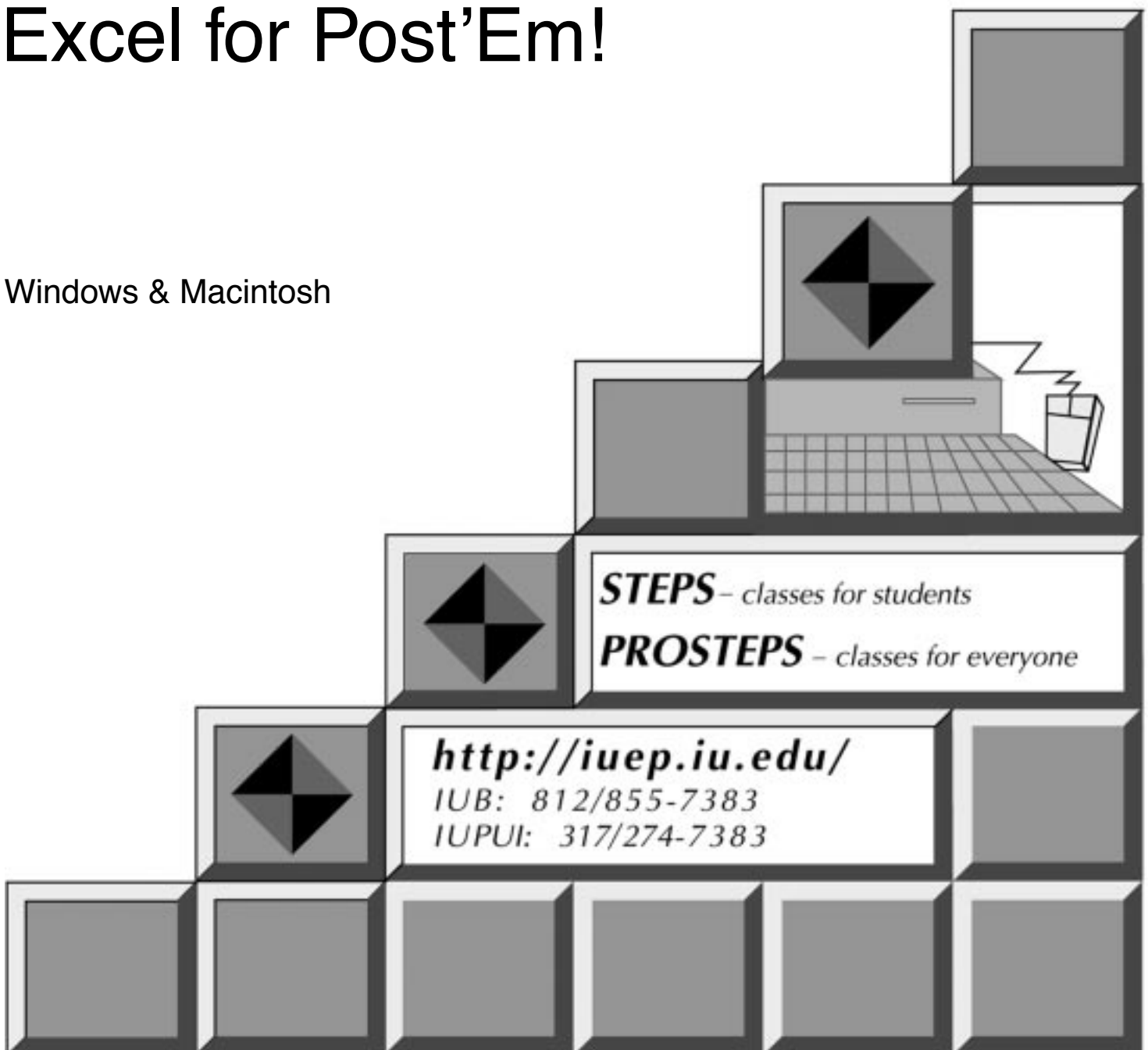


Excel for Post'Em!

Windows & Macintosh



About the UITS Education Program

The University Information Technology Services (UITS) Education Program serves over 20,000 people on the IU Bloomington and IUPUI campuses annually. Our staff is comprised of enthusiastic professionals who enjoy developing and teaching computing classes. We appreciate your class evaluation comments and use them to revise courses and plan new ones. Thanks in part to your comments, the UITS Education Program has received several national awards for our class materials and catalog. Please keep your questions, comments, and suggestions coming! You can call us at (812) 855-7383 or (317) 274-7383.

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Welcome and Introduction

Welcome to *Excel for Post'Em*.

What You Should Already Know

You should have taken the class *Introduction to Computing Using Windows* or *Introduction to Computing Using the Macintosh* or have the equivalent skills. Specifically, you should already know how to:

- Use a mouse
- Recognize icons
- Open and close windows
- Adjust the size of the window
- Access options from the menu bar

What You Will Learn

This class introduces a few of the basic features of Microsoft Excel used to create files for uploading to the *Post'Em!* grade reporting system. We will cover many topics, including:

- Understanding what a spreadsheet is
- How to use Excel to open and modify worksheets
- How to enter text, numbers, and equations
- How to format cells and worksheets
- How to export data from Excel for use in Post'Em!

What You Will Need to Use These Materials

To complete this class successfully, you will be provided with:

- The use of Microsoft Excel 97
- The exercise file **gradebk.xlt**

The Difference Between the PC and Macintosh

There are no substantive differences between Excel on the PC and Excel on the Macintosh. Two commonly used keys, however, are different and should be noted, particularly for Mac users. First, the **[Backspace]** key on the PC corresponds to the **[delete]** key on the Macintosh. Second, the **[Enter]** key on the PC is equivalent to the **[return]** key on the Macintosh.

Getting Started

When you first turn on a computer and its monitor, you will see different commands displayed on the monitor as the computer starts. Once it has finished starting, you will be ready to get to work.

Information You Will Need for Class

Depending on the environment you are in, you may need a user account to log in, and you may need to connect to another remote computer during class. Your instructor will give you this information if you need it, so please write it in the spaces below:

- Your Username: _____
- Your Password: _____
- NT Domain: _____
- Remote machine address: _____

Do You Need to Log On?

When your computer has finished starting, you will either see the desktop or the **Begin Logon** dialog box. Most Windows 95 and Macintosh computers do not require you to log on, whereas all Windows NT machines require you to. Let's see how to work in both situations.

1. If you already see the desktop,

Go to the ***Verifying That the Eclass Folder is on the Desktop*** section, two pages ahead in these materials

Beginning the Log On Process

If you are not seeing the desktop, let's begin the process of logging on.

1. If you are on a PC, in the Begin Logon dialog box, to begin the logon process,

hold down the  and  keys, then tap 

Note for Macintosh Users - If you are needing to log on to a Macintosh, and you don't see a dialog box asking for your username and password, you can get started by clicking the mouse.

Entering Your Username and Password

You see a new dialog box which asks for your username and password. Many Windows machines will also ask for the domain to log you on to the system. Let's begin by entering our username and password.

1. If you see a username different from the one you will be using in class today,

 across the username

2. If you are positioned in the username field, to begin logging on, type:

your username 

Your cursor should now be in the Password box.

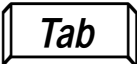
3. To enter your password, type:

your password

Entering the Domain Name (Windows Only)

If you are logging onto a Windows NT system (or a Windows 95/98 system that has been configured for NT domain log on), you need to specify the network domain. The domain identifies the part of the overall computer network which you are trying to log into. Your instructor will tell you what the correct domain is, though it is probably already set correctly.

1. If your domain is not set correctly, type:

 to move to the Domain box

2. To set the domain to the correct name, type:

the correct domain name





Note that you should also be able to select the correct domain name from the Domain drop-down list.

