# **Clinical Laboratory Science / Medical Technology**

Bachelor of Science (BS.CLS)

<b>Core Require</b>	ements		Credits	Notes/Instructions
College Sem.	Quest for Meaning	CSEM 100	3	†A student may be
Communication & Creative Expression	Writing Oral Communication Literature The Arts	ENGL 110† COMM 101 ENGL 140-149 ARTS 100-149	3 3 3 3	required to take ENGL 105 and/or MATH 100 based on placement exams administered prior to their first semester at King's
Citizenship -	History Intercultural Global Connections	HIST 100-149 FREN/GERM/SPAN 100-level or Study Abroad <sup>++</sup> ECON 150-199; GEOG 150-199; HIST 150-199; PS 150-199; SOC 150-199	3 3 3	College. ENGL 105 and MATH 100 are 3-credit courses and will count at free electives.
Quantitative & Scientific Reasoning	SBM Quantitative Reasoning SBM Scientific Endeavor SBM Science in Context Human Beh. & Soc. Inst	MATH 120† or higher level NSCI 100 NSCI 171-199 ECON 111, 112; GEOG 101, 102; PS 101, PSYC 101, SOC 101	- - - 3	Competence requirement can be satisfied by taking a 100- level language class for 3 credits or participating in an approved Study
Wisdom, Faith, & the Good Life	Introduction to Phil. Phil. Investigations Theology & Wisdom Theology & the Good Life	PHIL 101 PHIL 170-199; MSB 287 THEO 150-159 THEO 160-169	3 3 3 3	Abroad experience.  SBM = Satisfied By Majorequirement(s) and credit(s) listed below.
		Total Core Credits	39	

Major	Credits	Major	Credits	Senior Year	redits
Requirements		Requirements		Requirements	
BIOL 113	3	CHEM 113	3	Hospital-based	
BIOL 113L	1	CHEM 113L	1	Clinical Rotation 3	0 - 36
BIOL 210 <sup>PR</sup>	3	CHEM 114PR	3	Hospital-based Clinical Rotation, which is	
BIOL 210LPR	1	CHEM 114LPR	1	approved by the American Society of Clinica	ı
BIOL 213 <sup>PR</sup>	3	CHEM 241 <sup>PR</sup>	3	Pathologists (ASCP), consisting of the follow	ing:
BIOL 213LPR	1	CHEM 241LPR	1	Clinical Chemistry	
BIOL 224 <sup>PR</sup>	3	CHEM 242 <sup>PR</sup>	3	Hematology	
BIOL 224L	1	CHEM 242LPR	1	Immunology	
BIOL 229	1	MATH 128	4	Microbiology	
BIOL 314	3	CLS Major Elective*	3	Phlebotomy	
BIOL 314L	1	CLS Major Elective Lab*	1-2	Transfusion Medicine	
BIOL 326	3	CLS Major Elective*	3	Renal Analysis	
BIOL 326L	1	CLS Major Elective Lab*	1-2		
		Other Requirements			
		HCE 101 Holy Cross Exp.	1		
		Free Elective** (MATH 125)	4		
		Tatal Majay and		Total Clinical Patetion	
		Total Major and		Total Clinical Rotation	
Total Major Credits	25	Other Credits	33-35	Credits 3	0-36

### Total Credits Required for Graduation = 127 - 135

Graduation	121 – 126	Required for Graduation	130 – 138	
Total Minimum Credits Required for		Total Required & Recommended Credits		
(fourth year)	30 - 36	(fourth year)	30 – 36	
Credits completed during Clinical Rotation		Credits completed during Clinical Rotation		
(during three years) 91		College (during three years)	100 - 102	
Minimum Credit Requirement at King's College		Credits Required & Recommended at King's		

\*In addition to the Major sequence requirements, a CLS major must take two of the following CLS Major Science Electives including the lab:

*Clinical Laboratory Major Science Electives				
BIOL 221 & 221L Anatomy & Physiology I for Med. Stud. & Lab	BIOL 416 Parasitology			
BIOL 222 & 222L Anatomy & Physiology II for Med. Stud. & Lab	BIOL 450 & 450L Molec. Genetics: DNA Science & Lab			
BIOL 323 & 323L Genetics & Lab	CHEM 243 & 243L Analytical Chemistry & Lab			
BIOL 380 Neuroendocrinology	CHEM 244 & 244L Instrumental Analysis & Lab			

<sup>\*\*</sup>A CLS major is strongly encouraged to take MATH 125 as a Free Elective.

