MAD 2104 Residential - DropBox Policies

Students may turn in assignments on paper or electronically via the BlackBoard dropbox. The following are the policies regarding the use of the dropbox:

- Turning in homework on paper in class is the primary method expected of all students. Students may use the BlackBoard Dropbox to turn in pdf homework files, but absolutely no extensions for homework will be given for problems related to difficulties using the dropbox, in creating a pdf file, or server problems. Penalties will apply to late homework.

- All files submitted must be pdf files. Files that are not pdf files will not be accepted. If a file is resubmitted in pdf format, late penalties will apply. Any symbols used must be the standard symbols used in the text or course notes. The course notes provide a few alternative symbols. The second section of this paper provides some suggestions for creating files. A practice assignment is given at the end of this paper and students may do the practice exercise, turn it into the dropbox, and receive feedback.

- The BlackBoard server provides the date a file was submitted. The date given by the BlackBoard server must be on or before the due date for the assignment to be counted "on time". The date changes at midnight. Extensions will not be given for internet access issues and slow response time.

- The dropbox has two buttons: "add" and "send". You must "send" the file to turn it in to the instructor.

- If you use a scanner, **use plain white paper** and dark ink. Use only one side of the paper. Do NOT use notebook paper or light colored pens. Do NOT scan papers with eraser marks. **Clearly cross out errors, rather than erasing**.

Creating Files

- Perhaps the easiest method of creating the files, is to use a scanner to scan hand written assignments and then convert to a pdf file. There are scanners on the market that can save your files as a pdf file directly, so you would not need any additional software. I have seen these scanners on sale for just under $100 in the paper. If you already have a scanner or plan to get one of the very inexpensive scanners there are other methods of creating the pdf file which are outlined below.

- There is software available to convert scanned papers into pdf files. For example, in the acns computer lab on the 3rd floor of MCH you can scan your work, save it as a jpeg, open the file using Adobe Photoshop, and then save as a pdf.

- You may prefer to type your assignments using one of the many available word processing programs. This is a good idea if you have poor handwriting!

You can use the symbols packaged with the programs such as Word or use LaTeXcommands as a substitute for the symbols (discussion of LaTeXis below). Graphs may be created using a variety of programs as well. Among these are the graphing tool in Word, Powerpoint, Photoshop, etc. Once you have created the file, you will need to convert the file to a pdf file.

- Graphing programs, such as Photoshop, can be used to "hand draw" symbols and graphs and insert text. A tablet is convenient to use when doing this some Tablets come packaged with Adobe Photoshop or other software that saves files as pdf files.

Converting Files to pdf Format

- If you use a scanner that saves as pdf files or a program that saves as pdf files, you don't need any more than that. It is convenient to have your own software/hardware that will save files in pdf format so you will not have to rely on servers being up and your computer being online when you save your files in pdf format.

- Go to www.pdf995.com - the application installs on your machine as a printer driver. When you print to it from practically any application (such as MS Word), it converts it to pdf and prompts you with a "save as" pop-up.

- At www.openoffice.org there is an open source project that mimics MSOFFICE, but has the Export to PDF functionality.

- You may purchase Adobe Acrobat. The University Bookstore sells the program to students at an "education" price. Adobe Acrobat converts files from Word, gifs, jpegs, and more into pdf format. You may also do limited editing/annotation to pdf files using Adobe Acrobat.

- You may save your files as text files and go to
  http://www.sanface.com/createpdf.html.
  Cut and past your text files into here to turn them into pdf files for free. I cannot guarantee this site will maintain its availability and assignments may not be turned in late because this site was not running.

- Save your files as image files like jpegs, gifs, png, etc. and go to
  www.iconv.com.
  You can convert these files to pdf files for free at this site. I cannot guarantee this site will maintain its availability and assignments may not be turned in late because this site was not running.

- If you can save your files as eps, ps, or gif you can ftp them to your cs department computer account and distill these formats to pdf format. If you plan to use this method, contact me for more information and to work on any arrangements necessary to use the cs department accounts for this.

- If you want to learn to write LaTeXfiles, you can ftp the files to the cs department and change them to pdf files using Unix commands. There are also LaTeXcompiling programs available for MACs and PCs. I use TeXShop which creates a pdf file automatically when the file is compiled. If you wish to learn LaTeXin all its glory please contact me for additional information. The information below about LaTeXcommands is not instructions for creating a real LaTeXfile. It is simply a way you may write symbols using plain text that will be understood by your instructors.

  If you plan to go to graduate school or be involved in writing scientific papers, I recommend learning LaTeX. The learning curve is high, but it is worth the effort for those going into an area that involves publishing in math/science.

