

**Princess Sumaya University of Technology**  
**Computer Engineering Department**  
**22541: Computer Architecture**  
**Fall 2010**

<b>Instructor</b>	Dr. Gheith Abandah	
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<b>Office</b>	EE 448	
<b>Office Hours</b>	Sun 12:00 -1:00, Mon 11:30-12:30, and Thu 10:00-11:00	
<b>Prerequisites</b>	22341: Computer Organization	
<b>Time and Room</b>	Mon and Wed 8:00-9:30	in Room EE 343
<b>Textbook</b>	Patterson and Hennessy. Computer Organization & Design: The Hardware/Software Interface, 4th ed., Morgan Kaufmann, 2009.	
<b>References</b>	<ol style="list-style-type: none"><li>1. Hennessy and Patterson. Computer Architecture: A Quantitative Approach, 4th ed., Morgan Kaufmann, 2007.</li><li>2. J. Hayes. Computer Architecture and Organization, 3rd ed., McGraw-Hill, 1998.</li><li>3. M. Mano. Computer System Architecture, 3rd ed., Prentice Hall, 1993.</li></ol>	
<b>Grading</b>	First Exam	25%
	Second Exam	25%
	Two Homeworks	10%
	Final Exam	40%
<b>Policies</b>	<ul style="list-style-type: none"><li>• Attendance is required.</li><li>• All submitted work must be yours.</li><li>• Cheating will not be tolerated.</li><li>• Homeworks are due on the 1<sup>st</sup> and 2<sup>nd</sup> exams dates.</li><li>• This course requires significant effort.</li></ul>	
<b>Tentative Outline</b>	<ul style="list-style-type: none"><li>• Introduction</li><li>• Measuring and Summarizing Performance (1.4-1.10)</li><li>• Advanced Instruction-Level Parallelism (4.10-4.15) <i>First Exam</i></li><li>• Memory Hierarchy (5.1-5.13)</li><li>• Storage and I/O (6.1-6.14) <i>Second Exam</i></li><li>• Multicores, Multiprocessors, and Clusters (7.1-7.14) <i>Final Exam</i></li></ul>	