Name _____ CCNY email_____ Faculty advisor Date:
Last 4 digits of ID _____ signature:

BIOTECHNOLOGY MAJOR REQUIREMENTS (total credits 76-80)

REQUIRED CORE COURSES

BIO 10100	4		CHEM 10301	4	
BIO 10200	4		CHEM 10401	4	
MATH 20500	4		CHEM 26100	3	
MATH 20900	4		PHIL 34905	3	
PHYS 20300	4				
PHYS 20400	4				

Biology required courses

BIO 20600	4		BIO 48300	5	
BIO 22900	4				

Chemistry required courses

CHEM 26200	2		CHEM 32002	3	
CHEM 26300	3				

BIOTECHNOLOGY ELECTIVES (11 credits)

(Electives are continually evaluated; if it is not listed below, type ask the major advisor whether it can count)

SCI 28000	3		CHEM 32004	2	
BIO 35000	4		CHEM 33000	4	
BIO 35200	3		CHEM 33200	3	
BIO 35400	4		CHEM 37400	3	
BIO 35500	3		CHEM 40600	3	
BIO 37500	3		CHEM 40700	3	
BIO 37800	3		CHEM 43500	5	
BIO 37900	3		CHEM 44000	3	
BIO 38000	3		CHEM 44200	3	
BIO 41000	3		CHEM 48005	3	
BIO 42000	3		PHYS 31500	3	
BIO 43000	3		PHYS 42200	3	
BIO 42500	3		PHYS 42300	3	
BIO 44500	3		PHYS 52200	3	
BIO 48000	3				
BIO 48100	3				

Required bench Research courses (can be taken in Bio, Chem, or Phys; Bio/Chem/Phy 31000 can be taken multiple times but only 6 cr will count towards the major): 6 cr

BIO/CHEM/PHYS 30100	3		BIO/CHEM/PHYS 30300	3	
BIO/CHEM/PHYS 30200	3		BIO/CHEM/PHYS 31000_		

This student has fulfilled all requirements for the Major in Biotechnology

Head Biotechnology Major
Advisor Signature: Date:

OTHER REQUIREMENTS

1. For general CCNY and Division of Science (B.S.) requirements, see Undergrad Bulletin.
2. To declare a major, you must successfully complete Bio10100/10200, Bio20600, Chem 10301/10401, and Math 20500 with a GPA or 3.0 or higher.
3. A 3.0 GPA in Biotechnology courses is required to remain in the Major and to graduate.
4. To enroll in a lower-level Science course, students must pass all course prerequisites with a grade of 'C' or higher.
5. 60% of Biotech major credits MUST be taken at CCNY.

COURSE PLAN -- List all courses you've taken at CCNY. Then list all courses you plan to take up through the semester you intend to graduate.

Fall 202?	**Spring 202?**
Summer 202?	
Fall 202?	**Spring 202?**
Summer 202?	
Fall 202?	**Spring 202?**
Summer 202?	
Fall 202?	**Spring 202?**
Summer 202?	
Fall 202?	**Spring 202?**

Requirements for Biotechnology Major (B.S.)

REQUIRED COURSES

BIOLOGY
BIO 10100 Biological Foundations I (4 cr)
BIO 10200 Biological Foundations II (4 cr)
BIO 20600 Introduction of Genetics (4 cr)
BIO 22900 Cell and Molecular Biology (4 cr)
BIO 48300 Laboratory in Biotechnology (5 cr)

CHEMISTRY
CHEM 10301 General Chemistry I (4 cr)
CHEM 10401 General Chemistry II (4 cr)
CHEM 26100 Organic Chemistry I (3 cr)
CHEM 26200 Organic Chemistry Laboratory I (2 cr)
CHEM 26300 Organic Chemistry II (3 cr)
CHEM 32002 Biochemistry I (3 cr)

MATHEMATICS
MATH 20500 Elements of Calculus (4 cr)
MATH 20900 Elements of Calculus & Statistics (4 cr)
OR
MATH 20100, MATH 21200, MATH 21300 series (total 12 cr)

PHILOSOPHY
PHIL 34905 Bioethics (3 cr)

PHYSICS
PHYS 20300 General Physics I (4 cr)
PHYS 20400 General Physics II (4 cr)
OR
PHYS 20700/20800 series (8 cr)

RESEARCH COURSES (6 cr required)
BIO/CHEM/PHYS 301-303 Honors I-III (*maximum 6 cr* towards major)
BIO/CHEM/PHYS 310 Independent Study (1-3 cr/semester; *maximum 6 cr* towards major*)*

ADVANCED ELECTIVES (others possible with permission)

Biology
BIO 35000 Microbiology (4 cr)
BIO 35200 Introduction to Immunology (3 cr)
BIO 35400 Introduction to Neurobiology (3 cr)
BIO 35500 Analysis of Scientific Literature (4 cr)
BIO 37500 Developmental Biology (3 cr)
BIO 37800 Science of Sex & Gender (3 cr)
BIO 37900 Developmental Neurobiology (3 cr)
BIO 38000 Eukaryotic Genetics (4 cr)
BIO 41000 Cell Development and Senescence (3 cr)
BIO 42000 Virology (3 cr)
BIO 42500 Cancer Biology (3 cr)
BIO 43000 Genetics of Prokaryotes (3 cr)
BIO 44500 Molecular Systematics (3 cr)
BIO 48000 Topics in Microbial Genetics (3 cr)
BIO 48100 Epigenetics (3 cr)

Chemistry
CHEM 32004 Biochemistry Lab I (2 cr)
CHEM 33000 Physical Chemistry I (4 cr)
CHEM 33200 Physical Chemistry II (3 cr)
CHEM 37400 Organic Chemistry Lab II (3 cr)
CHEM 40600 Environmental Chemistry (3 cr)
CHEM 40700 Environmental Organic Chemistry (3 cr)
CHEM 43500 Physical Biochemistry (5 cr)
CHEM 44000 Journey to the Center of the Cell (3 cr)
CHEM 44200 RNA Biochemistry & Molecular Biology (3 cr)
CHEM 48005 Biochemistry II (3 cr)

Physics
PHYS 31500 Medical Physics (3 cr)
PHYS 42200 Biophysics (3 cr)
PHYS 42300 Biophysics in Applications (3 cr)
PHYS 52200 Biomedical Physics (3 cr)

SCIENCE 28000 Bioinformatics and Biomolecular Systems (3 cr)