Finishing the Logon Process

We have given the computer all the information it needs to log us on, so let's finish the logon process.

1. To finish the logon process, type:

 (or  OK)

Note for Macintosh Users - If using a Macintosh, press  instead of . The Mac  key is equivalent to the PC's  key.

The computer logs you on and you see the desktop.

Verifying That the Epclass Folder is on the Desktop

Most of our classes use exercise files which are contained in the epclass folder. Accordingly, we want to make sure that the epclass folder is on the desktop as we are getting started. If you do not see the epclass folder, there are instructions in the Getting the Exercise Files supplement at the back of this handout for copying the files to your desktop. Note that there are different instructions depending on the environment you are working in.

1. If you don't see the epclass folder on the desktop,

Follow the instructions in the supplement ***Getting the Exercise Files*** in the back of this handout

Once you have the epclass folder on your desktop, you are ready to proceed with the rest of the class.

Starting Excel

Now that we have successfully logged on, we need to start the Excel program.

Starting An Application Program

There are two primary ways you can start application programs in the Windows or Macintosh environments.

Using Application Icons

You can launch applications by double-clicking their icons.

1. If you see an icon for the application program you want to run on your screen, to start the program,



From the Menu

You can also start application programs from the Start button (Windows) or Apple menu (Macintosh).

1. In Windows to see the options on the Start button,



You see a menu of options. We want to start a program. Note that we only have to point at the selection we want.

2. To see what programs are available,



You see a new menu with a list of the available applications.

Note for Macintosh Users - To see the list of available applications on a Macintosh, you only need to click on the Apple menu in the top left of your screen.

In the sub-menu, you will see either a list of folders which contain the application program, or a list of application programs themselves.

3. If you see a list of folders in the menu,



(e.g. - Word Processing if you want to start Microsoft Word)

Note that you may have to point to an additional subfolder to get to the desired menu.

4. Once you see the menu, to start the program,

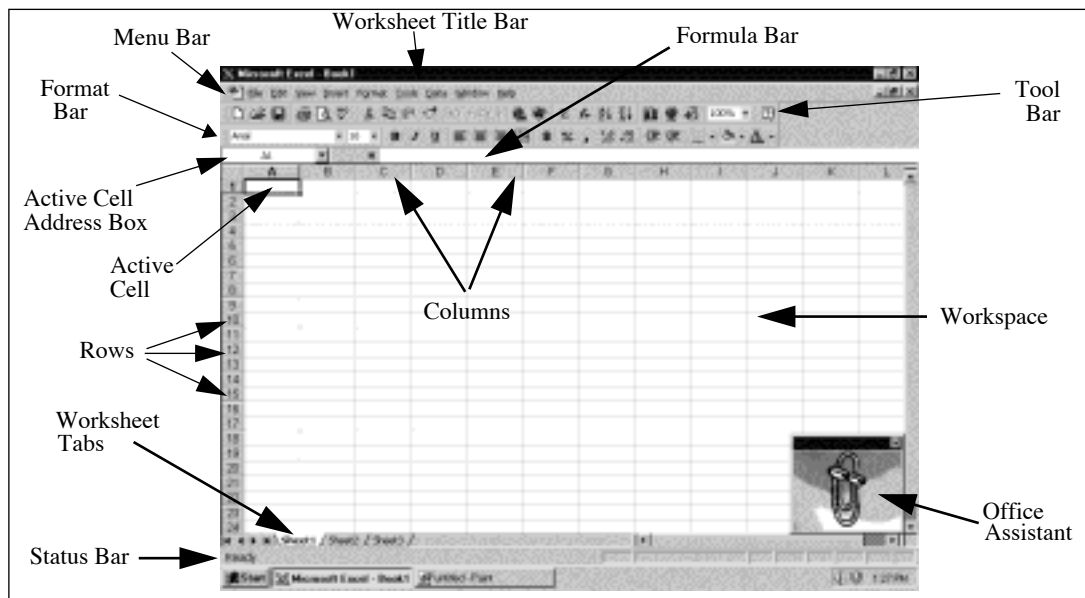


Excel loads and you see the opening screen.

The Opening Screen

After Excel loads, you see a blank worksheet window. Let's examine the window and learn the names for some of the parts.

The Worksheet Window



General Layout Information

As you would expect with any Windows application, there is a *menu bar*, *scroll bars*, *minimize* and *maximize* buttons, and a *title bar*. Excel also has a *tool bar* for quick access to commands.

Rows and Columns: The Work Area

Most of the screen is covered with a grid of *rows* and *columns*. The rows are labeled with numbers (0 - 65,536) and the columns are labeled with letters (A - IV). This grid is your spreadsheet work area, where you will enter data and view the results of spreadsheet calculations.

Cells

The intersection of any column and row is called a *cell*. Cells have addresses made up of the column letter followed by the row number. For example, the name of the highlighted cell at the top left corner of the spreadsheet (in column A, row 1) is A1.

Formula Bar

The *formula bar*, which is right below the tool bar, is useful for examining and editing the contents of cells.

The Cursor

Right now, your *cursor* is shaped like a thick “plus” sign. The shape of your cursor changes often in Excel, and it is important for you to notice the shape—*different cursor shapes mean different things to Excel*.

Workbooks and Worksheets

Excel creates your documents as *workbooks*. Each workbook can contain many individual spreadsheets, called *worksheets*. On the bottom of your current workbook, you see three tabs marked Sheet1, Sheet2, and Sheet3. We could add additional sheets if we wanted to (Sheet4, Sheet5 etc.). We could also rename the worksheets in our workbook for clarity. Appendix 1 contains instructions on working with worksheets.

The Office Assistant

The *Office Assistant* is displayed in the lower right corner. The Office Assistant is provided to help you in your Excel work, answering your questions and suggesting alternative ways to complete tasks. We will not be using the Office Assistant in today’s class, so let’s close it’s window.

1. To close the Office Assistant box, in its upper right corner,

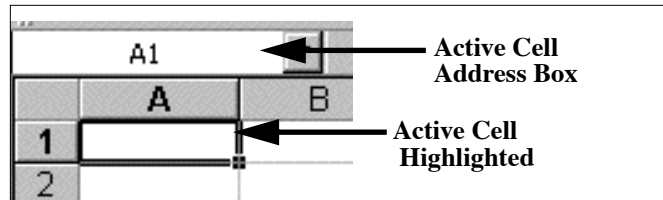


The Office Assistant goes away.

The Active Cell

The *active cell* is the cell that Excel is “looking” at. Data is always entered into the active cell. The active cell is indicated in two ways:

- With a highlighted border around the cell
- The name of the active cell is shown to you in the Active Cell Address Box on the leftmost end of the formula bar



When you create a new worksheet in Excel, the active cell is cell A1. If you open a pre-existing worksheet, the active cell is wherever you left it when you saved the worksheet.

Moving the Active Cell

Let's see how to move the active cell with the mouse and the keyboard.

Using the Mouse

We'll first see how to move the active cell with the mouse.

1. To select a new active cell using the mouse,

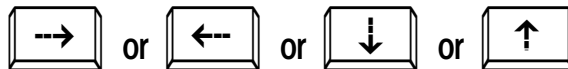
 any cell

The cell you click becomes highlighted and the name of the cell is shown to you in the Active Cell Address box.

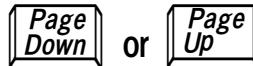
Using the Keyboard

You can also move the active cell from the keyboard.

