

Overview

This document outlines the network and hardware recommendations for the following Apex Learning solutions:

- Courses
- Tutorials
- Technology Courses
- Apex Learning Virtual School (ALVS)

Network Configuration

Bandwidth

All Apex Learning products require internet access. A broadband connection is highly recommended and should provide adequate bandwidth to support the following:

- Streaming Video (multi-bitrate)
- Voice Translation
- Text-to-Speech

Access

Access firewalls, content filters, and other network infrastructure must allow secure HTTP connections (port 443) to the following URLs and domains:

- *.apexvs.com (root domain + all subdomains)
- *.apexlearning.com
- correlation.edgate.com

Some courses may also contain references to external URLs for instructional purposes. For an updated list of these URLs, please contact support@apexlearning.com.

HTTPS Support

Apex Learning makes exclusive use of HTTP/1.1 over TLS 1.2 for all communications.

Content Caching

Cache Setting	Courses, ALVS	Tutorials
Domains that may be cached, but should be refreshed weekly	<ul style="list-style-type: none"> • media.apexlearning.com • assets.apexlearning.com • acecontent.apexlearning.com 	<ul style="list-style-type: none"> • Not applicable
Domains that must NOT be cached	<ul style="list-style-type: none"> • apexvs.com • courses.apexlearning.com • course.apexlearning.com • course-api.apexlearning.com 	<ul style="list-style-type: none"> • apexvs.com • tutorials2.apexvs.com

Hardware Configuration

Supported Operating Systems

Versions of the following operating systems which have received vendor security updates within the last year:

- Microsoft Windows
- Apple macOS
- Google Chrome OS

Supported Web Browsers

Versions of the following browsers which have received vendor security updates within the last year:

- Microsoft Edge
- Apple Safari
- Mozilla Firefox
- Google Chrome
- Microsoft Internet Explorer (support ends March 2021)
- Microsoft Edge Legacy (support ends March 2021)

Supported Tablet Configuration (Tutorials only)

Versions of the following configurations which have received vendor security updates within the last year:

- Apple iOS + Safari
- Google Android + Chrome

Additional Recommendations and Requirements

- Speakers/Headphones (for media, interactive assets and text-to-speech)
- Microphone (for World Language courses only)
- Printer (optional for supplemental resources and written assignments)

Technology Courses

The following sections outline the minimum requirements for Technology Courses. The table that follows provides additional requirements and information by course title.

Hardware Requirements

- PC or Mac (not tablet or Chromebook)
- Windows 10, 8, or 7, Mac OS10.8 or higher (Note: Mac OS Catalina and Big Sur are not compatible with some courses)
- Intel® Pentium® CPU N3530 (or better)
- OpenGL 3.2 compatible graphics with 1 GB VRAM
- 4 GB RAM
- 7 GB free disk space

Additional Requirements

- Headphones/Speakers
- E-mail access
- Access to local storage for saving/loading of student project files
- Broadband internet connection (1mbps or higher)

Course-Specific Requirements

This table provides an overview of the additional requirements for each course. For specifics, please see the Installation Guides.

Title (links to syllabus)	Student Project	Tools	Software Access	Additional Requirements
3D Animation	Create a 3D movie	Blender®		<ul style="list-style-type: none"> • See Installation Guide
3D Character Animation	Create a Minecraft® animated short movie	Blender®		<ul style="list-style-type: none"> • See Installation Guide • Systems should meet minimum hardware requirements of Minecraft found here: https://help.mojang.com/customer/en/portal/articles/325948-minecraft-java-edition-system-requirements • The latest version of Java installed
3D Game Design	Create a basic 3D video game	OWL Game Creator		<ul style="list-style-type: none"> • See Installation Guide Note: This course has stricter OS requirements than general requirements • Windows Vista not applicable • MAC OS 10.9 or above
3D Game Development	Design a custom video game using C#	Unity®		<ul style="list-style-type: none"> • See Installation Guide • Graphics card must support DirectX10 or higher and support Shader Model 4.0 or higher. Most graphic cards manufactured after 2007 should meet these requirements.
3D Printing & Modeling	Design 3D models suitable for printing	Blender®		<ul style="list-style-type: none"> • See Installation Guide
Adventure Maps	Design a Minecraft® world using command block programming	Minecraft® (Java edition)	Minecraft (Java edition) is required. Licenses will be provided based on enrollment in the course but limited by overall seats purchased.	<ul style="list-style-type: none"> • See Installation Guide • Systems should meet minimum hardware requirements of Minecraft found here: https://help.mojang.com/customer/en/portal/articles/325948-minecraft-java-edition-system-requirements • The latest version of Java installed • Contact Apex Learning Support to gain access to needed licenses

Title (links to syllabus)	Student Project	Tools	Software Access	Additional Requirements
App Design	Create a downloadable app for iOS or Android	Clickteam Fusion 2.5	Fusion 2.5 is required. Licenses will be provided based on enrollment in the course but limited by overall seats purchased.	<ul style="list-style-type: none"> See Installation Guide Older graphics cards are compatible with this course. Contact Apex Learning Support to gain access to needed licenses
Fashion Design	Design a fashion collection	Inkscape™		<ul style="list-style-type: none"> See Installation Guide Older graphics cards are compatible with this course.
Mod Design	Create an advanced Minecraft® mod using Java™	Eclipse™, GIMP, Tabula	Access to Minecraft (Java edition) is not required, therefore not provided by Apex.	<ul style="list-style-type: none"> See Installation Guide Systems should meet minimum hardware requirements of Minecraft found here: https://help.mojang.com/customer/en/portal/articles/325948-minecraft-java-edition-system-requirements The latest version of Java installed
Server Design	Code a custom Minecraft® multiplayer server	Eclipse™, Minecraft® (Java edition)	Minecraft (Java edition) is required. Licenses will be provided based on enrollment in the course but limited by overall seats purchased.	<ul style="list-style-type: none"> See Installation Guide Systems should meet minimum hardware requirements of Minecraft found here: https://help.mojang.com/customer/en/portal/articles/325948-minecraft-java-edition-system-requirements The latest version of Java Must allow access to a private network for local servers Contact Apex Learning Support to gain access to needed licenses

“Minecraft” and “Mojang” are registered trademarks of Microsoft Corporation. “Unity” is a registered trademark of Unity Technologies. Apex Learning Technology Courses are not sponsored by or affiliated with Microsoft Corporation or Unity Technologies.

Getting Support

To access **online help** at any time, sign in to Apex Learning and click Help in the main menu.

Apex Learning Support:

- Monday – Friday. 5:00 AM – 7:00 PM Pacific Time
- 1-800-453-1454 option 2
- support@apexlearning.com