

Bachelor of Science

Clinical Laboratory Science

Clinical Laboratory Scientists (a.k.a.: Med Techs) perform diverse and complex laboratory analyses on biological samples from patients. They combine theoretical knowledge and technical skills to provide quality test results that are used for making diagnostic and therapeutic decisions.

SCHOOL OF MEDICINE HEALTH PROFESSIONS PROGRAMS
INDIANA UNIVERSITY SYSTEM COURSE EQUIVALENTS

BACHELOR OF SCIENCE IN CLINICAL LABORATORY SCIENCE PREREQUISITES

Advisors should always check to make sure students have completed any needed prerequisites
for each of the courses listed above.

COURSES	IUB	IUPUI	IUPUC	IUE	IPFW	IUK	IUN	IUSB	IUS
Written Communication (Two Courses)	ENG-W 131* & 231**	ENG-W 131 & 231**	ENG-W 131 & 231**	ENG-W 131 & 231**	ENG-W 131 & 233**	ENG-W 131 & 231**	ENG-W 131 & 231**	ENG-W 131 & 231**	ENG-W 131 & 231**
*Check specific campus bulletin for other equivalents to ENG-W 131 **ENG-W 231/233 is the preferred course. ENG-W 132 at IUPUI (and other campuses) can be substituted. COAS-W 333 Intensive Writing at IUB (and other campuses) combined with another course will also satisfy the second written communication requirement.									
Verbal Communication (One Course)	CMCL-C 121 or 122	COMM-R 110 or C 180	COMM-R 110 or C 180	SPCH-S 121 or CMCL-C 122	COM 114 or 212	SPCH-S 121 or 122	SPCH-S 121 or 122	SPCH-S 121 or 122	SPCH-S 121 or 122
Humanities (One Course)	APPROVED SUBJECT AREAS INCLUDE: Minimum of 3.0 cr hrs. Classical studies, literature, English, film studies, folklore, foreign language, history, journalism, philosophy, religion, speech communication (additional course), minority studies, visual and performing arts. Other areas can be taken with approval of the program's admissions committee.								
Social/ Behavioral Sciences (Two Courses)	APPROVED ELECTIVE SUBJECT AREAS INCLUDE: Psychology, Sociology, and Anthropology (<i>Preferred</i>). Other content areas such as Economics, Minority Studies, and Political Science will be accepted upon approval (based on course content).								
Mathematics (College Algebra & Trigonometry or higher)	MATH M119 or M211	MATH 153 & 154 or 159 or M119	MATH 153 & 154 or 159 or M119	MATH M125 & M126 or M119	MA 153 & 154 or 159 or 227	MATH M125 & M126 or M119	MATH M125 & M126 or M119 or M215	MATH M125 & M126 or M119 or M215	MATH M125 & M126 or M119 or M215
Statistics (One Course)	MATH-K 300 or PSY-K 300	STAT 301 or PSY-B 305 or SPEA-K 300	STAT 301 or PSY-B 305	MATH-K 300 or PSY-K 300	STAT 301 or PSY 201	STAT 301 or PSY-K 300	PSY-K 300 or SPEA-K 300	MATH-K 310 or SPEA-K 300	MATH-K 300 or ECON-E 280
Intro to Biology	BIOL L112 & L113	BIOL K101 & K103	BIOL K101 & K103	BIOL L107	BIOL 109 or 119	BIOL L105	BIOL L101 & L102	BIOL L101 & L102	BIOL L101 & L102
Human Physiology	PHSL P215	BIOL N217 or BIOL N212 & N213 & N214 & N215	BIOL N217 or BIOL N212 & N213 & N214 & N215	PHSL P215 or PHSL P261 & P262	BIOL 203 & 204 or BIOL 216	PHSL P215	PHSL P261 & P262	PHSL P261 & P262	PHSL P215
Genetics	BIOL L311	BIOL K322 or N322		BIOL L314	BIOL 218	BIOL L364	BIOL L311 or L331 & L363	BIOL L311	BIOL L311
Microbiology w/lab+	BIOL M200 & M215 or M250 & M255	BIOL N251 or MICR J210	BIOL N251	MICR J200 & J201 or BIOL M310 & M315	BIOL 220 or 437	MICR J200 & J201 or M310 & M315	BIOL M200 & M215 or M310	MICR M250 & M255 or M310 & M315	MICR J200 & J201 or M310 & M315

SEE NEXT PAGE FOR ADDITIONAL PREREQUISITES

B. S. in CLINICAL LABORATORY SCIENCE PREREQUISITES (Continued)
INDIANA UNIVERSITY SYSTEM COURSE EQUIVALENTS

Advisors should always check to make sure students have completed any needed prerequisites for each of the courses listed above.

