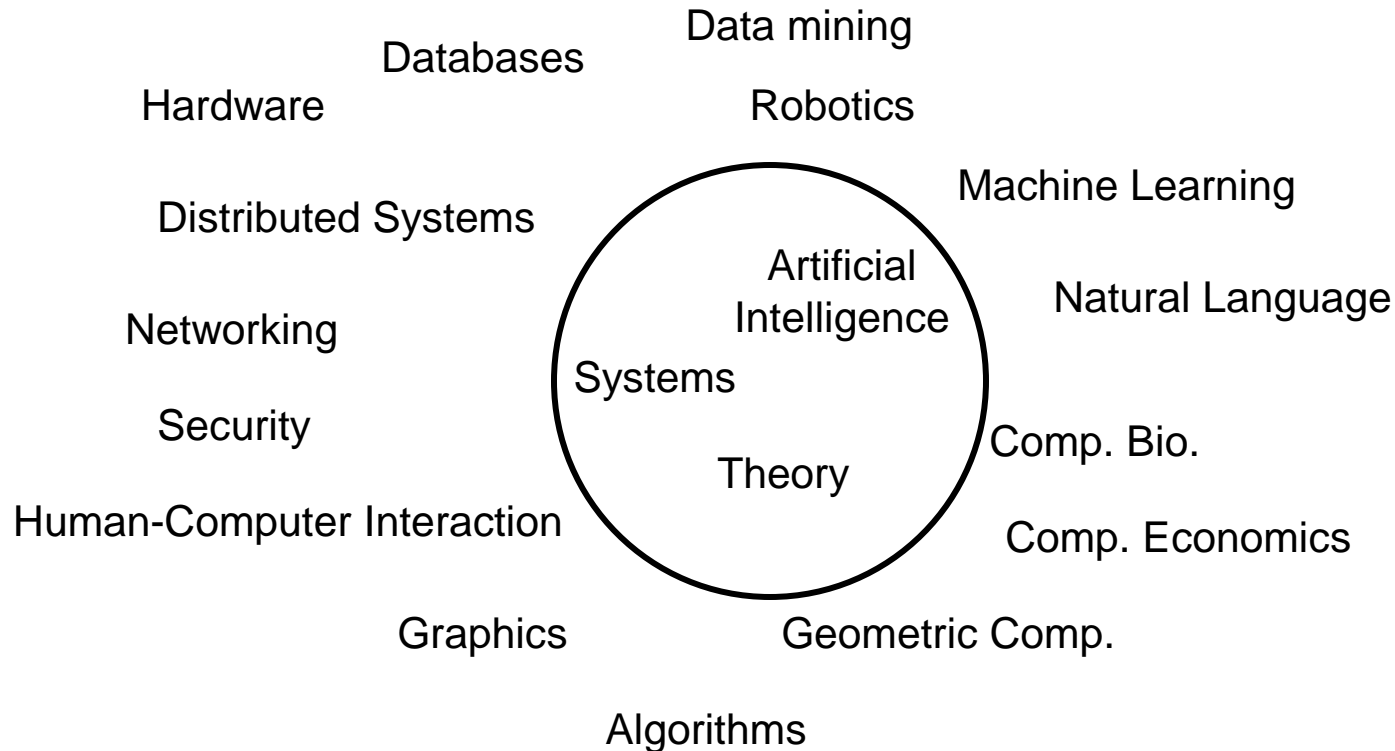
