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|  | **Computer Science (Traditional) 2021-22 Catalog Advising Checklist** |  | Name: |  |
|  | **Semester Units: 120** | **Core Units: 89-90** |  | ID #: |  |

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| Lower Division Core (16) |  |
|  |  | CMPS 2010 - Progr. I: Programming Fundamentals (4) (grade of C- or better) | Advising Notes: |
|  |  | CMPS 2020 - Progr. II: Data Structures and Algorithms (4) (grade of C- or better) |  |
|  |  | CMPS 2120 - Discrete Structures (4) |
|  |  | CMPS 2240 - Computer Architecture I: Assembly Language Programming (4) |
| Upper Division Core (39) |
|  |  | CMPS 3120 - Algorithm Analysis (3) |
|  |  | CMPS 3140 - Theory of Computation (3) |
|  |  | CMPS 3240 - Computer Architecture II: Organization (4) |
|  |  | CMPS 3350 - Software Engineering (4) |
|  |  | CMPS 3420 - Database Systems (4) |
|  |  | CMPS 3500 - Programming Languages (3) |
|  |  | CMPS 3560 - Artificial Intelligence (3) |
|  |  | CMPS 3600 - Operating Systems (4) |
|  |  | CMPS 3620 - Computer Networks (4) |
|  |  | CMPS 3640 - Distributed and Parallel Computation (3) |
|  |  | CMPS 4910 - Senior Project I (2) |
|  |  | CMPS 4928 - Senior Project II (2) |
| Upper Division Electives [8 units from at least two courses] – **At least one course must be at 4000-level**. |
| Choose from CMPS 3390, 3480, 4210, 4350, 4420, 4430, 4450, 4480, 4490, 4500, 4510, 4560, 4620; MATH/CMPS 3300, 4300; MATH 3310; CMPS/ECE 4550; ECE 3200, 4240, 4460, 4470, 4570.Up to 4 units of CMPS 377x, 477x, 4800, 4860, 4870, 4890 may also be used for elective credit. |
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| Cognate Requirements (26-27) |
|  |  | MATH 2310 or 2510 - Calculus I (4) (grade of C- or better) |
|  |  | MATH 2320 or 2520 - Calculus II (4) (grade of C- or better) |
|  |  | MATH 3200 - Probability Theory (4) |
|  |  | PHYS 2210 - Classical Physics I (4) (grade of C- or better) |
|  |  | PHYS 2220 - Classical Physics II (4)  |
|  |  | Math/Science Elective Course (3-4) (Choose from: BIOL 1009, 1039, 2010, CHEM 1000, GEOL 2010, MATH 2200, 2533, 2540, 2610, 3500, PHYS 2230, SCI 1409) |
|  |  | PHIL 3318 - Professional Ethics (3) |
| Additional Units (any university units) (1-5) |
| Recommended courses: Second Math/Science elective course, Additional CMPS elective course, Additional GE course |
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| General Education and University Requirements (26-35) |
|  |  | First Year Seminar - CSUB 1029 (2) (or CSUB 1009+1019 or ECE/ENGR 1618+1628) |
|  |  | A1 - Oral Communication (3) (grade of C- or better) |
|  |  | A2 - ENGL 1109 (3) (grade of C- or better) |
|  |  | A3 - Recommend SCI 1409 (Math/Sci. elective course) (0-3) (grade of C- or better) |
|  |  | B1/B3 - Satisfied by PHYS 2210 |
|  |  | B2/B3 - Waived for Computer Science majors |
|  |  | B4 - Satisfied by MATH 2310 or 2510 (or higher) with grade of C- or better |
|  |  | C1 - Arts (3) |
|  |  | C2 - Humanities (3) |
|  |  | US History for American Institutions (AI) requirement (3) |
|  |  | Government for AI requirement (3) |
|  |  | Area D - Waived for Computer Science majors |
|  |  | Area F - Ethnic Studies (3) |
|  |  | SELF - Recommend course that double-counts for another GE requirement (0-3) |
|  |  | Junior Year Diversity Reflection (JYDR) (3) |
|  |  | UD Area B - Not required for NSME majors |
|  |  | UD Area C - Satisfied by PHIL 3318 |
|  |  | UD Area D - Waived for Computer Science majors |
|  |  | Capstone - Satisfied by CMPS 4928 |
|  |  | GWAR - Pass exam or get C- or better in course (0-3) |