

# Clinical Laboratory Science / Medical Technology

## Bachelor of Science (BS.CLS)

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

Major Requirements	Credits	Major Requirements	Credits	Senior Year Requirements	Credits
BIOL 113	3	CHEM 113	3	Hospital-based	
BIOL 113L	1	CHEM 113L	1	Clinical Rotation	30 - 36
BIOL 210 <sup>PR</sup>	3	CHEM 114 <sup>PR</sup>	3	<b>Hospital-based Clinical Rotation, which is approved by the American Society of Clinical Pathologists (ASCP), consisting of the following:</b>	
BIOL 210L <sup>PR</sup>	1	CHEM 114L <sup>PR</sup>	1	Clinical Chemistry	
BIOL 213 <sup>PR</sup>	3	CHEM 241 <sup>PR</sup>	3	Hematology	
BIOL 213L <sup>PR</sup>	1	CHEM 241L <sup>PR</sup>	1	Immunology	
BIOL 224 <sup>PR</sup>	3	CHEM 242 <sup>PR</sup>	3	Microbiology	
BIOL 224L	1	CHEM 242L <sup>PR</sup>	1	Phlebotomy	
BIOL 229	1	MATH 128	4	Transfusion Medicine	
BIOL 314	3	CLS Major Elective*	3	Renal Analysis	
BIOL 314L	1	CLS Major Elective Lab*	1-2		
BIOL 326	3	CLS Major Elective*	3		
BIOL 326L	1	CLS Major Elective Lab*	1-2		
		<b>Other Requirements</b>			
		HCE 101 Holy Cross Exp.	1		
		Free Elective** (MATH 125)	4		
<b>Total Major Credits</b>		<b>Total Major and Other Credits</b>	<b>33-35</b>	<b>Total Clinical Rotation Credits</b>	<b>30-36</b>

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

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

\*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

\*\*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		Credits	Spring		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** ( <i>MATH 125 Calculus I</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
		<b>16</b>			<b>18</b>
Summer ***		Credits			
Fall		Credits	Spring		Credits
_____	CHEM 241 <sup>PR</sup> Organic Chemistry I	3	_____	CHEM 242 <sup>PR</sup> Organic Chemistry II	3
_____	CHEM 241L <sup>PR</sup> 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 213L <sup>PR</sup> 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 326L <sup>PR</sup> Immunology Lab	1	_____	Core Course <sup>1</sup>	3
_____	Core Course <sup>1</sup>	3	_____	Core Course <sup>1</sup>	3
		<b>15</b>			<b>17</b>
Summer ***		Credits			
Fall		Credits	Spring		Credits
_____	CLS Major Elective*	3	_____	BIOL 314 <sup>PR</sup> Microbiology	3
_____	CLS Major Elective Lab*	1-2	_____	BIOL 314L <sup>PR</sup> 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
		<b>16-17</b>	_____	Core Course <sup>1</sup>	3
					<b>15-16</b>
<b>Senior Year (4<sup>th</sup> Year) – Hospital-Based Clinical Rotation<sup>3</sup></b>					
					Credits
<b>Hospital-based Clinical Rotation, which is approved by the American Society of Clinical Pathologists (ASCP), consisting of the following:</b>					<b>30 - 36</b>
Clinical Chemistry, Hematology, Immunology, Microbiology, Phlebotomy, Transfusion Medicine, Renal Analysis					
<b>Total Credits Required for Graduation = 127 - 135</b>					

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

<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>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>PR</sup> Course has a prerequisite – check college catalog.