

Bachelor of Science

Cytotechnology

Cytotechnologists inspect and evaluate cells or groups of cells to detect cellular changes indicative of cancer and other diseases. The prime objective is to detect cancer early, when the best chance for a complete cure exists.

SCHOOL OF MEDICINE HEALTH PROFESSIONS PROGRAMS
INDIANA UNIVERSITY SYSTEM COURSE EQUIVALENTS

BACHELOR OF SCIENCE IN CYTOTECHNOLOGY 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**
<p>*Check specific campus bulletin for other equivalents to ENG-W 131</p> <p>**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.</p>									
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).								
College Algebra (One Course)	MATH M025 or A025 or M118 or higher	MATH 153 or M118 or M119 or higher	MATH 153 or M118 or M119 or higher	MATH M118 or M119 or M125 or higher	MATH 153 or 159 or higher	MATH M118 or M119 or M125 or higher	MATH M118 or M119 or M125 or M215	MATH M118 or M119 or M125 or M215	MATH M118 or M119 or M125 or M215
Chemistry I	CHEM C101 or C117	CHEM C101 or C105	CHEM C101 or C105	CHEM C105	CHM 115	CHEM C101 or C105	CHEM C101 or C105	CHEM C101 or C105	CHEM C105
Chemistry I Lab	CHEM C121 or C117	CHEM C121 or C125	CHEM C121 or C125	CHEM C125		CHEM C121 or C125	CHEM C121 or C125	CHEM C121 or C125	CHEM C125
Chemistry II	CHEM C102 or C118	CHEM C110 or C106	CHEM C110 or C106	CHEM C106	CHM 116	CHEM C102 or C106	CHEM C102 or C106	CHEM C102 or C106	CHEM C106
Chemistry Lab II	CHEM C122 or C118	CHEM C115 or C126	CHEM C115 or C126	CHEM C126		CHEM C122 or C126	CHEM C122 or C126	CHEM C122 or C126	CHEM C126
BIOLOGICAL SCIENCES – Minimum of 25.0 credit hours to include the following courses:									
Limitations of Course Work Biology credits earned more than seven years before application must be updated by taking 3 additional credit hours related to cell biology within a period of time not to exceed 12 months before admission. Remedial courses will not fulfill prerequisite hours.									
Introduction 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	ZOOL Z103 or BIOL L101 & L102
Human Anatomy & Human Physiology	ANAT A215 & PHSL P215 or P431	BIOL N261 & N217 OR BIOL N212 & N213 & N214 & N215	BIOL N261 & N271	ANAT A215 & PHSL P215 or PHSL P261 & P262	BIOL 215 & 216	ANAT A215 & PHSL P215	PHSL P261 & P262	PHSL P261 & P262	ANAT A215 & PHSL P215

SEE NEXT PAGE FOR ADDITIONAL REQUIREMENTS

B.S. in CYTOTECHNOLOGY 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
At least 3 of the following courses**									
Microbiology w/lab	BIOL M200 & M215 or M250 & M255	MICR J210 or BIOL N251	BIOL N251	MICR J200 & J201 or BIOL M310 & M310	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
Dev Anatomy or Embryology w/lab	BIOL L317 & Z318	BIOL K331			BIOL 315	ZOOL Z315	ZOOL Z370	BIOL L317	ZOOL Z317 & Z318
Molecular or Cellular Biology	BIOL L211 or L312 & L313	BIOL K324		BIOL L315	BIOL 381 & 382		BIOL L211 or 312	BIOL L312	BIOL L211 or L312 & L313
Genetics w/lab	BIOL L311 & L319	BIOL N322 or K322		BIOL L314	BIOL 218	BIOL L364	BIOL L311 or L363	BIOL L311 & L319	BIOL K322 & K323
Animal Cell Physiology w/lab		BIOL 501 & 502			BIOL 455 & 456	BIOL L367			PHSL P416 & P418
Histology w/lab	ANAT A464						ZOOL Z380		ANAT A464
Immunology	BIOL L321	BIOL K338 or 561		BIOL L321	BIOL 537	BIOL L321	BIOL L321		BIOL K312 & K313

