**Student technology expectations for our online course environment**

**Math 128A, Tim Hsu, Fall 2020**

As a student in my section of Math 128A, I would like you to have the following technological equipment and knowledge before classes start.

* **Technology**
  + You will need a laptop or other keyboard-based computer that connects to the internet (wifi or ethernet).
  + Your laptop or other computer must have an attached webcam and working microphone. If it has a built-in one, that should be fine; a webcam with microphone costs around $40 online.
  + You will need a way to take pictures that you can upload. A smartphone camera is best, though a webcam should also work.
  + It will be helpful to have some way to draw pictures on a computer, either with a stylus or with your finger. Most smartphones should work for this purpose; a touchscreen laptop is even better.

There are several levels of investment that can obtain all of the above.

* If you already own an internet-ready computer and a smartphone, you can implement all of the above for $45, by buying a webcam with microphone ($40) and downloading Adobe Scan (free) and a remote mouse app (<$5) to your phone.
* If you own neither a computer nor a smartphone, you can buy a Chromebook tablet (basically a large smartphone with a keyboard and no phone) for around $300 that will have a webcam, microphone, and touchscreen. Even Adobe Scan should work on a Chromebook, though it might be awkward.
* For a fancier complete solution, a 2-in-1 laptop + tablet (e.g., Surface Go) with a touchscreen and stylus pen goes for around $500.

King Library and the IRC also both have limited amounts of laptop and other equipment available to borrow; please call or Google them to see what they have available.

* **Internet**
  + You will need access to a reliable internet connection. Please contact me if this is likely to be a problem and we can talk about solutions.
* **Software/apps/websites**
  + The entire class will be based off of our course website:  
    <http://www.timhsu.net/courses/128a/>

We will not really make use of the course Canvas page, though it will be useful for you to know how to use Canvas as a backup.

* + You need to be able to use Zoom. To get started:  
    <https://support.zoom.us/hc/en-us/categories/200101697-Getting-Started>
  + You will need some way of scanning and uploading multiple-page documents (e.g., your homework and exams) as a single PDF file. For most students with smartphones, some kind of camera scanner will work well; I recommend Adobe Scan because it’s free and relatively uncomplicated:  
    <https://acrobat.adobe.com/us/en/mobile/scanner-app.html>
  + You will need to use Gradescope (gradescope.com) to submit homework and exams:  
    <https://www.gradescope.com/get_started#student-submission>

You should receive an invitation to join Gradescope for our class during the first few days of class; if you don’t, please let me know as soon as possible.

* + Finally, it will be very helpful for you to be able to use the online whiteboard system Limnu. To get started with Limnu, please see:  
    <https://limnu.com/>
* **Physical**
  + Live online lectures will be given Mon and Wed, 9:00-10:15am Pacific time (either GMT-7 or GMT-8) and recorded on YouTube. Midterm exams will be given live during our regular class time, on Wed Sep 16, Mon Oct 19, and Mon Nov 23, and the final exam will be held live, on Tue Dec 15, 7:15-9:30am. If you are living in a different time zone this semester, please let me know immediately, and I will try to make some reasonable arrangement to account for that fact.
  + You will need a place, either where you live or elsewhere, where you can connect to Zoom and occasionally turn on your camera to show your work environment. I will only ask you to turn your camera on to proctor exams and to improve the effectiveness of working in groups. Note that while lectures will be recorded and posted on YouTube, your picture will never be included in those posted videos.
  + You should have a table or other large flat surface in your work area, both for writing exams and also to serve as a background for when you scan documents.