

Dual Credit Based PROGRAM OF STUDY

Major: Biotechnology, A.S.

Please note: in New York State, many of the high school courses require students to pass a NYS Regents

	Grade 9	Grade 10	Grade 11	Grade 12
Mathematics	Math Course	Math Course	Math Course	Pre-calculus Math 135
Science	Science Course	Science Course BIOL 104/105	Science Course	Physics
Language Arts	English 9	English 10	English 11	English 12 ENGL 101/102
Social Studies	Global Studies I	Global Studies II	American History	Econ Govt.
Other	Physical Education	Physical Education	Physical Education	Physical Education
Other	Foreign Language or Technology	Foreign Language or Technology	Foreign Language or Technology	French FREN 101/102*
Other	Art or Music	Health		
ELECTIVES		High School Elective	College Success Course: ACAD 150	Introduction to Psychology PSYC 103

Completion of Associate's Degree		
Semester A:	Semester B:	Semester C:
BIOT 101 (1 credit)	BIOL 205/206 or 201 (4 credits)	BIOL 216 (4 credits)
HSTY 101 (3 credits)	ENGL 201 (3 credits)	BIOT 295 (2 credits)
CHEM 107 (4 credits)	CHEM 108 (4 credits)	CHEM 205 (4 credits)
MATH 200 (3 credits)	CAPS 141 (1 credit)	Other-World Civ. Elective (4 credits)
Restricted Elective (3 credits)	Fitness Elective (1 credit)	HLTH 126 (1 credit)

NOTE: This list meets minimum graduation requirements for this degree, for a student entering TC3 in 2005. Student would be free to take further electives, or to pursue a certificate in a non-science major in semester D. Students must take 12 credits per semester to maintain full-time financial-aid status.

* These courses may be replaced with other unrestricted electives, with advisor's approval, see reverse.

= 24 College Credits toward degree by HS Graduation

** Graduation requirements outlined above reflect NYS standards for the class of 2005. Courses identified in black are high school credit courses required for graduation; courses identified in red are college credit courses contributing to an Associate's Degree. Associate's Degree requirements listed for students entering Fall 2005 – degree requirements are subject to change. This example was created using Owego Free Academy's current Dual Credit offerings.

**Biotechnology, A. S.
Fall 2005**



Student's Name _____

ID# _____

Advisor's Name _____

Date _____

	First Semester	Credits	Owego Free Academy	TC3
BIOL	104 General Biology I	4	✓	
BIOT	101 Introduction to Biotechnology	1		✓
CAPS	141 Presentation Software	1		✓
CHEM	101 Principles of Chemistry I OR			
CHEM	107 General Chemistry I	4		✓
ENGL	101 Academic Writing I	4	✓	
FITN	Elective: _____	1		✓
		15		
Second Semester				
BIOL	216 General Microbiology	4		✓
CHEM	102 Principles of Chemistry II OR			
CHEM	108 General Chemistry II	4		✓
HLTH	126 Health and Fitness	1		✓
HSTY	101 Development of the Western Tradition I OR			
HSTY	102 Development of the Western Tradition II	3		✓
Restricted MATH Elective:				
MATH	132 College Algebra and Trigonometry OR			
MATH	135 Pre-Calculus Mathematics OR			
MATH	201 Calculus I	3-4	✓	
		15-16		
Third Semester				
¹ BIOL	205/206 General Genetics/Molecular Genetic Techniques OR			
BIOL	201 Human Anatomy & Physiology I	4		✓
CHEM	205 Organic Chemistry I	4		✓
ENGL	201 Fundamentals of Speech	3		✓
MATH	200 Statistics	3		
ECON	120 Principles of Microeconomics OR			
PSYC	103 Introduction to Psychology	3	✓	
		17		
Fourth Semester				
BIOT	295 Biotechnology Seminar	2		✓
ENGL	102 Approaches to Literature OR			
PHIL	201 Contemporary Moral Issues	3	✓	
SUNY Other World Civilizations Elective _____				
(See other side for courses that satisfy this requirement)				
Restricted Elective ² :	BIOL 105	3-4	✓	
Restricted Elective ² :	_____	3-4		✓
Unrestricted Elective ³ :	FREN 101, or SPAN 101 or HSYT 202 or other at TC3	3-4	✓	
		17-20		
Semester Credits Required for Graduation:			24 Dual Credits	
			64-68	

¹ To be chosen with faculty advisor in order to meet the Biology course requirements of specific baccalaureate programs.
² Based on transfer/career intentions and in consultation with the faculty advisor, two of the following courses should be selected: ACCT 101, ACCT 102, BIOL 105, BIOL 201, BIOL 202, BIOL 205/206, BIOL 220/221, BUAD106, BUAD 201, BUAD 208, BUAD 218, CHEM 206, ECON 120, ECON 121, MATH 201 **OR** MATH 202.
 (Note: BIOL 205/206 and BIOL 220/221 are equivalent to 1 restricted elective.)
³ To be selected in consultation with faculty advisor in order to meet transfer institution requirements/recommendations or career objectives.
(Please see other side for General Education Requirements)

GENERAL EDUCATION REQUIREMENTS
Biotechnology, AS

A. TC3 General Education Requirements

TC3 Goal	Program Course(s) Satisfying TC3 Goal
1. The ability to write and speak effectively as well as to read and listen critically	ENGL 101 and ENGL 201
2. The ability to gather, organize, interpret, evaluate and synthesize information from various sources	Students acquire and refine their proficiencies in this area throughout the degree program.
3. The ability to combine formal knowledge with individual experience to reach informed opinions, make decisions, and solve problems	Students acquire and refine their proficiencies in this area throughout the degree program.
4. The ability to use computer technology effectively for communication, research, and data management	Writing/Research: CAPS 141 Data Management: MATH 200
5. The ability to apply to everyday living the elements of good health and physical fitness	HLTH 126 <u>and</u> one FITN course
6. The ability to understand and critically examine multiple perspectives, including one's own	Students acquire and refine their proficiencies in this area throughout the degree program.
7. The ability to apply mathematical and statistical reasoning in solving problems	MATH 132 or 135 or 201; MATH 200
8. A knowledge of how the scientific method helps us to understand the natural world	BIOL 104, 201, or 205/206, 216; and CHEM 101 or 107, 102 or 108, 205
9. A knowledge of modes of inquiry in the social sciences and experience in their application to issues and events of the contemporary world.	ECON 120 or PSYC 103; SUNY Other World Civilizations Elective
10. An understanding of history and its relationship to contemporary societies	HSTY 101 or 102
11. An understanding of how the humanities enrich human experience	ENGL 102 or PHIL 201

B. SUNY General Education Requirements

SUNY GEN ED Category	Program Course(s) Satisfying SUNY GEN ED Category
1. Mathematics	MATH 132 or 135 or 201; MATH 200
2. Natural Sciences	BIOL 104, CHEM 101 or CHEM 107
3. Social Sciences	ECON 120 or PSYC 103
4. American History	HSTY 201, 202, 225 or 233 could be selected for the Unrestricted Elective.
5. Western Civilization	HSTY 101 or 102
6. Other World Civilizations	ANTH 202, HSTY 111, HSTY 252, SOCI 225
7. Humanities	ENGL 102 or PHIL 201
8. The Arts	ART 101, 102, 109, 110, 111, 115, 120, 130, 208; ENGL 105, 200; or MUSI 101 could be selected for the Unrestricted Elective.
9. Foreign Language	FREN 101, 102, 201, 202; GERM 101, 102; RUSN 101, 102; SPAN 101, 102, 202, or 202 for the Unrestricted Elective.
10. Basic Communication	ENGL 101