NDSU Interior Design Program
Fall 2020
Minimum Laptop Specifications

For the fall 2020 semester, all first year students, transfer students and students minoring in interior design are required to have a laptop that meets the specifications outlined below and have the required design software installed prior to the first day of class in the fall semester. All computers purchased for use in the interior design program MUST have a PC Windows based operating system.

The NDSU Interior Design program has provided options for laptops that meet this specification on our website. Please consider purchasing from the NDSU Bookstore. Laptops may also be purchased from Dell, HP, MSI or other vendors if the hardware meets the minimum specifications and you are comfortable with the warranty and pricing they offer. You will be using this laptop for the next four years with very intense design software and complex files, so plan accordingly.

Purchasing your Laptop

Most big-box stores **do NOT** sell a system that meets these requirements 'on the shelf' so make sure you **ORDER DIRECTLY** from the manufacturer or NDSU Bookstore so they can build to suit. Let them know you are a student for any discounts that may be available.

*Remember, the promotional deal does not matter if your system cannot run the software required.

Minimum Laptop Specifications

The following are the system requirements based on Autodesk Revit 2021, Autodesk Autocad 2021, SketchUp and Enscape the primary modeling programs you will be using.

Operating System
- Microsoft® Windows® 10, 64-bit, English
  - **No Mac's for the Interior Design program** will be allowed as some software does not have the same interface as a PC. Industry standard is a PC and that is what we teach. Please do not purchase a Mac and run a dual OS on it – stick to the specifications provided.

Processor
- Intel Core i7 Processor 9[1] or 10[1] generation[1]
  - Highest affordable CPU speed rating recommended

Memory and Hard Drive
- 16 GB RAM (minimum)[2]
- 512 GB Solid State Drive (SSD)[3]

Video Display
- 15" or 17" monitor size[4]
- 1920 x 1200 with true color, maximum Ultra-High (4k) definition monitor

Video Card (Dedicated only)[5]
- Dedicated video card (NVIDIA® GeForce RTX™ 2060 6GB or better)
  - **Graphics card must be dedicated, NOT integrated,** to run industry standard modeling programs**. You WILL NOT be able to install/open/run certain required programs if you do not have the appropriate required graphics card.**
  - Intel-based graphics cards WILL NOT WORK.

Disk Space
- 30 GB free disk space *post software* installation, minimum

Web Browser & Connectivity
- Microsoft® Internet Explorer® 10 or higher
- Wireless and Bluetooth

Warranty
- We strongly recommend purchasing a warranty that will last the duration of your academic career and features 'in home' support. Consider accidental coverage as well.

Accessories
- Ergonomic three-button USB Optical Scroll Wheel Mouse
  - Consider the Logitech MX Master 2s
    https://smile.amazon.com/Logitech-Master-Wireless-Mouse-Rechargeable/dp/B071YZJ1G1/ref=sr_1_3?crid=2LMKNUMPLGA50&dchild=1&keywords=logitech+mx+master+2s&qid=1586271789&sprefix=logitech+mx%2Caps%2C197&sr=8-3
  - Consider the Logitech G620 Lag Free Wireless Mouse
    https://www.amazon.com/dp/B00E4MQODC/ref=cm_sw_r_cp_api_i_UDkJEbZ98JA14
  - Consider the Logitech M330 https://www.amazon.com/Logitech-M330-Silent-Wireless-Mouse/dp/B01JPOLKDW/ref=sr_1_1?dchild=1&keywords=logitech+m330&qid=1587655366&sr=8-1
- USB Flash Drive (qty. 2-3)
  - No 'micro' USB's. Make sure you can clearly label with your name.
- Earphones/ear buds
- Computer case/bag

Software Installed Prior to the First Day of Classes

Students are responsible for ensuring the below software is installed and properly operating prior to the first day of class. Any issues with installation should be directed to NDSU IT Help Desk.

NDSU Wireless Access
- NDSU Wireless access   https://www.ndsu.edu/its/wireless/eduroam/

Web Browser & Cloud Storage
- Google Chrome
- NDSU One Drive https://www.ndsu.edu/its/help_desk/collaboration_and_storage/

Productivity Software
- Microsoft Office Home and Student (Word, Excel, PowerPoint, Publisher) Free
  https://www.ndsu.edu/its/software/software_licensing_program/microsoft/office_proplus/

<u>Illustration Software</u>
- Adobe Creative Cloud (Photoshop, Illustrator, InDesign, Acrobat DC)
https://www.adobe.com/creativecloud/buy/students.html

<u>SketchUp Studio Software</u>
- Annual student license of latest version of software
https://www.sketchup.com/plans-and-pricing#for-higher-education

Software Installed as Instructed at Later Date

Students are responsible for installing the below software is installed when directed by course instructors. Please do not download until you are enrolled in the required course. Any issues with installation should be directed to NDSU IT Help Desk.

Autodesk AutoCAD Software
- AutoCAD (latest version) FREE student version https://www.autodesk.com/education/free-software/autocad

Autodesk Revit Software
- Revit (latest version) FREE student version https://www.autodesk.com/education/free-software/revit#

Enscape Software
- Enscape (latest version) FREE student version https://enscape3d.com/educational-license/

CET Designer Software
- CET Designer (latest version) FREE. Faculty member will provide resources when needed.

If you are having difficulty downloading software or need assistance setting up your laptop go to the **ITS Help Desk,** <u>Quentin Burdick Building</u> - Room 150

NDSU Interior Design program is not responsible for any issues that arise for students failing to purchase a laptop using these specifications as a guide.

Notes

[1] Gen 9 or 10 Core i7 processors from Intel are the speedy processors with the least number of flaws. Chips that do not meet these spec's become Core i5 and i3 processors

[2] 16GB of RAM is required so you can have more than one program running at once. Windows alone can take up to 8GB of RAM on startup. Open Chrome, Revit and Photoshop and you will quickly approach the 16 GB mark.

[3] Should you get a SSD or HDD? Generally, students will get an SSD main drive for quickly loading programs and a secondary HDD for storing their files on. HDD or Hard Disk Drives are slower, and their spinning disks can be damaged if the laptop is accidentally dropped while running.

[4] 17" laptops offer more display and battery life at the cost of adding a few additional pounds of weight

[5] For the dedicated graphics card, we require a Nvidia card because most design software is optimized for Nvidia cards. We require a higher spec graphic card due to the demanding architectural rendering software and Adobe products. Rendering is challenging on your laptop, especially when trying to work on other coursework. The faster it can render, the better. We recommend the Nvidia GeForce RTX graphics card because the cost of enterprise (Quadro) cards is higher for similar performance.