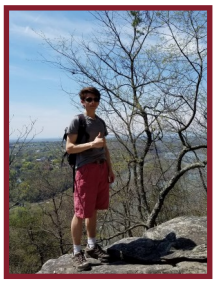
Galipatian Station

WHILE YOU PEE IN LEE

Friday, November 16th – Friday, November 30th 2018

COMPILER



Garrett Bimstefer
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Planning For Finals

Molly Sayles
Civil Engineering and Classical Studies
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With the approach of Thanksgiving Break, the reality of your first finals season is almost upon you. But do not panic! You will all make it through.

Make A Schedule

First things first, check your syllabi and mark down on your calendars when and where all of your finals will be during the week. Two in one day is unfortunate, but not uncommon. Although the deadline for rescheduling exams has passed, for future reference, if you have three exams within 24 hours, you may request one of them to be changed: talk to your professors about this problem.

Some exams are more difficult to reschedule than others, such as exams with common-time finals like math and physics.

The second part of your schedule-making should be determining times to study. Don't forget that Reading Day is December 6th, so there will be no classes or finals that day. I also suggest making times for study breaks, such as going out to eat with friends or exercising.

Study Smart

The biggest suggestion I have is to use all of the study skills and experience you have gained throughout the semester to study smarter for your finals. This is especially applicable in determining how you are going to study for different exams in different classes. For example, you might find that practice problems will give you more understanding in a math class, and reading the textbook might help as an overview for a Pathways course. By this point in the semester, you know what works best for you, so use that to your advantage! Also, don't forget to seek help when you need it. A professor's office hours are a great place to go over large concepts or individual questions for the final. I also suggest reviewing old test questions with your professors if you have some that you still don't understand. Use your resources!

Don't Panic

You will be fine! Finals can be a stressful time, but you are not alone in that struggle. Don't forget to schedule some study breaks and fun times between your work. Your mental and physical health is always your number one priority. Good luck everyone!

Biweekly Brainteaser

An ant starts to crawl along a taut rubber rope 1 km long at a speed of 1 cm per second (relative to the rubber it is crawling on). At the same time, the rope starts to stretch uniformly by 1 km per second. Will the ant ever reach the end of the rope?

Undergraduate Research

Andrew Watson
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Sophomore

Aside from internships and design teams, an undergraduate research position can be a great way to build experience in your chosen major and learn a lot about how things work in an actual hands-on engineering role. Virginia Tech is, after all, a research university. As a result, many of your professors do fascinating work on real-world projects when they aren't in the classroom. Feel free to ask them what they're working on - it's a good way to build a good reputation with your professors, and they might be willing to bring you in to help out with their research!

The types of engineering research available to you are as varied as our engineering disciplines - I personally have a role analyzing data from a plasma railgun for the AOE Department, but I've heard fascinating things about research into different methods of sustainable agriculture, smart materials, aircraft that mimic insect flight, and much more.

For specific research opportunities, feel free to check out the Research Opportunity Database at www.research.undergraduate.vt.edu. In addition, Virginia Tech offers ENGR 1014, the Engineering Research Seminar. That's a simple 1 credit pass/fail course where professors from all engineering disciplines come in to show you what they're working on. Feel free to talk to them afterwards, maybe you can get a position working with them as well!

Research work is fascinating, looks great on your resume, and helps you become more involved with the Virginia Tech Engineering community - so why not give it a shot? You'll be glad you looked into it.

The Raspberry Pi

Yahui Zhao
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Junior

What is the Raspberry Pi?

The Raspberry Pi is a low cost, credit-card sized computer. The official Operating System for Raspberry Pi is called Raspbian OS, which supports most of the programming languages. More familiar operating systems can be Emteria OS (Android 7.1.2) and Windows 10 IoT Core.

Why Raspberry Pi?

The Raspberry Pi was first developed in the United Kingdom by the Raspberry Pi Foundation to promote the teaching of basic computer science in schools and in developing countries. The HDMI port allows to you plug it into a computer monitor or TV, and with USB ports you can use a standard keyboard and mouse. You can expect the little device to do everything that a desktop computer can do. Moreover, the Raspberry Pi has the ability to interact with hardware & electronics components through GPIO (General Purpose Input/Output) pins.

What projects can I work on using Raspberry Pi?

The Raspberry Pi's versatility makes it a great choice for most projects. There are plenty of resources and YouTube videos you can follow. I strongly encourage you to explore it yourself. A cool custom home project is called "Raspberry Pi Smart Mirror". The mirror can display the time, weather, etc. Raspberry Pi has also been widely applied on drones and automation cars. There are also many research groups applying Raspberry Pi in their projects.

Which model should I choose?

The newest model that has been released is "Raspberry Pi 3 Model B+". This model offers a surprisingly substantial system for only $35. For instance, it provides Gigabit Ethernet boost (over USB). The new processor provides improved heat control and power management. The Bluetooth has been upgraded from 4.1 to 4.2, which supports Local Area Networks at 2.4 GHz and 5 GHz along with Bluetooth Low Energy. The GPIO header is extended to 40-pins.

Generally speaking, the Raspberry Pi can provide you with a fun and valuable learning experience. You can put your projects on your resume and impress your recruiters. I hope you all can have fun with Raspberry Pi!