

MANUAL FOR L^AT_EX HOMEWORKS OF CMPE220

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1. GOAL

There are two goals for these homeworks.

- Every student of cmpe220 should be familiar to L^AT_EX system.
- As a crowd source project, translate books that are out of print to L^AT_EX, make them freely available on the web of cmpe220.

Remark. Since one of the goal is to get a L^AT_EX book in the end, exact appearance of the scanned page in L^AT_EX is not targeted. What is targeted is to end up with proper L^AT_EX code that you would expect to see in current state of the art books. Note that some of the books such as Calculus by Suer and Demir is written by means of typewriter. So it is almost impossible to obtain the exact page layout in L^AT_EX, which is clearly not we would like to get. Proper use of `\section` or `\subsection` is what is valued and grading will be done accordingly.

2. PAGE ASSIGNMENT

Each student is assigned a couple of pages from a book. The assignment list is sent to elist. If your name is missing, please contact the assistant. Grading

3. GRADING CRITERIA

Fit in one page (20 points). If your document spans through multiple pages, you will fail this phase. Similarity to the original (60 points). You will get full points for similarity if your page is identical to the original one in the book. You will lose points for each difference you commit. Readability of the .tex file (20 points). Try to keep your documents readable, make sure you use indentation. Bonus (10 points). Figures done in tools such as L^AT_EX, matlab or inkscape and the source code of the figure is provided.

3.1. Handling Figures. In addition, you will observe that some pages contain figures and this makes it more difficult to typeset a page. To remove the injustice relative to the “easier” ones, here is the deal:

You can either snip the image and embed it in your document, or You can create a vector-based version of it (like .png), using an application such as Inkscape, and embed that image. Since the latter is harder but makes the figure more attractive. You will be graded a 10-point bonus for each image you convert.

```

1 |
2 | '-- suerdemir
3 |   |-- HBSuerDemir.sty
4 |     '-- latex
5 |       |-- b1p2-023.tex
6 |         |-- b1p2-024.tex
7 |           |-- b2p1-243.tex
8 |             |-- images
9 |               | |-- b1p2-023-fig01.eps
10 |                 | |-- b1p2-023-fig02.pdf
11 |                   |-- b2p1-243-fig01.jpg
12 |                     '-- imageSource
13 |                       |-- b1p2-023-fig01.m
14 |                         '-- b1p2-023-fig01.m.readme.xxx

```

LISTING 1. Directory structure

4. ORGANIZATION OF DIRECTORY STRUCTURE

Suppose `SuerDemir` is the root of your \LaTeX work. File `HBSuerDemir.sty` and directory `latex` should be in the root directory.

`latex`. Directory `latex` contains `.tex` files for the pages and directories `images` and `imageSources`.

`images`. Directory `images` contains all the images of figures.

`imageSources`. Directory `imageSources` contains the image sources such as [inkscape](#), [matlab](#), or even \LaTeX files that are used to create images. If there is a need for further description how you made the image use `b1p2-023-fig01.m.readme.xxx` file where `xxx` is the proper extension for the program that you use your description.

5. FILE NAMING CONVENTIONS

Note that file naming convention is very important for us to check your work. Use `b <BookNo> p <PartNo> - <PageNoInThreeDigits>.tex` convention where `b` and `p` stand for book and part, i.e., either 1 or 2. For figure on the page use `b <BookNo> p <PartNo> - <PageNoInThreeDigits> -fig <FigNo>.eps` format.

For example page 34 of book 1 part 2 should be named as `b1p2-034.tex`. Similarly, second figure on the same page should be named as `b1p2-034-fig02.pdf`.

5.1. Page Number. Page number is a main course of confusion. When you have the pdf of the scanned book there are two different page numbers. One number is the page number of the scanned copy. that is the page number of the pdf document. We do not use this.

What we use is the page number that you see on the scanned page. That is, *the page number that we use is that of the book*. See the document just prepared for this at [xxx](#) For Calculus by Suer and Demir comes as four books named as book one and book two, each of which has part one and part two. Their covers are in Fig. 1

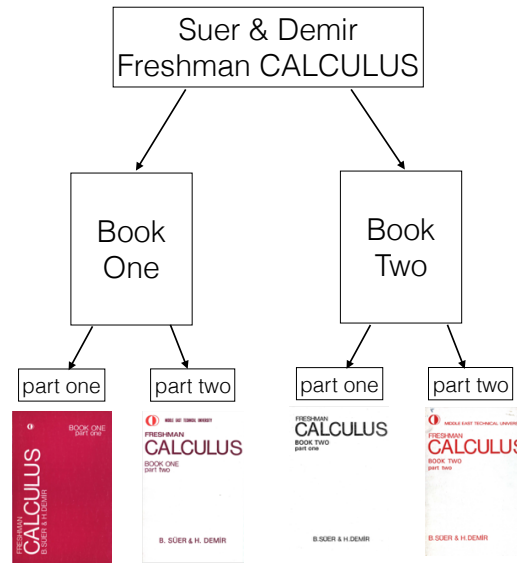


FIGURE 1. Covers of Calculus by Suer and Demir

6. IMAGES

The goal of LaTeX homework of cmpe220 is not make you great artist in figure drawing. Therefore feel free to cut the image of the scanned page, make it a separate pdf and use it in your homework. If possible use .eps, .pdf or .png formats for images.

For some of you who like the challenge you are welcome to draw figures using some tools such as matlab, inkscape. Of course you get extra credit for this. If you do that, please provide the material that you used so that we can modify them if there were a need. For this purpose use `imagesSource` folder.

Note the file naming convention which provides the page and also the figure within the page. In List. 1 you see matlab file of figure 1 on page b1p2-023 as `b1p2-023-fig01.m`. If you think that you need to provide extra information, you can use `b1p2-023-fig01.m.readme.xxx` where `xxx` is the extension of your documentation program such as `txt`, `md` or `tex`, hopefully not `doc`.

Use the code given in List. 2 to include an image. `htbp` switches of `\begin{figure}[htbp]` controls where the figure land on the page. Use `\reffig{fig:SuerDemirCovers}` to refer the figure, which is labelled by `fig:SuerDemirCovers` as in List. 2.

```
\begin{figure}[htbp]
2 \begin{center}
  \includegraphics[width=0.5\columnwidth]{%
4   {images/b1p2-023-fig02.pdf}}
  \caption{
6   Covers of Calculus by Suer and Demir
  }
8  \label{fig:SuerDemirCovers}
\end{center}
10 \end{figure}
```

LISTING 2. Code to include image