** Other biology courses may be utilized with program director's approval. Student must earn a total of 25 credits in biology including introduction to biology, human anatomy and human physiology

SCHOOL OF MEDICINE HEALTH PROFESSIONS
OTHER INDIANA COLLEGE/UNIVERSITY COURSE EQUIVALENTS

BACHELOR OF SCIENCE IN CYTOTECHNOLOGY PREREQUISITES

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	EN 102 & 201	ENG 101 & 105 or 107	ENG 111 & 112	ENG 101 & 115 or 239	ENGL 104 & 105	ENGL 106 + One upper level writing course	ENG 101 & 102	ENG 101 & 201 or 210	ENGL 101 & 102
Verbal Communication (One Course)	COMM 210 or 240	COMM 102	COMM 101 or 202	COM 101 or 102	COM 101	COM 114 or 214	COM 114 or 212	COMM 100	CMST 101 of 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).									
College Algebra (One Course)	MATH 111	MA 106	MATH 115	MAT 136 or 131 or 201 or 135	MAT 140	MA 153	MA 153	MATH 180	MATH 111 & 112	MATH 102
Chemistry (Two Courses with Labs)	CHEM 111 & 112	CH 105 & 106	CHEM 103 & 104 or 105 & 106 (all w/ lab)	CHM 111 (Will still need 1 more course with lab)	CHE 151 & 152	CHM 111 & 112 or 115 & 116	CHM 111 & 112 or 115 & 116	CHEM 103 & 104 or 150 & 160	CHEM 261 & 262	CHEM 100 & 101 or 105 & 106
BIOLOGICAL SCIENCES – Minimum of 25.0 credit hours to include the following courses:										
Limitations of Course Work Biology credits earned more than seven years before application must be updated by taking 3 additional credit hours related to cell biology within a period of time not to exceed 12 months before admission. Remedial courses will not fulfill prerequisite hours.										
Intro to Biology	BIO 111 & 112	BI 100	BIOL 101 & 102 w/ lab	Not Available	BIO 150	BIOL 101 & 102	BIOL 110 & 111 or 121 & 122 or 131 & 132	BIOL 100	BIOL 151 & 152	LFSC/LFSL 105 & 106
Human Anatomy & Human Physiology	ANAT 201 & PHSL 210 & 211	BI 257 or PX 311 & PX 315	LIFS 231/231L & LIFS 241/241L	ANP 101 & 102 & 201	BIO 223 & 224	BIOL 213 & 214 or 340	BIOL 203 & 204 or 301 & 302	BIOL 103 & 104	BIOL 121 & 122	LFSC/LFSL 111 & 112 or 211 & 212
Biology Electives	BIO 113 or 213 (Micro) or BIO 214 (Genetics) or BIO 215 (Cell Bio) or BIO 344 (Immuno)	BI 410 (Micro) & BI 357 (Genetics) & 350 (Cell Bio) & 323 (Immuno)	LI FS 274 w/lab (Micro) & LI FS 408 (Immuno) & BIOL 380 (Genetics)	BIO 211 & 212 (Micro)	BIO 315 (Genetics) & 114 (Micro) & 345 (Immuno)	BIOL 221 or 316 (Micro) & BIOL 243 (Cell Bio) & BIOL 430 (Genetics)	BIOL 221 or 438 (Micro) & BIOL 231 (Cell Bio) & BIOL 444 (Genetics)	BIOL 209 (Micro) & BIOL 225 (Genetics) & BIOL 270 (Immuno) or BIOL 230 (Cell Bio)	BIOL 272 (Micro) & BIOL 382 (Genetics) & BIOL 422 (Immuno) or BIOL 334 (Cell Bio)	LFSC 210 or 230 (Micro) & LFSC 308 (Genetics) & one additional upper level LFSC course

