

<b>Date:</b>	Examination No.:	Version:2023-2024	Start: 03/09/2023
<b>Module Name - Code</b>	Digital system design		
<b>Module Language:</b>	English		
<b>Responsible:</b>	Nuraddin taha huseen		
<b>Lecture (s):</b>	Nuraddin taha huseen		
<b>College:</b>	College of Engineering – Salahaddin University-Erbil		
<b>Duration:</b>	15 week – 1 semester		
<b>Course outcomes:</b>	<p>The purpose of this course is to learn the numbering system and the identification of logic gates and to study ways to design logical circuits using these gates and a study of commonly used services such as adder, subtractor, multiplexer and de multiplexer</p> <p>And finally identify the flip-flops and their use in circuits such as logical registers and counters</p>		
<b>Course Content:</b>	<ol style="list-style-type: none"> <li>1. logic families</li> <li>2. C-Mos logic circuits</li> <li>3. Semiconductor Memories</li> <li>4. PLD</li> </ol>		
<b>Literature:</b>	<ul style="list-style-type: none"> <li>• S.N.Ali, Digital Electronics-Circuits,Systems</li> <li>• A.P Godes Digital design</li> </ul>		
<b>Type of Teaching:</b>	3 hrs. in lectures "Theoretical"		
<b>Pre-requisites:</b>	None		
<b>Preparation Modules:</b>			
<b>Frequency:</b>	Fall Semester		
<b>Requirements for credit points:</b>	<p>For the award of credit points, it is necessary to pass the module exam. It contains: More than one examination during the academic semester, Assignments and Final examination.</p> <p><b>Student's attendance is required in all classes.</b></p>		
<b>Credit point:</b>	5		

<b>Grade Distribution:</b>	<p>The following grade system is used for the evaluation of the module exam: The module exam is based on the summation of two categories of evaluations: <b>First: (40%)</b> of the mark is based on the academic semester effort which includes</p> <ul style="list-style-type: none"><li>- More than one examination during the academic semester and assignments 15%</li><li>- Midterm exam 20%</li></ul> <p>Practical part 15%</p> <p><b>Second: (40%)</b> of the mark is based on final examination that is comprehensive for the whole of the study materials reviewed during the academic semester. 10% practical final examination</p>
<b>Work load:</b>	<p>The workload is 45 hrs.</p>