1. To move the active cell one cell at a time from the keyboard, press:



2. To move the active cell down or up a screenful of rows, press:



3. To move the active cell back to cell A1, press:



Opening an Existing Template File

Now that we've seen some of the basics of how spreadsheets are organized, let's open an existing spreadsheet. We are going to open a spreadsheet from a *template*. Templates can save a good deal of time since the spreadsheet design is basically finished, complete with formulas. The worksheet we'll work with today is a sample gradebook that we'll modify. The exercises we complete will illustrate many of the basic features and principles of spreadsheet organization.

After we open the template, we'll save a copy as a standard Excel workbook with a different name.

1. To open an existing file from the menu bar,

 File,  Open

(alternatively, you could click the Open File button [], the 2nd button in the tool bar)

You see the Open dialog box. You need to specify two pieces of information: the location and name of the file you want to open.

Setting the Location for Opening Your File

When your dialog box opened up, it already had a default location set for opening the file. You can see this location by looking at the Look in destination area in the top left of the dialog box. We want to start at the desktop, since our exercise file folder is there.

Starting at the Desktop

If your dialog box is **not** pointing to the desktop as the Look in location, you need to do the following:

1. To see a list of all possible places you can open your file from,

 the Look in drop-down list button ()

You see a list of all of the different locations where your file might be.

2. In the list of locations,



Your Look in destination is now set to the desktop.

Note for Macintosh Users - To get to the desktop, you can also click the Desktop button in the Open dialog box.

Getting Into the Epclass Folder

Note that there is a folder on the desktop called epclass. It contains the exercise files which we use in all of our classes, so we need to get into that folder to open the file.

1. To get into the epclass folder,



The epclass folder is now listed as the Look in destination, and this is where we will open the file.

2. To open the file,



The worksheet opens on your screen. You see the gradebook template file open. Since this is a template, most of the structural information (column headings and formulas) has already been entered. In order to make this file useful, all you need add is specific student data; usernames and grades. as you can see, we've added hypothetical student data to work with. As part of the exercise, we'll edit the data and cell formatting slightly.

First we'll save a copy of the spreadsheet.

3. To start saving a copy of this file as an Excel workbook (not a template),



You see the **Save As** dialog box. Now we have to specify a new name for our file and make sure that we are saving it as a workbook, not a template. When we work with *Post'Em!* later, we'll use a hypothetical class account - B621. Let's use the class number as the filename.

4. To rename the file, type:

B621

5. To start changing the filetype to an Excel Workbook, in the Save as type: box,



6. To finish changing the file type,

scroll as needed,  Microsoft Excel Workbook (*.xls)

Your settings indicate now that you will save this document as an Excel Workbook called B621.xls.

7. To save the changes to the file, press:



Understanding the Worksheet

The worksheet is shown on the next page. It is designed to track grades for a small class. As you can see, the first column lists the students in class by username, the second column lists the grade for Quiz 1, the third column lists the grade for the Midterm exam, the fourth column lists the grade for the Group Project (GrpProj), the fifth column lists the grade for the Final exam, and the sixth column lists the student's average raw score grade using a pre-determined Excel function.

Obviously, a real class may have more or less students enrolled, and may have more grades entered as well. However, even though this worksheet has only a small amount of data, its basic organizational structure could be used in a much larger worksheet. Let's examine the organization of the worksheet so we can better understand its structure.

The formula bar will always display the true contents (the actual alphanumeric characters) of the cell, independent of any special formatting.

1. To see the contents of cell A2, press:




Notice that the contents of this cell - *abgreens* - looks the same in the cell and the formula bar. This is because no special formatting functions or styles were applied to this cell.


Data Entry

Suppose the contents of this cell were incorrect. The student's username is really *gabreens*, not *abgreens*. We want to change the contents of A2.

1. To change the data in cell A2, type:

gabreens 

You see the contents of the cell are changed. When you type text and press , the text is entered into the active cell, replacing anything that was already there. This is an easy way to enter data.

NOTE: The active cell shifted one down, to A3. Pressing the  key always move the active cell to the next cell down the column.

2. To view the contents of other cells in column A, press:



one or more times

By pressing the down arrow, you move the active cell. The true (non-formatted) contents of the active cell are displayed in the formula bar.

Numbers

Numbers are entered from the keyboard just like text. You can format cells containing numbers to display them in bold, italics etc., as you can for cells with text. You can format numbers to be displayed in many other ways, including currency, percentages, dates and time, with or without commas, decimals, etc.

1. To look at a cell containing a number,



You see that the data shown in the cell, 72, appears exactly the same as the number in the formula bar. There is no special formatting applied to this cell.

2. Examine some of the other cells in column E. You'll notice that no special formatting was assigned to any of these cells.

Formulas

The real power of a spreadsheet begins with formulas. A formula is an algebraic expression which includes cell addresses and/or numbers combined with mathematical operators and functions. In Excel, formulas always begin with the equal sign.

Let's see what a formula looks like.

1. To view the formula in cell F2,



The cell shows the number 76, but the formula bar shows the formula used to calculate the average score: `=AVERAGE(B2:E2)`. In this case, the cell data looks different than the real contents of the cell in the formula bar.

NOTE: The AVERAGE statement is an example of a special pre-defined *function*. Functions carry out a defined series of mathematical operations on a set of specified data.

Understanding Formulas

So what does the formula `=AVERAGE(B2:E2)` mean? It instructs Excel to find the average value of the cells in the *range* B2 through E2. In other words, it calculates the average test score for gabreens. The calculated value is displayed in the cell, but the real contents of the cell is still the formula.

The Cell and Formula Bar Display

The difference between the cell and formula bar display is especially important with formulas. This is because you need to see the real contents (the formula itself) in case you need to modify it. The formula bar display always shows the formula. In the cell, you only want to see the result of the formula calculation.

The Formula in Action


Let's see what happens if we change the data in one of the cells feeding the formula. We'll change the midterm grade of *gabreens* to 94. This will change the average of *gabreens*' grades, and should therefore change the value in cell F2.

1. To make C2 your active cell,

 cell C2

2. To change the data, type:

94 

You see the change in cell C2 results in a change in cell F2 automatically! Excel automatically recalculated the answer for you when you changed the data and pressed .

Viewing Other Formula Cells

Let's look at the contents of other cells in column F.

1. To view the contents of cell F3,

 cell F3

The formula bar reads **=AVERAGE(B3:E3)**.

2. To view the contents of cell F4, press:

 (or  cell F4)

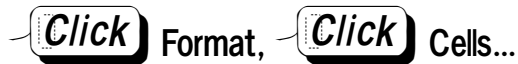
The formula bar reads **=AVERAGE(B4:E4)**. Note that the formula has the same structure in each cell. Only the row number of each formula is different.

Cell Formatting

The result of the formula **=AVERAGE(B4:E4)** is just another number, and right now there is no extra cell formatting to change the cell display. We could apply many different formats to the cell if we wanted.

Let's change the cell formatting for cell F4 and see what happens to the displayed value.

1. To view the formatting for cell F4,



You see the **Format Cells** dialog box with the *Number* tab in front, and the word *Number* highlighted. This dialog box is used to set the formatting for the cells that were selected when the *Format Cells* command was issued, in our case, just cell F4.

2. To add 2 decimal places to the displayed value, in the *Decimal places* field,




3. To finish this change, type:

2

4. To accept the changes we've made,



You see the contents of cell F6 change to 36.00, even though the true contents of cell G4 did not change.

We can also use the *Formatting* tool bar to quickly change cell formats. The *Decrease decimal* button [] will decrease the number of decimals in your number by one each time it is clicked.

5. To remove the 2 decimal places displayed in cell F4,



You see the contents of cell F4 change back to 36. You can change many formatting settings at the same time using the dialog box, but the toolbar buttons are handy when you only want to change one or two format settings.

