

Hardware and Software Recommendations

CAD Tech Student Managers - 2024-04-15 - Hardware and Software Recommendations &
Information

RIT COLLEGE OF ART AND DESIGN

RECOMMENDED MATERIALS FOR STUDENTS

Students in the College of Art and Design will be entering career fields where digital imaging technology is central. Below you will find recommended (optional) equipment that students will need to consider purchasing to be fully prepared for your work at RIT.

SCHOOL PROGRAM SUPPLY LISTS

Several Schools/programs have provided specific supply lists (links immediately below). If you don't find your program listed, please look below for some recommendations that can help guide your hardware/software purchases for Fall.

[SUPPLY LIST - General Supply List for College of Art and Design Students](#) (Applies to multiple majors!)

[SUPPLY LIST - School of Design - 3D Digital Design \(SOD\)](#)

[SUPPLY LIST - School of Design - Graphic Design \(SOD\)](#)

[SUPPLY LIST - School of Design - Interior Design \(SOD\)](#)

[SUPPLY LIST - School of Design - New Media Design \(SOD\)](#)

[SUPPLY LIST - School of Film and Animation \(SOFA\)](#)

[SUPPLY LIST - School of Photographic Arts and Sciences \(SPAS\)](#)

[Special Offers and Purchase Programs](#) - These offers are open to all registered CAD students, and will be updated as new offers come out!

As an RIT student, you are eligible for academic discounts on most computer hardware and software that you will need. We recommend shopping at RIT's Digital Den as well as online and at your local retailers to get the best prices. Please note, many education discounts require some proof of enrollment or student ID.

<https://www.rit.edu/fa/digitalden/>

General Supplies

The following supplies are needed for many classes:

- A portable hard drive and at least two "thumb" drives (Flash media drives) (see recommendations below).

- Notebooks and 3-ring binders for notes and materials.

Please Note: In addition to these supplies, there will be additional books and supplies required each semester by individual instructors for specific classes.

These additional costs may add up to \$300.00 or more per semester.

WHAT COMPUTERS ARE RECOMMENDED FOR THE DEGREE PROGRAMS AT CAD?

Your specific needs for computer equipment will vary widely based on your program of study. The College of Art and Design suggests that you wait on making any purchases until after you arrive on campus and begin your classes. Your instructors and Program Directors will share with you recommendations for hardware, software and other equipment that is most relevant for your academic major, but you will have access to all technology/equipment in either the College-managed labs or for checkout through the Equipment Cages.

All undergraduate labs are available to all CAD students via RIT card swipe, and are open 24/7. You can learn about our wide variety of Facilities [HERE](#). You can look up all the various labs and lab schedules within the College [HERE](#), including pictures of the spaces, and what hardware and software is available.

While we suggest the versatility of a laptop for most majors, some programs may need a more robust solution offered in a desktop computer (consult with your Program Director as noted above).

You can find the latest recommended models available through RIT's Digital Den listed here:

<https://www.rit.edu/digitalden/computer-recommendations-college>

Generally, we suggest the the **minimum** benchmark desktops and laptops specifications for the Mac and PC platforms. *(More details can be found below)*

Mid-Range Mac Laptop:

- 14" MacBook Pro (~\$1849)
- M2 Pro 10C CPU
 - 16C GPU
 - 16 GB Unified Memory 512 GB SSD

Mid-Range PC Laptop:

- 15" Dell XPS 15 (~\$1899)
- Intel Core i7 @ 4.6GHz
 - 16 GB DDR4 • 512GB M.2 NVMe SSD
 - NVIDIA GeForce RTX 3050, 4GB VRAM

Mid-Range Mac Desktop:

- iMac 24" (~\$1599)
- M1 8C CPU 8C GPU
 - 16 GB Unified Memory
 - 512 GB SSD

Mid-Range PC Desktop:

- Dell XPS Desktop (~\$2100)
- Intel Core i5 3.9GHz (4.9GHz boost)
 - 16GB DDR4
 - 512GB M.2 NVMe SSD
 - NVIDIA GeForce RTX 3060 Ti 8GB VRAM
 - 24" Dell 24 Monitor - SE2422H (min size)

RECOMMENDED COMPUTER EQUIPMENT FOR FALL 2023

The following items are recommended only. You are encouraged to select those items that are most relevant to your interests and fit within your budgetary limitations. Further, the prices/specifications listed are current as of July 2023. It is likely that newer, faster equipment is available by the time you go to make your purchase, so we offer these strictly as recommendations to help guide you through your purchase.