Using LaTeXCommands

There are type setting programs used to produce documents in mathematics, computer science, and many other sciences called TeXand LaTeX. These documents are written in plain text using special commands for the mathematical symbols. These text files are similar to a program file that is then compiled. This assignment was written using this program. The point is, symbols are represented using plain text commands. You may use these plain text commands to represent symbols in your assignments. I personally prefer this method to using the Word symbols because it requires no clicking and dragging and no setting up of short-cut keys. The last page of this assignment has a list of LaTeXcommands for most of the symbols you will use this semester. Note: you do NOT have to learn to write complete LaTeXfiles and compile them. You may simply substitute a LaTeXcommand for any symbol you wish to represent and I will read it as though the symbol were used. Also, you are NOT required to use LaTeXcommands. You may scan a handwritten assignment or use symbols in word processing programs instead.

Here is an example of how you may use LaTeXcommands to write a mathematics statement. The following is a logical statement that you would be expected to be able to write in your homework:

$$\forall x \exists y \forall z (B(x,y) \wedge ((z \neq y) \rightarrow \neg B(x,y)))$$

Using LaTeXcommands, this statement may be written

\forall x \exists y \forall z (B(x,y) \land ((z \not= y) \to \lnot B(x,y)))

Notice the latter statement can be written and saved as a text file.

You may use the LaTeXcommands in place of mathematics symbols in all your assignments. While it is possible to do all of this assignment (charts and graphs) and more with LaTeX, graphs and tables require more complex commands and I recommend using other methods for these. I should also note that when really writing a LaTeXdocument all math commands would be written in between dollar signs. We will ignore this rule for our assignments.

The following assignment may be used to practice creating a pdf document and turning it in via the dropbox. Send me an e-mail after submitting this practice to receive feedback.

1. Reproduce the following table. The lines making the borders are not necessary, but the columns and rows must be clear.

p	q	$\neg p$	$p \to q$	$\neg p \to (p \to q)$	$p \wedge q$	$(p \wedge q) \to (p \to q)$
T	T	F	T	T	T	T
T	F	F	F	T	F	T
F	T	T	T	T	F	T
F	F	T	T	T	F	T

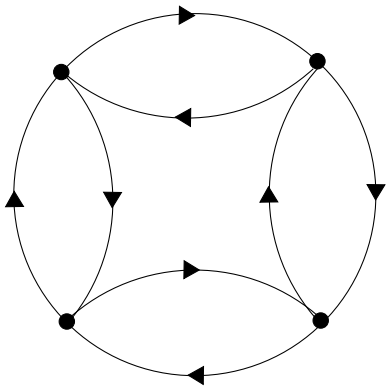
2. Write the following statement.

$$\neg\exists x \forall y P(x, y) \Leftrightarrow \forall x \exists y \neg P(x, y)$$

3. Write the following Equation. The upper and lower bounds of the intersections and union may be written just to the upper and lower right of the intersection and union symbols (like $\cap_{j=1}^{n}$).

$$\left(\bigcap_{j=1}^{n} A_j \right)^c = \bigcup_{j=1}^{n} (A_j^c)$$

4. Reproduce the following figure. You may use line segments rather than curves, but the vertices (points) must be clear, there should not be any extra vertices, and the direction on each edge needs to be given.



TeX Commands

$x^n = x\^{}n$	$\infty = \backslash infty$	$\sum_{n=0}^{n} = \backslash sum\_\{n = 0\}\^{}n$
$x \in A = x\backslash in\ A$	$x \notin A = x\backslash not\backslash in\ A$	$\subset = \backslash subset$
$\subseteq = \backslash subseteq$	$\supset = \backslash supset$	$\supseteq = \backslash supseteq$
$\cup = \backslash cup$	$\cap = \backslash cap$	$\oplus = \backslash oplus$
$\otimes = \backslash otimes$	$\leq = \backslash leq$	$\geq = \backslash geq$
$\equiv = \backslash equiv$	$\approx = \backslash approx$	
$\to = \backslash to$	$\leftarrow = \backslash gets$	$\leftrightarrow = \backslash leftrightarrow$
$\Leftarrow = \backslash Leftarrow$	$\Rightarrow = \backslash Rightarrow$	$\Leftrightarrow = \backslash Leftrightarrow$
$\land = \backslash land$	$\lor = \backslash lor$	$\neg = \backslash lnot$
$\lfloor = \backslash lfoor$	$\lceil = \backslash lceil$	$\rfloor = \backslash rfloor$
$\rceil = \backslash rceil$		
$= \backslash empty$	$\overline{A \cup B} = \backslash overline\{A\backslash cup B\}$	
$\forall = \backslash forall$	$\exists = \backslash exists$	$\downarrow = \backslash downarrow$
$\neq = \backslash not=$	$\pm = \backslash pm$	$\sqrt{x+1} = \backslash sqrt\{x + 1\}$
$\not\equiv = \backslash not\backslash equiv$	$\odot = \backslash odot$	$\times = \backslash times$
$\not\parallel = \backslash not—$	$\preceq = \backslash preceq$	$\prec = \backslash prec$
$\uparrow = \backslash uparrow$		

$$\overline{\overline{x} + \overline{y}} = \backslash overline\{\backslash overline\{x\} + \backslash overline\{y\}\}$$

Notice that $\frac{1}{x+1}$ should be written $1/(x + 1)$. If you write $1/x + 1$, this is equal to $\frac{1}{x} + 1$.