



## Undergraduate Degree Map for Completion in Four Years

<b>College:</b>	College of Science, Engineering & Technology <input type="button" value="v"/>
<b>Department:</b>	Biological Sciences <input type="button" value="v"/>
<b>Name of Program:</b>	BIOLOGY: CYTO TECHNOLOGY/GENETICS <input type="button" value="v"/>
<b>Degree Designation:</b>	BS <input type="button" value="v"/>
<b>Emphasis/Concentration:</b>	BIOL: CYTO TECHNOLOGY/GENETICS <input type="button" value="v"/>
<b>Option:</b>	<input type="text"/>
<b>Version:</b>	1 <input type="button" value="v"/>
<b>Version Explanation:</b>	<input type="text"/>
<b>Type of Program:</b>	Broad Major <input type="button" value="v"/>
<b>Minor Required:</b>	No <input type="button" value="v"/>
<b>Specific Minor (if required):</b>	<input type="text"/>

<b>Program Description:</b>	<input type="text" value="Cytotechnology is an allied health professional and is involved in the microscopic study of cells for evidence of disease and cancer. Cytotechnologists are employed in hospital laboratories, universities, and private laboratories."/>
<b>Admission Requirements:</b>	<input type="text" value="32 earned semester hours including BIOL 105, BIOL 106, BIOL 211, and CHEM 201 with a grade of 'C' or better; completed General Education Goal Area 4 (Mathematics); completed General Education Goal Area 1, Part A (English Composition); and a minimum cumulative GPA of 2.2, with a cumulative GPA in Biology courses of 2.0."/>
<b>Advising:</b>	<input type="text" value="You are expected to meet with your advisor on a regular basis to ensure courses are taken in an order that will lead to successful completion of the degree."/>
	<input type="text" value="Each student must meet with an advisor each semester. Following the meeting the student will be given an access code which allows the student to register for classes."/>
<input type="text" value="A complete listing of program faculty, policies, and course descriptions is available in the undergraduate bulletin."/>	

### TERM 1 - FALL

Designator:	Course:	Course Name:	Credits:	Milestones:
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 15 credit hours

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 15 credit hours
BIOL	105	General Biology I	4	C or better is required
BIOL	220	Human Anatomy	4	
MATH	112	College Algebra	4	
ENG	101	Composition	4	

Insert item

**Term 1 Notes:**

General Education Categories 1A, 2, 3, and 4, will be filled by the major's required courses.

### TERM 2 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 30 credit hours Advance to Sophomore status
BIOL	106	General Biology II	4	C or better is required
CHEM	201	General Chemistry I	5	C or better is required
		General Education Course	3	
		General Education Course	2	

Insert item

**Term 2 Notes:**

### TERM 3 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
BIOL	330	Principles of Human Physiology	4	
CHEM	202	General Chemistry II	5	
ENG	271W	Technical Communication	4	
		General Education Course	2	

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**Term 3 Notes:**

### TERM 4 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 60 credit hours Advance to Junior status

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 60 credit hours Advance to Junior status
BIOL	270	General Microbiology	4	
BIOL	211	Genetics	4	C or better is required
		General Education Course	3	
		General Education Writing Intensive Course	3	

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**Term 4 Notes:**

May apply to the major at the end of this term if overall GPA is 2.2 or better, and Biology GPA is 2.0 or better.

### TERM 5 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Apply for Graduation
BIOL	320	Cell Biology	4	
CHEM	322	Organic Chemistry I	4	
CHEM	323	Supplemental Organic Chemistry	1	
		General Education Course	3	
		General Education Course	2	

Insert item

**Term 5 Notes:**

Chemistry 323 is required if taking Chem 360 in the spring.

### TERM 6 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67% Completion of $\geq$ 90 credit hours Advance to Senior status
---	---	Choose 1 course:	----	
BIOL	430	Hematology/Intro to Immunology	4	
BIOL	434	Developmental Biology	3	
BIOL	435	Histology	4	
BIOL	479	Molecular Biology	4	
---	---	Choose 4 credits :	---	
CHEM	360	Principles of Biochemistry OR	4	
CHEM	305	Analytical Chemistry OR	4	
CHEM	324	Organic Chemistry II AND	3	
CHEM	325	Organic Chemistry II Lab	1	
		General Education Course , Gold or Purple	4	
		General Education Course, Purple	3-4	

Insert item

**Term 6 Notes:**

University of Minnesota also requires Math 121, (Calculus) and Chem 324/325. 40 credits of upper division courses (including biology courses) are needed for graduation. Apply for graduation one year prior to your expected graduation date. Be sure all General Education and Diversity Course requirements have been met.

### TERM 7 - FALL

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
BIOL	493	Internship I	1-12	
BIOL	494	Internship II	1-12	

Insert item

#### Term 7 Notes:

Total internship credits this term must equal 16.

### TERM 8 - SPRING

<i>Designator:</i>	<i>Course:</i>	<i>Course Name:</i>	<i>Credits:</i>	<i>Milestones:</i>
				Overall GPA $\geq$ 2.0 Course Completion Rate $\geq$ 67%
BIOL	495	Internship III	1-12	
BIOL	496	Internship IV	1-12	

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#### Term 8 Notes:

Total Internship credits this term must equal 16

### PROGRAM NOTES

### DEGREE MAP CHECKLIST: GRADUATION REQUIREMENTS

<input checked="" type="checkbox"/>	1. Minimum of 15 credits per semester
<input checked="" type="checkbox"/>	2. General Education = 44 credits
<input checked="" type="checkbox"/>	3. Diverse Cultures = 2 course (6 credits minimum) from two disciplines
<input checked="" type="checkbox"/>	4. Writing Intensive = 2 courses (6 credits minimum)
<input checked="" type="checkbox"/>	5. Major = <input type="text" value="94"/> credits
<input type="checkbox"/>	6. Upper-Division Requirements = 40 credits minimum
<input type="checkbox"/>	7. Professional Education (if required) = 30 credits
<input type="checkbox"/>	8. Language Requirements (if BA) = 8 credits minimum
<input type="checkbox"/>	9. Minor = <input type="text"/> credits

10. Total credits required for degree **DEGREE MAP COMPLETE**

Map is complete and ready for review

1. Faculty please send an email to your Department Chair when map is ready to review.
2. Department Chair please send an email to your Dean when map is ready to review.
3. Dean please send an email to the Assistant Vice President for Undergraduate Studies when map is ready to review.

**DEAN APPROVAL**

Map reviewed and approved by Dean

**Save and Close**