COURSES	IUB	IUPUI	IUPUC	IUE	IPFW	IUK	IUN	IUSB	IUS
Immunology+	BIOL L321 (Requires L211)	BIOL K338 or 561		BIOL L321	BIOL 537	BIOL L321	BIOL L321		BIOL K312
Principles of Chemistry I	CHEM C117	CHEM C105	CHEM C105	CHEM C105	CHM 115	CHEM C105	CHEM C105	CHEM C105	CHEM C105
Principles of Chem I Lab		CHEM C125	CHEM C125	CHEM C125		CHEM C125	CHEM C125	CHEM C125	
Principles of Chemistry II	CHEM C118	CHEM C106	CHEM C106	CHEM C106	CHM 116	CHEM C106	CHEM C106	CHEM C106	CHEM C106
Principles of Chemistry II Lab		CHEM C126	CHEM C126	CHEM C126		CHEM C126	CHEM C126	CHEM C126	
Organic Chemistry I+	CHEM C341	CHEM C341	CHEM C341	CHEM C341	CHM 255	CHEM 341	CHEM C341	CHEM C341	CHEM C341
Organic Chemistry I Lab+	CHEM C343	CHEM C343	CHEM C343	CHEM C343	CHM 254	CHEM C343	CHEM C343	CHEM C343	CHEM C343
Advanced Chemistry Elective+ (one course)	Many options exist; check upper-level chemistry course descriptions to make sure you have the required prerequisites.								

+Limitations of Course Work Courses in chemistry (upper level), microbiology, and immunology must have been completed within the previous six years. Six year limit applied at application deadline.

NOTE: Students interested in post-baccalaureate study in the medical sciences should be advised to complete a year of 200 level physics and a second semester of organic chemistry with lab.

SCHOOL OF MEDICINE HEALTH PROFESSIONS PROGRAMS
BACHELOR OF SCIENCE IN CLINICAL LABORATORY SCIENCE PREREQUISITES
 OTHER INDIANA COLLEGE/UNIVERSITY COURSE EQUIVALENTS

Advisors should always check to make sure students have completed any needed prerequisites
 for each of the courses listed above.

Courses	Ball State University	Butler University	Indiana State University	Ivy Tech Indpls	Marian College	Purdue - Calumet	Purdue - West Lafayette	Univ of Indpls	Univ of Southern Indiana	Vincennes University
Written Communication (Two courses)	ENG 103 & 104 or 231	EN 102 & 201	ENG 101 & 105 or 107	ENG 111 & 112	ENG 101 & 115	ENGL 104 & 105	ENGL 106 + Upper level writing course	ENG 101 & 102	ENG 101 & 201 or 210	ENGL 101 & 102
Verbal Communication (One course)	COMM 210 or 240	COM 102	COMM 101 or 202	COM 101 or 102	COM 101	COM 114 or 214	COM 114 or 212	COMM 100	CMST 101 or 107	SPCH 143 or 148
Humanities (One course)	APPROVED SUBJECT AREAS INCLUDE: Minimum of 3.0 cr hrs. Classical studies, literature, English, film studies, folklore, foreign language, history, journalism, philosophy, religion, speech communication (additional course), minority studies, visual and performing arts. Other areas can be taken with approval of the program's admissions committee.									
Social/ Behavioral Sciences (Two courses)	APPROVED ELECTIVE SUBJECT AREAS INCLUDE: Psychology, Sociology, and Anthropology (<i>Preferred</i>). Other content areas such as Economics, Minority Studies, and Political Science will be accepted upon approval (based on course content).									
Mathematics (College Algebra & Trigonometry or Higher)	MATH 111 & 112 or 132	MA 106	MATH 111& 112 or 115	MAT 136 & 137 or 201 or 131 & 132	MAT 230	MATH 153 & 154 or 159	MATH 153 & 154 or 159	MATH 180 or 190	MATH 111 & 112 or 115 or 215	MATH 102 & 104 or 115
Statistics	MATHS 221 or ECON 221 or equivalent	MA 260 or PS 310 or equivalent	MATH 241, PSY 375, HLTH 340 or equivalent	Not Available	PSY 205, BUS 205, MAT 130 or equivalent	STAT 301, BIOL 330, BHS 201 or equivalent	STAT 301, SOC 382 or equivalent	MATH 220 or equivalent	PSY 303, MATH 241 or equivalent	MATH 110 or equivalent
Chemistry w/ Lab (Two courses)	CHEM 111 & 112	CH 105 & 106	CHEM 105 & 106	Not Available	CHE 151 & 152	CHM 115 & 116	CHM 115 & 116	CHEM 150 & 160	CHEM 261 & 262	CHEM 105 & 106
Organic Chemistry w/ Lab+	CHEM 234	CH 351	CHEM 351 w/ lab	Not Available	CHE 305	CHM 255 & 255L	CHM 255 & 255L	CHEM 250	CHEM 353	CHEM 215
Advanced Chemistry Elective+ (Choose one)	Many options exist; check upper-level chemistry course descriptions to make sure you have the required prerequisites.									