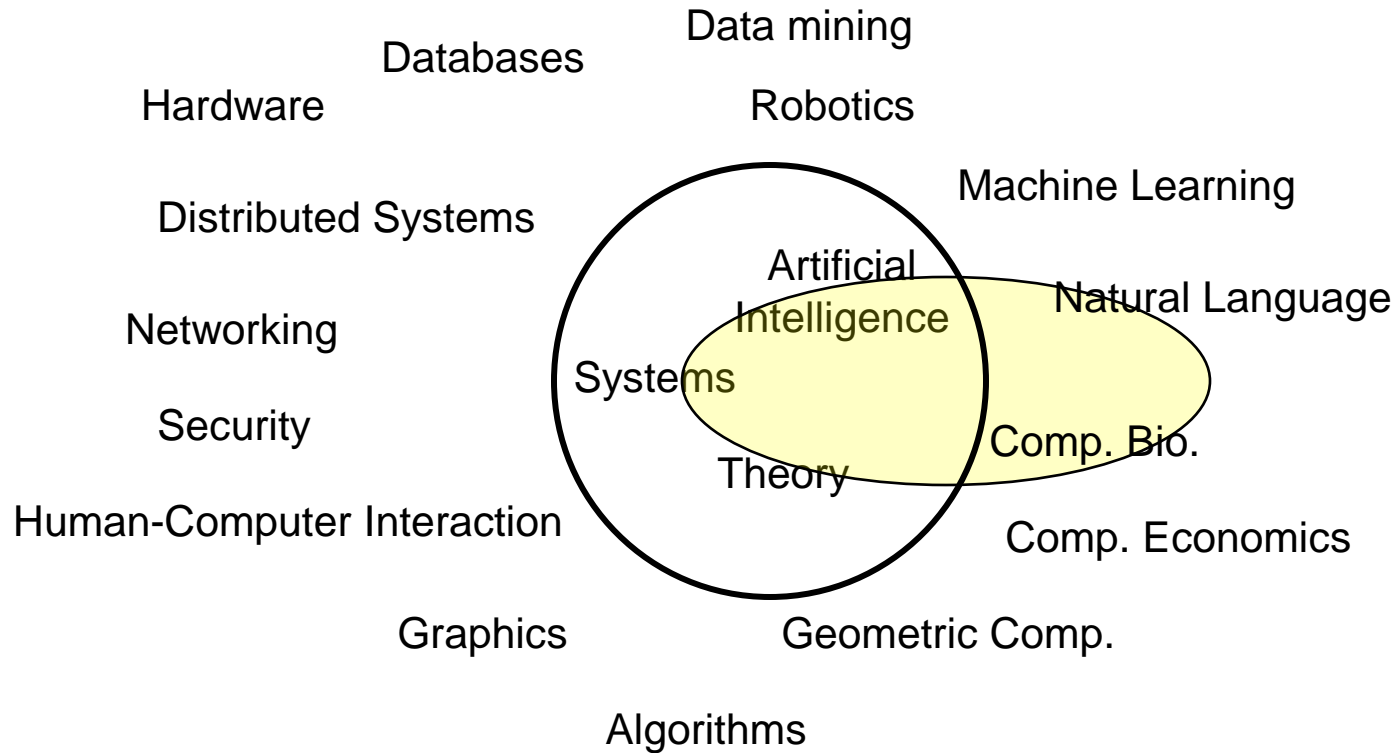


