STA 113: GUIDELINES FOR USING IMathAS

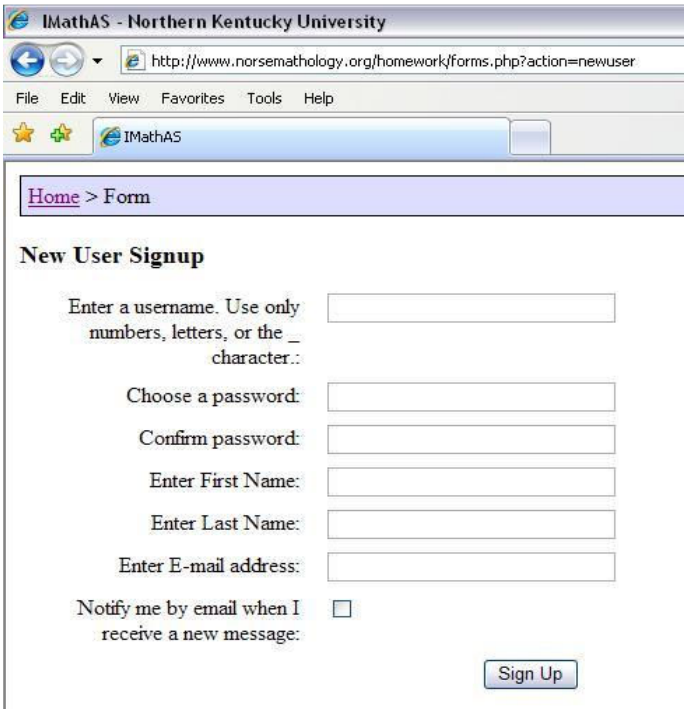
A portion of the homework for this course will be completed online. Having online homework allows for convenient, prompt, and continuous assessment of your ***progress toward understanding various probability calculations*** that we will cover in the class**.** In addition to the software allowing you as many attempts as you need to master the problems, you will find that some small hints are given after missed questions and hopefully these aid you in learning to do them. You should ***always*** feel free to stop by the office to discuss questions you are having trouble with – when you do, please bring along your work on the problem!

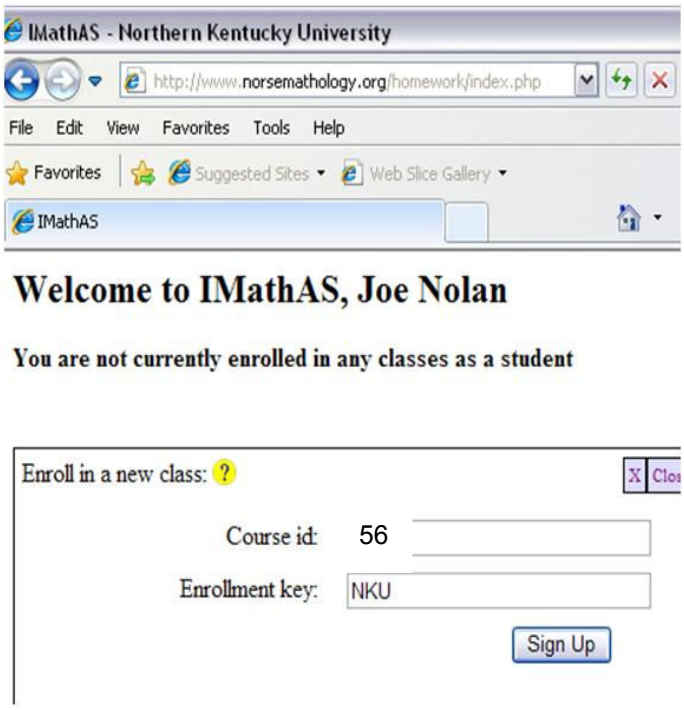
Grading: The online homework contributes to the activities portion (12.5%) of your overall grade. Of course it will also aid you in learning the material so that you can do well on quizzes and exams. Please note that if you lack access to a computer to complete online homework, you should discuss this with me no later than the first class!

