UW/CSE 300-Level Curriculum Revision
Transition Plan: Requirements and Suggested Course Sequences
Draft of September 16, 2009

As of now, this document is still a draft. It makes assumptions about the new degree requirements, which are not yet formally approved. This document will be updated as necessary.

By "starting the major" we mean a student completing his/her first CSE 300-level course(s), regardless of when the student was admitted to the major. So for the purpose of the curriculum revision and 3xx requirements, the "quarter you start the major" is the quarter you complete your first 300-level CSE course.

1   Who is Covered by the Transition?

- Students starting the major Spring 2009 or earlier are under the *old requirements* and this document does not affect them. Such students must take CSE303, 321, 322, 326, 341, 370, 378, and one of STAT390/391/(394&395). All degree requirements are the same as when students started the major. The one exception is that CSE332 may be taken in place of CSE326.

- Students starting the major Spring 2010 or later are under the *new requireuments* and this document does not affect them. Such students should take the new 300-level courses. All degree requirements are described in a separate document and will be in the general catalog after we receive University approval.

- Students starting the major Fall2009 or Winter 2010 are under the *transition requirements* described in this document.

2   The Transition is More Flexible

The purpose of the transition requirements is to be flexible enough to allow students to complete their 300-level courses while we are in the process of switching over to the new courses. Similarly, degree requirements are a flexible hybrid of the old and new requirements. Except maybe in a couple strange corner cases that will affect almost nobody, the old requirements satisfy the transition requirements and the new requirements satisfy the transition requirements.

3   The 300-Level Required Courses

Except where noted, all uses of OR are *exclusive* meaning students may *not receive credit* for courses on both sides. (This is because the material overlaps substantially.)

This section considers only 300-level courses in CSE and STAT/MATH/AMATH. Other degree requirements are discussed in the next section. This section is the more important one for students early in the major, i.e., during the 2009-2010 academic year.

300-level CSE Core courses that are not required count toward elective credit.

Computer Science transition students must complete the following:

- (321 AND 322) OR 311

- STAT390 OR STAT391 OR 312

- (370 AND 303 AND 378) OR (331 AND 351)

- 326 OR 332

- MATH308 OR MATH318 (waived if MATH136 taken)

(Students taking 303+370+378 may not receive credit for 333.)
A student may take CSE312 and STAT39X, and if they do, then STAT39X counts as CSE Elective credit.

Computer Engineering transition students must complete the following:

- (321 AND 322) OR 311

- STAT390 OR STAT391 OR 312

- (370 AND 303 AND 378) OR (XXX AND 351 AND 352)

- 326 OR 332

- The **new** Math and Natural Sciences requirements (which are more flexible than the old, but do require 41 credits)

For the software specialization XXX is 331. For the hardware specialization, XXX is 333. Students taking 303+370+378 may not receive credit for 331 or 333. For transition students only, STAT39X may count for both Math and Natural Science Electives and for not needing to take CSE312.

Special **pre-requisites** during the transition are as follows:

- For CSE332, either CSE311 or CSE321 is acceptable.

- For CSE312, either CSE321 or (CSE311 AND CSE332) is acceptable. (CSE332 may be a co-requisite.)

The following are some **suggested course plans** for the 2009-2010 academic year. All will work; it depends on the student's interest, i.e., what they do not want to put off.

For **students starting Fall 2009**:

- Option 1 (the old requirements)

  – Fall: 321, 370
  – Winter: 303, 326
  – Spring: 322, 378

  303 and 370 can be swapped, 322 and 326 can be swapped

- Option 2 (put off hardware and C, may be less appropriate for CompE)

  – Fall: 321, 341
  – Winter: 322, 326
  – Spring: 331, 351

- Option 3 (put off foundations, may be less appropriate for CS)

  – Fall: 303, 370
  – Winter: 378, 341
  – Spring: 311, 331

For CompE Hardware students who don't want to take 331, they could take 1 CSE course in Spring and focus on other requirements from EE and MATH.

For **students starting Winter 2010**:

- Option 1 (put off hardware and C)
  - Winter: 321, 341
  - Spring: 322, (331 or 332 or 351)
- Option 2 (put off foundations)
  - Winter: 303, 370
  - Spring: 378, 311

Another option is to take 4 of 303, 370, 378, 321, and 322, leaving the 5th (378 or 322) until the next year. These courses will probably only be offered once in that year, so it is a less flexible approach.

Some **rationale** for the options above:

Given the transition requirements, what we are trying to avoid is students entering Summer 2010 having, for example, taken only (321 and 303) or (321 and 370). In these situations, students would still have 3 "old" courses to take (322, 370-or-303, and 378), but such courses will not be offered many more times. All the suggested options above leave students with 0 "old" courses to take after the 2009-2010 academic year. 1 old course is probably manageable (i.e., we will probably need to offer 322 and 378 once next academic year), but more than that should be avoided. We will work with the advisors to track how many students still need various "old courses" as we move into Spring 2010 and beyond. We understand the number will probably not be zero.

4 The Full Computer-Science Degree Requirements

The key point is the third bullet below.

- Language Skills, Reasoning and Writing in Context, Areas of Knowledge, and Natural Science are all as under the old and new requirements (nothing changed here).

- Mathematics is as under the new requirements.

- CSE Electives: Students must take courses from the CSE Electives List such that:
  - The *total credits* from CSE Required courses (see Section 3) and Elective credits is at least **59**. This total *includes* CSE142, CSE143, and (if taken) STAT39X.
  - The *total* number of CSE Required courses (see Section 3) and Elective courses (on the Core Course List) is at least **13** and includes at least **4** 400-level courses. Again this total *includes* CSE142, CSE143, and (if taken) STAT39X.

- Free Electives to bring total credits up to the 180 required for graduation.

5 The Full Computer-Engineering Degree Requirements

- Written & Oral Communication, Areas of Knowledge, Mathematics and Natural Sciences are all as under the new requirements.

- CSE451 and CSE461 as under the old and new requirements (no change here).

- EE215 or EE2XX (Intro to Signal Conditioning)

- 300-level required courses as described in Section 3

- The new requirements for either the hardware or the software specialization, except CSE333 (Hardware) or CSE331 (Software) are not taken by students taking CSE303+370+378.

- At least **4 additional Engineering credits**. These can be additional CSE Electives not otherwise counted toward the degree, but they can also be other courses in Engineering.

- Free Electives to bring total credits up to the 180 required for graduation.