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B.S. in CLINICAL LABORATORY SCIENCE PREREQUISITES (Continued)
OTHER INDIANA COLLEGE/UNIVERSITY COURSE EQUIVALENTS

Advisors should always check to make sure students have completed any needed prerequisites for each of the courses listed above.

Courses	Ball State University	Butler University	Indiana State University	Ivy Tech Indpls	Marian College	Purdue - Calumet	Purdue - West Lafayette	Univ of Indpls	Univ of Southern Indiana	Vincennes University
Intro to Biology	BIO 111 & 112	BI 100	BIOL 101 & 102 w/ lab	Not Available	BIO 150	BIOL 101 & 102 or 108 & 109	BIOL 110 & 111 or 121 & 122 or 131 & 132	BIOL 155	BIOL 141	LFSC/LFSL 105 & 106
Human Physiology	PHSL 210 & 211 or 201	BI 257 or PX 315	LIFS 241 w/ lab	ANP 201	BIO 223 & 224	BIOL 213 & 214 or 340	BIOL 203 & 204 or 301 & 302	BIOL 103 & 104	BIOL 121 & 122	LFSC/LFSL 211 & 212
Microbiology+	BIO 213	BI 410	LIFS 274 w/lab	BIO 201 or 211	BIO 114	BIOL 221 or 316	BIOL 221 or 438	BIOL 209	BIOL 272	LFSC/LFSL 230
Immunology+	BIO 344	BI 323	LIFS 408	Not Available	BIO 345	BIOL 561	BIOL 537	BIOL 270	BIOL 422	Not Available
Genetics	BIO 214	BI 357	LIFS 380	Not Available	BIO 315	BIOL 430	BIOL 241 or AGRY 320	BIOL 225	BIOL 382	LFSC/LFSL 208

+Limitations of Course Work Courses in chemistry (upper level), microbiology, and immunology must have been completed within the previous six years. Six year limit applied at application deadline.

NOTE: Students interested in post-baccalaureate study in the medical sciences should be advised to complete a year of 200 level physics and a second semester of organic chemistry with lab.

BACHELOR OF SCIENCE in CLINICAL LABORATORY SCIENCE

The following is a suggested three-year plan for completing the B.S. in Clinical Laboratory Science prerequisites. Variations of this schedule can be made. Please check with your advisor to be sure all admission requirements are being met.

	FALL	SPRING
FIRST YEAR	English Composition 1 3cr Algebra & Trig. 1 3cr Introductory Biology 1 3cr Principles of Chemistry 1 <u>5cr</u> Total 16cr	Public Speaking or Interpersonal Communication 3cr Algebra and Trig. 2 3cr Introductory Biology 2 5cr Principles of Chemistry 2 <u>5cr</u> Total 16cr
SECOND YEAR	Organic Chemistry 1 3cr Organic Chemistry 1 Lab 2cr Human Physiology 5cr Electives <u>6cr</u> Total 16cr	Humanities Elective 3cr Intro to Microbiology 3-4cr +Chemistry Elective 3cr Social/Behavioral Science Elective 3cr Elective <u>3cr</u> Total 15-16cr
NOTE: At this point, students who have a minimum 2.50 cumulative GPA and 2.50 math/science GPA may be eligible to submit an application for admission prior to the December 1 st deadline.		
THIRD YEAR	Intro to Immunology 3cr Genetics 3cr Electives <u>6cr</u> Total 12cr	Social/Behavioral Science Elective 3cr English Composition 2 3cr Statistics 3cr Electives <u>6cr</u> Total 15cr Cumulative Total 90cr
NOTE: At this point, students accepted into the professional program must have completed a minimum of 90 credit hours including all stated program prerequisites and have a minimum 2.50 cumulative GPA and 2.50 math/science GPA prior to the program's fall starting date.		

Suggested Electives

- + Chemistry Electives: Organic Chemistry 2, Biological Chemistry, Analytical Chemistry, or Quantitative Analysis/Instruments.
- Electives could include Medical Terminology, Human Anatomy, Medical Microbiology, Cell Physiology, and Introduction to Computers.

