



# COMPUTER STANDARDS FOR STUDENTS 2023-2024 ACADEMIC YEAR

## COLLEGIATE COMPUTER RECOMMENDED MINIMUM HARDWARE SPECS

These recommendations are for technology needs for all students in the College of Design.

	PC	Mac
<b>Laptop</b>	Dell G15 5530 Windows 10 (64 bit)	16" MacBook Pro 2023 – M2 chip
<b>Screen Size</b>	15.6" display	16" display
<b>Processor</b>	13th Generation Intel® Core™ i7-13650HX	Apple M2 Pro with 12-core CPU
<b>Memory (RAM)</b>	16GB RAM	16GB Unified Memory
<b>Hard Drive</b>	1TB, M.2, PCIe NVMe, SSD	512GB SSD
<b>Graphics Card</b>	NVIDIA® GeForce RTX 4060, 8GB GDDR6 RAM	19-core GPU
<b>Price and Location</b>	UMN Bookstore - \$1716 (\$150 Dell rebate available until end of 2023)	UMN Bookstore – \$2299
<b>Tax</b>	Students in an academic program that requires a laptop may purchase tax-free from the UMN Bookstore	
<b>Warranty</b>	3 Year ProSupport included. Contact Bookstore for additional details	AppleCare+ Coverage available through Bookstore. Contact Bookstore for additional details
<b>Accessories</b>	• 3-button mouse (Bluetooth recommended)	

## COLLEGE OF DESIGN CLOUD DESKTOP

The CDes Cloud desktop is a Windows 10 based virtual computing resource available to all College of Design students. While this resource is intended to supplement access to certain software titles that are difficult for individual students to license, it is not intended as a stand-in for one of our recommended computer options. The Cloud Desktop can be a useful tool for Mac users who need to run PC programs, but a PC is still strongly recommended for certain programs (details above). Find more information about the CDes Cloud Desktop resource at [z.umn.edu/cdescloud](https://z.umn.edu/cdescloud).

## COMPUTER REQUIREMENTS FOR SPECIFIC ACADEMIC PROGRAMS

All College of Design programs require an appropriate computer, but software requirements may vary across programs. See below for more detail.

PRE-ARCHITECTURE AND LANDSCAPE ARCHITECTURE	APPAREL DESIGN	PRE-GRAPHIC DESIGN
<p><b>Required</b></p> <ul style="list-style-type: none"><li>• PC (highly recommended) or Mac*</li><li>• Adobe Creative Cloud</li><li>• Microsoft Office (free through UMN)</li></ul> <p><b>Recommended</b></p> <ul style="list-style-type: none"><li>• Revit</li><li>• 32 GB USB drive</li></ul> <p><b>Students enrolling in ARCH 3611 are required to purchase or install free EDU of trial license</b></p> <ul style="list-style-type: none"><li>• AutoCAD (free EDU license)</li><li>• Rhino (purchase or free 90 day trial)</li><li>• Enscape</li><li>• 3-button mouse</li></ul>	<p><b>Required</b></p> <ul style="list-style-type: none"><li>• PC or Mac*</li><li>• Adobe Creative Cloud</li><li>• Microsoft Office</li></ul> <p><b>INTERIOR DESIGN</b></p> <p><b>Required</b></p> <ul style="list-style-type: none"><li>• PC (recommended) or Mac*</li><li>• Adobe Creative Cloud</li><li>• Microsoft Office (free through UMN)</li><li>• Revit (free EDU license)</li><li>• Enscape</li></ul>	<p><b>Required</b></p> <ul style="list-style-type: none"><li>• PC or Mac*</li><li>• Adobe Creative Cloud</li></ul> <p><b>Recommended</b></p> <ul style="list-style-type: none"><li>• Mac</li><li>• Microsoft Office (free through UMN)</li></ul> <p><b>PRE-PRODUCT DESIGN</b></p> <ul style="list-style-type: none"><li>• PC or Mac*</li><li>• Adobe Creative Cloud</li><li>• Microsoft Office (free through UMN)</li></ul>
RETAIL MERCHANDISING		
<ul style="list-style-type: none"><li>• Mac or PC</li></ul>	<ul style="list-style-type: none"><li>• Adobe Creative Cloud</li></ul>	