TO GET STARTED

You need to register in order to use IMathAS. As far as I am aware the program works with either Internet Explorer or Firefox. To get started, proceed to http://www.norsemathology.org/homework/. Normally you can log in from this page, however the first time you need to register via the following steps:

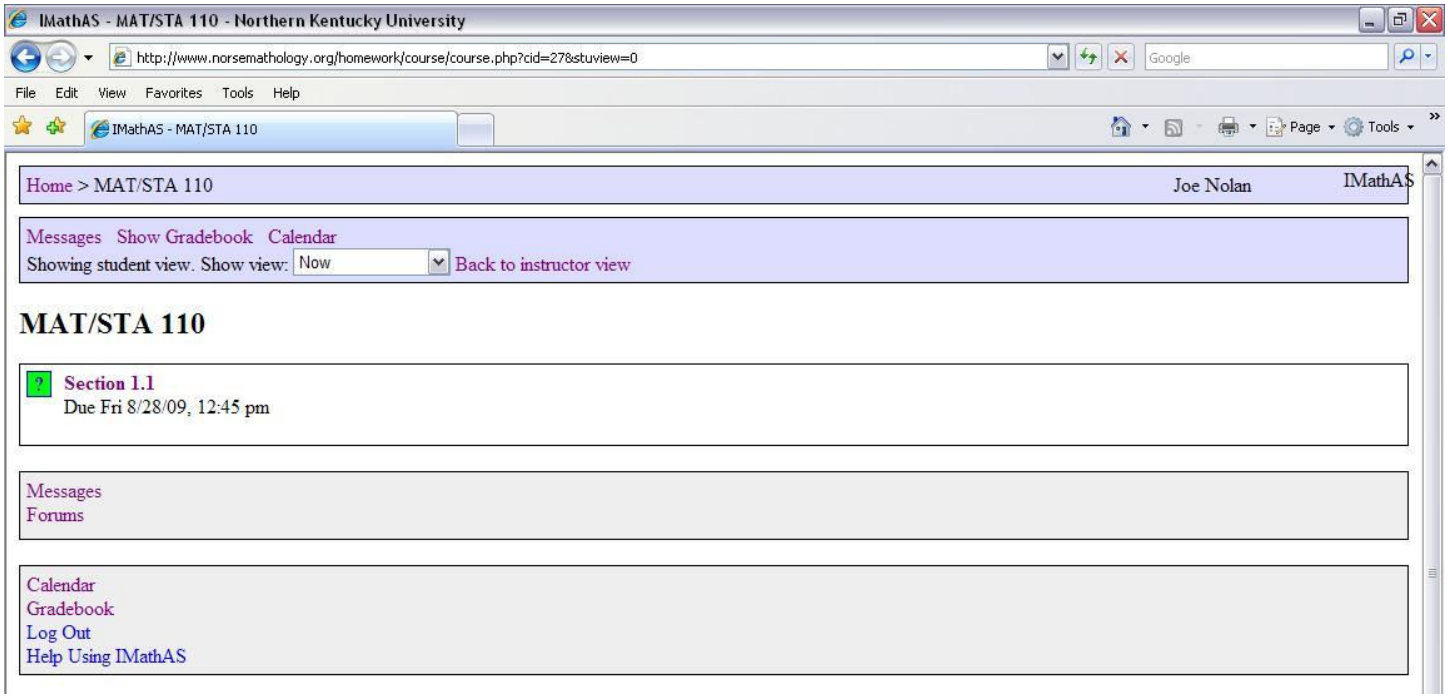
1. Click "Register as a New Student".
2. Choose a username/PW and fill in the rest of the form below (left). It is required to enter your name (both first and last) or I will be unable to match you to my grade-book. You should use an email address that you check frequently. Then click "sign up".





3. Click "Return to the login page" and login using your newly created credentials. You will be given a screen that allows you to enroll in a new class.
4. You should fill in "56" as the course ID and "NKU" as the Enrollment Key (see above, right). Then click "Sign Up". You will now see a page that lists the courses you are taking including STA 113. This page also has links to let you edit your user information and password if needed. It is the main page from which you will always start after logging in.