BACHELOR SCIENCE IN CYTOTECHNOLOGY

The following is a suggested three-year plan for completing the Cytotechnology 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 and Trig. 3cr Introductory Biology 1 5cr Chemistry 1 5cr Total 16cr	Public Speaking or Interpersonal Comm. 3cr Introductory Biology 2 5cr Chemistry 2 5cr Elective 3cr Total 16cr
SECOND YEAR	Humanities Elective 3cr Social Science Elective 3cr Human Anatomy 4-5cr Electives 6cr Total 17cr	English Composition 2 3cr +Biology Elective 3cr Human Physiology 4-5cr Social Science Elective 3cr Total 13cr
NOTE: At this point, students who have a minimum 2.50 cumulative GPA and minimum 2.50 biology GPA may be eligible to submit an application for admission prior to the December 1 st deadline.		
THIRD YEAR	+Biology Elective 3-5cr Electives 9cr Total 14cr	+Biology Elective 3-4cr Electives 12cr Total 15-16cr Cumulative Total 91-92cr
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 a minimum 2.50 biology GPA prior to the program's fall starting date.		

Suggested Electives

- + **Biology Electives:** Microbiology, Embryology, Genetics, Animal Cell Physiology, Immunology, and Cell Biology. Please check the School of Medicine Health Professions Programs section of the IUPUI Bulletin for the needed course prerequisites.
- **Electives:** Art Appreciation, Medical Terminology, Statistics, Computer Science/Technology, Supervision (OLS), Medical Microbiology, Biochemistry, Endocrinology, Parasitology, Virology, Cytogenetics, Organic Chemistry, Physics, and Mathematics.

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 needed..... Cumulative 2.50; All Biology 2.50
- Minimum grade needed in prerequisites C (2.00)
- Interview required..... Yes
- Application Deadline December 1st - year prior to entry
- Time Limitations See Bulletin

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 SCHOOL OF MEDICINE HEALTH PROFESSIONS PROGRAMS SECTION OF THE IUPUI BULLETIN FOR ALL PROGRAM REQUIREMENTS

Program Admission Information Sheet – 2009

Program: CYTOTECHNOLOGY, B.S.

Revised 3 /09

<p>Application Deadline:</p>	<p>December 1st</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>Combined scores on: 1. Cumulative GPA (25%) 2. Biology GPA (26%) 3. Interview (49%)</p> <p>Nature of electives and degree of course difficulty is compared when students are otherwise equal.</p> <p>The first 8 seats in each class are reserved for students who meet eligibility requirements as Indiana residents. Alternates are then ranked by final score.</p>
<p>Component GPA (if used): Explain what is included (excluded). Please be specific.</p>	<p>Biology GPA (26%) All Biology courses Anatomy and Physiology (Remedial course work is NOT utilized in calculating cumulative GPA)</p>
<p>Interview When is the interview conducted? How long is the interview? How many interviewers? What is the make-up of the interview team?</p> <p>Briefly describe the interview. What suggestions do you have to help applicants prepare?</p> <p>Date by which an applicant should contact the program if he/she has not heard from the program about an interview date or that he/she is not qualified.</p> <p>Date by which admission decisions are made (hopefully).</p>	<p>Third and fourth weeks of January One hour 3 Program faculty – 2 and Pathologist - 1</p> <p>Be familiar with field of Cytotechnology and why you want to be a Cytotechnologist.</p> <p>January 3rd</p> <p>Mid - February</p>

Program Fact Sheet – 2009

Program: CYTOTECHNOLOGY, B.S.

Revised 3/09

<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>Courses meet 8AM-5PM Monday-Friday. Didactic and clinical components are integrated.</p> <p>Requires student to be well organized and disciplined in making the most out of unscheduled time.</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>BS, CT(ASCP); Cytotechnology certification by American Society for Clinical Pathology</p> <p>SCT(ASCP), Specialist in Cytotechnology</p> <p>BS degree and completion of an accredited Cytotechnology program.</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>Moderately competitive - more applicants than openings.</p> <p>An increasing shortage of Cytotechnologists. Job opportunities are, and will continue to be excellent. Many employers are now offering sign-on bonuses and/or educational reimbursement.</p>
<p>Placement Statistics: In Indiana?</p> <p>Outside Indiana?</p>	<p>75% of graduates accepted positions in Indiana 25% of graduates accepted positions out of state</p>
<p>Salary Range: Recent IU Graduates?</p>	<p>\$43,680-49,920 ;average \$46,800</p>