CENTER FOR
Computational
Molecular Biology

A.B. in Computational Biology

Please fill out this form to the best of your ability. This contract must be completed with your concentration advisor and have him/her/them sign it. Check off the boxes that correspond with each completed course. Check off **ONLY** those courses used for this concentration. Any changes to your contract must be initialed by your advisor beside each course that has changed. This contract must be reviewed and (re)approved yearly. If there are no changes, review is still required but approval is automatic.

Student's Legal Name: **Graduation Year:**

Advisor's Name:

Semester Taken: Advisor:

PREREQUISITES:

☐	MATH 0100:		Introductory Calculus II	Fall _____	_____
		OR			
☐	MATH 0170:		Advanced Placement Calculus	Fall _____	_____
☐	BIOL 0200:		Foundation of Living Systems	Spring _____	_____

GENERAL CORE REQUIREMENTS:

BIOLOGY –

☐	BIOL 0470:		Genetics	Fall _____	_____
☐	BIOL 0280:		Introduction to Biochemistry	Spring _____	_____
		OR			
☐	BIOL 0500:		Introduction to Cell Biology	Spring _____	_____

CHEMISTRY –

☐	CHEM 0330:		Equilibrium, Rate and Structure	Fall _____	_____
		OR			
☐	CHEM 0350:		Organic Chemistry	Fall _____	_____

COMPUTER SCIENCE –

☐	CSCI 0150:		Introduction to Object-Oriented Programming and Comp. Science	Fall _____	_____
		AND			
☐	CSCI 0160:		Introduction to Algorithms and Data Structures	Spring _____	_____
		OR			
☐	CSCI 0170:		CS: Integrated Approach I	Fall _____	_____
		AND			
☐	CSCI 0180:		CS: Integrated Approach II	Spring _____	_____
		OR			
☐	CSCI 0190:		Programming with Data Structures and Algorithms	Fall _____	_____
		AND			
☐	CSCI _____:		(0320, 0330, 0510, or any 1000-Level CSCI Course)	Spring _____	_____

PROBABILITY AND STATISTICS –

☐ APMA 1650:		Statistical Inference I	Fall	_____	_____
	OR				
☐ CSCI 1450:		Introduction to Probability and Computing	Fall	_____	_____
	OR				
☐ MATH 1610:		Probability		_____	_____

COMPUTATIONAL BIOLOGY CORE COURSE REQUIREMENTS:

☐ CSCI 1810:	Computational Molecular Biology	Fall	_____	_____
☐ APMA 1080:	Inference in Genomics and Molecular Biology	Fall	_____	_____
	And two of the following:			
☐ CSCI 1820:	Algorithmic Foundations of Computational	Spring	_____	_____
☐ BIOL 1430:	Population Genetics		_____	_____
☐ BIOL 1465:	Human Population Genomics		_____	_____
☐ CSCI 1420:	Machine Learning	Spring	_____	_____
☐ APMA 1690:	Computational Probability and Statistics	Fall	_____	_____
☐ APMA 1660:	Statistical Inference II	Spring	_____	_____

OR Another course with approval by the Director of the concentration:

Course Number	Course Title	Semester and Year	Advisor Initial

UNIVERSITY WRITING REQUIREMENT –

As part of Brown's writing requirement, all students must demonstrate that they have worked on their writing both in their general studies and in their concentration. There are a number of ways for Computational Biology concentrators to fulfill these requirements:

☐ 1. Enrolling in an independent study:

◯ CSCI 1970 ◯ BIOL 1950 ◯ APMA 1970

☐ 2. Writing an Honors Thesis (list details):

☐ 3. Taking a WRIT course in the in the final two years:

Course Number	Course Title	Semester and Year

CAPSTONE EXPERIENCE –

Students enrolled in the computational biology concentration will complete a research project in their senior year under faculty supervision. The themes of such projects evolve with the field and the technology but should represent a synthesis of the various specialties of the program. The requirements are either one semester of reading and research with a CCMB faculty member or approved advisor, or a 2000-level computational biology course.

Supervised Reading and Research:

Advisor Name	Advisor Signature	Semester and Year

2000-Level Course:

Course Number	Course Title	Semester and Year	Advisor Initial

HONORS –

In order to be considered a candidate for honors, students will be expected to maintain an outstanding record, with no "C" in concentration courses and with a minimum of an "A-" average in concentration courses. In addition, students should take at least one semester—and are strongly encouraged to take two semesters—of reading and research with a CCMB faculty member or approved advisor. Students must submit to a public defense of their theses to be open to the CCMB community. Students seeking honors are advised to choose a Thesis Advisor prior to the end of their Junior year at Brown. Students must complete the Registration form for Computational Biology and submit it to CCMB@brown.edu. The deadlines are October 1 for May graduates and February 15 for any December graduates. Any deviation from these rules must be approved by the Director of Undergraduate Studies, in consultation with the student's advisor.

STUDENT ACKNOWLEDGEMENT:

The above is my plan for meeting the degree requirements. It is my responsibility to make certain that all courses taken at Brown University for concentration credit, all courses taken at other institutions for which transfer credit has been approved for concentration credit, and all advanced placement credits appear correctly on my transcript.

INITIAL SIGNING –

Student Signature	Date	Advisor Signature	Date

YEAR 2 SIGNING –

Student Signature	Date	Advisor Signature	Date

YEAR 3 SIGNING –

Student Signature	Date	Advisor Signature	Date