Copying Formulas

By examining the cells in column F, you see that *the formula is essentially the same in each cell*. The only thing that changes is the row number. In this situation, we will enter the formula once, then copy and paste it to the other cells. Excel will update the row numbers in the formula automatically for each different row. Let's see how this works.

First, we will need to clear out all of the formula cells in column F, rows 2 through 20. Then, we'll enter the formula into cell F2, then copy and paste it to the other cells.

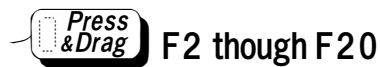
Clearing the Formulas

Let's see how to clear the contents of cells F2 through F20.

Selecting a Range of Cells

We first need to select cells F2 through F20.

1. To select cells F2 through F21,



NOTE: In Excel, if you drag your mouse well below the last row of the worksheet to highlight to the end cell of the range, you will very quickly select a very large range of cells. For the purpose of this exercise. It doesn't actually matter if you highlight cells past F20. But to avoid this problem, when pressing and dragging to highlight a range like this, don't point much below the bottom row of the worksheet.

Cells F2 through F20 are highlighted. The only thing that looks a little funny is the highlighting on cell F2 itself. It has a thick border but a white middle, unlike the other selected cells. There is a reason for this; it indicates to you that F2 is the active cell.

The other way Excel indicates an active cell is by displaying the active cell address in the Active Cell Address Box. The cell address F2 is displayed.

Clearing the Selected Cells




Now that we have selected the cells, its easy to clear them out.

1. To clear the contents of the highlighted cells, press:



(You can also clear cells from the menu:  Edit,  Clear,  All)

The contents of the cells are erased.

Note for Macintosh Users - On the Mac, you can delete selected cells by pressing the  key. The  key is equivalent to the PC's  key.

Entering the Formula

Now we can enter the formula in cell F2. Since AVERAGE is a pre-defined function in Excel, we can either type the word AVERAGE into the formula directly, or choose the AVERAGE function from a function list. We'll choose it from the list.

1. To make F2 your active cell,



2. To view a list of functions, in the main tool bar,



You should see the **Paste Function** dialog box. This box contains many functions, organized in categories. The top category, *Most Recently Used*, is selected by default. Ten of the most commonly used functions are listed in the *Function name* box on the right. You can see the AVERAGE function in this list. If AVERAGE was not in the list, we could select other categories to look in. The *All* category lists over 300 functions for you to search through.

NOTE: The AVERAGE function is classified as a statistical function.

3. If necessary, to choose the *Most Recently Used* category, in the *Function category* field,



4. To choose the AVERAGE function, in the *Function name* field,



The AVERAGE function definition box opens. This box contains information about the AVERAGE function. In addition, it provides a place for you to define the exact range of cells you want in the function statement. Excel “guesses” that you want to use the range B2 through E2 (B2:E2).

Excel writes “=AVERAGE(B2:E2)” in the formula bar. If the selected range is not correct, you can press and drag across the cells in the correct range. In this case, Excel guessed correctly!

5. To confirm the AVERAGE function insertion, press:



You see the number 81 in cell F2. Notice the true contents of cell F2 is the function `=AVERAGE(B2:E2)` and not the value 81.

Copying and Pasting the Formula

Now we can copy the formula in F2 to the empty cells in F3 though F21.

1. Make sure F4 is still your active cell again. If necessary,



2. To copy the formula, from the command menu,



A flashing marquee appears around cell F2, indicating that you just made a copy of its contents.

We now need to tell Excel where we want to paste the formula.

3. To select the cells we want to paste the formula into,



The cells F3 though F20 are highlighted. Now cell F3 has the white center since, it is the active cell.

4. To paste the copied formula into the highlighted cells,



You see the contents of cells F3 though F20 change. The row numbers inside each formula were automatically updated when we pasted the formula.

NOTE: There are Copy (📄) and Paste (📄) buttons on the tool bar, the eighth and ninth buttons in the first row of the tool bar. You can use them in your future copy and paste operations.

Saving the Worksheet

We've modified our worksheet, so let's save it now.

1. To save your worksheet, in the menu bar,



Data Entry and Editing

Now let's edit this worksheet a little more before loading it into Post'Em! One of the skills you will need is inserting and deleting rows and columns. We'll practice this by adding and deleting a few students and grades.

Adding Rows and Columns

In Excel, adding blank rows or columns is done by example. First, select the number of rows or columns you want to add where you want them. Then, use the *Insert Row*, or *Insert Column* command. Excel inserts the rows or columns next to your selection point. By default, new columns are added to the left of selected columns, and new rows are added above selected rows.

First we'll add two new columns, then we'll add an additional rows for a new student. Finally, we'll delete one of the grade columns and a student who dropped out of school.

Adding Columns

We're going to add two columns to our spreadsheet. First, we'll insert a column for another grade, *Quiz 2*. Then, we'll add a column at the end of our worksheet for instructor comments.

Inserting a Column

We'll insert the *Quiz 2* column to the left of column C.

1. To select column C, in the column headings,



The entire column is highlighted.

2. To insert a new column,

 Insert,  Columns

A new column blank column C appears in your worksheet. The previous column C has shifted to the right to make room.

NOTE: If we had selected two columns before issuing the *Insert Columns* command, two new columns would have been inserted.

3. To add the column heading to column C,

 cell C1

4. To enter the column name, type:

Quiz 2, 

You see the words *Quiz 2* appear in cell C1. We'll have to add the student grades for *Quiz 2* later.

Adding a Column to the End

We'll add the *Comments* column to the very end of the spreadsheet.

NOTE: The *Post'Em!* system allows for instructor comments, but they must be in the last column of the data!

Since we aren't inserting this column to the left of any existing columns, we don't need to use the *Insert Columns* command. We can just type in the column heading and enter the data.

1. To select cell H1,

 cell H1

2. To enter the column name, type:

Comments 

You see the words *Comments* appear in cell H1. Now let's add the Bold style, so the heading looks like the others.

3. To select the *Comments* column heading,



4. To apply the Bold style to the *Comments* heading, in the tool bar,



We'll add the instructor comments later.

Inserting a Row

As a final touch, we'll add one more row to the spreadsheet to allow for an additional student.

The procedure for inserting a new row is essentially the same as the procedure for adding a new column. The standard method is to select a row (or rows) and use the *Insert Rows* command from the menu bar. This is the method to use if you want to add rows to the top or middle of the spreadsheet. In other situations, we may want to add a row to the bottom of the spreadsheet. If this is the case, all we have to do is start typing information into the next row beneath the current last row.

In today's exercise, we'll add a new row 2 to the spreadsheet. We'll enter your own IUB username as the student username, and provide fictional scores for your grades. Later, when we upload this file into the Post'Em! system, you'll experience what your students will see when they try to access their own grades.

First, we'll select the row we want to insert above. Then, we'll use the *Insert Rows* command from the menu.

1. To select row 2, to the left of Row 2,



Row 2 is highlighted.

2. To insert 1 row, in the menu bar,

 Insert,  Rows

A new row appears above the former Row 2.

We need to copy and paste the formula into the *Av Score* column now.
We'll add your data to this row later.

Copying a Formula Again

To copy the average score formula, we'll select a cell with the correct formula, then copy it to the clipboard. Then we can select the correct cell and paste in the formula from the clipboard.

1. To select a cell with the correct formula,

 cell G3

G3 is now the active cell. The average score formula is in the *Formula Bar*.

2. To copy the formula to the clipboard, in the tool bar,

3. To select the cell to paste in the formula, in the worksheet,

 cell G2

4. To finish the paste procedure, in the tool bar,

 , press 

The expression **#DIV/0!** appears in cell G2. This expression means that the formula we pasted is violating a mathematical law; it is trying to divide by zero! When we add your grades to this row, the average score will be calculated with no problem.

