Tooling U-SME Technical Requirements

Listed below are the minimum system requirements for the proper viewing of Tooling U-SME classes. Our classes may function with other configurations, but these requirements ensure a quality learning experience. If you have any questions, please call us at 1-866-706-8665 or e-mail us at support@toolingu.com.

Client Hardware	Versions	Additional Information
	450 MHz Intel Pentium II processor (or equivalent). 128 MB RAM. Speakers/Headphones (recommended, but not required).	The Tooling U-SME LMS and classes are a fully web-based offering and not dependent on individual computer systems.
Client Software	Versions	Additional Information
Browser	Microsoft Internet Explorer 6.0 or higher Mozilla Firefox Google Chrome	1.0 and 2.0 Class content will run on IE 6.0 or higher using our built-in Flash player. Google and Mozilla release continuous updates to their Chrome and Firefox browsers. While we always recommend the latest version, we cannot always guarantee compatibility with the latest releases. We recommend testing the browser using our testing tool at http://www.toolingu.com/support
Additional Software	Adobe Flash Player 10.0 or greater Adobe Reader	Required for interactive lessons within the 1.0 and 2.0 classes.

Client Configurations		
Network Bandwidth	A broadband internet connection is required for larger images, audio, video, and interactive exercises.	
Screen Resolution	The minimum screen resolution recommended is 1024 x 768 pixels.	
JavaScript	Enabled	
Pop-up Windows	Allow Pop-up Windows from Tooling U-SME Domains	
File Types	**.mp3** files for lesson audio **.flv** files for lesson video .**swf** for Flash interactive exercises **.m4v** files for HTML5 compatible lesson video (optional) .**ogv** for HTML5 compatible video (optional)	

Network Security

If you or your students are having difficulty accessing http://www.toolingu.com and your classes, please consider the following items:

Domains and IPs

If you or your organization restricts IP addresses and domain address, please have your IT administrator grant access permission to:

Required	Optional
- www.toolingu.com - toolingu.com - ajax.googleapis.com - ssl.google-analytics.com - www.google-analytics.com - lct.salesforce.com 209.162.176.43 209.162.176.45	- connect.facebook.com - platform.twitter.com - plusone.google.com
Required for Knowledge Edge	
- www.sme.org - www.brightcove.com	

Proxy and Firewall Settings

The current version of Tooling U-SME utilizes a newer Microsoft Technology known as Microsoft AJAX. If it is common for a student to see the following error while taking a class or a test, it may be due to highly restrictive proxy or firewall settings:

"Sys.WebForms.PageRequestManagerParserErrorExeption: The message received from the server could not be parsed. Common causes for this error are when the response is modified by calls to Response.Write(), response filters, HttpModules, or server trace is enabled."

The error above is commonly received when your connection is using a proxy server or is behind a firewall that restricts or removes unknown (HTTP) headers, causing an error when the user attempts to access areas of the Tooling U-SME website that utilize AJAX.

To resolve this, one of two solutions may be used:

1. Remove the restriction on unknown (HTTP) headers to prevent the proxy or firewall from re-writing HTTP request headers.
2. Add a new rule which allows the *"X-MicrosoftAjax Delta=true"* header value through the proxy or firewall to the user's computer.

Software Download Locations

- Microsoft Internet Explorer
  - http://www.microsoft.com/windows/ie/downloads/default.mspx
- Adobe Flash Player
  - http://get.adobe.com/flashplayer/
- Adobe Reader
  - http://get.adobe.com/reader/

Tooling U-SME Data Center

Tooling U-SME is located in a state-of-the-art data center featuring Robust Power & Power Monitoring, Environmental Systems, Fire Protection Services, and 24x7x365 Security, Physical Construction, Telecommunications, SAS 70, and PCI DSS compliance.

All Tooling U-SME hosting equipment is fully redundant and load balanced. This includes clustered web servers, SAN, database servers, firewalls, routers, and switches. Reliability, availability, security, and scalability are ensured by the use of proven, state-of-the-art technologies from EMC®, VMWare®, Dell®, and Cisco®.

The Tooling U-SME site runs on Microsoft .NET framework version 3.5 and is hosted on IIS 7.0 and Microsoft SQL Server 2008 R2 database with a comprehensive backup strategy to keep backups current and secure in an off-site location.

Audio, Video and Flash Support

Having Problems with the Audio, Video, or Interactive Exercises? Try our Troubleshooter:

http://www.toolingu.com/support