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#### Suggested Sequence

A suggested course sequence of degree requirements is listed below. Refer to the college catalog for course titles, descriptions, and prerequisites. Always consult your Academic Advisor when planning and scheduling your classes.

Fall 2019	Credits	Spring 2020	Credits
BIOL 113 <sup>2</sup> Evolution & Diversity	3	BIOL 210 <sup>PR</sup> Organisms & Their Ecosystems	3
BIOL 113L Evolution & Diversity Lab	1	BIOL 210L <sup>PR</sup> Organisms & Their Ecosystems Lab	1
CHEM 113 <sup>2</sup> General Chemistry I	3	CHEM 114 <sup>PR</sup> General Chemistry II	3
CHEM 113L General Chemistry I Lab	1	CHEM 114L <sup>PR</sup> General Chemistry II Lab	1
MATH 128 <sup>2</sup> Intro to Statistics and Data Analysis	4	Free Elective** (MATH 125 Calculus I)	4
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
HCE 101 Holy Cross Experience	1	Core Course <sup>1,***</sup>	3
	16		18
Summer 2020***	Credits		
Fall 2020	Credits	Spring 2021	Credits
CHEM 241 <sup>PR</sup> Organic Chemistry I	3	CHEM 242 <sup>PR</sup> Organic Chemistry II	3
CHEM 241LPR Organic Chemistry I Lab	1	CHEM 242L <sup>PR</sup> Organic Chemistry II Lab	1
BIOL 213 <sup>PR</sup> Cell & Molecular Biology	3	BIOL 224 Biochemistry for Medical Studies	3
BIOL 213LPR Cell & Molecular Biology Lab	1	BIOL 224 Biochemistry for Medical Studies Lab	1
BIOL 326 <sup>PR</sup> Immunology	3	Core Course <sup>1</sup>	3
BIOL 326LPR Immunology Lab	1	Core Course <sup>1</sup>	3
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
	15		17
Summer 2021***	Credits		
Fall 2021	Credits	Spring 2022	Credits
CLS Major Elective*	3	BIOL 314 <sup>PR</sup> Microbiology	3
CLS Major Elective Lab*	1-2	BIOL 314LPR Microbiology Lab	1
Core Course <sup>1</sup>	3	BIOL 229 Modern Techniques in Biological Sci	1
Core Course <sup>1</sup>	3	CLS Major Elective*	3
Core Course <sup>1</sup>	3	CLS Major Elective Lab*	1-2
Core Course <sup>1</sup>	3	Core Course <sup>1</sup>	3
		Core Course <sup>1</sup>	3
	16-17		15-16

Senior Year (4 <sup>th</sup> Year) — Hospital-Based Clinical Rotation <sup>3</sup>			
	Credits		
Hospital-based Clinical Rotation, which is approved by the American Society of Clinical Pathologists (ASCP), consisting of the following:			
Clinical Chemistry, Hematology, Immunology, Microbiology, Phlebotomy, Transfusion Medicine, Renal Analysis	30 - 36		
Total Credits Required for Graduation = 127 - 135			

#### NOTES:

- \*\*A CLS major is strongly encouraged to take MATH 125 as a Free Elective.
- \*\*\* Students are encouraged to take some Core courses during the summer months to help "lighten" their course load during a semester.

<sup>&</sup>lt;sup>1</sup>Choose one course from each of the Core Requirements listed on the reverse side.

<sup>&</sup>lt;sup>2</sup> Course may satisfy both a Major and a Core requirement. MATH 128 satisfies the Quantitative Reasoning Core requirement; BIOL 113 and CHEM 113 satisfies the Scientific Endeavor and Science in Context Core requirements.

<sup>&</sup>lt;sup>3</sup> A student must complete the CORE and all required sequences at King's College (90 credits in three years) before being eligible to enter the Hospital-based internship (fourth year).

 $<sup>^{\</sup>mbox{\tiny PR}}$  Course has a prerequisite – check college catalog.