## Computer Engineering 2013-15 Advising Checklist Quarter Units: 180 Core Units: 133

Lower Division Core (24)

 $\_$  ECE 160 – Introduction to Engineering (3)

 $\_$  CMPS 150 – Introduction to Unix (1)

\_\_\_\_\_ CMPS 221 – Programming Fundamentals (grade of C- or better)

\_\_\_\_\_ CMPS 223 – Data Structures and Algorithms (grade of C- or better)

\_\_\_\_\_ CMPS 224 – Assembly Language Programming

\_\_\_\_ CMPS 295 – Discrete Structures

Upper Division Core (41)

\_\_\_\_\_ ECE 304 – Signals and Systems I

ECE 307 – Analog Circuits

ECE 320 – Digital Circuits

ECE 322 – Digital Design with VHDL

\_\_\_\_ CMPS 360 – Operating Systems

ECE 420 – Embedded Systems

ECE 490A – Senior Project I (3)

\_\_\_\_\_ ECE 490B – Senior Project II (3)

Upper Division Electives (select 1 course from each area below) (15)

\_\_\_\_\_Signal Processing/Communication: ECE 422 or ECE 423 or ECE 425 or ECE 426

\_\_\_\_\_ Robotics/Embedded Systems/Control: ECE 457 or ECE 432

Computer Vision/Image Processing: ECE 446 or ECE 447

Cognate Requirements (58)

- \_\_\_\_\_ MATH 201 or 231 Calculus I (grade of C- or better)
- \_\_\_\_\_ MATH 202 or 232 Calculus II (grade of C- or better)
- MATH 203 or 233 Calculus III (grade of C- or better)
- \_\_\_\_\_ MATH 204 or 234 Calculus IV
- \_\_\_\_\_ MATH 230 or 330 Linear Algebra
- \_\_\_\_\_ MATH 340 Probability Theory
- PHYS 221 Classical Physics I Mechanics (6)
- PHYS 222 Classical Physics II Thermodynamics and E&M (6)
- \_\_\_\_\_ PHYS 223 Optics and Modern Physics (6)
- \_\_\_\_\_ PHYS/ENGR 207 Electric Circuits
- \_\_\_\_\_ PHIL 316 Professional Ethics
- Additional Units (any university units) (0-1)

General Education and University Requirements (40-47)

- Foreign Language Requirement 2 yrs. high school or 1 college course
- \_\_\_\_ CSUB 101 (2)
- A1 Recommend COMM 108 (grade of C or better)
- A2 ENGL 110 (grade of C or better)
  - A3 Waived for Computer Engineering majors
    - B1/B3 Satisfied by PHYS 221
    - B2/B3 Waived for Computer Engineering majors
  - B4 Satisfied by MATH 201 or MATH 231 or higher with grade of C or better
- \_\_\_\_ C1
- \_\_\_\_ C2, C4, or C5
- C3 US History double-counts for C3 for Computer Engineering majors
- \_\_\_\_\_ US History for American Institutions (AI) requirement
- \_\_\_\_\_ D3/Government for AI requirement Recommend PLSI 101
- Area D-5 units waived for Computer Engineering majors
- D1, D2, D4, or D5 Recommend ECON 201 or 202 (Economics is part of FE exam)
  - Theme 1 Met by completing ECE 490A & B
    - Theme 2 Satisfied by PHIL 316
- Theme 3 Waived for Computer Engineering majors
- Gender, Race, and Ethnicity (GRE) (3-5)
- \_\_\_\_\_ GWAR Pass exam or take course (COMM 304 Technical Writing recommended for course)