Saving Your Worksheet

We've made some significant changes, so let's save our worksheet.

1. To save the worksheet, from the toolbar,



The file is saved with the same name in the same location.

Entering the Rest of your Data

We now need to enter the missing student grade data. We'll start with data for the new row we added.

1. To begin with cell A2,



2. To enter the text, type:

your IUB username

Your cursor moved automatically to cell A3. When adding data to an entire row at one time, it would be more convenient to have the cursor move to the right after each cell. We can use the key to do this.

3. To continue with cell B2,



4. To enter your *Quiz 1* grade, type:

85

Your cursor should be in cell C2. Notice the value displayed in column G (average score) changed automatically to reflect the new grade data.

5. To enter your *Quiz 2* grade, type:

95

Your cursor should now be in cell D2.

6. To enter your *Midterm* grade, type:

65 

Your cursor should now be in cell E2.

7. To enter your *Grp Proj* grade, type:

80 

Your cursor should now be in cell F2.

8. To enter your *Final* exam grade, type:

92 

Your grade data is complete. Now all you have to do is enter the Quiz 2 data for the other 19 students in your class!

Correcting the Bold Problem

There is one problem with the format of the data we just entered. Its in bold face because Excel “brought down” the formatting from the previous row. We can clear this off quite easily though.

1. To select all of row 2,


 the Row 2 heading box ()

The entire row is selected. The bold button is pressed down on the toolbar too, indicating that bold has been turned on for many of the cells in the row. The bold button is a toggle switch though, meaning that when bold is turned on, you only have to click the bold button to turn it off.

2. To turn off bold face,

Entering Student Grades

It's a simple matter to enter a new grade for all students. All you have to do is select each cell and enter the grade for that student, then press  to move to the next cell in the column. If many students have the same grade, you could copy and paste the common grade to save time.

In this exercise today, you can enter any Quiz 2 grades you want.

1. To begin entering *Quiz 2* grades,


 cell C3

2. To enter *Quiz 2* data for the next 19 students, type:

various grades  (in cells C3 through C21)

Your cursor should be in cell C22. All students have a grade for *Quiz 2*.

Entering Instructor Comments

It's also a simple matter to enter instructor comments. Once again, all you have to do is select each cell in column H and enter any comments for that student, then press  to move to the next cell in the column. If many students are receiving the same comment, you can copy and paste the common comment to save time.

In this exercise today, you can enter any student comments you want.

1. To begin entering instructor comments,

 cell H2

2. To enter instructor comments for the next 19 students, type:

various comments  (in cells H3 through H21)

Saving Your Worksheet

Now that we have finished entering the student data, let's save our worksheet.

1. To save the worksheet, from the toolbar,

The file is saved with the same name in the same location.

Working With Complex Formulas

One of the most powerful features of any spreadsheet program is its ability to quickly calculate values with formulas and functions. Complicated calculations can be written and performed in seconds. If you were to design a complete gradebook spreadsheet, you might use complex formulas to calculate weighted averages, or perform statistical analyses on student grades.

Calculating a Weighted Average

If the grades you assign to students for different projects have a different value or weight, in your grading scheme, you should replace the simple average formula we used in the gradebook spreadsheet with a more complicated formula. Here is a sample formula that calculates a weighted average of five grades.

The weighted average will assume the following weights for each item:

- Quiz 1 - 5%
- Quiz 2 - 5%
- Midterm - 35%
- Group Project - 20%
- Final Exam - 35%

The formula could be described in words as: The weighted average grade is equal to 5 percent of Quiz 1 (column B), plus 5 percent of Quiz 2 (Column C), plus 35 percent of the Midterm (column D), plus 20 percent of the Group Project (column E), plus 35% of the Final Exam (Column F).

The formula in row 2 would look like this:

$$=(B2*.05)+(C2*.05)+(D2*.35)+(E2*.2)+(F2*.35)$$

When using algebraic notation, the use of parentheses is important. The parentheses are used to control the order of the calculations. In general, Excel reads an equation from left to right four times.

- The first time, Excel performs all operations in parentheses
- The second time, Excel performs exponentiation
- The third time, Excel performs multiplication and division
- The fourth time, Excel performs addition and subtraction

Technically speaking then, the parentheses are not necessary in the formula, since multiplication is performed before addition anyway, and all of our operations in parentheses are multiplication operations. However, we have put parentheses in this formula since they help document what the formula does and make the formula easier to read.

Let's add this weighted average formula to our spreadsheet in column H. We'll place the weighted average next to the simple average to allow comparisons between the two. We will need to insert a new column and enter the heading and formula into the first student data row. Then we'll copy the formula into each row of the new column.

Inserting a New Column

Remember, Excel inserts column to the left of a selected column. If we want the new column between columns G and H, we need to select column H and insert from that point.

1. To select column H,

 cell H1

2. To insert one row, in the menu bar,

 Insert,  Columns

You see a new column H appear.

Creating the Column Heading

To create the column heading, all we need do is type text into the first row of the new column.

1. To select the first cell in the new column,

 cell H1

2. To enter the column heading text, type:

Wt Avg

The text is displayed in cell H1. Notice the bold style format is already applied to this cell.

Entering the Formula


Now we can enter the formula in cell H2. The formula we'll use is:

$$=(B2*.05)+(C2*.05)+(D2*.35)+(E2*.2)+(F2*.35)$$

1. To make H2 your active cell,

 cell H2

2. To enter the formula, in the formula bar, type:

$=(B2*.05)+(C2*.05)+(D2*.35)+(E2*.2)+(F2*.35)$ 

You see the number 80 in cell H2. Notice the difference between the weighted average and the original average score.

Copying the Formula Using Fill Down

Now we can copy the formula in H2 to the empty cells in H3 - H21. We'll use the **Fill Down** command to do this. *Fill Down* copies the contents of the top cell in a range of selected cells into the cells directly below it (in the same column).

1. To select cells H2 through H21,

 cells H2 through H21

Cells H2 through H21 are highlighted.

2. To copy the formula from cell H2 into all the selected cells below H2, in the menu bar,

 Edit,  Fill,  Down

You see the contents of cells H3 through H21 change. The row numbers inside each formula were automatically updated when we filled down with the formula in H2.

Saving Your Worksheet Again

Let's save our worksheet one more time.

1. To save the worksheet with the changes we have made,

Excel saves the revised file to disk.

Printing

When you print a worksheet, Excel knows where the filled in cells are and only prints those cells (and all blank cells in between).

Printing the Worksheet

Let's see how the basic worksheet will look when printed

2. To print your worksheet,




You see the **Print** dialog box.

Printing Options

Several options are available. Notice that by default, Excel will print only the *Active sheet(s)*. We will keep this default, but if you had more than one worksheet (say, for a different class or section) you could choose to print all sheets (*Entire workbook*) now if you wanted to. If you just wanted to print a range of selected cells, you would select the *Selection* option (in the *Print what* section).

1. To preview your printed work before sending it to the printer,



Note for Macintosh Users - The easiest way to get into Print Preview mode on a Mac is directly from the menu bar. To preview printed work on a Mac, from the menu,  File to Print Preview.

You see a preview of what the printout would look like. Click your mouse in the body of the previewed report to zoom in and out.

2. After viewing your screen,



Saving as a Comma Separated Value File

In order to upload your grades into The Post'Em! system, you must use a special file format; the standard Excel spreadsheet will not suffice. Uploaded grade files must be text files in either the *tab-delimited* or *comma-delimited* (or comma separated value) format. A tab-delimited file stores data in rows, with each column break identified by a tab character. A comma-delimited, or comma separated value file stores data in rows, with each column break identified by a comma character.

