

## KSU ARE/CNS Laptop Requirements (Updated 04-2024)

As of Fall 2023 all department computer labs have been eliminated and replaced with docking stations to allow students to connect their laptops. Computer based classes will REQUIRE a laptop meeting the below minimum specifications. **Please note that computers must be running Windows 10 or 11. MAC COMPUTERS ARE NOT ACCEPTABLE.** macOS does not support many of the software programs used by the Architecture, Engineering and Construction (AEC) industry. Students may consider purchasing an extended warranty with accidental damage protection to ensure the laptop lasts the duration of the degree program.

	<b>Minimum Requirements:</b>	<b>Recommended*</b>
Operating system	64-bit Windows 10 or 11	64-bit Windows 10 or 11
CPU	12 <sup>th</sup> Generation Intel i7 processor (10-core, 2.8 GHz base clock with 4.7 GHz Turbo Boost, 12 MB cache)	13 <sup>th</sup> Generation Intel i7 or better processor (10-core, 3.6 GHz base clock with 4.9 GHz Turbo Boost, 12MB cache)
RAM	16 GB	16 GB or 32GB
Graphics	Direct X 12 capable graphics card or on-board graphics processor	Dedicated Graphics card with 2 GB memory
Hard Disk	512 GB or larger solid-state drive	512 GB or larger solid-state drive
Screen	12" Screen	15" or 17" Screen
Video Output Port	USB-C to allow connection to docking station	USB-C to allow connection to docking station
Accessories	Mouse, USB3.0 flash drive	Mouse, USB3.0 flash drive
<b>Approx. Cost**</b>	<b>\$800-\$1,000</b>	<b>\$1,000-\$1,200</b>

\*Note: When purchasing a laptop exceeding the minimum requirements, priority should be given to an upgraded processor.

\*\*Approximate prices do not include an extended warranty

Laptops meeting the minimum specifications are required for the below courses:

<b>Architectural Engineering</b>	<b>Construction Science</b>
CNS 210-Graphic Comm I	CNS 200-Computer Applications
CNS 321- Graphic Comm II	CNS 210-Graphic Comm I
ARE 421-Plan Reading	CNS 321- Graphic Comm II
ARE 521-Computer Aided ARE Design	CNS 310-Intro to BIM
ARE 561-Electrical Systems 2	CNS 325-Construction Documents
ARE 562- Mechanical Systems 2	CNS 330-Site Construction
ARE 563-Structural Systems 2	CNS 510-Tech Management
ARE 571- Systems Integration and Design	CNS 544-ASC Competition
ARE 671-ARE Capstone	CNS 641-Construction Estimating
ARE 712-Energy Modeling	CNS 643-Pre-Construction
ARE 715-AEI Competition Team	CNS 645-Construction Scheduling
ARE 722- Bldg. Loads & Computer Aided Analysis/Design	CNS 660-Construction Operations
ARE 731-Advanced Lighting Design	CNS 738-Mechanical and Electrical Estimating
ARE 734- Advanced Mechanical Air Systems Design	
ARE 735-Electrical Systems Design	
CNS 738-Mechanical and Electrical Estimating	