February 6, 2018

Dear College of Engineering Student,

As a student in the College of Engineering, you will utilize computing extensively throughout your undergraduate studies at UAH. All incoming students (freshmen or transfer) are required to have their own laptop for completing assignments and/or projects/tests and in some cases, it is expected that students will have their laptops during class*. Please check with your instructor if you are expected to bring your laptop to every class period. In some cases, classes/labs may have university owned computers which may be the only computer allowed by your instructor in class*.

Once you are officially enrolled as a student at UAH, you should be able to access Chargerware from my.UAH.edu and review what software you can download to your personal computers. The following is the minimum requirement for laptops:

Hardware:
- **CPU/Processor:** Intel Core i5 minimum, Intel Core i7 recommended (64 bit).

  For Mechanical and Aerospace Engineering students, Intel Core i7 quad core or better (64bit) with a separate graphics adapter like nVidia is suggested for efficient operation of SolidEdge (for 3D modeling) and graphics rendering. Alternately, an intel Core i5 (64 bit) with a separate graphics adapter like nVidia would suffice.
- **RAM:** 8 GB, **Hard Drive:** 250 GB HDD minimum rated at a minimum of 7200 RPM, 250 GB (SSD recommended)
- **Screen resolution:** 1280x800 or higher
- **Wireless Network Card:** Support for 802.11 N or higher
- **Wired Networking Card:** Recommended
- Built-in camera

Warranty: Recommend 4 years of support.

Software:
- **Operating System:** Windows 10 (Windows 7 SP1, 8.1, or newer will work but will not be supported within a couple of years). OS X 10.8 and up (note some technical software may be only available for Windows)
- **Adobe Flash Player:** 18 or newer
- **Adobe Reader:** 11 or newer
- **Microsoft Office:** Check Chargerware for Office 365 Education (free for students for both PC and MAC – note, UAH does not offer support for downloading or installation)
- UAH provides Google Apps for all students for email and online office tools.

Office of the Dean >>

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Listed below are typical software used at various stages in your undergraduate program. This is provided for informational and planning purposes and subject to change. You are encouraged to wait to acquire the software at the appropriate semester. In some cases, your department may have arrangements with the vendor to get a license for use for a fixed period of time. Your instructor will be able to provide this information. In many cases, the software is available in departmental teaching laboratories and in some of the open access computer laboratories in the College of Engineering.

Aerospace Engineering
Freshmen:	MATLAB, Excel, Python, SolidEdge
Sophomore:	MATLAB
Junior:	Arduino Sketch (open source)
Senior:	SolidEdge, MATLAB

Chemical Engineering
Freshmen:	MATLAB, Excel, Python
Sophomore:	MATLAB
Junior:	MathCAD
Senior:	ChemCAD, SuperPro (note that these programs currently are available only on Microsoft Windows)

Civil Engineering
Freshmen:	MATLAB, Excel, Python,
Sophomore:	MicroStation (Bentley Systems, free student version available for registered students)
Junior:	STAAD Pro (Bentley Systems)
Senior:	ArcGIS (Esri), STAAD Foundation (Bentley Systems), WaterCad (Bentley Systems), RAM Structural System (Bentley Systems), HEC (open source, free download)

Computer Engineering
Freshmen:	MATLAB, Excel, Python
Sophomore:	Several classes at the 200/300/400 level use Unix. Check departmental laboratory machines for access during class
Junior:	VisualStudio. Some classes require software installed only on University owned machines in departmental laboratories
Senior:	

Electrical Engineering & Optical Engineering
Freshmen:	MATLAB, Excel, Python
Sophomore:	
Junior:	Some classes require software installed only on University owned machines in departmental laboratories
Senior:	

Industrial and Systems Engineering
Freshmen:	MATLAB, Excel, Python
Sophomore:	
Junior:	
Senior:	

Mechanical Engineering
Freshmen:	MATLAB, Excel, Python, SolidEdge
Sophomore:	MATLAB
Junior:	Arduino Sketch (open source)
Senior:	SolidEdge, Nastran/Patran, MathCad