PROPOSED CHANGE TO COMPUTER ENGINEERING UNDERGRADUATE REQUIREMENTS

To be adopted:

PRESENT:
Computer Engineering
Undergraduate Program
Major Requirements
1) Lower-division requirements (72 units)
   a) ENGR 001G
   b) CS 010 or CS 10V, CS 012 or CS 12V or
      CS 013, CS 014, CS 061
   c) CS 011/MATH 011
   d) EE 001A, EE 01LA, EE 001B, EE 020
   e) MATH 008B or MATH 009A, MATH 009B,
      MATH 009C, MATH 010A, MATH 046
   f) PHYS 040A, PHYS 040B, PHYS 040C
   g) One course of 4 or more units in an
      engineering discipline outside the field of
      computer science to be selected in
      consultation with a faculty advisor. Either a
      lower-division or an upper-division course may
      be used to satisfy this requirement.

2) Upper-division requirements (73 units
   minimum)
   a) CS 100, CS 141, CS 153, CS 161, CS 161L
   b) CS 120A/EE 120A, CS 120B/EE 120B; one
      course from CS 122A or EE 128
   c) CS 111
   d) CS 168
   e) ENGR 180W
   f) EE 100A
   g) EE 114 or STAT 155
   h) Five courses (at least 20 units) as technical
      electives from the following set of
      Computer Science and Engineering, and
      Electrical Engineering upper-division courses

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   c) CS 111
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   f) EE 100A
   g) EE 114 or STAT 155
   h) Five courses (at least 20 units) as technical
      electives from the following set of upper-
      division courses

CS 122A, CS 122B, CS 130, CS 133, CS 150, CS 152, CS 160, CS 162, CS 164, CS 165,
CS 166, CS 168, CS 169, CS 170, CS 171, CS 172, CS 177, CS 179 (E-Z), CS 180, CS 181, CS 183, CS 193

CS 122A, CS 122B, CS 130, CS 133, CS 150, CS 152, CS 160, CS 162, CS 164, CS 165,
CS 166, CS 168, CS 169, CS 170, CS 171, CS 172, CS 177, CS 179 (E-Z), CS 180, CS 181, CS 183, CS 193
The technical electives selected from h) must include either CS 179 (E-Z) or EE 175A and EE 175B and EE 175C. The selection of the remaining technical electives must be planned, in consultation with a faculty advisor, to include at least one coherent sequence of two classes from either Computer Science and Engineering or Electrical Engineering. The technical electives must be distinct from those used to satisfy the upper-division requirements specified in items a) and b) above.

Students may petition for exceptions to the above degree requirements. Exceptions to Computer Science course requirements must be approved by the Computer Science and Engineering undergraduate advisor or chair, and exceptions to Electrical Engineering course requirements must be approved by the Electrical Engineering undergraduate advisor or chair. Exceptions to other requirements require the approval of the undergraduate advisors or chairs of both departments.

Visit the Student Affairs Office in the College of Engineering or student.engr.ucr.edu for a sample program.

JUSTIFICATION: ENGR160 is a new course that will be offered for the first time in Fall 2014. It covers optimization theory with a focus on engineering applications, and was listed as ENGR as it is useful to all engineers and is not intended to be discipline specific.

A thorough understanding of optimization theory and practice is critical to the engineering profession, therefore, ENGR 160 is appropriate to add to the set of technical electives for the CEN undergraduate program.

Removal of CS 168 from list of optional technical electives is to update clerical error. CS 168 is a requirement and thus cannot be double counted as a technical elective.