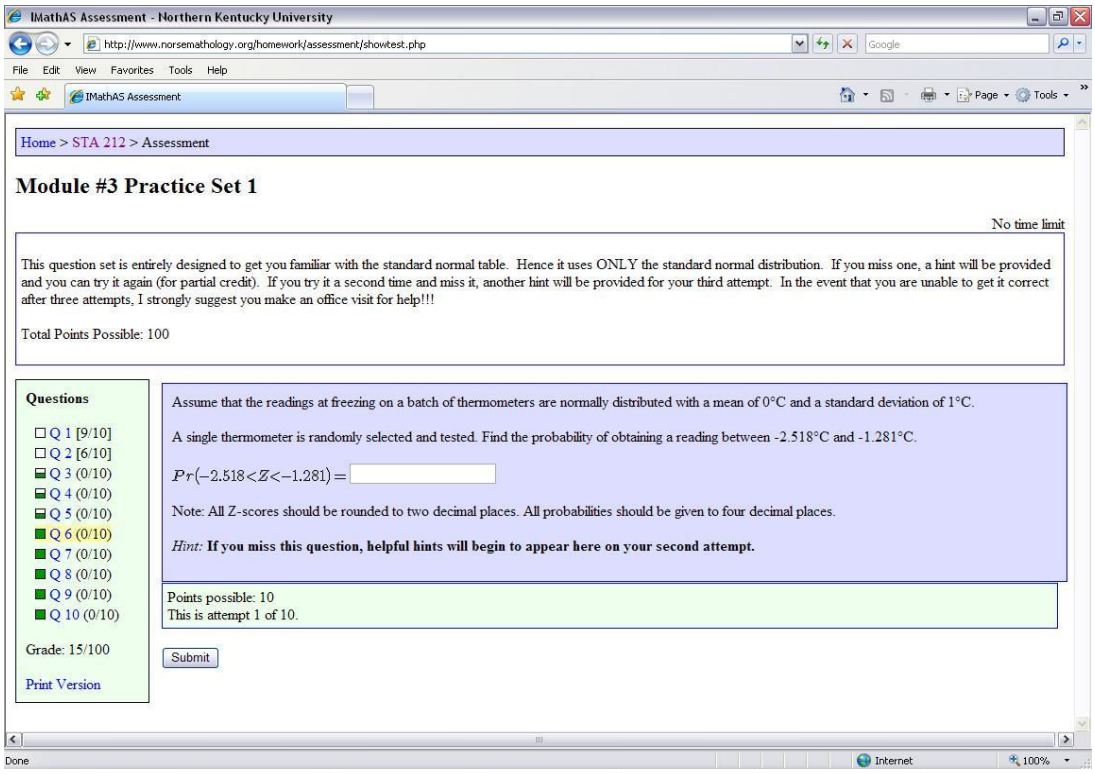
5. If you log in and click the link to the course (STA 113), you will see something similar to the graphic below. Each available function is explained after the graphic.



Here is brief a description of each of the functions above (if you have further questions, please ask):

1. **Messages**: You can send me messages from this system, however **regular email to nolanj1@nku.edu is strongly preferred** and is likely to be answered more quickly.
2. **Show Gradebook**: This will show you your scores ONLY for activities completed on IMathAS. It probably will not show you all of your official scores for the class. The scores from IMathAS will be scaled to 125 activity points at the end of the semester.
3. **Calendar**: Not used – see "daily recaps" section for due dates, quiz dates, and other information.
4. **Log Out**: Logs you out of the system.
5. **Assignments / Color Coding**: Assignments that are red are due very soon. Assignments that are green have due-dates further in the future. Colors in between red and green indicate something about the closeness of the due-date. An "!" indicates information (announcements, daily recaps) while a "?" indicates an assignment you need to complete.
6. **Use Late Pass**: Each student is allocated 3 late-passes for the online portion of the homework. These must be used ***prior to the due-date of an assignment*** and their function is to extend that due date (for you only) by 12 hours (enough to allow you to visit the office hour and complete the assignment on the day it was due. Three such extensions should provide more than enough flexibility.
7. **Forums**: This function does not (and will not) work. Unfortunately I cannot remove it.
8. **Help Using IMathAS**: Provides things similar to what I've given you in this document.

When you get into an assignment, you will see something like the following graphic. Some useful hints for proceeding through the question sets follow.



SOME FEEDBACK-BASED SUGGESTIONS FOR GETTING THE MOST OUT OF IMATH

1. **Due Dates / Expectations:** There will always be an ample timeframe to complete an assignment once we have finished covering it in class. You should start them early – since you get unlimited attempts to get each problem correct, you have only yourself to blame if you do not get full credit for an online assignment (and of course making sure you know how to do each problem will help you when it comes time for quizzes/exams). Please note: I have little sympathy for students who begin the assignment within 24 hours of the deadline (and yes, the computer does let me know when you start!). Generally speaking you are expected to spend 2-3 hours per class hour (which includes homework) in your studies outside of the class sessions.