Excel files can be saved into both of these formats. Today we'll show you how to save your file as a comma separated value (CSV) file.

When saving a workbook as a CSV file, each individual worksheet must be saved separately. CSV files cannot contain all worksheets of a multiple sheet workbook. See *Appendix 1: Using Multiple Worksheets* for more information about working with multiple worksheets.

The basic procedure we'll follow is to choose one of the worksheets to save, and then simply save the entire worksheet as a CSV file.

1. To select a worksheet, at the bottom of the workbook,



If this worksheet was not already active, it becomes the active sheet.

NOTE: If your workbook has only one worksheet, it will be chosen as the active sheet already by default.

2. To begin the save as process, in the menu bar,



The **Save As** dialog box opens. Now we need choose the CSV file type.

3. To start changing the filetype to a CSV file,



4. To finish changing the filetype,

scroll as needed,  CSV (Comma delimited) (*.csv)

Notice that the name of the file is automatically set to b621.csv. This is the file you will want to upload to Post'Em!

5. To finish the *Save As*, press:



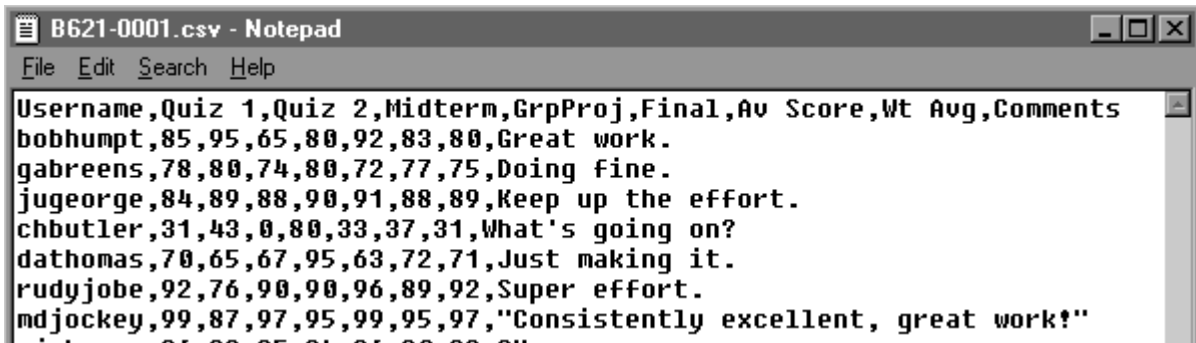
You see a warning that reminds you that the chosen file format does not save an entire multisheet workbook. You'll have to repeat the *Save As* procedure for each worksheet you want to upload into *Post'Em!*

6. To acknowledge the warning and save only the active worksheet, press:



The worksheet has been saved as a CSV file. The new file is ready to be uploaded into the *Post'Em!* system.

If you were to open this new file in any text editor, it would look like this:



```
B621-0001.csv - Notepad
File Edit Search Help
Username,Quiz 1,Quiz 2,Midterm,GrpProj,Final,Av Score,Wt Avg,Comments
bobhumpt,85,95,65,80,92,83,80,Great work.
gabreens,78,80,74,80,72,77,75,Doing fine.
jugeorge,84,89,88,90,91,88,89,Keep up the effort.
chbutler,31,43,0,80,33,37,31,What's going on?
dathomas,70,65,67,95,63,72,71,Just making it.
rudyjobe,92,76,90,90,96,89,92,Super effort.
mdjockey,99,87,97,95,99,95,97,"Consistently excellent, great work!"
```


The column headings are in the first row. Each column is separated from the others by a single comma. The rows of student data follow in the next rows. Blank worksheet rows would be included in the file at the bottom. (It's a good idea to delete blank rows - if there are any - before saving the worksheet as a CSV file.)

Quitting Excel

We are done working with Excel for today, so let's quit the program.

1. To quit Excel,



Note for Macintosh Users - You should  **File** to **Quit** instead.

You see a dialog box warning that b621.csv is not an Excel 97 file. The file b621.xls which we saved earlier is a true workbook file, and we simply did a Save As to save that file in csv format. This means that we do not need to be concerned by this dialog box, because we already do in fact have the file we need in Excel 97 format.

2. To tell Excel to not save your csv data in Excel 97 format,



Excel closes and you are returned to the desktop.

Wrapping Up

We've reached the end of class. Before leaving though, we need to properly close our session.

1. If you are using a Windows PC, to see your Start menu,



2. To tell Windows that you want to see your Shut Down options,



Note for Macintosh Users - If you are on a Macintosh, you can see the commands you need to wrap up by clicking the Special command in the Finder.

You see several shut down options. Depending on the environment, you will select one of the following commands:

- **Shut Down** - The system will close all open system files and application programs, then it will let you know when it is safe to turn off the computer and monitor (Windows) or it will turn off the computer when it's done (Macintosh). If you are on a Windows PC, you would turn the machine off only after you saw the message.
- **Restart** - The system will close all open system files and application programs, then restart the computer as if you were powering it on. This allows the computer to reload initial commands and the operating system itself.
- **Log On as a Different User** (Windows only) - If you logged on to your Windows session, this command will log you off, but leave the computer positioned at the Begin Logon dialog box so that the next user of the machine can log themselves on.

Your instructor will tell you which command you need to execute.

Thank you for participating in Excel for Post'Em!

Please take a moment to complete the course evaluation form.

Contributions to This Class Material

Project Leader	<i>Chris Payne</i>
Project Developer	<i>Brian Beatty</i>
Development Team	<i>David Perry</i> <i>Adrian German</i>

Appendix 1: Using Multiple Worksheets

When you use Excel to keep your grades, there is no need to have a separate spreadsheet file for each class or section you teach. One of the built-in features of Excel allows for separate worksheets to be grouped into a single spreadsheet file, or workbook. One workbook can hold many worksheets.

Using the gradebook spreadsheet (a single-worksheet file) we created in class, let's add three more worksheets. This will allow us to keep track of four classes in the same workbook.

Opening the Workbook

If you closed the B621.xls file, you'll need to open it to perform this exercise.

1. If you need to, open the file B621.xls which you created in class.

Copying a Worksheet

First we'll make three copies of the original worksheet. Then, we'll rename and organize the worksheets in the workbook.

1. To make a copy of the active worksheet, in the menu bar,

 **Click** Edit, **Click** Move or Copy Sheet...

You see the **Move or Copy** dialog box.

2. To create a copy of Sheet 1 (the active worksheet), at the bottom of the dialog box,

 **Click** Create a copy checkbox

3. To finish the copy, press:

 **Enter**

A new worksheet is created, in front of the previously active sheet. Notice the worksheet tabs at the bottom of the spreadsheet window look like this:



To make more copies of the worksheet, just repeat steps 1 - 3.

4. Make two more copies of this worksheet.

We have four copies of our gradebook worksheet, called Sheet1, Sheet1 (2), Sheet1 (3), and Sheet1 (4). These names do not have any significant meaning to us, so let's see how to change the names.

Renaming a Worksheet

Now we'll rename each worksheet to identify the class' and/or section's grades it contains. We should choose names for our worksheets that will allow quick and clear identification of their contents. Let's use a combination of course and section numbers for the worksheet tab labels.


NOTE: You can use whatever labels you want for your own worksheets. We recommend you use whatever label that's the clearest to you.

1. To change the name of *Sheet1*, in the tabs at the bottom of the workbook,



Sheet1 becomes the active sheet. The name of the sheet is highlighted, indicating that we can type a new name directly into the name tab.

2. To enter the new sheet label, type:

R641-0345 


The worksheet name is changed to *R641-0345*.