A Broad View of Computer Science

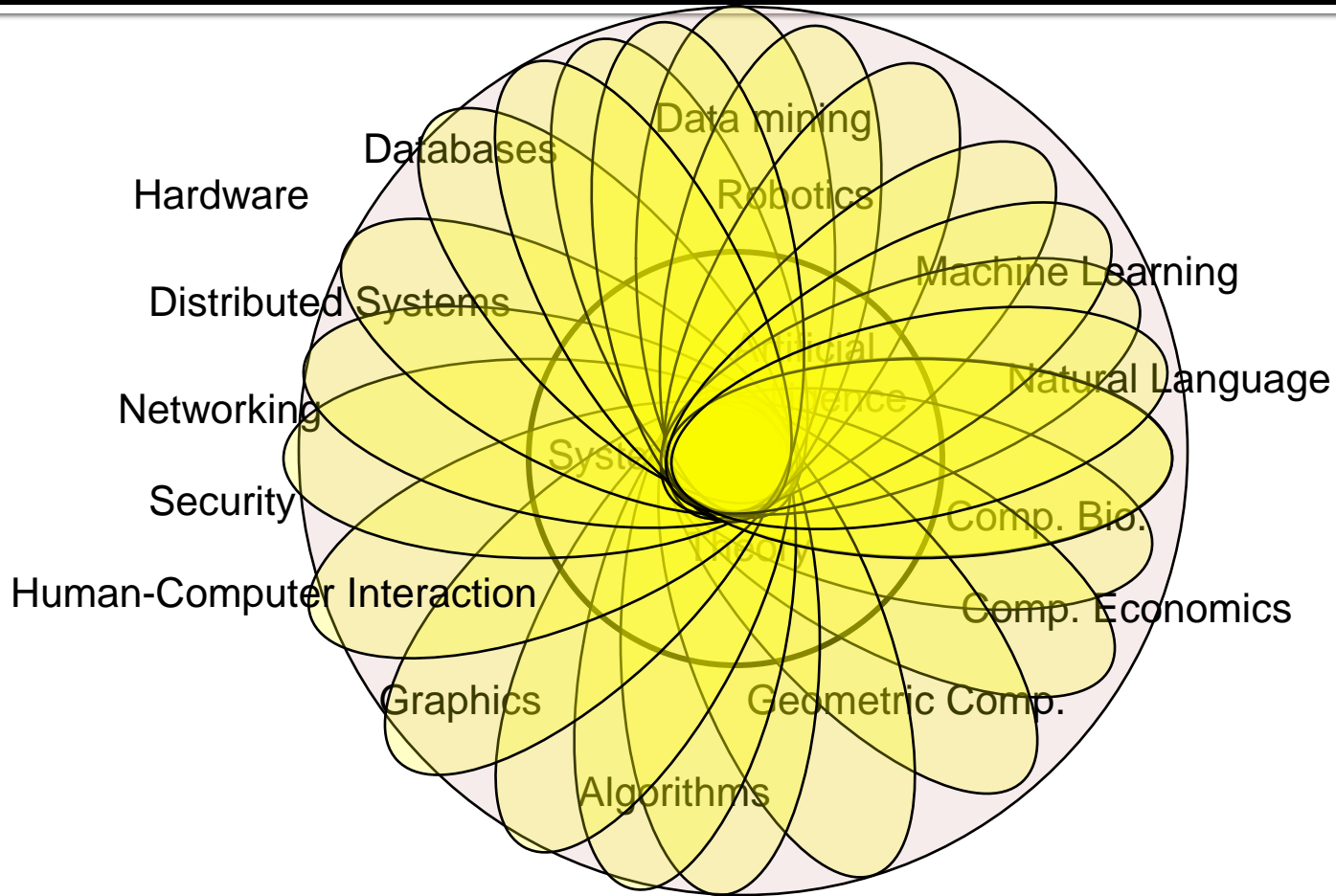


Editor's Note: Two-dimensional projection clearly does not capture the relative importance or organizational nuances of the field. Some topics may be closer to you than they appear on this slide.

