

# Requirements for PhD in Computer Science

For students admitted in Fall 2012 or later

Student Name:

## 1) Core Curriculum

Select 1 core course from each of the two "Foundations" areas, and 4 core courses from any area (6 courses total)

### Foundations of Systems

- \_\_\_\_\_ 525 Principles of Computer Networking
- \_\_\_\_\_ 552 Advanced Operating Systems
- \_\_\_\_\_ 553 Principles of Compilation
- \_\_\_\_\_ 576 Computer Architecture

### Foundations of Theory

- \_\_\_\_\_ 545 Design and Analysis of Algorithms
- \_\_\_\_\_ 573 Theory of Computation

### Applications of Computing

- \_\_\_\_\_ 520 Principles of Programming Languages
- \_\_\_\_\_ 522 Parallel and Distributed Programming
- \_\_\_\_\_ 533 Computer Graphics
- \_\_\_\_\_ 547 Green Computing
- \_\_\_\_\_ 560 Database Systems Implementation
- \_\_\_\_\_ 566 Computer Security
- \_\_\_\_\_ 550 Algorithms in Bioinformatics
- \_\_\_\_\_ 537 Computational Geometry
- \_\_\_\_\_ 577 Introduction to Computer Vision

## 2) Remaining major credit

6 units of CSC graduate courses

\_\_\_\_\_  
\_\_\_\_\_

12 units of research course work, typically CSC 695C

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## 3) Colloquium requirement: attend 10 colloquia and enroll in CSC 695A

\_\_\_\_\_

## 4) Minor course work (12 units required for internal CSC minor, at least 9 units for external minor—confirm total with minor department)

Minor course work

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Additional Graduation Requirements

- 3<sup>rd</sup> semester portfolio review
  - 5<sup>th</sup> semester portfolio review = qualifying exam
  - Written and oral comprehensive exams
  - Dissertation defense
- 
- As and Bs in all core classes
  - 3.5 GPA in core classes, all at least B
  - 3.33 GPA overall

Please complete and submit this check sheet along with your plan of study to the Academic Services Office. This check sheet must also be signed by your faculty advisor.

### For faculty advisor

I verify I have reviewed the student's plan of study and approve of the courses outlined therein. I also confirm that I approve of any transfer course work and/or other deviations from the prescribed curriculum as detailed on this check sheet.

---

Advisor's Signature

Advisor's Name (Printed)

Date

*Core Areas:*

### Foundations of Systems

This area emphasizes the abstractions and organizing principles behind foundational computing systems: hardware, operating systems, compilers, and networks.

### Foundations of Theory

This area emphasizes the development of mathematical skills for designing and analyzing computational processes that have provable properties.

### Applications of Computing

This area emphasizes in some depth the abstraction and organizing principles behind the disciplined and effective use of major enabling computing technologies and their application.