Briefly discuss your understanding of OS by answering the following questions:

1. **Which one is a better Desktop OS, between current versions of macOS and Windows?**

When it comes to choosing between macOS and Windows, the decision really boils down to what you need from your operating system. As a student who uses both platforms for different purposes, I have found that each has its strengths and weaknesses.

macOS is known for its sleek design, stability, and integration with other Apple products. If you are already in the Apple ecosystem using an iPhone, iPad, or Apple watch macOS makes life a lot easier. Features like airdrop and iCloud allow you to move files, messages, and even tasks between devices with little to no issue. This level of integration is a huge plus for productivity, especially when you are juggling multiple devices for schoolwork, communication, and entertainment.

On the other hand, Windows is more versatile and widely used across industries. It supports a broader range of software, including older or specialized programs, making it ideal for students in fields like engineering or computer science. Windows also offers more hardware flexibility, from budget-friendly laptops to high-performance gaming PCs. Gaming is a big advantage for windows, as it supports more games and peripherals. Plus, windows are more affordable, which is a big plus for college students.

In conclusion, macOS is great for Apple users and creatives, while Windows is better for versatility, compatibility, and budget-conscious users. Personally, I use both macOS for creative work and Windows for gaming and specialized software and I think that is the best approach.

2. **Name one subject (you can think of a CS course, if that helps) that you think has a lot to do with OS and explain your choice.**

A course that closely relates to operating systems is Computer Organization and Design. I took this class last semester, and it gave me a solid understanding of how hardware and software interact, which is necessary for understanding OS functionality. The course covers topics like CPU architecture, memory hierarchies, process synchronization and input/output systems, all of which are critical for how an OS manages resources.

For example, we learned about how the CPU executes instructions and how memory is structured, including concepts like caches, RAM, and virtual memory. These are directly tied to how an OS handles process scheduling and memory management. The OS decides which

processes get CPU priority and how memory is allocated to applications, ensuring efficient multitasking and system stability.

We also explored input/output systems, which are key for understanding how the OS interacts with peripherals like keyboards, mice, and storage devices. Without this foundational knowledge, it is hard to grasp how an OS coordinates hardware and software to deliver a great and easy to use user experience.

Overall, Computer Organization and Design was a fantastic course for understanding operating systems because it provides the hardware-level knowledge needed to fully appreciate how an OS works with software and hardware components within a system.