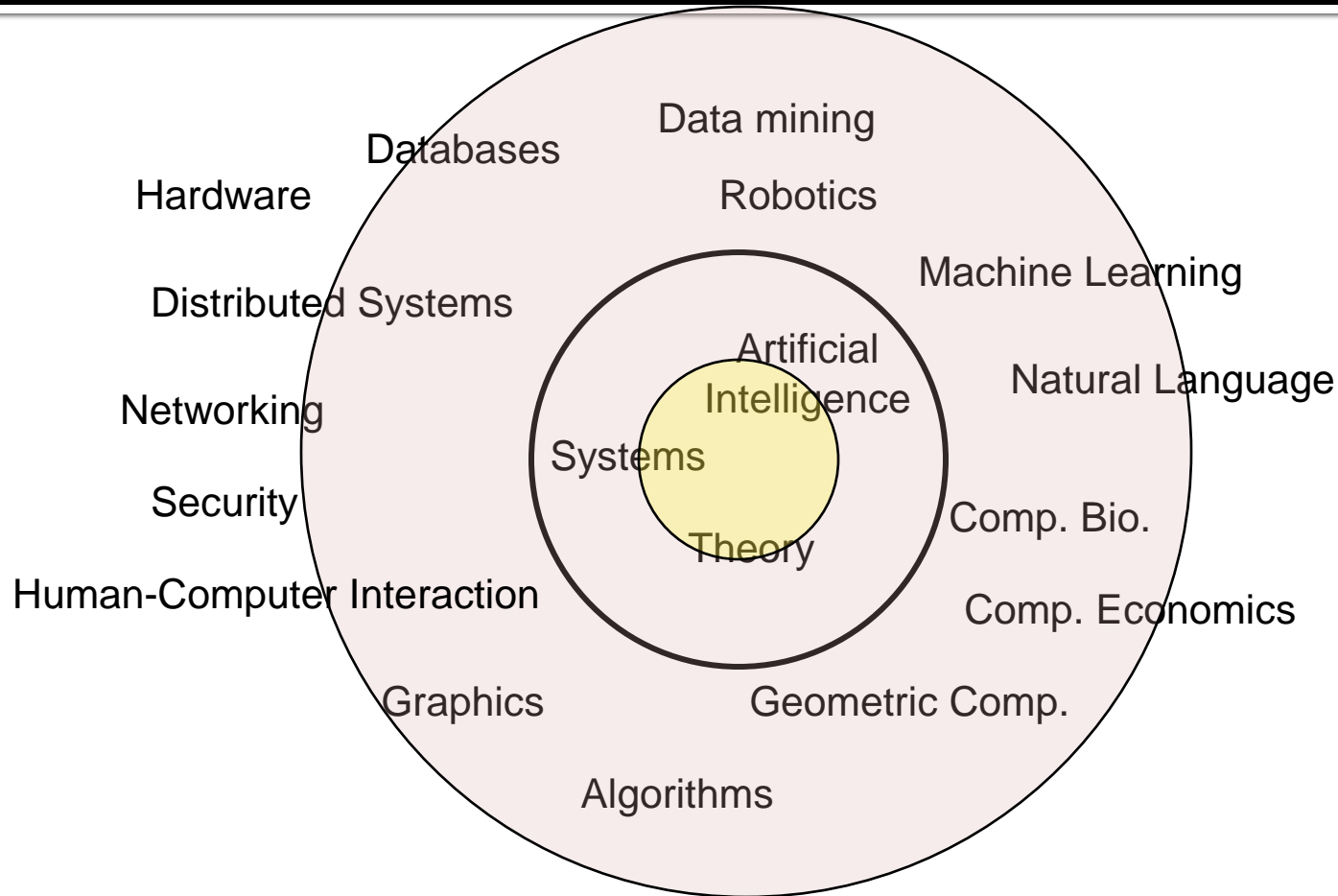
CS Major Allows Exploration...



...in a Diverse Set of Areas



Total “Footprint” of Field is Large



Streamlined core set of material that everyone in CS sees

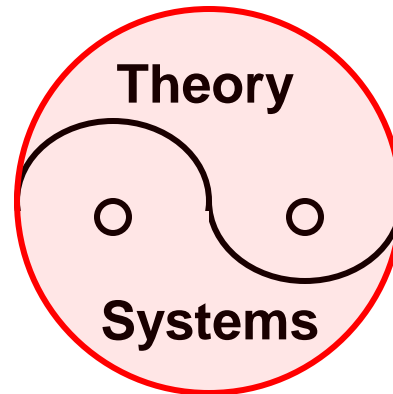
Curricular Structure: Core

Theory Core: 3 Courses (CS103, CS109, CS161)

- Mathematical Foundations of Computing
- Probability for Computer Scientists
- Data Structures and Algorithms

