

Technical Recommendations

	Windows	Mac OS X	Linux
Operating Systems	8.1 (32bit, 64bit) 10	10.13 10.14 10.15	Ubuntu 12.x (Gnome) Ubuntu 14.x (Gnome) Red Hat 5 Red Hat 6 Open SuSE 13.1 Open SuSE 13.2 Fedora 19 Fedora 20 (all 32bit)
MINIMUM SYSTEM REQUIREMENTS			
Processor	Intel Dual-Core CPU 2.XX GHz or AMD processor	Intel CPU-based	Intel or AMD x86
RAM	2GB	2GB	1GB
JavaScript	JavaScript and cookies enabled on browsers	JavaScript and cookies enabled on browsers	JavaScript and cookies enabled on browsers
Other	Java isn't required for Mozilla Firefox and Google Chrome users	Oracle Java 6 to Oracle Java 8	Oracle Java 6 to Oracle Java 8 libstdc++ 6.0 GNOME/KDE windowing system
<u>Browsers:</u> ¹			
Chrome (recommended)	Latest (32bit, 64bit)	Latest (32bit, 64bit)	
Mozilla Firefox	52 and later	52 and later	52 and later (32-bit only)
Safari	–	11 and later	–
Internet Explorer	11 (32bit, 64bit)	–	–

Note: You may find it helpful to have more than one browser installed on your computer. If you run into problems using DL services, moving to another browser may resolve your issues.

¹ Browser settings should be set as follows:

- - **Enable Cookies**
 - **Enable Javascript**
 - **Do not block pop-up windows**
 - **Enable TLS 1.0, TLS 1.1, TLS 1.2** (instructions for Chrome, Firefox, Safari)

Support pages for each browser are available here:

- Chrome: <https://support.google.com/chrome>
- Firefox: <https://support.mozilla.org/en-US/>
- Safari: <https://support.apple.com/en-mide/guide/safari/welcome/mac>

PDF Reader

PDF reader should be installed on your computer, and a PDF browser plugin will let you view PDFs in a browser window without opening a separate program.

- Download Adobe Acrobat Reader at <https://get.adobe.com/reader/>. The download includes the browser plugin. To install this plugin, just follow prompts.

Java

Java may need to be installed and enabled in your browser for features used by some Moodle courses. You will see a warning if you need to install or upgrade Java.

- Download Java at <https://www.java.com/>

Technical Requirements for Exams

In the case of exams in which no physical presence is required, in addition to uninterrupted internet, the below minimum device requirements are needed to ensure the best test-taking experience:

Minimum System Requirements

	Windows	Mac	Linux	Chrome OS
Operating Systems	Windows 7 or newer version	macOS 10.11 or newer version	Ubuntu 18.04 or newer version	Chrome 58 or newer version
Processor	Intel Pentium or better	Intel	Intel Pentium or better	Intel or ARM

Free Disk Space	250 MB
Free RAM	2GB
Upload Speed	0.092 Mbps – 0.244 Mbps
Microphone	Any Microphone, either internal or external for all systems
Webcam	320 x 240 VGA resolution (minimum) internal or external for all systems

Note: Free RAM is the minimum amount of memory that is not in use by other applications

Recommended Internet Speed:

Minimum Download Speed : 10 Mbps

Minimum Upload Speed: 5 mbps

Recommended Download Speed: 25 Mbps and above

Recommended Upload Speed: 10 Mbps and above