

Cancer Concepts (CAC) – FOM1

FM-107 24 course hours

Updated November 2018

Cancer Concepts (CA) is a component of the UMMS bridge curriculum occurring at the end of the FOM1 academic year. The content and approach in the bridge curriculum are designed to serve as a transition between FOM1 and FOM2.

Through CA, students combine basic principles from FOM1 courses with cancer concepts into applied cancer care in preparation for FOM2. Content is integrated across several disciplines. Material is presented in the context of clinical medicine, incorporating diagnostic imaging, radiation oncology, surgical oncology, medical oncology, presenting signs and symptoms, oncologic emergencies, paraneoplastic syndromes, societal implications, prevention, and screening. Special attention is placed on weaving the Cancer Concepts into specific clinical cases to prepare the student for the Organ System Disease course and the clinical years. **Teaching methods are based on case-based instructional learning based on lecture, independent learning and small group discussion, in which students take the responsibility to lead topic-focused sessions.**

After completion of the CaC course, MS1 will be able to:

- Describe the pathologic changes cells undergo as they transform from normal to cancer (Physician as a Scientist and Clinical Problem Solver)
- Define an oncogene (Physician as a Scientist and Clinical Problem Solver)
- List some oncogene examples and their function (Physician as a Scientist and Clinical Problem Solver)
- Define a tumor suppressor gene (Physician as a Scientist and Clinical Problem Solver)
- List some tumor suppressor gene examples and their function (Physician as a Scientist and Clinical Problem Solver)
- Explain how cancers evade immune system control (Physician as a Scientist and Clinical Problem Solver)
- Describe the process of metastasis (Physician as a Scientist and Clinical Problem Solver)
- Define angiogenesis and why cancers need it (Physician as a Scientist and Clinical Problem Solver)
- Identify the routes of spread and patterns of metastasis for different cancers (Physician as a Scientist and Clinical Problem Solver)
- Describe the various ways cancer presents in a patient and the approach to patient care as cancers progress (Physician as a Scientist and Clinical Problem Solver)
- Explain the major reasons that surgery is used when treating or diagnosing cancer (Physician as a Scientist and Clinical Problem Solver)
- Explain the major reasons that radiation is used when treating cancer (Physician as a Scientist and Clinical Problem Solver)
- Describe the major reasons that drugs are used when treating cancer (Physician as a Scientist and Clinical Problem Solver)
- Describe the mechanism of action, metabolism & toxicity of chemotherapy drugs by class (Physician as a Scientist and Clinical Problem Solver)
- Describe successful cancer prevention interventions and how they work (Physician as a Scientist and Clinical Problem Solver)

- Describe effective cancer screening techniques and the characteristics of an effective cancer screening (Physician as a Scientist and Clinical Problem Solver)
- Explain the stage and grade of cancer and the stages of cancer (Physician as a Scientist and Clinical Problem Solver)
- Compare pediatric oncology and adult oncology (Physician as a Clinical Problem Solver)
- Describe the long term health issues cancer survivors might have to deal with (Physician as an Advocate and Communicator)
- Describe oncologic emergencies (Physician as a Scientist and Clinical Problem Solver)
- Describe paraneoplastic syndromes and the common ones (Physician as a Scientist and Clinical Problem Solver)

Student competency is assessed by student attendance, formative and summative assessments (quizzes, exam and assignments.)

Course co-leaders

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