

Cytotechnology - Prerequisites and Curriculum for undergraduate programs

You must earn a grade of 'C' or better in each prerequisite course

Prerequisite Courses for Baccalaureate and Entry-Level BS/MS Programs			
Course Distribution	2+2 BS Program	3+1 BS Program	3+2 Entry-Level BS/MS Program
Biological or Chemical Sciences ¹	16	16	20
Organic Chemistry	4	4	4
College Algebra, Trigonometry, Precalculus, Calculus or Statistics	3	3	3*
English	6	6	6
Electives ²	26	41	49
Total	55	70	82

¹Suggested biological or chemical sciences courses include but are not limited to General Biology, General Chemistry and Anatomy & Physiology. ² A course in Statistics, Physics, Bioinformatics or similar coursework is recommended. *Applicants to the Entry-Level BS/MS or the Masters programs should take Statistics.

NOTE: Graduates of associate degree MLT, CLT, BT or other similar programs may transfer technician coursework credits to satisfy the biological/chemical sciences and elective prerequisites.

"2+2" Baccalaureate Degree Program in Cytotechnology

(Full-time, 2-year option for students entering with 55 specific prerequisite credits)

Junior Year

FALL SEMESTER		<i>Semester Credits</i>
LS 301	Molecular Biology	3
LS 303	Fundamental Clinical & Experimental Techniques	3
LS 311	Functional Histology	2
CT 301	Principles of Cell Analysis	2
CT 311	Gynecologic Cytology and Histocorrelations	3
CT 312	Gynecologic Cytology and Histocorrelations Laboratory	5
Total for semester		18
SPRING SEMESTER		
LS 413	Pathology	2
CT 307	Cellular and Molecular Laboratory Techniques	4
CT 315	Nongynecologic Cytology and Histocorrelations I	4
CT 317	Nongynecologic Cytology and Histocorrelations II	4
Total for semester		14

Senior Year

FALL SEMESTER		<i>Semester Credits</i>
LS 498	Special Topics in Laboratory Science	2
CT 412	Cytotechnology Practicum I	4
CT 413	Cytotechnology Practicum II	4
CH 304	Biochemistry	3
HCA 300	Healthcare Delivery in America	3
Total for semester		<hr/> 16

SPRING SEMESTER		
LS 416	Comprehensive Examination	1
LS 430	Laboratory Standards and Practices	3
LS 440	Current Research in the Biosciences	2
CT 325	Cellular and Molecular Diagnostics	3
CT 414	Cytotechnology Practicum III	4
CT 415	Cytotechnology Practicum IV	4
Total for semester		<hr/> 17

Credit Summary

Credits Required for Admission	55
Credits for Junior Year	32
Credits for Senior Year	<hr/> 33
Total Credits for BS (Cytotechnology/Cell Sciences, "2+2" Option)	120

"3+1" Baccalaureate Program

(Full-time, 1-year option for students entering with 70 specific prerequisite credits)

FALL SEMESTER		<i>Semester Credits</i>
LS 301	Molecular Biology	3
LS 303	Fundamental Clinical and Experimental Techniques	3
LS 311	Functional Histology	2
CT 301	Principles of Cell Analysis	2
CT 311	Gynecologic Cytology and Histocorrelations	3
CT 312	Gynecologic Cytology and Histocorrelations Laboratory	5
CH 304	Biochemistry	3
Total for semester		<hr/> 21

SPRING SEMESTER		
LS 413	Pathology	2
LS 440	Current Research in the Biosciences	2
CT 307	Cellular and Molecular Laboratory Techniques	4
CT 315	Nongynecologic Cytology and Histocorrelations I	4
CT 317	Nongynecologic Cytology and Histocorrelations II	4
CT 325	Cellular and Molecular Diagnostics	3
Total for semester		<hr/> 19

SUMMER SESSIONS I & II

LS 416	Comprehensive Examination	1
LS 430	Laboratory Standards and Practices	3
CT 412	Cytotechnology Practicum I	4
CT 413	Cytotechnology Practicum II	4
CT 414	Cytotechnology Practicum III	4
CT 415	Cytotechnology Practicum IV	4
	Total for semester	<hr/> 20

Credit Summary for 3+1 Baccalaureate Degree Option

	Credits Required for Admission	70
	Credits for Senior Year	<hr/> 60
Total Credits for BS (Cytotechnology/Cell Sciences, "3+1" Option)		130

Entry-Level BS/MS Program in Cytotechnology/Cell Sciences

(full-time, 2 year baccalaureate and entry-level master's degree program for students entering with 82 specific prerequisite credits)

FALL SEMESTER		<i>Semester Credits</i>
LS 301	Molecular Biology	3
LS 303	Fundamental Clinical and Experimental Techniques	3
LS 311	Functional Histology	2
CT 301	Principles of Cell Analysis	2
CT 311	Gynecologic Cytology and Histocorrelations	3
CT 312	Gynecologic Cytology and Histocorrelations Laboratory	5
CH 304	Biochemistry	3
	Total for semester	<hr/> 21
SPRING SEMESTER		
LS 440	Current Research in the Biosciences	3
CT 307	Cellular and Molecular Laboratory Techniques	4
CT 315	Nongynecologic Cytology and Histocorrelations I	4
CT 317	Nongynecologic Cytology and Histocorrelations II	4
CT 325	Cellular and Molecular Diagnostics	3
	Total for semester	<hr/> 18

Students who achieve a grade-point average of 3.0 or higher at the completion of two semesters of undergraduate coursework are admitted to the graduate phase of the program.

Graduate Phase

FALL SEMESTER

	Concentration Electives	6
LS 603	Research Design	3
LS 640	Methods in Bioscience Education	3
LS 801	Research Project I	1

LS 812	Practicum I	2
LS 813	Practicum II	2
	Total for semester	<u>17</u>

SPRING SEMESTER

LS 613	Pathology	2
LS 610	Regulatory + Fiscal Issues in Laboratory Management	3
LS 802	Research Project II	2
LS 814	Practicum III	2
LS 815	Practicum IV	2
LS 816	Comprehensive Examination	1
	Concentration Elective	3
	Total for semester	<u>15</u>

Credit Summary for 3+1 Baccalaureate Degree Option

	Credits Required for Admission	82
	Undergraduate Phase Credits	39
	Graduate Phase Credits	<u>32</u>
	Total Credits for BS/MS in Bioscience Technologies - Cytotechnology/Cell Sciences Option	153