

Course title	Cancer				
Course code	GEMD-303				
Course type	Required				
Level	Undergraduate				
Year / Semester	Year 3, Semester 6				
Teacher's name	Myria Galazi				
ECTS	13	Teaching Periods per Week			
		Large Group Learning	Small Group Learning	Laboratories & Skills	Clinical Practice
		6	6	5	6
Course purpose and objectives	<p>The aim of the course is:</p> <ul style="list-style-type: none"> • to provide the students with an understanding of the cellular and molecular mechanisms leading to neoplasia • to provide the students with an understanding of the pathology of cancer • to introduce the students to the various clinical manifestations of malignant disease • to introduce the students to the investigative and therapeutic principles underlying the management of cancer • to develop the student's consultation skills and professional competencies in relationship to managing patients with cancer and their families 				
Learning outcomes	<p>At the end of the course, the student will be able to:</p> <p><i>Knowledge</i></p> <ol style="list-style-type: none"> 1. Define the concept of neoplasia 2. Explain the development of cancer in the light of current understandings of cell growth, division and differentiation 3. Describe the role of ligand-receptor binding in the natural history of cancer and relate this knowledge to modern therapeutic approaches 4. Compare and contrast the pathological features of atypical hyperplasia, carcinoma in situ and carcinoma and discuss their significance in common clinical scenarios 5. Explain the role of oncogenes and tumour suppressor genes in the development of cancer 6. Discuss the relevance to clinical practice of familial cancer syndromes 7. Explain the role of environmental factors as initiators and promoters of cancer and discuss public health measures to mitigate the harm 8. Discuss the cellular and molecular mechanisms of metastasis including the role of angiogenesis 				

	<p>9. Explain the clinical manifestations of metastases of common cancers using knowledge of the anatomy of the relevant organs, their blood supply and lymphatic drainage</p> <p>10. Discuss the role of blood tests (including tumour markers) in the investigation and management of cancers</p> <p>11. Describe the principles underlying commonly used investigative tools including ultrasound, CT scan, MRI, Bone scan, PET scan. Compare and contrast the indications for each modality in a given case</p> <p>12. Discuss the importance of histological diagnosis of cancer and describe a variety of methods for obtaining a biopsy</p> <p>13. Discuss the strengths and weaknesses of the common modalities of cancer treatment including surgery, radiotherapy, cryotherapy, laser therapy, chemotherapy, hormone therapy, and monoclonal antibody therapy</p> <p>14. Explain the mechanism of action and major side effects of the most common forms of chemotherapy, hormone therapy and monoclonal antibody therapy</p> <p>15. Define the term radical treatment</p> <p>16. Compare and contrast treatment with curative intent from treatment with palliative intent. Discuss the indications for each</p> <p>17. Discuss the concept of adjuvant and neo-adjuvant treatment and their role in the management of patients</p> <p>18. Discuss the impact of cancer on the psychosocial wellbeing of patients</p> <p>19. Discuss the impact of psychosocial factors on the oncological outcomes of patients with cancer</p> <p>20. Explain the principles behind an effective screening programme for cancer and give examples of working screening programmes. Discuss the benefits and potential drawbacks of screening for cancers</p> <p><i>Skills</i></p> <p>21. Take a focused history from a patient with cancer, formulate a differential diagnosis and outline an efficient plan of investigation</p> <p>22. Take a relevant family history from a patient with cancer</p> <p>23. Carry out a clinical examination of a patient with cancer including an appropriate assessment for the presence of lymphatic spread or metastases</p> <p>24. Deliver the diagnosis of cancer and explain the implications to a patient and their significant others in a clear and compassionate manner</p> <p><i>Professional Competencies</i></p> <p>25. Explain the role of the multidisciplinary team in the management of a patient with cancer</p> <p>26. Recognise and acknowledge the importance of psychosocial factors for a patient with cancer</p> <p>27. Debate the ethical issues surrounding end of life care</p> <p>28. Discuss the economic and ethical issues associated with the use of expensive interventions for limited gain</p>		
Prerequisites	None	Required	None
Course content	<ul style="list-style-type: none"> • The cellular and molecular biology of cancer 		

	<ul style="list-style-type: none"> • The presentation and progress of cancer • Rational approaches to the diagnosis and staging of cancer including the use of modern imaging approaches • The principles underlying the management of cancer with the available modalities including innovative therapeutic approaches 																								
Teaching methodology	<p>Lectures – normally two face-to-face, two on-line p/week</p> <p>Tutorials – two case-based learning small group sessions, two expert-led class discussions/debates</p> <p>Flipped classroom activities</p> <p>Community and/or hospital visits each week, relating to the case of the week</p> <p>Student centred learning/self-study</p>																								
Bibliography	<p>Required textbooks/reading</p> <table border="1"> <thead> <tr> <th>Authors</th> <th>Title</th> <th>Edition</th> <th>Publisher</th> <th>Year</th> <th>ISBN</th> </tr> </thead> <tbody> <tr> <td>Govindan, R and Morgensztern D</td> <td>Devita, Hellman and Rosenberg's Cancer</td> <td>5th</td> <td>Lippincott, Williams & Wilkins</td> <td>2021</td> <td>9781975151881</td> </tr> </tbody> </table> <p>Recommended textbooks/reading</p> <table border="1"> <thead> <tr> <th>Authors</th> <th>Title</th> <th>Edition</th> <th>Publisher</th> <th>Year</th> <th>ISBN</th> </tr> </thead> <tbody> <tr> <td>Niederhuber, JE, Armitage, JO., Doroshow, JH, Kastan MB, Tepper, JE</td> <td>AJCC Cancer Staging Atlas</td> <td>6th</td> <td>Springer</td> <td>2012</td> <td>978-0323476744</td> </tr> </tbody> </table>	Authors	Title	Edition	Publisher	Year	ISBN	Govindan, R and Morgensztern D	Devita, Hellman and Rosenberg's Cancer	5th	Lippincott, Williams & Wilkins	2021	9781975151881	Authors	Title	Edition	Publisher	Year	ISBN	Niederhuber, JE, Armitage, JO., Doroshow, JH, Kastan MB, Tepper, JE	AJCC Cancer Staging Atlas	6th	Springer	2012	978-0323476744
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Assessment	<p>The course will be assessed at the end of Semester 6 with a Summative Final Examination consisting of Single Best Answer MCQs (SBAs) and Short Answer Questions (SAQs). Clinical and consultation skills will be assessed in an OSCE</p>																								
Language	English																								