

KSU ARE/CNS Laptop Requirements (Updated 04-2023)

Beginning Fall of 2023 all department computer labs will be 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.

Minimum Requirements:

- Windows 64-bit operating system.
- 11th Generation Intel i7-1165G7 Processor (quad core, 2.8 GHz base clock with 4.7GHz Turbo Boost, 12MB cache)
- 8GB RAM
- Direct X 12 capable graphics card or on-board graphics processor
- 500GB or larger solid state drive
- 15" Screen (preferred, smaller is acceptable but harder to work with)
- USB-C port to allow connection to docking station
- Accessories: Mouse, USB3.0 flash drive
- **Approximate Cost: \$800-\$1,000**

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

Recommended Requirements:

- Windows 64-bit operating system.
- 12th Generation Intel i7-1255U Processor (10-core, 3.5GHz base clock with 4.7GHz Turbo Boost, 12MB cache)
- 16GB RAM
- Dedicated Graphics card with 2GB memory
- 500GB or larger solid state drive
- 15" or 17" Screen
- USB-C port to allow connection to docking station
- **Approximate Cost: \$1,000-\$1,200**

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

Architectural Engineering	Construction Science
CNS 210-Graphic Comm I	CNS 200-Computer Applications
ARE 521-Computer Aided ARE Design	CNS 210-Graphic Comm I
ARE 561-Electrical Systems 2	ARE 310-Intro to AutoCAD
ARE 562- Mechanical Systems 2	ARE 312-Intro to BIM
ARE 563-Structural Systems 2	CNS325-Construction Documents
ARE 571- Systems Integration and Design	CNS330-Site Construction
ARE 671-ARE Capstone	CNS 510-Tech Management
ARE 712-Energy Modeling	CNS 544-ASC Competition
ARE 715-AEI Competition Team	CNS 641-Construction Estimating
ARE 722- Building Loads and Computer Aided Analysis and Design	CNS 643-Pre-Construction
ARE 731-Advanced Lighting Design	CNS 645-Construction Scheduling
ARE 734- Advanced Mechanical Air Systems Design	CNS 660-Construction Operations
ARE 735-Electrical Systems Design	CNS 738-Mechanical and Electrical Estimating
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