2. **Questions / Printing:** You can select questions from the menu on the left. You can go back and forth between questions (after submitting answers or not). Correctly completed questions will show as white-boxes (and have scores). Previously attempted questions that are still incorrect will show as half-green / half-white. Unattempted questions will have a fully green box. **Note: You can also print a paper copy if you like and input answers later. Many students find this to be useful. To do this most effectively, click the "Print Version" link. When asking a question, it is very helpful if you bring both the printed question and your work.**

3. **Immediate Feedback:** Submitting the question will let you know immediately if you got the correct answer. This is a learning process – there will be times that you get a question incorrect. Clicking "Reattempt this question" will allow you to try **the same question** again (for less credit) with a hint to help you. **If you still haven't figured it out after a few attempts, it is best to visit your instructor! I am *always* happy to assist you if you take the initiative to stop by**. (But on the flip side, I do not feel sorry for students who do not take responsibility for seeking help when they need it.) Reminder: When coming by for help it is greatly appreciated if you bring a copy of the problem as well as your work. If I can see your work, I can usually help you figure out any mistakes within a few minutes.

4. **End Test Now Button:** While there is an option to "click here to end and score the test now", **you should never need to use that option**. Questions will score automatically each time you submit them (and using this option before everything is complete removes an attempt and forces you to regenerate a question to receive full credit).

5. **Computations:** Most problems are calculation problems – requiring numerical answers. In general, probabilities should be given to at least 3 decimal places. In many cases IMath will act as a calculator for you. If you type, for example, "(4/30) / (3/20)", IMath will divide the fraction 4/30 by the fraction 3/20 and come up with the decimal answer 0.888889. You can enter it as the mathematical phrase "(4/30) / (3/20)", as the reduced fraction "8/9", or as a decimal using at least three non-zero digits "0.889". All of these answers would be accepted as correct. In addition to the common +, -, *, and /, there are some specific functions available that you will want to use:

    a. Factorials: The "!" symbol is used. For example, 5! = 5*4*3*2*1 = 120.
    b. Permutations: The function P(n,r) is available to do permutations. Note that to get IMath to do these correctly, you should enclose each permutation in an additional set of parentheses. For example, we might type: (P(18,12))*(P(12,3)).
    c. Combinations: The function is C(n,r) is available. Similar to permutations you should enclose each combination in an extra set of parentheses. For example: (C(18,12))*(C(12,3)).
    d. Powers: The carat symbol is used for powers: "^". For example, 2^4 = 2*2*2*2 = 16.

    General Caution: Make sure to use parentheses to get order of operations correct. For example, if you type 2*8-1, IMath will first multiply and then subtract, resulting in an answer of 15. If you type 2*(8-1) then the subtraction will occur first resulting in an answer of 14. <u>You can and should use the ***preview*** button to make sure your calculation is being computed as you intended it.</u>

6. **Rounding**: The easiest way is to input the full calculation (e.g. "(C(8,5))*(0.25^5)*(0.75^3)") as when IMath computes this there won't be rounding errors. If instead you are using a calculator (and in particular if you are computing one answer and then using it in another), you want to make sure you keep several decimal places beyond what is necessary for the final answer so as to avoid rounding errors. The rounding issue is perhaps the biggest drawback to IMath – please be careful of it! Generally you will want at least 3 decimal places in your final answer. You will receive a show-answer button after the 3rd attempt, which can help you to find rounding errors.

7. **Missed Questions***:* For questions that you miss, once you get them right you will have received less than full credit. You may still get full credit by clicking "**Try another similar question**". This will give you a new question (same scenario but different numbers) which you may attempt for full credit. **You may do this as many times as necessary – however if you are doing it more than once I strongly recommend an office visit!**

8. **Time:** There will be no problem-parts that should take you more than 5 to 10 minutes to complete. So – if you have struggled with any part within a problem for more than that time – it is time to ask a question at the beginning of class, or visit my office.

9. **Office hours vs. Tutors**: There are tutors available in the math center (UC). Sometimes they can be effective, particularly for students who need lots (hours each week) of assistance. Generally speaking, however, tutoring is not a substitute for stopping by office hours. If you find that you need tutoring, you should probably also be spending 15-30 minutes in my office to ask questions as well! For a majority of students, 15 minutes spent getting some help during office hours would be as beneficial as a full hour of tutoring.

10. **Email Help**: You are most welcome to email me for help on problems as well (nolanj1@nku.edu). The more you can describe about what you've tried, the easier it will be for me to help you in this way. Please don't be offended if I ask you to stop by the office – that just means that I am not able to identify your mistake from the email. Emails received by 8pm generally get an answer on the same day.

11. **Extensions**: You have three free 24-hour extensions. Note that to use a late-pass, you must use it BEFORE the deadline for the assignment. Additionally, since this is homework – designed to help you learn the material – I am known to be very liberal in terms of giving extra extensions. This particularly applies when a student visits my office to ask questions before the assignment is due. It also applies in most other cases where a student shows an interest in learning and asks for a reasonable extension.

Edited January 2011