A Brief Summary of School and Program Admission Requirements

For a complete list, see the School of Medicine Health Professions Programs section of the IUPUI Bulletin. Completion of requirements does not guarantee admission into the program. Competitive grade point averages are generally higher than the stated minimums.

- Credit hours needed prior to entrance.....90 credits
- Minimum Grade Point Averages neededCumulative 2.50; Math/Science 2.50
- Minimum grade needed in prerequisitesC (2.00)
- Interview requiredYes
- Application DeadlineDecember 1st - year prior to entry

For advising assistance, please contact Health Professions Programs Office at (317) 278-4752, Medical Science Room 259 C/D, or askhpp@iupui.edu. You can also visit us online at <http://medicine.iu.edu/hpp/>.

THIS SHEET IS FOR ADVISING PURPOSES ONLY. PLEASE REFER TO THE SCHOOL OF MEDICINE HEALTH PROFESSIONS SECTION OF THE IUPUI BULLETIN FOR ALL PROGRAM REQUIREMENTS

Program Admission Information Sheet – 2009

Program: CLINICAL LABORATORY SCIENCE, B.S.

Revised 03/09

<p>Application Deadline:</p>	<p>December 1 or until class is filled</p>
<p>Admission Criteria: Factors used in determining the rank order that are not part of the published criteria that might have academic advising implications. (e.g., weighted components, nature of electives, residency preference, etc.)</p>	<p>Weighted GPA = (2 x science/math GPA + total GPA) / 3 [64.0%] Interview [13.0%] Essay [13.0%] Motivation [10.0%]</p> <p>Applicants must earn at least 80% of the total points possible on both the oral and written components of the interview. Applicants must also earn at least 70 of the 100 possible “admission profile points”.</p>
<p>Component GPA (if used): Explain what is included (excluded). Please be specific.</p>	<p>Biology, Chemistry, Math, Statistics, Physics, and Computer courses comprise science/math GPA (see admission criteria). Astronomy, geology, or psychology courses are NOT utilized in the math/science GPA.</p> <p>Remedial courses are not utilized in ANY grade point average calculations.</p>
<p>Interview When is the interview conducted? How long is the interview?</p> <p>How many interviewers?</p> <p>What is the make-up of the interview team?</p> <p>Briefly describe the interview.</p> <p>What suggestions do you have to help applicants prepare?</p> <p>Date by which an applicant should contact the program if not heard from the program about interview date or not qualified notification.</p> <p>Date by which admission decisions are made and notification mailed.</p>	<p>Usually in November or December Twenty minutes for oral interview. Forty-five minutes each for information, writing sample, and tour.</p> <p>Two</p> <p>Faculty and clinical supervisor</p> <p>Dialogue to assess applicant’s knowledge of field, oral expression, etc.</p> <p>Bring your questions about program, and RELAX!</p> <p>January 1</p> <p>January 15</p>

Program Fact Sheet – 2009

Program: **CLINICAL LABORATORY SCIENCE, B.S.**

Revised 03/09

<p>Professional Curriculum: Describe the nature of the professional program.</p> <p>How intense is it? Are there any unique characteristics or demands?</p>	<p>Class sessions meet from 8:00AM - 5:00PM, Monday - Friday.</p> <p>The professional curriculum is intense. Students need to be disciplined in time management and study habits.</p>
<p>Credentials: What is the credential required to practice?</p> <p>Are there specialty credentials?</p> <p>What is the procedure for obtaining the necessary credentials?</p>	<p>B.S. degree and national certification- MT (ASCP) or CLS (NCA) Some states require licensure.</p> <p>Yes, in sub-discipline areas.</p> <p>Meet eligibility requirements and successfully complete certifying examination.</p>
<p>Competitiveness: How competitive is admission to the program?</p> <p>What changes do you foresee in the next year? Two years?</p>	<p>Admission is competitive and designed to select students who will be successful degree candidates and practitioners. Class size: 12 students; additional spots may be available on a yearly basis.</p> <p>Continued changes in testing technology, more emphasis on cost containment, teamwork, and improved work efficiency.</p>
<p>Placement Statistics: In Indiana?</p> <p>Outside Indiana?</p>	<p>All members of the 2008 graduating class that were seeking employment were employed. There is a <u>critical</u> shortage of Med Techs across the nation.</p>
<p>Salary Range: (In Indiana and National average) Entry level?</p> <p>Supervisory level?</p>	<p>Indiana \$38,000 - \$42,000; higher in areas of industry, product sales, etc.</p> <p>\$60,000 - \$80,000; higher in non-hospital areas</p>