

# Concentration Contract: Sc.B. in Computer Science/Economics

Name \_\_\_\_\_

Graduation Year \_\_\_\_\_

**General instructions:** fill this out as well as possible, then complete it with your concentration advisor and have her or him sign it. Put in *only* those courses used for the concentration. Put check marks in the boxes in the leftmost column for those courses that have been completed. Any changes to your contract must be initialed and dated by your advisor. The contract must be reviewed and reapproved yearly. (If there are no changes, review is still required, but approval is automatic.)

**Completed**

**Will take when**

**Placement**

## Math Prerequisites

<input type="checkbox"/>	Math 90 (Introductory Calculus I)	_____	<input type="checkbox"/>
<input type="checkbox"/>	Math 100 (Introductory Calculus II)	_____	<input type="checkbox"/>
	or		
<input type="checkbox"/>	Math 170 (Advanced Placement Calculus)	Fall _____	<input type="checkbox"/>
<input type="checkbox"/>	Math 520 (Linear Algebra)	_____	<input type="checkbox"/>
	or		
<input type="checkbox"/>	Math 540 (Honors Linear Algebra)	_____	<input type="checkbox"/>

## Economics Prerequisite

<input type="checkbox"/>	Econ 110 (Principles of Economics)	_____	<input type="checkbox"/>
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## Applied Math

<input type="checkbox"/>	APMA 1650 (Statistical Inference I)	Fall _____
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## Core Computer Science

<input type="checkbox"/>	CSCI 150 (Intro to Programming and CS)	Fall _____
<input type="checkbox"/>	CSCI 160 (Intro to Algs and Data Structs)	Spring _____
	or	
<input type="checkbox"/>	CSCI 170 (CS: Integrated Approach I)	Fall _____
<input type="checkbox"/>	CSCI 180 (CS: Integrated Approach II)	Spring _____
	or	
<input type="checkbox"/>	CSCI 190 (Programming with Data Structures & Algorithms)	Fall _____
	Advanced CS course	_____

## Core Computer Science

<input type="checkbox"/>	CSCI 220 (Intro to Discrete Math)	Spring _____
	or	
<input type="checkbox"/>	CSCI 450 (Intro to Probability and Computing)	Fall _____
<input type="checkbox"/>	CSCI 310 or 330 (Intro to Computer Systems)	Fall _____
<input type="checkbox"/>	CSCI 320 (Intro to Software Engineering)	Spring _____
<input type="checkbox"/>	CSCI 510 (Models of Computation)	Fall _____

## Advanced Computer Science

Choose one track, then choose two courses from that track. Choose one additional 1000-level course. Note: students are encouraged to consider taking 2000-level courses. Please discuss with your advisor which ones might be appropriate.

### Analytical track

<input type="checkbox"/>	CSCI 1410 (Intro to Artificial Intelligence)	Spring _____
<input type="checkbox"/>	CSCI 1490 (Intro to Combinatorial Optimization)	Fall _____
<input type="checkbox"/>	CSCI 1510 (Intro to Cryptography and Computer Security)	Fall _____
<input type="checkbox"/>	CSCI 1550 (Probabilistic Methods in CS)	Spring _____
<input type="checkbox"/>	CSCI 1570 (Design and Analysis of Algorithms)	Spring _____
<input type="checkbox"/>	CSCI 1580 (Information Retrieval and Web Search)	Spring _____
<input type="checkbox"/>	CSCI 1590 (Intro to Computational Complexity)	Spring _____
<input type="checkbox"/>	CSCI 1760 (Intro to Multiprocessor Synchronization)	Fall _____
<input type="checkbox"/>	CSCI 1950F (Intro to Machine Learning)	Spring _____
<input type="checkbox"/>	CSCI 1950J (Intro to Computational Geometry)	Spring _____
	APMA 1210 (Operations Research: Deterministic Models)	
	or	
<input type="checkbox"/>	APMA 1660 (Statistical Inference II)	Fall _____
	or	
	APMA 1690 ((Computational Probability and Statistics)	Spring _____
<input type="checkbox"/>	Other approved course _____	_____

### Information Systems

<input type="checkbox"/>	CSCI 1230 (Intro to Computer Graphics)	Fall _____
<input type="checkbox"/>	CSCI 1260 (Intro to Compiler Construction)	Spring _____
<input type="checkbox"/>	CSCI 1270 (Database Management Systems)	Fall _____

## Information Systems

<input type="checkbox"/>	CSCI 1290 (Computational Photography)	Spring _____
<input type="checkbox"/>	CSCI 1320 (Creating Modern Web Applications)	Spring _____
<input type="checkbox"/>	CSCI 1380 (Distributed Computer Systems)	Spring _____
<input type="checkbox"/>	CSCI 1430 (Intro to Computer Vision)	Fall _____
<input type="checkbox"/>	CSCI 1480 (Building Intelligent Robots)	Fall _____
<input type="checkbox"/>	CSCI 1580 (Information Retrieval and Web Search)	Spring _____
<input type="checkbox"/>	CSCI 1660 (Intro to Computer Systems Security)	Spring _____
<input type="checkbox"/>	CSCI 1670 (Operating Systems)	Fall _____
<input type="checkbox"/>	CSCI 1680 (Computer Networks)	Spring _____
<input type="checkbox"/>	CSCI 1730 (Programming Languages)	Fall _____
<input type="checkbox"/>	CSCI 1900 (Software System Design)	Spring _____
<input type="checkbox"/>	Other approved course _____	_____

## Additional 1000-level course

<input type="checkbox"/>	1000-level CS course _____	_____
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## Advanced Economics

Eight 1000-level Economics courses must be chosen.

<input type="checkbox"/>	Econ 1130 (Inter. Microeconomics (Mathematical))	_____
	or	
<input type="checkbox"/>	Econ 1110 (Inter. Microeconomics)	_____
<input type="checkbox"/>	Econ 1210 (Intermediate Macroeconomics)	_____
<input type="checkbox"/>	Econ 1630 (Econometrics I)	Fall _____
	Three of:	
<input type="checkbox"/>	Econ 1170 (Welfare Economics)	Fall _____
<input type="checkbox"/>	Econ 1470 (Bargaining Theory and Applications)	Spring _____
<input type="checkbox"/>	Econ 1640 (Econometrics II)	Spring _____
<input type="checkbox"/>	Econ 1750 (Investments II)	Fall _____
<input type="checkbox"/>	Econ 1850 (Theory of Economic Growth)	Fall _____
<input type="checkbox"/>	Econ 1759 (Data, Statistics, Finance)	_____
<input type="checkbox"/>	Econ 1810 (Economics and Psychology)	_____
<input type="checkbox"/>	Econ 1860 (The Theory of General Equilibrium)	_____
<input type="checkbox"/>	Econ 1870 (Game Theory and Appl. to Economics)	_____
<input type="checkbox"/>	Any graduate Economics course	_____
<input type="checkbox"/>	Additional 1000-level Economics course	_____
<input type="checkbox"/>	Additional 1000-level Economics course	_____

## Capstone Course

<input type="checkbox"/>	_____	_____
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The above is my plan for meeting the degree requirements. It is my responsibility to make certain that all courses taken at Brown for concentration credit, all courses taken at other schools for which transfer credit has been approved for concentration credit, and all AP credits appear on my transcript.

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Advisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Advisor Name (printed)

Reviewed and reapproved (at yearly meeting with concentration advisor):

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Advisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Advisor Name (printed)

Reviewed and reapproved (at yearly meeting with concentration advisor):

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Advisor Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Advisor Name (printed)