

**MM EU Socrates Erasmus Programme**  
**Master Programme**  
**Syllabus**  
**Course proposal**

**Course Title:** Getting an efficient LAMP (Linux, Apache, MySQL and PHP) platform

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**Syllabus**

<b>Purpose</b>	The target point is to enable students to install and configure as well as to handle the components of a LAMP infrastructure in an actual and efficient way.
<b>Learning Outcomes</b>	After completion of this course, students will be able to install and configure a Web platform used in many e-commerce Web-Sites. Students will integrate (install and configure) an Apache Web-Server into a Linux operating system. Both modules are to be configured in that manner, the implementation of a server side programming language like PHP is possible to realize providing dynamic contents. A database (MySQL) is to be installed and to be configured for use with PHP and Apache to provide interactive dynamical content for the web. This means the interaction between programming language and the database and distribution with Web-Server. Students will learn to implement these components for small business as well as for a Service Provider which needs to know virtual hosting and secure transaction systems like SSL.
<b>Course Summary</b>	This course is focused to impart knowledge needed to handle with one major Web-Site platform used all over the world to provide E-Business content on the internet.
<b>Course Structure</b>	Following is a proposed outline for the Getting an efficient LAMP platform course.
<b>Learning Assignments</b>	After each module assignments to the students will be done which are to be solved in collaborative work within each group. At the end of the course a project must be solved by working together in a new group formation.
<b>Tutorials Structure</b>	The class is divided in groups with min 2 persons and max 4 persons each. The class is split in several modules focusing on one specific theme. The several modules build up on one other. The focus is to work collaborative in the group and as individual to solve the tutorials and the assignments. Students are required to read additional information located in the internet and assigned with links within the guide.
<b>Interactive or Multimedia content</b>	Due to give all students equal conditions they will be required to work online in virtual labs on virtual computers. Therefore the amount of students able to do this class is <b>limited to 15 students</b> because of possible technical infrastructure (bandwidth, computer performance, and

	so on)
<b>Software needed</b>	Screenshot software like SnagIt or XP own, Adobe Acrobat Reader, FTP client, SSH client, VmWare Player, VNC viewer, (VPN client?),
<b>Prerequisite</b>	Essential for successfully passing: <ul style="list-style-type: none"> <li>• Basic understanding of networking and TCP/IP</li> <li>• Linux or Windows knowledge</li> <li>• Programming knowledge (Knowledge of one programming language)</li> <li>• Basic SQL knowledge</li> <li>• Basic HTML knowledge</li> </ul>
<b>References</b>	<p><b>Online Material:</b></p> <p><b>Linux:</b> <a href="http://www.chongluo.com/books/rute/rute.html">http://www.chongluo.com/books/rute/rute.html</a>,  <a href="http://www.linux-tutorial.info/modules.php?name=Tutorial&amp;pageid=67">http://www.linux-tutorial.info/modules.php?name=Tutorial&amp;pageid=67</a>)</p> <p><b>Fedora:</b> <a href="http://fedora.redhat.com">http://fedora.redhat.com</a></p> <p><b>Muliboot:</b>  <a href="http://www.justlinux.com/forum/showthread.php?s=&amp;threadid=130715">http://www.justlinux.com/forum/showthread.php?s=&amp;threadid=130715</a>,  <a href="http://www.vsubhash.com/writeups/multiboot_os.asp">http://www.vsubhash.com/writeups/multiboot_os.asp</a></p> <p><b>GNOME desktop:</b>  <a href="http://www.gnome.org/learn/users-guide/gnome2.14-user-guide.pdf">http://www.gnome.org/learn/users-guide/gnome2.14-user-guide.pdf</a></p> <p><b>Apache:</b> <a href="http://httpd.apache.org/docs/2.0/en">http://httpd.apache.org/docs/2.0/en</a></p> <p><b>SQL:</b> <a href="http://sqlzoo.net/">http://sqlzoo.net/</a>, <a href="http://dev.mysql.com/doc/refman/5.0/en/sql-syntax.html">http://dev.mysql.com/doc/refman/5.0/en/sql-syntax.html</a>.</p> <p><b>MySQL:</b> <a href="http://www.mysql.org/doc/">http://www.mysql.org/doc/</a>,</p> <p><b>HTML:</b> <a href="http://www.w3schools.com/default.asp">http://www.w3schools.com/default.asp</a>,  <a href="http://www.echoecho.com/html.htm">http://www.echoecho.com/html.htm</a></p> <p><b>Apache:</b>  <a href="http://httpd.apache.org/docs/">http://httpd.apache.org/docs/</a>,<a href="http://www.kplug.org/apache_tutorial/">http://www.kplug.org/apache_tutorial/</a>,</p> <p><b>PHP:</b> <a href="http://php.net/manual/en/">http://php.net/manual/en/</a>,  <a href="http://www.php.net/manual/en/funcref.php">http://www.php.net/manual/en/funcref.php</a>,  <a href="http://www.w3schools.com/php/">http://www.w3schools.com/php/</a></p> <p><b>Database design:</b>  <a href="http://www.peachpit.com/articles/article.asp?p=30885&amp;rl=1">http://www.peachpit.com/articles/article.asp?p=30885&amp;rl=1</a></p>
<b>Virtual Lab</b>	VmWare Server, Several domains (per student group at least 2 or sub domains), valid DNS server, capacity of virtual lab is limited (this means 4 to 5 groups <b>limited to 15 students</b> ) by hardware and software infrastructure as well as bandwidth provided by FH St. Pölten