### SUPPORT

- Basic technology help is available via the UMN Technology Help Line (612-301-4357 or help@umn.edu) and at walk-in help centers. See [it.umn.edu/contact-us](https://it.umn.edu/contact-us) for more information.
- The University of Minnesota Bookstore has an Apple Authorized Care Center that will service Mac as well as PCs.
- The College of Design does not offer IT/technical support for student-owned laptops or devices.

### \*CONSIDERATIONS WHEN USING A MAC LAPTOP

**Impacts** Architecture, Interior Design, Product Design.  
**Does not impact** Apparel Design, Graphic Design, Retail merchandising.

Some software used in the academic programs for Architecture, Interior Design, and Product Design will only run on the Windows Operating System. We highly recommend running Windows on a PC in order to be able to use these software titles.

Although it is possible to run the Windows Operating System on a MacBook [via Windows Arm on Parallels], we cannot guarantee you will be able to run the software without difficulty. The MacBook Pro normally recommended for Architecture, Interior Design, and Product Design utilizes a chip based GPU that may or may not be compatible with College of Design required software. This means that they will not guarantee that the M2 chip will be able to run their software without problems.

It may be true that you can run the software without problems on Mac OS/Parallels, but we cannot guarantee this. You may still choose to run a Mac OS if you wish.

### SOFTWARE AFFECTED BY THIS ISSUE

- Autodesk
- AutoDesk 3DS Max
- Revit
- Solidworks
- SketchUp (will work with the graphics card, but it is not recommended to run it via Parallels)



# COMPUTER STANDARDS FOR STUDENTS FREQUENTLY ASKED QUESTIONS

**Q: I SEE TWO RECOMMENDED COMPUTER MODELS FROM THE UNIVERSITY OF MINNESOTA BOOKSTORE. WOULD OTHER MODELS FROM ANOTHER STORE WORK AS WELL?**

A: Our suggested models serve as a benchmark for the minimum technical specifications required to run CDes software titles. Other computers with the same or better specifications will also be acceptable. If you have questions about whether or not the computer you would like to buy meets the required technical specifications, please contact the retailer (UMN Bookstore/MTech or otherwise) to inquire about how the computer compares to our suggested models. The College of Design does not provide consultations regarding alternatives to our suggested models.

**Q: I WOULD LIKE TO USE A MAC LAPTOP. I SEE THAT YOU RECOMMEND THE 16" VERSION OF THE DEVICE. COULD I MAKE DO WITH THE 14" VERSION WITH THE SAME TECHNICAL SPECIFICATIONS?**

A: Yes, as long as you select a model with the same or better technical specifications as the 16" version you will be fine. We recommend the 16" model because a larger screen is more useful for design work and the software used.

**Q: I HAVE A QUESTION ABOUT WHAT SOFTWARE I SHOULD BUY.**

A: You do not need to purchase software before the start of the semester. None of our programs require students to have software installed on day one, and instructors will provide specific information about the software titles required for each course or program as a part of the syllabus. Additionally, many of the software titles required are licensed on a monthly or annual basis, which means that purchasing them ahead of time will result in an unnecessary additional expense.

**Q: ARE ANY OF THESE RECOMMENDATIONS SUBJECT TO CHANGE BEFORE THE BEGINNING OF THE SEMESTER?**

A: Our hardware recommendations are not subject to change and have been confirmed with the University of Minnesota Bookstore. Software recommendations may be subject to change based on instructor preferences. Thus, it is best to wait until the beginning of the semester to make software purchases. Instructors will review the required software with students in the initial class sessions and make purchasing recommendations.