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|  | **Computer Engineering 2013-15 Catalog Advising Checklist** | |  | Name: |  |
|  | **Quarter Units: 180** | **Core Units: 133** |  | ID #: |  |

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| Lower Division Core (24) | | |  |
|  |  | ECE 160 - Introduction to Engineering (3) [ECE 1618+1628] | Advising Notes: |
|  |  | CMPS 150 - Introduction to Unix (1) [see Q2S notes] |  |
|  |  | CMPS 221 - Programming Fundamentals (grade of C- or better) [see Q2S notes] |
|  |  | CMPS 223 - Data Structures and Algorithms (grade of C- or better) [see Q2S notes] |
|  |  | CMPS 224 - Assembly Language Programming [CMPS 2240] |
|  |  | CMPS 295 - Discrete Structures [CMPS 2120] |
| Upper Division Core (41) | | |
|  |  | ECE 304 - Signals and Systems I [ECE 3040] |
|  |  | ECE 307 - Analog Circuits [ECE 3070] |
|  |  | ECE 320 - Digital Circuits [ECE 3200] |
|  |  | CMPS 321 - Computer Architecture [CMPS 3240] |
|  |  | ECE 322 - Digital Design with VHDL [ECE 3220] |
|  |  | CMPS 360 - Operating Systems [CMPS 3600] |
|  |  | ECE 420 - Embedded Systems [ECE 3250] |
|  |  | ECE 490A - Senior Project I (3) [ECE 4910] |
|  |  | ECE 490B - Senior Project II (3) [ECE 4928] |
| Upper Division Electives [select 1 course from each area below] (15) | | |
|  |  | Signal Processing/Communication: ECE 422 or 423 or 425 or 426 |
|  |  | Robotics/Embedded Systems/Control: ECE 457 or 432 |
|  |  | Computer Vision/Image Processing: ECE 446 or 447 |
| Cognate Requirements (58) | | |
|  |  | MATH 201 or 231 - Calculus I (grade of C- or better) [see Q2S notes] |
|  |  | MATH 202 or 232 - Calculus II (grade of C- or better) [see Q2S notes] |
|  |  | MATH 203 or 233 - Calculus III (grade of C- or better) [see Q2S notes] |
|  |  | MATH 204 or 234 - Calculus IV [see Q2S notes] |
|  |  | MATH 230 or 330 - Linear Algebra [MATH 2610] |
|  |  | MATH 340 - Probability Theory [MATH 3200] |
|  |  | PHYS 221 - Classical Physics I - Mechanics (6) (grade of C- or better) [PHYS 2210] |
|  |  | PHYS 222 - Classical Physics II - Thermo/EM (6) (grade of C- or better) [PHYS 2220] |
|  |  | PHYS 223 - Optics and Modern Physics (6) [PHYS 2230] |
|  |  | PHYS/ENGR 207 - Electric Circuits (grade of C- or better) [ENGR/ECE/PHYS 2070] |
|  |  | PHIL 316 - Professional Ethics [PHIL 3318] |
| Additional Units (any university units) (0-1) | | |
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| General Education and University Requirements (40-47) | | |
|  |  | Foreign Language Requirement - 2 yrs. high school or 1 college course |
|  |  | CSUB 101 - Introduction to CSUB (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 | Q2S Transition Notes: |
|  |  | B2/B3 - Waived for Computer Engineering majors | Programming sequence:  CMPS 2010 is CMPS 150+221+Half 222  CMPS 2020 is Half CMPS 222+All 223  Signals and Systems:  ECE 3040 is both ECE 304 and ECE 330  Calculus sequence:  Completion of MATH 2510-2530 or MATH 2310-2330 is equivalent to MATH 201-204 or MATH 231-234 (see advisor if partially completed calculus under quarters for a Q2S transition plan)  GE: Go to https://www.csub.edu/ge |
|  |  | 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 get C- or better in course (COMM 304 - Tech. Writing recommended for course) |