COMPUTERS

Although our labs are fully equipped with high-end Apple and PC computers, a personal computer (Mac or PC with appropriate software) will allow you to complete much of the necessary course work at home. The specific system you choose will ultimately be based on your budgetary limitations and need for portability. To best meet the demands of the software we recommend purchasing as much **RAM** and **storage**(hard drive space) as your budget will allow. If you are interested in purchasing a computer system, we suggest that you use the following information as your guide.

Please check with the RIT Digital Den as they frequently offer “combo” deals on computers, printers, etc. that will not be available until Summer or the beginning of Fall semester. This is also often the best time to purchase the latest software.

All prices are accurate as of July 2023, but may change by the time you purchase your equipment.

- System Hardware Requirements:

- 2GHz or faster, i5 or greater Processor / 8GB RAM minimum
- Windows 10 (64bit) or Mac OS 10 Operating System
- Graphics Card and Display – as powerful and as large as you can afford
- Drive (Solid State preferred but Hard Drive is OK)1TB minimum
 - Special EDU pricing is available from the RIT Digital Den as well as directly from a few companies:
- Apple Education Store: <https://www.apple.com/us-edu/store>
- Dell Technologies for Students: www.dell.com/en-us/lp/students
- RIT Digital Den: www.rit.edu/digitalden/computer-recommendations-college

APPLE COMPUTERS

There are three ways to purchase Apple products from RIT Digital Den:

- 1) in person
- 2) by phone (585) 475-2505
- 3) online at www.rit.edu/digitalden

iMac or iMac Pro 24" (All-in-one best value desktop)

Estimated Price*: \$1429.00 - \$1,959.00+

MacBook Pro 14" or 16" (Best portable, but more expensive)

Estimated Price*: \$1849.00 - \$3199.00+

APPLECARE (**HIGHLY* suggested for any Apple Product)

Price: \$169 for iMacs, \$249+ for MacBook Pros

The AppleCare Protection Plan extends your built-in hardware service and 90-day telephone support to three full years from the purchase date of your new Apple product. This comprehensive plan includes telephone support, Apple-certified repairs, web-based support resources, and powerful diagnostic tools — all for one economical price. It is **HIGHLY** recommended for laptops/portables.

PC SYSTEMS

Listed below are comparable PC computers. While we recommend a Dell with the following minimum specifications, we do want to note that most of the CAD environment is Apple-Hardware-based and we generally recommend exploring those product options first.

Notebooks - Example: XPS 15 (9530 - 13th Gen-i7-16GB-512GB)

Estimated Price: \$2,349+

**We always highly recommend purchasing the 3-year warranty on parts and service (listed as 3 Year On-Site Service). \$300.00+.*

<http://www.dell.com/learn/us/en/6099/campaigns/welcome-to-dell-university>

NOTE: All prices are subject to change and offered as a starting point. Contact the RIT Digital Den for the latest prices.

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SECURITY

We recommend investing in a laptop lock (\$40.00) for your portables. These are available at the Digital Den or at most computer stores. **NEVER leave your laptop unsecured.**

PERIPHERALS

Wacom Pens

Wacom tablets are available in multiple CAD labs, and pens are available for 24-hour checkout through our equipment cages. However, we are also recommending that students

purchase their own pen if they prefer not to use the cage or want to minimize exposure through shared equipment.

Wacom Pro Pen 2 - KP504E

Wacom Pro Pen 3D - KP505

Keyboards and Mice

While keyboards and mice are available at every workstation in the college, we are currently recommending you consider purchasing your own USB keyboard and/or mouse for use in the labs as a safety precaution for Fall semester.

FYI, Bluetooth is NOT universally available on all computers, so be mindful of how your peripherals connect to the computer. USB is a common interface on all workstations.

