# Computer Science
## (Data Science Option)
### Graduation Requirements
**University of Washington**
The graduation requirements shown below are subject to change.
For more information, see the CSE undergraduate webpages at [https://www.cs.washington.edu/academics/ugrad/current-students/degree](https://www.cs.washington.edu/academics/ugrad/current-students/degree)

## General Education Component

### Language Skills (5-20 credits)
- *English Composition* *(5)*
- Foreign Language through 3rd quarter *(0-15)*

### Diversity Requirement (3 credits)
- UW Diversity Requirement *(3)*
Note: These credits may overlap with other requirements.

## Reasoning and Writing in Context (15 credits)
- Reasoning *(5)*
- UW approved writing course (W courses) and/or additional composition *(10)*
Note: These credits may overlap with other requirements.

## Areas of Inquiry (75 credits)
- Arts & Humanities *(20)*
- Social Sciences *(20)*
- Natural Sciences *(20)*
- Additional coursework *(15)*

Note: All Mathematics & Sciences courses below (20-23 credits) as well as CSE 121, 122, and 123 (up to 12 credits) count toward the 20 credits of Natural Sciences and 15 credits of Additional coursework requirements.

## Mathematics & Science Component

### Mathematics (15-18 credits)
- *MATH 124, 125, 126 or 134, 135, 136 (honors)* *(15)*
  - Calculus with Analytical Geometry
- MATH 208 (waived if MATH 136 taken) *(3)*

### Natural Science (5 credits)
- *One course from the list of approved Natural Science courses* *(5)*

## Computer & Data Science Component

### Fundamentals (24-25 credits)
- *CSE 123 Intro to Computer Programming III* *(4)*  
  OR
- *CSE 143 Computer Programming II* *(5)*
- CSE 311 Foundations of Computing I *(4)*
- CSE 312 Foundations of Computing II *(4)*
- CSE 331 Software Design & Implementation *(4)*
- CSE 332 Data Structures and Parallelism *(4)*
- CSE 351 The Hardware/Software Interface *(4)*

### Data and Society (3-5 credits)
- SOC 225 Data and Society *(3/5)*

### Core & Electives (33 credits)
At least 33 additional credits, including at least:
- CSE 421 Intro to Algorithms *(3)*
- CSE 444 Database Internals *(4)*
- CSE 446 Machine Learning *(4)*
- CSE 442 Data Visualization *(4)*
- 1 additional course chosen from the Data Science Electives *(3-4)*
- 1 additional course from the CSE Core Courses list *(3-4)*
- Either 1 additional CSE Core Course or 1 course from the CSE Capstone list *(3-5)*
- Additional courses from either the CSE Core Courses list or the CSE Elective list *(5-9)*
- Additional courses from either the CSE Core Courses list or the CSE Elective list to bring total CSE Elective credits to 33

### Free Electives to bring total credits up to the 180 required for graduation
Note: A student's cumulative GPA must not fall below a 2.0.

* Denotes prerequisites that must be fully completed before applying to the major. This does not apply to direct-to-major freshmen applicants.

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