**Computer Science (BSCS) Degree Requirement Check-list (Requirements effective Summer 2013)**

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| **Student Name (Last, First ):** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **UVa email ID:** | \_\_\_\_\_\_\_\_\_\_ |
| **First semester at UVa:** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | **Expected grad. sem:** | \_\_\_\_\_\_\_\_\_\_ |

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| --- | --- | --- | --- | --- |
| **Required Computing & Math Courses:** | | **Grade:** | **Semester (e.g. F13):** | **Comments?** |
|  | CS 1110 Introduction to Computer Science |  |  |  |
|  | CS 2110 Software Development Methods |  |  |  |
|  | CS 2102 Discrete Mathematics |  |  |  |
|  | CS 2150 Program & Data Representation |  |  |  |
|  | CS/ECE 2330 Digital Logic Design |  |  |  |
|  | CS 2190 CS Seminar |  |  |  |
|  | CS 3102 Theory of Computation |  |  |  |
|  | CS 3330 Computer Architecture |  |  |  |
|  | CS 3240 Advanced SW Development Techniques |  |  |  |
|  | CS 4414 Operating Systems |  |  |  |
|  | CS 4102 Analysis of Algorithms |  |  |  |
|  | Capstone course (circle one: CS 4971 or CS 4980) |  |  |  |
|  | APMA 3100 Probability |  |  |  |
|  | APMA 2130 / APMA 3080 / APMA 3120 (circle one) |  |  |  |
|  | APMA 2130 / APMA 3080 / APMA 3120 (circle one) |  |  |  |

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| SEAS required courses   |  |  |  | | --- | --- | --- | | **Course** | **Grade** | **Semester** | | APMA 1110 |  |  | | APMA 2120 |  |  | | CHEM 1610 |  |  | | CHEM 1611 |  |  | | ENGR 1620 |  |  | | ENGR 1621 |  |  | | PHYS 1425 |  |  | | PHYS 1429 |  |  | | PHYS 2415 |  |  | | PHYS 2419 |  |  |   Science elective   |  |  |  | | --- | --- | --- | | **Course** | **Grade** | **Semester** | |  |  |  | | STS courses   |  |  |  |  | | --- | --- | --- | --- | | **Course** | **Grade** | **Semester** |  | | STS 1010 |  |  |  | | STS 2xxx/3xxx |  |  | Course: \_\_\_\_\_\_\_ | | STS 4010/4500 |  |  |  | | STS 4020/4600 |  |  |  |   CS Electives (5)   |  |  |  |  | | --- | --- | --- | --- | |  | **Course** | **Grade** | **Semester** | | 1) |  |  |  | | 2) |  |  |  | | 3) |  |  |  | | 4) |  |  |  | | 5) |  |  |  | |

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| HSS electives (5)   |  |  |  |  | | --- | --- | --- | --- | |  | **Course** | **Grade** | **Semester** | | 1) |  |  |  | | 2) |  |  |  | | 3) |  |  |  | | 4) |  |  |  | | 5) |  |  |  | | Unrestricted electives (5)   |  |  |  |  | | --- | --- | --- | --- | |  | **Course** | **Grade** | **Semester** | | 1) |  |  |  | | 2) |  |  |  | | 3) |  |  |  | | 4) |  |  |  | | 5) |  |  |  | |

List minor or additional majors here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Computer Science (BSCS) Suggested Schedule (Requirements effective Summer 2013)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **First Semester:** |  |  |  | **Second Semester:** |  |  |
| APMA 1110 | Single Variable Calculus | 4 |  | APMA 2120 | Multivariate Calculus | 4 |
| CHEM 1610 | Intro Chemistry for Engr | 3 |  | PHYS 1425 | Physics I | 3 |
| CHEM 1611 | Intro Chem for Engr. Lab | 1 |  | PHYS 1429 | Physics I Lab | 1 |
| ENGR 1620 | Introduction to Engineering | 3 |  | CS 1110 | Intro. To Computer Sci. | 3 |
| ENGR 1621 | Intro to Engineering Lab | 1 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | Science Elective 1 | 3 |
| STS 1500 | Engr, & Tech. & Soc. | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
|  |  | 15 |  |  |  | 17 |
|  |  |  |  |  |  |  |
| **Third Semester:** |  |  |  | **Fourth Semester:** |  |  |
| APMA \_\_\_\_\_\_\_ | APMA Elective or 31004 | 3 |  | CS 2150 | Prog. & Data Representation | 3 |
| CS 2110 | Software Develop. Methods | 3 |  | CS/ECE 2330 | Digital Logic Design | 3 |
| CS 2102 | Discrete Math | 1 |  | CS 3102 | Theory of Computation | 3 |
| PHYS 2415 | General Physics II | 3 |  | CS 2190 | CS Seminar | 1 |
| PHYS 2419 | Gen. Physics II Lab | 3 |  | STS \_\_\_\_\_\_\_ | 2xx / 3xx Elective | 3 |
| \_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
|  |  | 16 |  |  |  | 16 |
|  |  |  |  |  |  |  |
| **Fifth Semester:** |  |  |  | **Sixth Semester:** |  |  |
| CS 3330 | Computer Architecture | 3 |  | CS 3240 | Adv. SW Develop. Tech. | 3 |
| CS 4102 | Algorithms | 3 |  | CS \_\_\_\_\_\_\_\_\_ | CS Elective5 | 3 |
| CS \_\_\_\_\_\_\_\_\_ | CS Elective5 | 3 |  | APMA \_\_\_\_\_\_\_ | APMA Elective or 31004 | 3 |
| APMA \_\_\_\_\_\_\_ | APMA Elective or 31004 | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
| \_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
| \_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |  |  |  | 15 |
|  |  | 18 |  |  |  |  |
|  |  |  |  |  |  |  |
| **Seventh Semester:** |  |  |  | **Eighth Semester:** |  |  |
| STS 4500 | West. Tech & Culture | 3 |  | STS 4600 | The Engineer in Society | 3 |
| CS \_\_\_\_\_\_\_\_\_ | CS Elective5 | 3 |  | CS \_\_\_\_\_\_\_\_\_\_\_ | CS Elective5 | 3 |
| CS \_\_\_\_\_\_\_\_\_ | CS Elective5 or CS 4970 | 3 |  | CS 4971 or CS 4980 | Capstone course | 3 |
| CS 4414 | Operating Systems | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
| \_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS or unrestricted2,3 elective | 3 |
|  |  | 15 |  |  |  | 15 |

**124 semester hours are the minimum required for the BS in Computer Science degree.**

**Notes on courses listed in the table above:**

1. Science elective must be chosen from the following: BIOL 2010, BIOL 2020, CHEM 1620, ECE 2066, ENGR 2500, MSE 2090, or PHYS 2620.
2. HSS Electives are chosen from the approved list available in A122 Thornton Hall or the SEAS website.
3. Any graded course at the University except those listed specifically prohibited in the Undergraduate Record in the “Elective Courses” section of the SEAS Academic Rules and Regulations.
4. Students must take APMA 3100, and choose any two from APMA 2130, APMA 3080, or APMA 3120. (Note that APMA 2130 is 4 credits and the others are 3 credits.)
5. A CS elective is any 3 (or more) CS class at the 3000 level or higher, except those that are specifically required (CS 3102, CS 3240, CS 3330, CS 4102, and CS 4414). CS 4998 does not count (it’s a BA CS class), and CS 4993 can be used at most once (3 credits) towards this requirement. Likewise, the capstone courses (CS 4971 and CS 4980) do not count. But note that ECE 4435 can count as a CS elective each (although this requires a SIS exception).

Revision date: October 20, 2013