



UNIVERSITÀ  
DEGLI STUDI DI MILANO-BICOCCA

## COURSE SYLLABUS

### Hematology

2122-3-H4102D058-H4102D075M

---

#### Aims

At the end of the clerkship the student has the knowledge to recognize and interpret the main diseases of the blood and lymphatic system.

- acute myeloid and lymphoid leukemias
- chronic myeloid leukemia
- chronic myeloproliferative diseases: polycythemia Vera, essential thrombocythemia and idiopathic myelofibrosis
- indolent Non-Hodgkin lymphoma
- aggressive Non-Hodgkin lymphoma
- Hodgkin Lymphoma
- Multiple Myeloma
- Monoclonal Gammopathies of Undetermined Significance (MGUS) and Waldenstrom macroglobulinemia
- aplastic anemia and nocturnal paroxysmal hemoglobinuria (EPN)
- hemolytic anemias

- idiopathic thrombocytopenic purpura (ITP)

Furthermore, the student has the knowledge to describe the main therapeutic treatments of the diseases described above, with particular attention to the methods of use of:

- autologous hematopoietic stem cell transplantation
- allogeneic transplantation of hematopoietic stem cells
- new immunotherapies (including CAR-T)

The student is able to describe the principles of the morphological and molecular diagnostics of the hematological diseases and the basis of the Transfusion Medicine.

## **Contents**

### HEMATOLOGY I

1. Clinical approach to the ambulatory patient presenting with hemorrhagic symptoms
2. Clinical approach to the ambulatory patient presenting with thrombotic symptoms
3. Management of the outpatient anticoagulation clinics
4. Laboratory diagnosis of coagulation disorders
5. Aphaeretic therapies
6. Blood transfusion therapy
7. Phlebotomy
8. Plasma exchange treatments

### HEMATOLOGY II

1. The clinical history of Acute Leukemia
2. The clinical history of chronic myelogenous leukemia
3. The clinical history of Polycythemia Vera, Essential Thrombocythemia, Myelofibrosis

4. The clinical history of indolent Non-Hodgkin Lymphoma
5. The clinical history of aggressive Non-Hodgkin Lymphoma
6. The clinical history of Hodgkin Lymphoma
7. The clinical history of Multiple Myeloma
8. The clinical history of Monoclonal gammopathy of Undetermined Significance (MGUS) and Waldenstrom macroglobulinemia
9. The clinical history of aplastic anemia and nocturnal paroxysmal hemoglobinuria
10. The clinical history of hemolytic anemias
11. Autologous Hematopoietic stem cell transplantation
12. Allogeneic hematopoietic stem cell transplantation
13. New Immunotherapies (including CAR-T cells)
14. Immune Thrombocytopenic Purpura (ITP)
15. The morphologic diagnosis of hematologic diseases: principle of flow cytometry
16. The molecular diagnosis of hematologic diseases

## **Detailed program**

### HEMATOLOGY I

1. Clinical approach to the ambulatory patient presenting with hemorrhagic symptoms
2. Clinical approach to the ambulatory patient presenting with thrombotic symptoms
3. Management of the outpatient anticoagulation clinics
4. Laboratory diagnosis of coagulation disorders
5. Aphaeretic therapies
6. Blood transfusion therapy
7. Phlebotomy
8. Plasma exchange treatments

## HEMATOLOGY II

1. The clinical history of Acute Leukemia
2. The clinical history of chronic myelogenous leukemia
3. The clinical history of Polycythemia Vera, Essential Thrombocythemia, Myelofibrosis
4. The clinical history of indolent Non-Hodgkin Lymphoma
5. The clinical history of aggressive Non-Hodgkin Lymphoma
6. The clinical history of Hodgkin Lymphoma
7. The clinical history of Multiple Myeloma
8. The clinical history of Monoclonal gammopathy of Undetermined Significance (MGUS) and Waldenstrom macroglobulinemia
9. The clinical history of aplastic anemia and nocturnal paroxysmal hemoglobinuria
10. The clinical history of hemolytic anemias
11. Autologous Hematopoietic stem cell transplantation
12. Allogeneic hematopoietic stem cell transplantation
13. New Immunotherapies (including CAR-T cells)
14. Immune Thrombocytopenic Purpura (ITP)
15. The morphologic diagnosis of hematologic diseases: principle of flow cytometry
16. The molecular diagnosis of hematologic diseases

### **Prerequisites**

Basic Clinical Skills course

### **Teaching form**

Practical guided observation activities with briefings and debriefings by hospital tutors

### **Textbook and teaching resource**

TO BE DEFINED

**Semester**

SECOND TERM

**Assessment method**

practical skills observation and rating scale assessment

**Office hours**

APPOINTMENT BY EMAIL

---