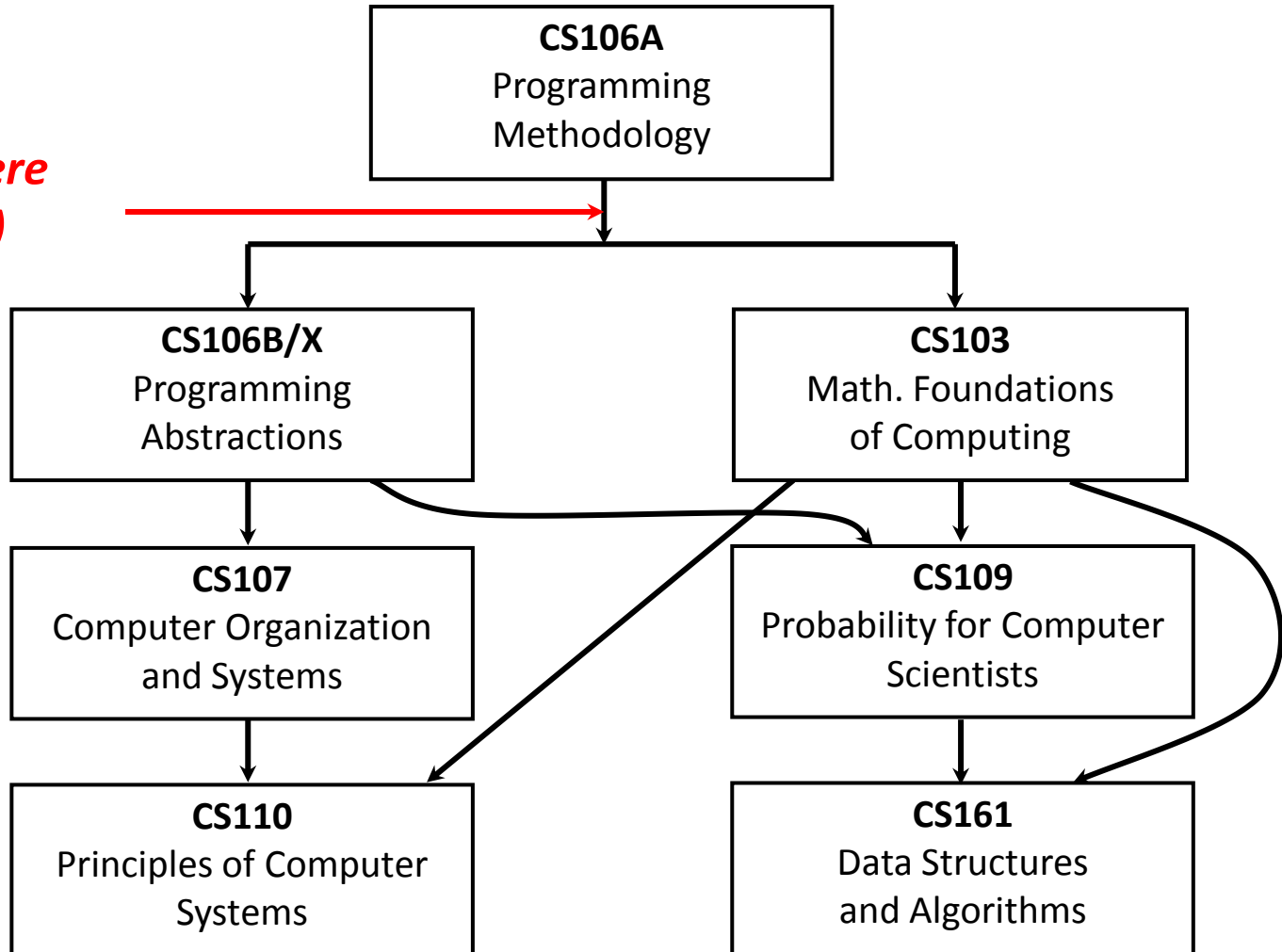
Systems Core: 3 Courses (CS106B/X, CS107, CS110)

- Programming Abstractions
- Computer Organization and Systems
- Principles of Computer Systems



CS Core Course Sequence

*You are here
(almost)*



Track Areas

- Artificial Intelligence
- Theory
- Systems
- Human-Computer Interaction
- Graphics
- Information
 - Management and applications of (un)structured information/data
- Biocomputation
- Unspecialized
 - “Breadth” track
- *Individually Designed*

The Utility of Computer Science

- Computer Science is not “just programming”
 - Computation permeates many different fields
 - Biology, Chemistry, Economics, Arts/Entertainment, etc.

- Very strong job outlook

- More IT jobs today than at height of dot-com boom

Source: Globalization and Offshoring of Software: A Report of the ACM Job Migration Task Force (citing the Bureau of Labor Statistics), 2006.

- Strong projected job growth for “computer scientists” and “software engineers” through at least 2016

Source: Bureau of Labor Statistics, 2011.

A Sampling of Career Paths

- High-tech industry
 - Research and development
 - Engineering management
 - Product management
- Entrepreneurship
 - Start-up companies
 - Venture capital
- Graduate and professional schools
 - Graduate school → Academia/research/teaching
 - Law school → Intellectual property law
 - Business school → Management/entrepreneurship