

**COURSE DESCRIPTION WITH STUDENT OUTCOMES**

**LORAIN COUNTY COMMUNITY COLLEGE**

**DIVISION:** Allied Health and Nursing

**COURSE TITLE:** Advanced Hematology and Hemostasis

**COURSE NUMBER:** CLSC 134

		Contact Hours/Week			Weight		ILU's			
<b>LECTURE/RECITATION</b>	=	2	X	<b>LECTURE/RECITATION</b>	(1.0)	=	2			
<b>LAB</b>	=	1.5	X	<b>LAB</b>	(0.85)	=	1.28			
<b>CLINICAL</b>	=		X	<b>CLINICAL</b>	(1.0)	=				
*	=			*		=				
*	=			*		=				
<b>TOTAL CONTACT HOURS:</b>	=	3.5		<b>TOTAL COURSE ILU's</b>		=	3.28	<b>CREDIT HOURS:</b>	=	2

\* Please refer to the “Quality Point Checklist for New and Revised Courses” and/or Pages 500.01 through 500.05 of the Ohio Board of Regents Operating Manual for Two-Year Campus Programs for Instructional Arrangements that are not identified as Lecture/Recitation, Lab or Clinical. ([http://regents.ohio.gov/academic\\_programs/2yr/2vrmanual.pdf](http://regents.ohio.gov/academic_programs/2yr/2vrmanual.pdf))

**IS THERE A SEPARATELY SCHEDULED LAB:** Yes  
**IS THERE A SEPARATELY SCHEDULED CLINICAL:** No

**SPECIAL FACILITIES:**

**START YEAR/SEMESTER:** Fall 2009

**PREREQUISITE:** CLSC 132, CLSC 133  
(Please indicate course/s that must be taken before this course.)

**COREQUISITE:** CLSC 136  
(Please indicate course/s that must be taken with this course.)

**CONCURRENT:** None  
(Please indicate course/s that must be taken before or with this course.)

**CATALOG DESCRIPTION:**

Hematologic and cytochemical findings in anemias, leukemias and selected diseases; instrumentation; calculations; abnormal histogram and scattergram interpretation; basic theory in hemostasis and coagulation test procedures. College laboratory required with competency in hematology and coagulation procedures. (A special fee will be assessed.)

*Prerequisites: CLSC 132, 133; Corequisite: CLSC 136*

*Italicized areas can be Fast-tracked through the Divisions/Provost/VP ALS*

**REQUIRED TEXTBOOK(S)/MATERIAL(S):**

- *Course Syllabus*
- *Lecture Handouts*
- *Hematology: Clinical Principles and Applications, 3<sup>rd</sup> ed.; Bernadette F. Rodak; W.B. Saunders, 2007.*
- *Clinical Hematology Atlas, 2<sup>nd</sup> ed.; Jacqueline Carr and Bernadette Rodak; Elsevier Saunders, 2004.*

**TOPICAL OUTLINE: (COMMON CORE TOPICS)**

- *Cell-Counting\_Instrumentation Theory*
- *Red Blood Cell Indices*
- *Classification of Anemias*
- *Micro/Hypo Anemias*
- *Macro/Normo Anemias*
- *Normo/Normo Anemias*
- *Erythroleukemias and Polycythemias*
- *Leukemias*
- *Myeloma and Lymphomas*
- *Introduction to Hemostasis and Coagulation Pathways*
- *Coagulation Testing*
- *Coagulation Disorders and Abnormalities*

**COURSE OUTCOMES & ASSESSMENT:**

*(Tools, Methods, and Expected Results)*

<i>Outcomes</i>	<i>Assessment Method(s) .</i>
<b><i>Cognitive / Knowledge: What should the students know from studying this discipline?</i></b>	
<i>1. Describe principles and procedures of tests performed in a clinical laboratory in the areas of Hematology and Coagulation.</i>	<ul style="list-style-type: none"> <li>• <i>Objective Assessment (e.g., quizzes and exams)</i></li> <li>• <i>College laboratory worksheets</i></li> <li>• <i>National Certification Exam results (ASCP)</i></li> <li>• <i>Research Poster Presentation with rubric</i></li> </ul>
<i>2. Relate normal and abnormal laboratory test results to their corresponding clinical significance in the areas of Hematology and Coagulation.</i>	<ul style="list-style-type: none"> <li>• <i>Objective Assessment (e.g., quizzes and exams)</i></li> <li>• <i>College laboratory worksheets</i></li> <li>• <i>National Certification Exam results (ASCP)</i></li> <li>• <i>Research Poster Presentation with rubric</i></li> </ul>

