

# Biology 344 INTRODUCTION TO HEMATOLOGY

## Section 001 – Spring 2024

**INSTRUCTOR:** Mallory Janquart,  
MS,MLS(ASCP)<sup>CM</sup>  
Director, Medical Laboratory Science Program  
**OFFICE:** Halsey Science Center - Room 127  
**OFFICE HOURS:** By appointment only  
**PHONE:** 424-1487

**CLASS:** MLS Lab HS 28  
**TIME:** Lecture: M 11:30--12:30 HS 266  
F 10:20--12:30 HS 266  
Lab: W 11:30--1:40 HS 28  
**CREDITS:** 3

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**Required Texts:** Clinical Hematology Atlas, 5th edition, Rodak and Carr

**Course Description:** An introduction to the basic techniques used in the chemical and microscopic examination of blood. Morphology of blood cells is emphasized. (Primarily for Medical Technologists) As a part of this course, students will be instructed in universal precautions for handling blood and body fluids consistent with U.S. Center for Disease Control and Prevention guidelines. Prerequisite: Biology 341 and consent of instructor.

### Course Objectives:

- Students will demonstrate the theoretical knowledge and technical skills necessary to effectively function in Hematology by performing routine clinical laboratory tests, evaluating normal and abnormal differentials, and demonstrate proficiency with the instrumentation in use at their clinical site.
- Students will be able to anticipate and correlate expected test results and provide identification and confirmation of disease processes in the field of Hematology.

### Grading Policy

Exams (4)	100 points each
Lab Exam – Practical	100 points
Differential Project	100 points
Case Study Project	50 points
Quizzes	10 points each
Laboratory Safety	50 points

A	=	100-94
A-	=	93-90
B+	=	89-87
B	=	86-83
B-	=	82-80
C+	=	79-77
C	=	76-74
C-	=	73-70
D+	=	69-67
D	=	66-64
D-	=	63-60
F	=	<60

\*\*Attendance is mandatory, habitual tardiness is not acceptable; - 5 points for each unexcused absence.

**Biology 344 INTRODUCTION TO HEMATOLOGY**

<b>WEEK OF:</b>	<b>LECTURE DAY</b>	<b>LECTURE TOPIC</b>	<b>LAB TOPIC</b>
(1) Feb. 5	1 2	General Instructions The Organelles of the Cell	OSHA Regulations
(2) Feb. 12	3 4	The Organelles of the Cell Hematopoiesis	Preparation and Staining of Differential Smears
(3) Feb. 19	5 6	Hematopoiesis Differentiation and Development	Examination of Normal Differentials
(4) Feb. 26	7 8	Differentiation and Development Principles of Staining	Differential Counting
(5) Mar. 4	9 10	<b>Exam 1</b> Differentiation of Granulocytes	Unknown Differentials
(6) Mar. 11	11 12	Differentiation of Lymphocytes Differentiation of Monocytes	Examination of Abnormal Differentials
(7) Mar. 18	13 14	Erythrocytes: Development Erythrocytes: Structure and Function	Hematocrit and Hemoglobin
March 25		<b>SPRING BREAK!</b>	
(8) April 1	15 16	Production of Hemoglobin Production of Hemoglobin	Erythrocyte and Leukocyte Count
(9) April 8	17 18	<b>Exam 2</b> Erythrocyte Disorders	Erythrocyte and Leukocyte Count
(10) April 15	19 20	Erythrocyte Disorders Erythrocyte Disorders	Reticulocyte Count & Blood Indices
(11) April 22	21 22	Erythrocyte Disorders Leukocyte Disorders	Platelet Count & Examination of Slides
(12) April 29	23 24	Leukocyte Disorders <b>Exam 3</b>	Skills Practice
(13) May 6	25 26	Hemostasis Hemostasis	Prothrombin Time, Partial Thromboplastin Time
(14) May 13	27 28	Bleeding Disorders <b>Exam 4</b>	Lab Practical Exam

**\*NOTE:** This schedule will be modified after a review of the Medical Bacteriology (Biology 312/313) and Introduction to Instrumental Analysis (Chem 320) semester schedules. Changes will be made to minimize examination conflicts and will be announced in class.

## NOTIFICATIONS:

### DISABILITY SERVICES

It is the policy and practice of UW Oshkosh to create an inclusive learning environment. If there are aspects of the instruction or design of this course that result in barriers to your inclusion, please notify me as soon as possible. If you do not have an approved accommodation plan, please complete a registration form through [Accommodate: https://uwosh-accommodate.symplicity.com/public\\_accommodation/](https://uwosh-accommodate.symplicity.com/public_accommodation/)

### VETERANS

Veteran, active duty, reserve, or national guard students with military-affiliated special circumstances (e.g., upcoming deployments, drill requirements, disabilities, VA appointments, etc.) should communicate these with as much notice as possible. I will work with you and / or put you in contact with the Veterans Resource Center at (920) 424-1804 or [veterans@uwosh.edu](mailto:veterans@uwosh.edu) or other University staff who are trained to assist you.

### ATTENDANCE

Students are expected to attend each class and to remain for the duration. Coming 5 minutes late or leaving 5 minutes early constitutes an absence for the student. Students who miss class due to illness or other significant personal are encouraged to complete the Out of Class Letter Process through the Dean of Students Office (Dempsey, Room 125). After the instructor receives notification from the Dean of Students office it will be up to the instructor's discretion to excuse the absence.

### ACADEMIC INTEGRITY

Academic Integrity is critical to the mission of the University of Wisconsin Oshkosh. All members of the University community play a role in fostering an environment in which student learning is achieved in a fair, just and honest way. Faculty and instructional staff set the tone in their classrooms by communicating clear expectations to their students and educating them on the consequences of engaging in academic misconduct while referring to campus resources. Students are expected to uphold the core values of academic integrity which include honesty, trust, fairness, respect and responsibility. These core values, combined with finding one's purpose and passion and applying them in and out of classroom learning, produce students who become extraordinary citizens.

Students are advised to see the following URL for disclosures about essential consumer protection items required by the Students Right to Know Act of 1990: <https://uwosh.edu/financialaid/consumer-information/>.

### ELECTRONIC DEVICES

The use of electronic devices (computers, cell phones, recorders, etc) during class, lab exercises, or exams must be individually approved by the course instructor.