

College of Engineering and Applied Science

Minimum Laptop Specifications 2025 – 2026

(Last Updated 2024-Dec)

NOTES:

1. CEAS IT does not support Mac OS X for student laptop computing. Apple has moved to its own ARM-based processors and will not support Windows in Boot Camp mode. **Since some of our engineering applications do not run on Mac OS, Macs should not be purchased for any of the engineering programs.**
2. CEAS IT does not support Windows ARM-based laptops. Most Engineering Applications are not optimized for ARM Based Processors. **Even though Windows for ARM has an x64 emulator, it is not recommended for Engineering Applications due to significantly lower performance and/or compatibility issues.**

The following laptop configurations were developed by Digital Technology Solutions CEAS IT for CEAS students. These are **recommended minimum** configurations.

Students with laptops that do not meet these minimum requirements will not be prohibited from enrolling in courses, but their ability to participate in classroom activities and to complete assignments may be severely hampered. Workstation class video cards are strongly recommended due to engineering software being designed to support or require workstation video card acceleration. Support for students with laptops that do not meet these requirements will not be provided.

CEAS Minimum Recommended Laptop Specifications

- Intel Ultra 7 Processor or Higher
- 32GB DDR5
- Dedicated video card with minimum 4GB of video memory
- HDMI port for external monitor/projector
- HDMI cable
- 512GB M.2 NVMe SSD Drive
- Audio, Webcam and Mic (required)
- 10/100/1000 Network interface
- Wireless 802.11ax Wi-Fi 6 or Wi-Fi 6E recommended (Intel recommended; Killer Wi-Fi not supported)
- USB 3.1 and Gen 2 (Type-C) ports
- OS: Windows 11 Professional or higher, 64-bit

The CEAS Civil and Architectural Engineering and Construction Management (CAECM) academic programs require different configurations that have additional requirements.

(CAECM) Minimum Recommended Laptop Specifications

- Intel 13th or 14th Gen i7, Ultra 7 Processor or Higher; or AMD Ryzen-9 series processors
- 32GB RAM or higher (one 32GB dim instead of two 16GB dims recommended for upgradeability)
- HDMI port and cable for external monitor/projector
- 512GB M.2 NVMe SSD Drive
- Webcam and mic (required)
- Gigabit Ethernet (internal or external) recommended
- Wireless 802.11ax Wi-Fi 6 or Wi-Fi 6E recommended (Intel recommended; Killer Wi-Fi not supported)
- Dedicated **WORKSTATION** class video card required (nVidia RTX)

- **Construction Management** - nVidia RTX A500 – 4GB GDDR6 graphics card or higher
- **Architectural Engineering and Civil Engineering** - nVidia RTX A1000 – 8GB GDDR6 graphics card or higher (nVidia RTX A2000 – 8GB GDDR6 recommended)

Negotiated Student Pricing - The following portal site provides laptop specifications that meet the minimum hardware requirements specified above:

Dell Models - www.Dell.com/UC_CEAS

(Note: This Dell site may list specifications lower than the required specifications listed above. Please be cautious not to select specifications lower than what is required above. Also, do not forget to obtain the coupon on the Dell page prior to adding a machine to your cart.)

Additional Considerations

- Students are expected to use their laptops over the course of several years. Due to the nature of how laptops are used, an extended warranty and accidental warranty may be an option to consider.
- Students may also want to consider a 1TB or larger USB external hard drive for backing up their computer system.