DIGITAL MEDIA STORAGE

Remotely accessible server storage is available for temporarily moving files through the RIT network. USB "Thumb" drives can be used for smaller portable needs. However, we also strongly recommend you consider a 1-2 TB portable USB hard drive for larger project work and for data backup, and more efficient portability between labs and other work environments. We also recommend that you keep backups of your files (projects, etc.) in AT LEAST 2-3 places and save often! Currently, USB 3.0 drives designed for stationary use can store over 1Tb but, for maximum portability, we recommend the following portable or semi-portable models:

USB Flash (Thumb) Drives: (These will go by such names as "Jump", "Flash," or "USB" drives)

Prices range from \$10 - \$155 depending on size; on average they can store between 1GB to 32GB or more. It is HIGHLY recommended to have at least two flash drives and use them to save duplicates of your files.

- **Media:**

- o 32GB in size or larger (fast cards to match your camera: SDHC, CF, XQD, CFexpress B, SDXC, etc.)
- o Card reader (multiple format capable) - USBC interface
- o USB flash drives: 32GB or larger - USB3 speed
- o Any required adapters (dongles) to make sure these devices can properly connect to your computer - get spares as these can easily be lost

NOTE: Purchase a brand name product to assure reliability, this is not a place to save money. Some brands to consider: Kingston, Lexar, and Sony.

- **External Storage Media:**

- o Two external drives, at least 1 or 2TB each – USB3 speed (7200rpm HD or SSD). You will need to format these as ex-FAT drives before you begin using them so they can work with both Mac and Windows computers. Stand-alone (bus powered) drives are most convenient. You will use one as a “working” drive and one as an “archive” drive.

- o Any required adapters (dongles) to make sure these devices can properly connect to your computer – get spares as these can be easily lost

NOTE: Purchase a brand name product to assure reliability, this is not a place to save money. Some brands to consider: G-Tech, LaCie, LG, OWC, Samsung, , Seagate, Toshiba, Western Digital (WD).

Tablets

Many of our students also work with Touch Screen Tablets like the iPad and the Galaxy which can be used for a variety of applications in and out of the classroom. If you are looking to purchase one for yourself, we recommend getting one with the greatest capacity you can afford at the time. (You never know what your future demands will be and these devices don't have a provision for upgrades.)

SOFTWARE

Our lab workstations have a wide array of software applications that you will use for your coursework at RIT. The Adobe Creative Cloud and Microsoft word included many of the most commonly used applications.

Adobe Creative Cloud

Adobe offers up their software solutions via the “Creative Cloud” platform via a cloud-distributed model on a monthly subscription basis of \$19.99/Month This also offers up their entire suite of software products to subscribers.

Please see <http://www.adobe.com/products/creativecloud/students.edu.html> or the Digital Den for more information and educational pricing.

Microsoft Office

Microsoft Office 365 is free to RIT

students. www.rit.edu/its/services/personal-computers/software/office-365

- *NOTE: Google Docs does not provide all the necessary functions offered in Office365 – we do not recommend using it completely in place of Office365*

** Prices may vary by Fall. Please check for deals offered through RIT's Digital Den. Great discounts are frequently available closer to the start of Fall Semester, and you may want to*

check once you arrive at RIT.

G Suite

RIT students have free access to G Suite for Education from Google, which includes an RIT Gmail account and the various Google apps (like Docs, Sheets, etc. that could be viable alternatives to purchasing Microsoft software depending on your budget). This also includes unlimited storage with Google Drive, which offers a great cloud storage option for all of your school work as part of your data back up plan.

<https://google.rit.edu>

Student Insurance

As an accompaniment to any equipment purchase, all students are strongly encouraged to acquire insurance for their personal gear and any gear they check out from the CAD rental facility known as the "Cage" To learn more about insurance programs, please visit:

www.collegestudentinsurance.com - For an instant quote select "New York," "Rochester Institute of Technology," and \$6,000.00 ". This is the advised amount for first year students.

Questions?

If you would like suggestions about additional equipment such as scanners, printers, and digital cameras, please contact us at cadtech@rit.edu and we will answer your questions or direct you to the appropriate resource.

Attachments

- [RIT-Student-Equipment-Insurance.pdf \(350.84 KB\)](#)