3. To change the name of *Sheet1 (2)*, in the tabs at the bottom of the workbook,



Sheet1 (2) becomes the active sheet.

4. To enter the next sheet label, type:

R641-1298 

5. To change the name of *Sheet1 (3)*, in the tabs at the bottom of the workbook,



Sheet1 (3) becomes the active sheet.

6. To enter the next sheet label, type:

R400-5300 **Enter**

7. To change the name of *Sheet1 (4)*, in the tabs at the bottom of the workbook,



Sheet1 (4) becomes the active sheet.

8. To enter the next sheet label, type:

R400-4892 **Enter**

All four worksheets have been renamed. The last thing we could do is delete the extra two sheets in the back of the workbook.

Deleting a Worksheet

When the workbook was created, there were three default worksheets included: *Sheet1*, *Sheet2*, and *Sheet3*. We worked throughout this class with *Sheet1*, and have ignored *Sheet2* and *Sheet3*. They have no function in our workbook, so let's delete them.

To delete a worksheet, first you need to select it. Then, issue the delete command.

1. To select *Sheet2*, at the bottom of the workbook,



Sheet2 becomes the active worksheet.

2. To issue the delete command, in the menu bar,



You see a warning box telling you that the selected sheet will be permanently deleted.

3. To complete the deletion,



Sheet2 is deleted, and *Sheet3* becomes the active sheet.

4. To delete *Sheet3*, in the menu bar,



Sheet3 is deleted.

Editing Data

Now your workbook file is set up the way you want it to be, with individual sheets for different classes. Keep in mind though that since we copied the original sheet to the new sheets, all of the original data is in the new sheets (names, columns etc.). At this point, you would need to go into each of the individual new sheets and customize the data and column settings for that class.

Appendix 2: Editing Data in a Worksheet

There are two easy ways to change data which is already in a cell: you can type over (replace) the old entry, or edit the existing entry.

This exercise assumes that you still have the file B621.xls open.

Typing Over an Old Entry

The simplest way to correct erroneous data is to type on top of the original entry. What you type replaces what is in the cell. Let's try this by changing the column heading *Quiz 1* to *Test A*.

1. To make B1 your active cell,



You see the cell's contents (Quiz 1) displayed on the formula bar. Let's change the text by typing right over it in the cell.

2. To change the cell contents, type:



You see the column label change from *Quiz 1* to *Test A*.

Editing an Existing Entry

For partial edits, it's possible to click in the formula bar to edit the contents of the active cell. This is especially useful if most of the cell data is correct, and you only need to replace one or two characters. When performing partial edits, standard Windows editing practices apply. You can shift-click to extend your selection, and press and drag to select text. Typing on top of selected text replaces that text with new text.

Let's change the column label in cell B1 from *Test A* to *Quiz A*.

1. To make B1 your active cell,



You see the cell's contents (Test A) displayed on the formula bar. Let's change the text through the formula bar this time.

2. To highlight the data you want to change, in the formula bar,

 across the word *Test*

The word *Test* should be highlighted in the formula bar.

3. To finish the correction, type:

Quiz 

You see the column label change from *Test A* to *Quiz A*.

In-Cell Editing

Excel gives you another method for performing partial edits. You can double-click in the cell you want to change, then make the edit directly in the cell. Let's change the *Quiz 2* column heading to *Quiz B*.

1. To enable in-cell editing of cell C1,

 in cell C1

You see an insertion point now *in the cell*, approximately at the position where you double-clicked. The insertion point indicates that you can edit the data directly in the cell.

2. To change the contents of cell C1 from *Quiz 2* to *Quiz B*,

 after the 2, type , type B, 

The column heading is changed to *Quiz B*.

Using the Keyboard

We often get in the habit of using the keyboard to move the cursor through text, character by character as we do in a word processor. In Excel, pressing an arrow key while typing a new entry moves you to the next cell in the direction of the arrow, not to the next character. What you've typed thus far is entered into the cell you are leaving, whether you've finished it yet or not.

However, there is a method you can use the keyboard while editing in the formula bar or while editing directly in the cell. Let's try this out with a column heading.

1. To move to cell A1,









2. To enter a different column name in cell A1, type:


IUB-Username (do not press enter yet!)

3. To indicate that you want to edit the data in the formula bar,



Press your  and  keys, and you will see that they will take you to the beginning and end of your data. You can also use the left and right arrow keys to move through the text as you wish.

NOTE: On a Macintosh, you can use the arrows keys or the  -  or  -  key combinations to move through characters in the formula bar.

If you wanted to change the column A heading, you could just press  now. We really don't want to do this, so we need to cancel the edit.

Canceling Edits

Remember that if you type something into a cell, and change your mind about what you've entered, you can cancel your typing by clicking on the Cancel box.

1. To cancel the edit, in the formula box,



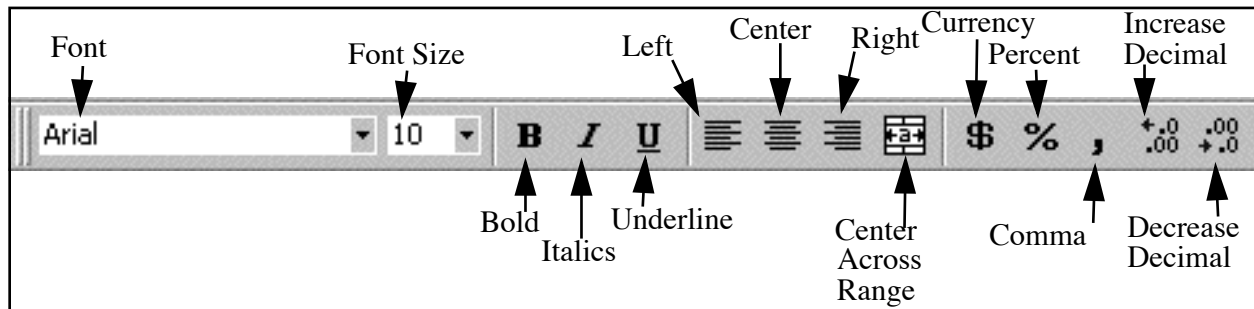
Cell A1 displays *Username* again. By selecting the *Cancel Edit* option, you told Excel that you didn't want to change the cell after all.

Appendix 3: Formatting the Worksheet

This exercise also assumes you have the file open which you created in class: b621.xls.

Let's see how to change the appearance of our worksheet for greater visual impact and clarity. Many of the most commonly used formatting commands are grouped onto the second row of the tool bar, as illustrated on the next page.

Formatting Buttons on the Second Row of the Toolbar



To use these formatting buttons, first we'll select the cell/range we want to format, then we'll click the appropriate buttons or menu commands.

Formatting Text

Let's format the column headings in row 1.

1. To select the cells to format,



2. To apply Centering to the selected range,



The text in each cell of the range is now centered. This may be difficult to see in the narrow columns. You could widen the columns to see the effect.

3. To apply bold style to the selected cells,



4. To apply Italics to the selected cells,



Undoing Your Text Formatting

The headings are bold faced and italicized. Note that the bold and italic buttons on the tool bar look like they've been pressed down.

To remove the formatting changes you just made, you need only to click the appropriate button a second time. This is because the format buttons (e.g. - Bold and Italic) act as toggle switches.

1. To remove Italics from the column headings,



The italics go away. The headings are only bold faced now.

Changing Fonts

The tool bar also gives you buttons for changing fonts and font sizes. These are at the very left of the second row of the toolbar. Let's change the font appearance of the column headings. Cells A4 - H4 are still selected.

