

Name: \_\_\_\_\_

Class Year: \_\_\_\_\_

## Checklist for BIOCHEMISTRY Major Requirements

COURSE NUMBER	COURSE TITLE	CREDITS	PREREQUISITE(S)	COMPLETED (SEMESTER/YEAR)
CHEM BC2001x	<i>General Chemistry (lecture + lab)</i>	5.0	Algebra	_____
MATH UN1101x,y	<i>Calculus I</i>	3.0		_____
CHEM BC3230y	<i>Organic Chemistry I</i>	3.0	CHEM BC2001x	_____
CHEM BC3328y	<i>Organic Chemistry I Laboratory</i>	2.5	CHEM BC2001x; Coreq.: CHEM BC3230y	_____
MATH UN1102 or UN1201	<i>Calculus II or III (circle one)<sup>1</sup></i>	3.0	MATH UN1101x,y	_____
BIOL BC1502y	<i>Intro to Cell and Molecular Biology</i>	3.0	BIOL BC1001x (or equivalent)	_____
BIOL BC1503y	<i>Intro Lab in Cell &amp; Molecular Biol.</i>	2.0	BIOL BC1001x (or equivalent)	_____
CHEM BC3231x	<i>Organic Chemistry II</i>	3.0	CHEM BC3230y	_____
CHEM BC3333x	<i>Modern Techniques Lab.</i>	3.0	CHEM BC3328y; Coreq.: CHEM BC3231x	_____
CHEM BC3242y	<i>Quantitative Analysis</i>	3.0	CHEM BC3231x; MATH UN1101x,y; Coreq.: CHEM BC3338y	_____
CHEM BC3338y	<i>Quant. &amp; Instrumental Tech. Lab.</i>	3.0	CHEM BC3231x, 3333x; Coreq.: CHEM BC3242y	_____
PHYS BC2001x	<i>Mechanics (with lab)<sup>2</sup></i>	4.5	MATH UN1101x,y	_____
PHYS BC2002y	<i>Electricity &amp; Magnetism (with lab)<sup>2</sup></i>	4.5	MATH UN1101x,y	_____
CHEM BC3282x	<i>Biological Chemistry</i>	3.0	CHEM BC3231y; BIOL BC1502y	_____
CHEM BC3253x	<i>Quantum Chemistry</i>	3.0	CHEM BC3242y; MATH UN1102 or 1201; PHYS BC2001x, 2002y	_____
CHEM BC3283y	<i>Biological Chemistry II</i>	3.0	CHEM BC3282x	_____
CHEM BC3355y	<i>Biochemistry Lab. Techniques</i>	5.0	CHEM BC3333x, BC3338y	_____
CHEM BC3271y	<i>Inorganic Chemistry (optional)<sup>3</sup></i>	3.0	CHEM BC3231x	_____
Elective (specify)	_____			_____
<b>Senior Requirement:</b>				
CHEM BC3901x ; 3902y	<i>Senior Honors Thesis Seminar</i>	4.0 ; 4.0		_____
or CHEM BC3599	<i>Guided Research</i>	4.0		_____

**Note 1:** Two semesters of math after entering college, including *Calculus I* and *II* or *III*, are required. The mathematics department allows students to take *Calculus I* followed directly by *III*. A third and fourth semester of calculus (MATH UN1201- UN1202) is strongly recommended.

**Note 2:** The Barnard physics sequence is strongly recommended. Any calculus-based Columbia sequence, with two semesters of laboratory work, is acceptable (1401-2, 1601-2, but not 1201-2). For greater coverage of basic physics, PHYS BC3001x (*Waves and Optics*) is recommended.

**Note 3:** Completion of CHEM BC3271 (*Inorganic Chemistry*) is required to receive an American Chemical Society certified degree. It is not required for the Biochemistry major.