



<b>Course Title</b>	
Selected Chapters in Cancer Biology	
<b>Lecturers</b>	
Prof. Dinorah Friedman-Morvinski, Prof. Vered Padler-Karavani, Dr. Lior Mayo, Prof. Gali Prag, Prof. Adit Ben-Baruch	
<b>Semester</b>	
2 <sup>nd</sup> semester (Bet)	
<b>Course requirements</b>	
Molecular Biology and Biotechnology (04552549), Immunology (04552688), Cell Biology (04551510), Genetics (04552526)	
<b>Final grade components</b>	
Final exam	
<b>Course schedule</b>	
Class no. / Date	Subject and Requirements (assignments, reading materials, tasks, etc.)
#1-	Introduction-Hallmarks of Cancer
#2-	Mouse models of Cancer <ul style="list-style-type: none"> <li>○ Mutagenic induced models</li> <li>○ Allograft/Xenograft models</li> <li>○ Transgenic/Knockout models</li> <li>○ Viral induced models</li> </ul>
#3-	Tumor heterogeneity and Cancer Stem Cells <ul style="list-style-type: none"> <li>○ Stem cells/Cancer Stem Cell</li> <li>○ Tumor plasticity</li> <li>○ Tumor heterogeneity (spatial, temporal, intra and inter-heterogeneity)</li> </ul>
#4-	Tumor angiogenesis <ul style="list-style-type: none"> <li>○ Normal and neoplastic endothelial cells</li> <li>○ Angiogenic switch</li> <li>○ Anti-angiogenic therapies</li> </ul>
#5-	Cancer glyco-immunology <ul style="list-style-type: none"> <li>○ Carbohydrates in tumor initiation, progression and metastasis</li> <li>○ Glycan receptors in tumor initiation, progression and metastasis</li> </ul>
#6-	Cancer glyco-immunology <ul style="list-style-type: none"> <li>○ Involvement of glycans in the hallmarks of cancer</li> <li>○ Novel approaches for glycol-therapy of cancer</li> </ul>
#7-	Tumor microenvironment <ul style="list-style-type: none"> <li>○ Players of the TME - Stroma cells</li> </ul>



# Full Syllabus

#8-	Tumor microenvironment <ul style="list-style-type: none"> <li>○ Reprogramming of the TME</li> </ul>
#9-	Tumor microenvironment <ul style="list-style-type: none"> <li>○ Metabolic Interactions in the Tumor Microenvironment</li> <li>○ Dissecting the Tumor Microenvironment</li> </ul>
#10-	Immunotherapy I <ul style="list-style-type: none"> <li>● Tumor infiltrating lymphocytes (TILs, TILs in cancer therapy)</li> </ul>
#11-	Immunotherapy II <ul style="list-style-type: none"> <li>○ Immune checkpoints</li> <li>○ Engineered T cells</li> </ul>
#12-	Cancer therapeutics <ul style="list-style-type: none"> <li>○ Undruggable oncoproteins/example: Transcription factors</li> <li>○ Viruses in cancer therapy</li> </ul>
#13-	Cancer therapeutics <ul style="list-style-type: none"> <li>○ PROTAC – a novel modality for cancer therapy.</li> </ul>

### Required course reading

Each lecturer will post the reading material in the course website

### Optional course reading

### Comments