

**CLINICAL LABORATORY SCIENCE MAJOR**  
**Sample Course Plan 2016 – 2017**  
**bld.natsci.msu.edu**

YEAR	FALL SEMESTER			SPRING SEMESTER			Summer Options
<b>Freshman</b>	CEM 141	General Chemistry	4	IAH 201-211*	Integrative Studies in Arts & Humanities	4	Study Abroad: studyabroad.isp.msu.edu
	CEM 161	Chemistry Lab I	1	BS 161	Cell & Molecular Biology	3	
	MTH 116	College Algebra & Trigonometry	5	BS 171	Cell & Molecular Biology Lab	2	
	WRA or or	Writing, Rhetoric, American Culture or	4	MTH 124/132	Survey of Calculus I	3	
	ISS 2XX*	Integrative Studies in Social, Behavioral and Economic Sciences		CEM 162	Chemistry Laboratory II	1	
		Term Credits	14		Term Credits	16	
<b>Sophomore</b>	BLD 213	Applic of Clinical Lab Principles	2	CEM 252	Organic Chemistry II	3	Study Abroad
	CEM 251	Organic Chemistry I	3	PHY 232	Introductory Physics II	3	
	PHY 231	Introductory Physics I	3	STT 201	Statistical Methods	4	
	PSL 310	Physiology for Pre-Health Professionals	4	BLD 220	Health Careers Preparation	1	
	ISS 2XX*	Integrative Studies in Social, Behavioral and Economic Sciences	4	BLD 204	Mechanisms of Disease	3	
		Term Credits	16	Elective	Elective	2	
<b>Junior</b>	BLD 434	Clinical Immunology	3	BLD 435	Transfuse Transplant Medicine	2	Study Abroad
	BLD 324	Fundamental Heme, Coag, Urine	3	BLD 417	Quality in Lab Testing	2	
	BLD 324L	Intro Lab in Heme, Coag, Urine	1	BLD 442	Ed & Mgt in Clin Lab	2	
	BMB 401	Basic Biochemistry	4	MMG 201	Fundamentals of Microbiology	3	
	ISS 3XX*	Integrative Studies in Social, Behavioral and Economic Sciences	4	IAH 2XX*	Integrative Studies in Arts & Humanities	4	
		Term Credits	15		Term Credits	13	
<b>Senior</b>	Elective	Elective	4	BLD 450	Eukaryotic Pathogens	3	Study Abroad
	MMG 463	Medical Microbiology	3	BLD 498	Focused Problems in CLS	2	
	MMG 464	Diagnostic Microbiology Lab	2	BLD 498L	Infectious Disease Laboratory	1	
	BLD 416	Clinical Chemistry	4	BLD 424	Adv Heme/Coag/Urinalysis	2	
	BLD 455	Integ Clin Lab Sci Discip (W)	2	BLD 424L	Adv Lab in Heme/Coag/Urines	1	
				BLD 433	Clin Immuno & Immunochem Lab	1	
				CEM 333	Instrumental Methods & Apps	3	
				BLD 430	Molecular Lab Diagnostics	2	
	Term Credits	15		Term Credits	15		
<b>Credits prior to Clinical Courses</b>						<b>120</b>	
<b>Approved course substitutions include:</b>			<b>CLINICAL COURSES (total 16 credits):</b>				
BMB 401(4) - BMB 461(3) and BMB 462(3)			BLD 471 Adv Clinical Chemistry Lab (3)				
CEM 162(1) - CEM 262 (2)			BLD 472 Advanced Clinical Chemistry (1)				
MTH 132(3) - MTH 124 (3)			BLD 473 Adv Clin Hemat & Body Fluids (3)				
PSL 310(4) - PSL 431(3) and PSL 432(3)			BLD 474 Adv Clin Hemat & Body Fluids (1)				
STT 201(4) - STT 200 (3) or STT 231 (4)			BLD 475 Adv Clin Immun & Immunochem Lab (2)				
*Many of the courses in the Arts and Humanities and Social, Behavioral, and Economic Sciences arenas, emphasize national diversity (designated "N" at the end of the course title), or international and multi-cultural diversity (designated "I" at the end of the course title). Some courses emphasize both national diversity, and international and multi-cultural diversity (designated "D" at the end of the course title). Students must include at least one "N" course and one "I" course in their Integrative Studies programs. A "D" course may meet either an "N" or an "I" requirement but not both			BLD 476 Adv Clin Immun & Immunochem (1)				
			BLD 477 Adv Clinical Microbiology Lab (3)				
			BLD 478 Advanced Clinical Microbiology (1)				
			BLD 479 Prof Behavior in CLS (1)				
<b>TOTAL CREDITS TO GRADUATE 136</b>							

Eligible for national certification examinations after graduation.  
The Bachelor of Science degree program in clinical laboratory science has been accredited by the  
National Accrediting Agency for Clinical Laboratory Sciences,  
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773-714-8880