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<b><i>Behavior / Skills: What should a student be able to do as a result of studying this discipline?</i></b>	
3. <i>Operate and maintain laboratory instruments used in the performance of tests in the areas of Hematology and Coagulation, with entry-level skill at the Medical Laboratory Technician / Clinical Laboratory Technician level.</i>	<ul style="list-style-type: none"> <li>• <i>College laboratory Competency evaluation</i></li> </ul>
4. <i>Demonstrate satisfactory entry-level skill at the Medical Laboratory Technician / Clinical Laboratory Technician level in the performance of laboratory tests in the areas of Hematology and Coagulation.</i>	<ul style="list-style-type: none"> <li>• <i>College laboratory Competency evaluation</i></li> </ul>
<b><i>Values / Attitudes: What additions or changes should the student experience in interest, appreciations, beliefs, judgments, etc. as a result of studying this discipline?</i></b>	
5. <i>Demonstrate decision-making problem-solving skills in the performance of laboratory tests in the areas of Hematology and Coagulation.</i>	<ul style="list-style-type: none"> <li>• <i>College laboratory Competency evaluation</i></li> </ul>
6. <i>Demonstrate an ethical and professional attitude in all aspects of their course performance, adhering to all program policies and procedures as delineated in the Program Student Handbook.</i>	<ul style="list-style-type: none"> <li>• <i>Student signature pages acknowledging understanding of all program policies and procedures</i></li> <li>• <i>100% of students will comply with program policies and procedures.</i></li> </ul>

## **GENERAL EDUCATION REQUIREMENT: OUTCOMES AND ASSESSMENT**

### Core course outcomes:

- C1: English: Demonstrate logical organization, coherent thinking, and precision in writing.
- C2: Mathematics: Utilize college mathematics to solve problems.
- C3: Natural Science: Apply scientific concepts and methods of inquiry.
- C4: Social Science: Apply concepts, principles and methods of inquiry in the social sciences.
- C5: Humanities: Examine the nature of human expression and/or artistic creativity.

### Infused outcomes:

- In1: Critical Thinking: Employ critical thinking skills in addressing issues and problems.
- In2: Communication: Demonstrate competence in verbal and nonverbal communication.
- In3: Diversity: Analyze the role of diversity in the development of the individual, the community, and the global society.
- In4: Ethics: Apply personal, professional, social and civic values.
- In5: Health: Identify behaviors that promote health of the individual.

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<b>General Education Outcomes</b>	<b>Corresponding Course Outcomes</b>
In1 Critical Thinking: Employ critical thinking skills in addressing issues and problems.	#2, 4, 5,
In2 Communication: Demonstrate competence in verbal and nonverbal communication.	#1, 2
In4 Ethics: Apply personal, professional, social and civic values.	#6

***SUGGESTED INSTRUCTIONAL METHOD(S) AND TECHNIQUE(S):***

- *Lecture*
- *Demonstrations*
- *Laboratory practice exercises and evaluations*

***GRADING PROCEDURES:***

- *Quizzes* 33%
- *Midterm Examination* 25%
- *Final Examination* 25%
- *College Laboratory Exercises and Worksheets* Pass/Fail
- *Research Poster Presentation with rubric* 17%

**TRANSFER MODULE REQUIREMENT CHANGES:**

- None
- Add to English Composition area of Transfer Module
- Add to Arts/Humanities area of Transfer Module
- Add to Social and Behavioral Sciences area of Transfer Module
- Add to Mathematics area of Transfer Module
- Add to Natural and Physical Sciences area of Transfer Module

**MISCELLANEOUS**

- Add to Transfer Assurance Guide (TAG)/Ohio Articulation Number (OAN)  
**CLSC 131 + CLSC 134 = OHL009**
- Add "G" for International Course (at least 30% of content is outside U.S.)
- Course/Cluster Program Review Underway

***OTHER RESOURCES INCLUDING EQUIPMENT AND SOFTWARE:***

\_\_\_\_\_ *Library/Learning Resource Review*

\_\_\_\_\_ *IS&S/ITMS Resource Review (Complete form if special technology is needed.)*

\_\_\_\_\_ *Facilities Planning Resource Review (Complete form if special facilities are needed.)*

- *Laboratory Glassware*
- *Pipettes*
- *Spectrophotometers*
- *Spectrophotometer Calibration Standards*
- *Wright Stain*
- *Binocular Student Microscopes*
- *Differential Counters*
- *Cell Counting Chambers*
- *Analytical Balance*
- *Conference Microscope*
- *Gloves*
- *Goggles*
- *Microscope Slides / Cover Glasses*
- *Biohazard Containers*
- *MLA 750 Instrument / KC-4Δ Coagulation Instrument*
- *Coulter T540 Cell Counting Instrument / Coulter ACT-5diff Cell Counting Instrument*
- *Microhematocrit Equipment and Centrifuge*
- *Table Top Centrifuge*

Rev:

Date: August 1, 2008

JD/JM