

<b>Course unit title:</b>	Fundamentals of Internet Technologies
<b>Course unit code:</b>	INS 501
<b>Type of course unit: (Compulsory/optional)</b>	Optional
<b>Level of course unit: (First, second or third cycle)</b>	Master (2 <sup>nd</sup> Cycle)
<b>Year of study:</b>	Foundation Year
<b>Semester when the unit is delivered:</b>	1
<b>Number of ECTS credits allocated:</b>	6
<b>Name of lecturer(s):</b>	TBA
<b>Learning Outcomes of the course unit:</b>	
<p>Upon successful completion of this course students should be able to:</p> <ul style="list-style-type: none"> <li>• Explain the basic Internet concepts.</li> <li>• Write intermediate level scripts in web-programming languages.</li> <li>• Design Internet systems that fit with the larger organizational concept of a business.</li> <li>• Deploy Internet systems</li> </ul>	
<b>Mode of delivery:</b>	Face- to- face
<b>Prerequisites and co-requisites:</b>	INS 500 or equivalent
<b>Recommended optional program components:</b>	None
<b>Course Contents:</b>	
<p><b>Objective:</b> This course examines the functions of Internet systems and services. It focuses on providing the necessary tools to students so that they are able to design, develop and deploy Internet systems in the larger context of IS.</p> <p><b>Description:</b> Introduction: Introduction to the World Wide Web and the Internet; introduction to TCP/IP and networking; review of networking concepts; introduction to the Internet programming paradigm; overview of the connection between the various constituent sub-systems of an Internet-based information system.</p> <p>Overview of Internet systems components:</p>	

Network models; TCP/IP protocol; HTTP protocol; DNS; Proxies; Firewalls; Web Architecture.

Overview of the Internet programming paradigm:  
 Applets; Sockets; Web Client-Server paradigm; Servlets; Client-Side Scripting vs. Server-Side Scripting; XML and XSLT.

Special Topics:  
 Network Security; WWW Security; Identity Theft; Hacking; Semantic Web.

<p><b>Recommended or required reading:</b></p>	<p>Jackson, J. C. (2006). Web Technologies: A Computer Science Perspective. Boston, MA: Prentice Hall.</p> <p>Deitel, H., &amp; Deitel, P. (2007). Internet &amp; World Wide Web: How to Program. Upper Saddle River, NJ: Pearson Education.</p> <p>Krishnamurthy, B., &amp; Rexford, J. (2001). Web: Protocols and Practice. Boston, MA: Addison Wesley.</p> <p>Moller, A., &amp; Schwartzbach, M. (2006). An Introduction to XML and Web Technologies. Boston, MA: Addison Wesley.</p> <p>Fisher, M. (2006). Developer's Guide to Web Application Security. New York, NY: Syngress.</p> <p>Scambray, J., Shema, M., &amp; Sima, C. (2006). Hacking Exposed: Web Applications. Boston, MA: McGraw-Hill Osborne Media.</p> <p>Journals:          ACM Transactions on Information Systems          ACM Transactions on Information and System Security          ACM Transactions on the Web          IEEE/ACM Transactions on Networking</p>
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<p><b>Planned learning activities and teaching methods:</b></p>	<p>Class Instruction</p> <p>Consultation</p>	<table border="1"> <tr> <td data-bbox="1036 1579 1274 1675">42 Hours</td> </tr> <tr> <td data-bbox="1036 1675 1274 1766">30 Hours</td> </tr> </table>	42 Hours	30 Hours
42 Hours				
30 Hours				

<b>Assessment methods and criteria:</b>	<table border="1"> <tr> <td data-bbox="630 264 1078 300">Examinations</td> <td data-bbox="1078 264 1317 300">50%</td> </tr> <tr> <td data-bbox="630 300 1078 336">Project/ Class Participation</td> <td data-bbox="1078 300 1317 336">50%</td> </tr> <tr> <td data-bbox="630 336 1078 371"></td> <td data-bbox="1078 336 1317 371">100%</td> </tr> </table>	Examinations	50%	Project/ Class Participation	50%		100%
Examinations	50%						
Project/ Class Participation	50%						
	100%						
<b>Language of instruction:</b>	English						
<b>Work placement(s):</b>	No						
<b>Place of Teaching:</b>	Regular Classroom European University Cyprus, Nicosia  Computer Laboratory European University Cyprus, Nicosia						