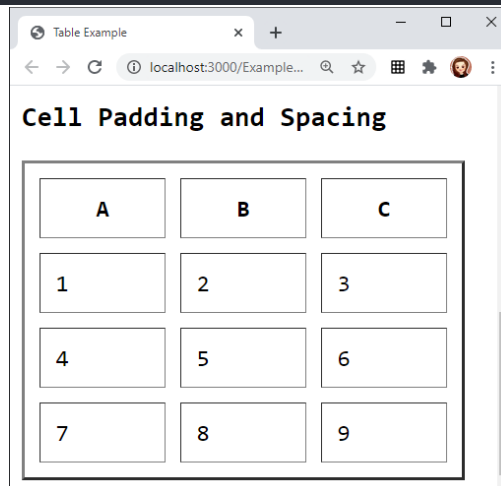


A	B	C
1	2	3
4	5	6
7	8	9

```
<h3>Cell Padding and Spacing</h3>
<table width='300px' border='2pt' cellpadding='10px'>
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
  <tbody>
```

After adding the cellpadding

```
<h3>Cell Padding and Spacing</h3>
<table width='300px' border='2pt' cellpadding='10px' cellspacing='10px'>
  <thead>
    <tr>
      <th>A</th>
      <th>B</th>
      <th>C</th>
    </tr>
  </thead>
```



A	B	C
1	2	3
4	5	6
7	8	9

freeCodeCamp.org. (2020, January 29). Semantic HTML5 Elements Explained.
<https://www.freecodecamp.org/news/semantic-html5-elements/>

w3schools. (n.d.). HTML Semantic Elements. W3schools.Com. Retrieved January 25, 2021, from
https://www.w3schools.com/html/html5_semantic_elements.asp

Word Wide Web Consortium. (2015, October 23). 3.2.5 Content models — HTML5. <https://www.w3.org/>.
<https://www.w3.org/TR/2011/WD-html5-20110525/content-models.html#flow-content>