Computer Science BS Degree Requirements Flow Chart: 2012-2013

Computational Biology Track

Computer Science Foundation
all courses required
(21 hours)

CSCI 1000-1
Computer Science as a Field of Work and Study

CSCI 1300-4
Computer Science 1: Programming

CSCI 2270-4
Computer Science 2: Data Structures

CSCI 2400-4
Computer Systems

CSCI 3155-4
Principles of Programming Languages

CSCI 3104-4
Algorithms

CSCI 4317-3
Genome Databases: Mining & Management

CSCI 4314-3
Algorithms for Molecular Biology

CSCI 4810-1
Seminar in Comp. Biology and Health Informatics

Computational Biology Foundation
all courses required
(7 hours)

CSCI 4448-3
Object-Oriented Analysis and Design

CSCI 4839-3
User Centered Design

CSCI 3202-3
Introduction to Artificial Intelligence

CSCI 4446-3
Chaotic Dynamics

CSCI 3434-3
Theory of Computation

Computational Biology Core
select 4
(12-13 hours)

APPM 4390-3
Modeling in Mathematical Biology

MCDB 4520-3
Bioinformatics and Genomics

CSCI 4893-3
User Centered Design

CSCI 3287-3
Database and Information Systems

APPM 1350-4
Calculus 1 for Engineers

APPM 1360-4
Calculus 2 for Engineers

CSCI 2824-3
Discrete Structures

CSCI 3656-3
Numerical Computation

Probability or Statistics

Linear Algebra

Computational Biology Capstone
select one option
(8 hours)

CSCI 4308-4
Software Engineering Project 1

CSCI 4950-4
Senior Thesis

CSCI 4318-4
Software Engineering Project 2

CSCI 4950-4
Senior Thesis

Humanities and Social Sciences
(24 hours)
6 hours upper division Writing

Natural Sciences
(17 hours)
must include science sequence approved for the track

Computer Science Electives
(to bring total to 58 hours)

Free Electives
(to bring total to 128 hours)

www.cs.colorado.edu
Lesley.McDowell@Colorado.EDU
May 5, 2012
Computer Science BS Degree Requirements Flow Chart: 2012-2013

**Systems Track**

**Computer Science Foundation**
- all courses required (21 hours)
- CSCI 1000-1: Computer Science as a Field of Work and Study
- CSCI 1300-4: Computer Science 1: Programming
- CSCI 2270-4: Computer Science 2: Data Structures
- CSCI 2400-4: Computer Systems
- CSCI 2824-3: Discrete Structures
- APPM 1350-4: Calculus 1 for Engineers
- APPM 1360-4: Calculus 2 for Engineers
- Probability or Statistics
- Linear Algebra
- CSCI 3104-4: Algorithms
- Humanities and Social Sciences (24 hours)
- 6 hours upper division Writing
- Natural Sciences (17 hours)
- must include science sequence approved for the track

**Systems Core**
- select 3 (9 hours)
- CSCI 4593-3: Computer Organization
- CSCI 4753-3: Computer Performance Modeling
- CSCI 4273-3: Network Systems
- CSCI 3753-4: Operating Systems
- ECEN 4613-3: Embedded System Design
- ECEN 2350-3: Digital Logic
- CSCI 4555-3: Compiler Construction
- CSCI 3308-3: Software Engineering Methods and Tools
- CSCI 3753-4: Operating Systems
- CSCI 4229-3: Computer Graphics

**Systems Capstone**
- select one option (8 hours)
- CSCI 4308-4: Software Engineering Project 1
- CSCI 4950-4: Senior Thesis
- CSCI 4318-4: Software Engineering Project 2
- CSCI 4950-4: Senior Thesis

**Computer Science Electives**
- (to bring total to 58 hours)

**Free Electives**
- (to bring total to 128 hours)

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