MICROSOFT PROJECT TUTORIAL

1. Go to computer lab across from CE Planning and Design Center. Each computer has Microsoft project loaded on it. Open Microsoft Project.

2. The screen should be a GANTT chart with cells for task vertically along the left and a calendar increasing horizontally to the right. If not, hit view, then Gantt, or hit the Gantt button on the left.

   There should also be some buttons vertically on the left.

3. For task ID 1, type “Sitework”. Use a duration of 20. The default duration unit should be days. Go into tools and then options and look at schedule to see default units. A bar starting from todays date should extend out 20 working days.

4. Type in the following tasks and durations:

<table>
<thead>
<tr>
<th>Task</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundations</td>
<td>30</td>
</tr>
<tr>
<td>Utilities</td>
<td>35</td>
</tr>
<tr>
<td>slabs</td>
<td>10</td>
</tr>
<tr>
<td>walls</td>
<td>20</td>
</tr>
<tr>
<td>roof</td>
<td>10</td>
</tr>
<tr>
<td>mechanical</td>
<td>20</td>
</tr>
</tbody>
</table>

5. Notice that all tasks default to starting today. Also, the longest task is in red, the others blue. Red is the critical path. If this has not happened Click on Format, then Gantt Chart Wizard. Here you can format your chart to show red for critical. Follow the steps to customize your chart.

6. Linking: Method 1: Linking tasks adjacent to each other in the list:
   1. Click on sitework, hold down the left mouse button, and drag to foundations, then release the button.
   2. Click on the connected chain in the tool bar. This links the 2 tasks.

   The default link is a finish-start (follower starts when predecessor finishes). Other links include start-start. Delays can also be used.

   Delays can be in days, or percentages.

   After you have linked the 2, click on foundations, and then the task info button just to right of the chains in the toolbar. It looks like a folder or clipboard.

   Then hit predecessors
It should show the predecessor and link type and lag.

Click in the **Type** box and select SS (start-start) for the link, click back OK, and watch the bar chart.

Now type in 10 days for lag, click OK, and see what happens. **Hit magnifying glass to change view - zoom in or zoom out.**

Now type in 50% for the lag, click OK, and see what happens.

After these experiments, put it back to a FS and 0 lag link.

7. **Linking Method 2:** To link tasks not adjacent to each other:
   1. click on Foundations
   2. press and hold the ctrl button
   3. click on Utilities
   4. click on the connected chain button.

8. **Linking Method 3:** To link any tasks adjacent or not
   1. Click on the task you want to assign a predecessor.
   2. Go into the task entry form on the bottom and type in the predecessor ID#, type of link (FS, SS, etc.) and the lag.

**NOTE: IF YOU LINK A TASK MORE THAN ONCE, IT DOES NOT AUTOMATICALLY OVERRIDE PREVIOUS LINKS, IT USES THEM ALL.**

**SO IF YOU MAKE A MISTAKE IN LINKING, DELETE THE MISTAKE IN THE TASK ENTRY FORM ON THE BOTTOM**

9. **Now link:**
   - slabs to foundations
   - walls to slabs
   - mechanical to slabs

10. **Adding Sub Tasks**

    Let’s divide the mechanical work into 2 sub tasks: ductwork, power units

    Type ductwork in the cell below the work mechanical and hit enter

    Near the upper left hand part of the screen, you will see a right and left arrow, plus and minus sign
Click the ductwork, the click on the right arrow

The word ductwork moves to the right and gets a bar

The bar next to mechanical changes to a black line with arrows at the start and finish

This black line indicates a task defined by subtasks

Type a duration of 10 days for ductwork

Type in “power units” under ductwork and make it a sub task of mechanical

Use a duration of 10 days, link it SS with ductwork with a lag of 50%

The duration of mechanical should be 15 days

**SCREEN VIEWS**

For more advanced uses of Project, viewing different screens is needed

In the menu bar, click on “view” to see all the different views you can use

The left side of the screen also shows the views

Looking at the Gantt view the screen is split vertically

These are actually 2 separate screens, or “panes”

By moving the mouse over the gray vertical divider between the bars and tasks, you can move this bar to reveal more of the bars or more info after duration

Look at the other views, like network and calendar

**PROJECT INFORMATION**

To obtain some general project info, click on **project, project information, and statistics**

This will provide info like cost, duration, finish date, and more.
RESOURCES

Resources include labor, materials, equipment, subs, and other items used in your project.

To add resources, the active screen must be the top.

Set the top pane as active (click anywhere in the top pane).

**Method 1:**

1. Go into “view” and select “resource sheet”
   You can add any resource here (laborers)
   This is the resource pool

2. Name is the name of the resource

3. Ignore initials and group (advanced topics)
   Initials will be assigned automatically

4. Max units is the number of this resource you have (5)
   Max units may be show in percent
   Go to tools, then options, then schedule
   Show assignment units as decimal or percent - use decimal

5. Hourly and overtime rates are default $/hour ($10 and $15)

6. If it’s a sub with a lump sum bid, you can insert the lump sum under “per use”.

7. You don’t need to add all resources here. You can add them as you go.

**Method 2: Adding resource to specific tasks**

In the Gantt view, click on a task you want to add resources to (Sitework)

Click on the human head button in the tool bar

A menu will appear. The down arrow lets you select resources that already exist.

Selecting the resource assigns that resource to that task for that duration.

You can add a new resource by typing in a new name (Dozer)

Go to resource sheet to input important data (units, cost, etc.)

After hitting the human head, you can click and drag available resources to tasks.
Overallocated Resources

Companies will have limited resources

If you input a number of resources, and then assign resource to tasks, you can see if you are overallocating your resources.

In the resource graph or resource usage views, you can see in red overallocated resources

EFFORT DRIVEN SCHEDULING

When adding resources to a task, the first resource you add will have the same duration as the task

For example, adding one laborer to a task assumes he will work for the entire duration

Now say you add another laborer, effort driven scheduling will now cut the task duration in half to account for doubling of the resource

I would suggest turning this off and using fixed durations while you add resources.

To do this, go into tools, options, schedule

Set default task type to fixed duration

Uncheck new tasks are effort driven

Then click set as default.

In our example, we have already input tasks and durations

Since our default did include effort driven tasks, we must change each if we do not want effort driven tasks

This is actually easy to do - Click on the first task

Hold the shift button down and then down arrow to highlight all tasks

Hit the task information button and select fixed duration and uncheck effort driven