

Computer Requirements for Game Design Fall 2020

This document outlines the specifications for a home computer that will enable a student to complete their course work and participate in class. The program is not suggesting that you are required to purchase a new computer. We are simply trying to provide some basic guidance to those that anticipate a need to purchase a computer. If you already have sufficient hardware, we do not suggest buying at this time.

A Validation Checklist will be sent to you by email in August 2020 to help students ensure all required and recommended hardware and software are installed and configured correctly. By the end of August 2020, and ahead of the start of classes, students will be required to confirm completion of the validation process. Students who would like assistance in validating their computer can contact the Game Design Technologists.

To contact the Game Design Technologists, please write to:

game.support@sheridancollege.ca

**Minimum Technical Requirements for Remote Learning (NOT for Production work)
Remote software: Bongo / Zoom / Slate / Respondus / NoMachine / RGS**

macOS

	Minimum requirement
Processor	Intel Core i3 or higher
Operating system	macOS version 10.13 (High Sierra), macOS version 10.14 (Mojave), macOS version 10.15 (Catalina) (macOS 10.13.6 or later is recommended for best performance)
RAM	4 GB or more of RAM (8 GB recommended)
Graphics Card	(Any Mac with a Processor as listed above will have a suitable Graphics Card) H.264 hardware decoding on Mac hosts with hardware accelerated video cards (GPUs)
Hard disk space	20GB or more of available hard-disk space for installation; additional free space required during installation
Monitor resolution	1280 x 800 display or higher
Internet	An internet connection that can effectively provide this speed for your device at all times: 10 Mbps Download 3 Mbps Upload Unlimited Usage
Important Notes	A macOS machine is not acceptable for completing production tasks.

Windows

	Minimum requirement
Processor	Intel® or AMD processor with 64-bit support; Intel Core i3 or newer, AMD A8 or newer
Operating system	Microsoft Windows 10 - October 2018 update (64-bit) version 1809 or later
RAM	4 GB or more of RAM (8 GB recommended)
Graphics card	Any Intel, AMD or nVidia Graphics card will suffice. H.264 hardware decoding on Windows hosts with hardware accelerated video cards (GPUs)
Hard disk space	20GB or more of available hard-disk space for installation; additional free space required during installation
Monitor resolution	1280 x 800 display or higher
Internet	An internet connection that can effectively provide this speed for your device at all times: 10 Mbps Download 3 Mbps Upload Unlimited Usage

Minimum* Technical Requirements for Students creating projects on their own computer using Curriculum Software (ex. Adobe, AutoDesk, Unity, Unreal, etc.)
 (*models are valid for only 1 Academic year (Sept through to August) after which you may be required to upgrade or purchase a new model)

Windows

	Minimum requirement
Processor	Intel Core i5 or higher (Quad Core minimum recommended) or AMD Ryzen 5 or higher (Quad core minimum recommended or higher)
Operating system	Microsoft Windows 10 - October 2018 update (64-bit) version 1809 or later
RAM	16GB or higher
Graphics card	nVidia based GTX 1660 Super or Ti series or higher 6-8GB VRAM (minimum) or AMD based AMD RX590 or higher 6-8GB VRAM (minimum)
Hard disk space	512GB or higher
Monitor resolution	24" Monitor 1920x1080P or larger
Internet	An internet connection that can effectively provide this speed for your device at all times: 10 Mbps Download 3 Mbps Upload Unlimited Usage
Additional Hardware	HD storage (Backup Drive) or online Cloud Storage (500GB or higher) Game Controller (Xbox360 or XboxOne controller recommended) Keyboard & 3-Button Mouse USB 2 ports (USB 3 ports recommended) (HDMI port required for VR headset work)
Important Notes	<p>If student already has a computer they feel confident that can run the software required, then they don't need to purchase a new computer/new hardware.</p> <p>The above is more a primer for someone who might have no computer at all.</p> <p>**Higher specs will see a performance boost (lower render time, faster at processing/multi-tasking).</p> <p>**PCPartPicker.com has some good guides for students/parents on computer specs/builds according to budget. https://pcpartpicker.com/guide/</p>

Recommended Technical Requirements for Students creating projects on their own computer using Curriculum Software (ex. Adobe, AutoDesk, Unity, Unreal, etc.)

Windows

	Recommended requirement
Processor	Intel Core i7 or higher (Quad Core minimum recommended) or AMD Ryzen 7 or higher (Quad core minimum recommended or higher)
Operating system	Microsoft Windows 10 - November 2019 update (64-bit) version 1909 or later
RAM	32GB or higher
Graphics card	nVidia based RTX 2060/2070/2080 series or higher 6-8GB VRAM (minimum) or AMD based AMD Radeon 5700/5700XT or higher 6-8GB VRAM (minimum)
Hard disk space	512GB or higher *SSD or NVMe – highly recommended for speed
Monitor resolution	24" Monitor 1920x1080P or larger 2nd 24" Monitor 1920x1080P or larger (Recommended to effectively and efficiently operate game development software including, Unity, Visual Studio, Unreal, Autodesk Maya)
Internet	An internet connection that can effectively provide this speed for your device at all times: 50 Mbps Download 10 Mbps Upload Unlimited Usage
Additional Hardware	HD storage (Backup Drive) or online Cloud Storage (500GB or higher) Web Camera and Microphone (720p Built-in Webcam or USB External Webcam w/Mic, or Headset w/Mic combo) Game Controller (Xbox360 or XboxOne controller recommended) Keyboard & 3-Button Mouse Wacom Drawing Tablet (for art-based courses) USB 2 ports (USB 3 ports recommended) (HDMI port required for VR headset work)
Important Notes	If student already has a computer they feel confident that can run the software required, then they don't need to purchase a new computer/new hardware. The above is more a primer for someone who might have no computer at all. **Higher specs will see a performance boost (lower render time, faster at processing/multi-tasking). **PCPartPicker.com has some good guides for students/parents on computer specs/builds according to budget. https://pcpartpicker.com/guide/