



### **Course Description**

#### **MLT2809L | Hospital Practicum: Hematology | 3.00 credits**

A supervised laboratory rotation in a clinical hematology facility. This provides the student an opportunity for the practice of skills previously learned and for the acquisition of new procedural skills. The development of interpersonal skills and the transition from student to professional are emphasized. Prerequisites: MLT1300, 1300L, 1330, 1330L; corequisite: MLT2930.

### **Course Competencies:**

**Competency 1:** The student will demonstrate knowledge of instrumentation and quality control by:

1. Performing QC checks with supervision
2. Identifying the written protocol and understanding the procedure manual containing all of the pertinent information along with references, and adequate facilities and time should be available for the purpose of QC.
3. Identifying the three very important aspects of QC in hematology which are calibration of automated instruments, monitoring of accuracy and precision of instruments and procedures, and verifying the reliability of test results.

**Competency 2:** The student will demonstrate knowledge of a complete blood count by:

1. Performing a complete blood count (CBC)
2. Recognizing all maturation stages of white cells.
3. Distinguishing normal and abnormal red and white cell maturation.
4. Recognizing macrocytosis, microcytosis, anisocytosis, and poikilocytosis
5. Identifying and naming poikilocytes found in diseases of the blood.
6. Identifying and naming inclusion bodies in red and white cells

**Competency 3:** The student will demonstrate knowledge of abnormalities in the blood smear by:

1. Performing a blood smear
2. Correlating the morphological findings with the appropriate disease.
3. Identifying the presence of blasts and relating their presence to the type of leukemia.
4. Correlating the blood smear characteristics with the type of hemoglobinopathy
5. Correlating the blood smear characteristics with the type of leukemia

**Competency 4:** The student will demonstrate knowledge of anemia, certain cancers of the blood, inflammatory diseases, blood loss and infection by:

1. Identifying symptoms and treatment of choice for the different hematological disorders
2. Providing aid in solving case studies relevant to the hematological abnormalities.
3. Performing or observing advanced hematology testing including flow cytometry testing for lymphomas, leukemias, plasma cell neoplasms, systemic mastocytosis, paroxysmal nocturnal hemoglobinuria and other lymphoproliferative disorders

### **Learning Outcomes:**

1. Communication
2. Numbers / Data
3. Critical Thinking
4. Computer / Technology Usage