Hello everyone who is taking the robotics honors class:

It was great to see you all this afternoon and meet some of the new people. If you've been in robotics in previous years, you know that what I'm trying to accomplish is something we haven't done in the past. My goal this fall semester is for each and every student who wants to learn the hardware aspect of robotics to have the opportunity to learn and be highly challenged and pushed to grow. In years past, it seems that only a couple of students end up being the core members and the rest fall through the cracks because of attendance, shyness, or any other reason. This season, I'm putting together a unified online resource for our hardware team so that students can learn wherever they want for as long as they want. This is to serve as a general structure for your learning and also as a resource one build season hits. The learning content is hosted on our team website and will be accessible to everyone with an internet connection.

The learning content may feel disconnected form what you do during the class hours at times, this is normal and it's important to understand that some of what you'll learn is really fundamental to other important topics that will be covered in later chapters. The other reason for this is that class time should be utilized with hands on learning that works in tandem with the content to make up the class.

In terms of class structure, there are a few things that I'd like to make clear to all of the hardware students:

1) There are tests every Wednesday for the Fall semester. These tests exist in order to measure your understanding and ability to apply what you learn in the content. They are not here to give you stress, they're here so that Mr. Brandt, Mr. Ruskin, and I can see where everyone is. My single goal for the fall semester is for all of you to learn; tests are how I measure how much you're learning. You can retake the tests as many times as you want. Your retake will replace your previous test score. That said, you must request to retake the test by directly contacting me and we will set up a retake date. These tests are the main way we quantify your understanding and your grade will incorporate your test scores.

2) The practice problems that are handed out every week will not be collected. They are available in the corresponding learning module in pdf form. I will also be posting the pdf in the *hardware-curriculum* channel every week. I cannot stress enough how valuable doing the practice problems will be. The practice problems will be nearly identical to the test you take every Wednesday. They function as a test review and a bank of problems that will be extremely useful to be able to understand and solve when it comes time to build robots. I hope to be able to have a brief Q&A session before each test over the practice problems/review.

3) This is the first time the content is being exposed to students. Which means that you will need to be patient with me generating the content and I will be extra patient with you as you learn the content. If there are any mistakes, typos, inaccuracies or other issues you have with the content, practice problems, or test, please let me know as soon as you can! It's very important to get the content ironed out as soon as possible. Thank you for your patience as I try to balance creating this content, mentoring you guys, and other life commitments I have.

4) As much as I would love to be able to send a complete syllabus outlining what sections we will cover each week, that is not possible with all of the unknown variables. I don't know how well the learning content will be received or if I will be able to keep up creating the content at the same pace that you students consume it.

5) If you complete the curriculum and have a **test score above 90% on every test** by the beginning of winter break, you will get a lot of rewards. I am a firm believer in positive reinforcement and feedback as opposed to negative feedback. I would much rather have you students working hard, training hard, and learning in order to get **rewards and perks** instead of you just studying because of fear of failure. After all, if you're not failing, you're not taking risks. And if you're not taking risks, you won't progress. That being said, here are the tentative earnings for achieving above a *90% on every test:*

- Title/Team Rank of "*Mechatronics Master I.*"
- "Mechatronics Master I." discord role added to your profile.
- Celebration meal (probably ice cream) with all other Mechatronics Masters.
- **4146 swag only available to Mechatronics Masters** including a shirt and competition belt.

(I will only add or change rewards to one of equal value. I will not remove rewards.)

Remember, you will have to **earn** this. No handouts. You will ***only*** earn theses if you achieve over 90% score on every test. These will also be available to applicable mentors.

Completing this curriculum is going to take some hard work and dedication. Stay vigilant because the prize is worth it. The real prize is the knowledge and understanding you'll be able to carry with you for the rest of your life. I highly recommend you take notes on both the content and everything else you learn through the duration of your time as a team member of Sabercat Robotics Team 4146.

The entire curriculum is accessible through http://sabercatrobotics.com/learn/book

I will answer any questions you may have in person, or by way of discord pm, email, or text. I look forward to watching the growth this semester. Stay consistent and vigilant. Sometimes learning is a battle of attrition. That being said, I know you can win.

Best,

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