1. To select a different font from the list,

 the Font box's drop-down list, scroll as needed, and

 Times New Roman

2. To change the size of the font,

 the Font Size box's drop-down list, scroll as needed, and

 14

You see the text in the selected cells displayed in the new font and size. Notice our selections have made the text in these cells too large to be seen. We need to adjust the column widths and row heights.

This time, we'll use a different method to change the width and height.

Changing Column Widths

Let's see how to adjust the widths of columns.

1. To change the column widths, in the menu bar,

 **Click** Format,  **Point** Column,  **Click** Width

You see the **Column Width** dialog box.

2. To specify a column width, in the *Column width* field, type:

12 

The column width changes for each selected column.


Other Methods to Change Column Widths


You can see clearly that columns B through H are more than wide enough to hold the numerical student grade data. Excel creates new columns with a default width of 12.00. Columns are not automatically resized as the information in a cell changes.

We may need more screen room to see additional columns later, so let's make the columns narrower.

First, let's change the width of column B.

1. To change your cursor into a widen tool,

 **Point** at the border between the B and C column headings (grey boxes at top of columns)

Whenever your cursor is positioned on the border between two column headings, it changes shape into a vertical bar with two arrows () . When the cursor has this appearance, you can change the column width.

2. To make column B narrower, make sure you have the correct cursor, then

 **Press & Drag** to the left

When you let go of the mouse, the column is adjusted to the new width.

We changed the width of column B, but what we really want to do is make columns B through H all the same narrow width. To do this, we must first select all the columns. Then, by changing the width of any one of the selected columns, we will change the width of all of them.


3. To select the columns you want to widen,

 **Press & Drag** across column headings B through H

You should see all cells in columns B, C, D, E, F, G, and H highlighted.

4. To change your cursor into a widen tool,

 **Point** at the border between the H and I column headings

Your cursor changes to the widen tool ()

5. To automatically make the columns the minimum width they need to be,

 **Double Click** the widen tool

This worked fine to narrow all the columns at once. Each column resized to fit its own column heading. The only problem is, we might want the columns to be a little wider than the minimum, and we'd like each to be the same width. This is easy to do.

6. To widen all of the selected columns to the same column width simultaneously,

 **Point** at the border between the H and I column headings,

 **Press & Drag** the widen tool to the right

Each column is now the same width.

Changing Row Height

We can change the row height using the *Format Row Height* command sequence. Row height changes only affect selected rows. We need to make sure row 1 is selected before changing the row height.

1. To select row 1,

 cell A1

2. To change the height of row 1, in the menu bar,

 Format,  Row,  Height

You see the **Row Height** dialog box.

3. To specify a column width, in the *Row height* field, type:

24 

Row 1's height changes. Now we can clearly see the text in row 1.

Saving Your Worksheet

We have made many changes, so let's save our worksheet.

1. To save the worksheet,

Excel saves the revised file to disk.

Appendix 4: Adding a Centered Title

Titles are usually long and formatted in large, bold type styles. Since they usually won't fit into a single cell, they are often centered across a range of cells. Excel has a toolbar button that will help us do this.

NOTE: If you are preparing a file to upload into *Post'Em*, do NOT add a title row. All rows above the column headings must be removed from a spreadsheet before uploading into *Post'Em*.

We'll start with the *b621.xls* file already open. Let's enter a new title for the whole worksheet. We'll center the title across the entire range of cells and make it stand out with formatting.

First add two rows at the top of the worksheet.

1. To select 2 rows,

 cells A1 and A2

2. To insert 2 rows, in the menu bar,


 Insert,  Rows

2 blank rows appear at the top of the worksheet. Now there is room for our new title. We'll start the title in cell A1, and center it across columns A through H.

3. To select cell A1,

 cell A1

4. To enter your new title, type:

MyName Class Grades - 1999/2000 

5. To select the range of cells above the headings,

 A1 to H1

6. To center the title in cells A1 through H1, from the tool bar



The title is now centered across the range of cells, across the entire worksheet.

Formatting the Title

We need to give the title a better appearance. Let's apply some standard heading styles to the title.

1. To select the title,



2. To apply the Bold style,



3. To change the font size to 18,

 the Font Size box's drop-down list, scroll as needed, and



The title is finished.

Saving Your Worksheet

We have made many changes, so let's save our worksheet.

1. To save the worksheet,



Excel saves the revised file to disk.

Where to Go From Here

You can use the resources listed below to further build your computing skills.

Taking Other UITS Education Program Classes

The UITS Education Program offers non-credit computer classes aimed at a variety of skill levels, covering a broad range of topics. UITS staff find it a pleasure to develop and teach these classes. We serve over 20,000 people each year, and evaluations indicate 99.5% of participants are satisfied with their classes; of these, 91% rate the classes as excellent or very good.

For more information, to see a detailed class schedule, or to register for a class, contact the UITS Education Program:

Web: <http://iuep.iu.edu/>

E-Mail: (IUB) iuep@indiana.edu; (IUPUI) iuep@iupui.edu

Phone: (IUB) 812/855-7383; (IUPUI) 317/274-7383

Fax: (Registrations Only) 812/855-8299

Getting Help from Online Resources

UITS Support Center - 24 hour-a-day virtual consulting
(IUB) <http://www.indiana.edu/~ucssc>
(IUPUI) <http://www.iupui.edu/ithome/help>

UITS Knowledge Base - Searchable database of computing questions
(IUB & IUPUI) <http://kb.indiana.edu/>

UITS On-line Documentation and Publications
(IUB) <http://www.indiana.edu/~uits/news/>
(IUPUI) <http://www.iupui.edu/~uits/cpo/quickdocs/>

Getting Help from Support Staff

The UITS Student Technology Centers at IUB & IUPUI

(IUB) The Lindley Hall central consultant station
phone: 812/855-3802 (24 hours a day)

(IUB) The UITS Support Center in IMU M084
8am - 5pm Monday through Friday; phone: 812/855-6789

(IUPUI) The UITS Support Center in ET 025
8am -8pm Monday through Thursday
8am - 5pm Friday; 9am - 3pm Saturday
phone: 317/274-HELP (4357); E-mail: support@iupui.edu

UTS Education Program Class Evaluation

Class Name, Date, and Location _____

Instructor _____ Assistant _____

Was there a prerequisite class? ___ yes ___ no If yes, did you: ___ attend, or ___ have equivalent skills

Circle the number that best describes your computing experience
1=beginner, 5=expert

IBM & compatible 1 2 3 4 5

Macintosh 1 2 3 4 5

Other: Specify _____ 1 2 3 4 5

Check all categories that apply to you.

___ Faculty/Librarian ___ Undergraduate

___ Staff/Clerical ___ Graduate

___ Staff/Professional ___ Other

The level of the class was

- ___ just right
- ___ too basic
- ___ too advanced

The pace of the class was

- ___ just right
- ___ too slow
- ___ too fast

The length of the class was

- ___ just right
- ___ too short
- ___ too long

I learned

- ___ a lot I can use
- ___ some things I can use
- ___ nothing I can use

The instructor was

- ___ very clear & well organized
- ___ generally clear & organized
- ___ adequately clear & organized
- ___ somewhat unclear & disorganized
- ___ very unclear & disorganized

The materials were

- ___ generally clear & well organized
- ___ sometimes clear & well organized
- ___ not used during class

The classroom equipment

- ___ worked well
- ___ occasionally had problems
- ___ had significant problems

Overall, the class was

- ___ excellent
- ___ very good
- ___ satisfactory
- ___ unsatisfactory

What did you like best about this class? _____

How could this class be improved? _____

Other comments? _____

How did you find out about this class? ___ catalog ___ flyer ___ online ___ friend ___

If we may contact you for more details about your evaluation, please provide your name and phone number

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