

W	Monday – on campus	To do at home before Wed	Wednesday – on campus	To do at home before next Mon	2024
2	Introduction	Si material properties		Metal-semiconductor junctions	
	Introduction lecture at 12:15 – 14 - Course practicalities - Introduction to the course topics	<ul style="list-style-type: none"> <li>Watch the following lecture videos:               <ul style="list-style-type: none"> <li>Semiconductor physics (recap of pre-requisite)</li> <li>Si material properties</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Guest lecture at 12:15 – 13               <ul style="list-style-type: none"> <li>Iiro Lehto from Okmetic Inc.</li> <li>Si ingot and wafering</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Watch the following lecture video:               <ul style="list-style-type: none"> <li>Metal-Semiconductor junctions</li> </ul> </li> <li>Start preparing the exercise set 1 (Ex1) and quizzes 1-2</li> </ul>	
3	Si material properties and metal-semiconductor junctions			Silicon solar cells	
	Exercise session 1 at 12:15 – 14 - Help available by TAs	<ul style="list-style-type: none"> <li>Submit lecture Quiz 1 &amp; Quiz 2 (DL Wed at noon)</li> <li>Finalise the exercise set 1 (DL Tue midnight 23:55)</li> </ul>	<ul style="list-style-type: none"> <li>Recap of lectures and quizzes at 12:15 – 13</li> <li>Prepare to present the correct answers for Ex1 at 13:15</li> </ul>	<ul style="list-style-type: none"> <li>Watch the following lecture videos:               <ul style="list-style-type: none"> <li>Silicon solar cells I &amp; II</li> </ul> </li> <li>Start preparing the exercise set 2 (Ex2) and quizzes 3-4</li> </ul>	
4	Silicon solar cells			Device fabrication and detectors	
	Exercise session 2 at 12:15 – 14 - Help available by TAs	<ul style="list-style-type: none"> <li>Submit lecture Quiz 3 &amp; Quiz 4 (DL Wed at noon)</li> <li>Finalise the exercise set 2 (DL Tue midnight 23:55)</li> </ul>	<ul style="list-style-type: none"> <li>Recap of lectures and quizzes at 12:15 – 13</li> <li>Prepare to present the correct answers for Ex2 at 13:15</li> </ul>	<ul style="list-style-type: none"> <li>Watch the following lecture videos:               <ul style="list-style-type: none"> <li>Semiconductor device fabrication</li> <li>Semiconductor detectors</li> </ul> </li> <li>Start preparing the exercise set 3 (Ex3) and quizzes 5-6</li> </ul>	
5	Device fabrication and detectors			MOS and MOSFETs	
	Exercise session 3 at 12:15 – 14 - Help available by TAs	<ul style="list-style-type: none"> <li>Submit lecture Quiz 5 &amp; Quiz 6 (DL Wed at noon)</li> <li>Finalise the exercise set 3 (DL Tue midnight 23:55)</li> </ul>	<ul style="list-style-type: none"> <li>Guest Lecture at 12:15               <ul style="list-style-type: none"> <li>Evgeny Shelegeda from Ametek Inc.</li> <li>X-ray detectors (Si-PIN and Fast SDD)</li> </ul> </li> <li>Recap of lectures and quizzes</li> <li>Prepare to present the correct answers for Ex3</li> </ul>	<ul style="list-style-type: none"> <li>Watch the following lecture videos:               <ul style="list-style-type: none"> <li>MOS capacitors</li> <li>MOSFET I &amp; II</li> </ul> </li> <li>Start preparing the exercise set 4 (Ex4) and quizzes 7-9</li> </ul>	
6	MOS and MOSFETs			Summary	
	Exercise session 4 at 12:15 – 14 - Help available by TAs	<ul style="list-style-type: none"> <li>Submit lecture Quiz 7-9 (DL Wed at noon)</li> <li>Finalise the exercise set 4 (DL Tue midnight 23:55)</li> </ul>	<ul style="list-style-type: none"> <li>Recap of lectures and quizzes at 12:15 – 13</li> <li>Prepare to present the correct answers for Ex4 at 13:15</li> </ul>	<ul style="list-style-type: none"> <li>Recap the course material and prepare yourself for the summary exercise and oral discussion</li> </ul>	
7	Summary				
	Group exercise 12:15 – 15 - Summary	<ul style="list-style-type: none"> <li>Recap the course material and prepare yourself for the oral discussion</li> </ul>	<ul style="list-style-type: none"> <li>Pair discussion exercise (15 min)               <ul style="list-style-type: none"> <li>Time slots available between 8-17 (possibly on Friday too)</li> </ul> </li> </ul>		

Mondays: Short theory / help available by TAs related to the weekly exercises

Wednesdays: Quiz answers/discussion by teachers followed by demo exercises by the students