## Computer Engineering Graduation Requirements

#### University of Washington

The graduation requirements shown below are subject to change.

For more information, see the Undergraduate Handbook, available online at http://www.cs.washington.edu/education/ugrad/current/degree\_requirements.html

#### **General Education Component**

### Written & Oral Communication (12 credits)

- \*English Composition (5)
- □ TC 231 Intro. to Technical Writing (3)
- ☐ TC 333 Adv. Tech. Writing & Oral Pres. (4)

#### Areas of Knowledge (30 credits)

- □ Visual, Literary, and Performing Arts (10-20)
- ☐ Individuals and Societies (10-20)

## **Mathematics & Science Component**

#### Mathematics (19-22 credits)

- \*Math 124, 125, 126 or 134, 135, 136 (honors) (15) Calculus with Analytical Geometry
- ☐ Math 308 or 318 (waived if 136 taken) (3)
- Stat 390, 391, or 394&395
  -extra 2 credits from 394/395 count as
  CSE senior elective credits

#### Natural Sciences (20 credits)

- □ \*Phys 121 Mechanics (5)
- □ \*Phys 122 Electromagnetism &

Oscillatory Motion (5)

- 10 additional credits from the list (10) of approved natural science courses in the CS&E Handbook
- \* Denotes prerequisites (must be fully completed before application date). Regardless of AP credit, at least one calculus or post-calculus math course and one approved natural science course must be completed prior to applying to the department.

#### **Computer Engineering Component**

#### Required (47 credits)

*CSE 142 Computer Programming I	(4)
*CSE 143 Computer Programming II	(5)
CSE 303 Concepts & Tools for Soft. Dev.	(3)
CSE 321 Discrete Structures	(4)
CSE 322 Intro to Formal Models	(3)
CSE 326 Data Structures	(4)
CSE 341 Programming Languages	(4)
CSE 370 Intro to Digital Design	(4)
CSE 378 Machine Org & Assembly Lang.	(4)
EE 215 Intro to Electrical Engineering	(4)
CSE 451 Operating Systems	(4)
CSE 461 Intro to Networks	(4)

## Students must complete either the hardware or the software specialization.

## Hardware Specialization (24 credits)

□ EE 233 Circuit Theory (5)
 □ CSE 466 Software for Embedded Systems (4)
 □ CSE 467 Advanced Digital Design (4)
 □ CSE 477 Hardware Design Capstone (5)
 □ Select at least 6 credits from courses on the approved senior elective course list in the CS&E Handbook

#### Software Specialization (22-24 credits)

- □ CSE 403 Software Engineering (4)
  □ Two from CSE 401, 421, 444, 466, or 471 (6-8)
- Two from CSE 401, 421, 444, 466, or 471 (6-8)
   Software Design Capstone (5)
- Select at least 7 credits from courses on the approved senior elective course list in the CS&E Handbook

# Free Electives to bring total credits up to the 180 required for graduation (25-32 credits)

The minimum acceptable grade for any required or elective CSE course is 2.0. A student's overall GPA must not fall below a 2.0.

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