**Computer Science (BSCS) Degree Requirement Check-list (Requirements effective Fall 2009)**

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

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| **Required Computing & Math Courses:** | | **Grade:** | **Semester (e.g F09):** | **Comments? (continue on** |
|  | CS 1110 Intro. to Computer Sci. |  |  | **back or separate sheet)** |
|  | CS 2110 Software Devel. Methods |  |  |  |
|  | CS 2102 Discrete Mathematics I |  |  |  |
|  | CS 2150 Program & Data Repr. |  |  |  |
|  | CS/ECE 2330 Digital Logic |  |  |  |
|  | CS 2190 CS Seminar I |  |  |  |
|  | CS 3102 Discrete Mathematics II |  |  |  |
|  | CS/ECE 3330 Computer Architecture |  |  |  |
|  | CS 3240 Advanced SW Devel. Tech. |  |  |  |
|  | CS 4414 Operating Systems |  |  |  |
|  | CS 4102 Analysis of Algorithms |  |  |  |
|  | APMA 3100 Probability |  |  |  |
|  | APMA 2130 / APMA 3080 / APMA 3120 (circle one) |  |  |  |
|  | APMA 2130 / APMA 3080 / APMA 3120 (circle one) |  |  |  |

**Other SEAS Required and Elective Courses:**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course:** | Grade: | **Semester:** |  | **Course:** | Grade: | **Semester:** |  |
| APMA 1110 |  |  |  | STS 1010 |  |  |  |
| APMA 2120 |  |  |  | STS 2xxx/3xxx |  |  | List course: \_\_\_\_\_\_\_ |
| CHEM 1610 |  |  |  | STS 4010 |  |  |  |
| CHEM 1611 |  |  |  | STS 4020 |  |  |  |
| ENGR 1620 |  |  |  | **Other Electives:** |  |  |  |
| PHYS 1425 |  |  |  | Science Elective |  |  | List course: \_\_\_\_\_\_\_ |
| PHYS 1429 |  |  |  | HSS Elective #1 |  |  | List course: \_\_\_\_\_\_\_ |
| PHYS 2415 |  |  |  | HSS Elective #2 |  |  | List course: \_\_\_\_\_\_\_ |
| PHYS 2419 |  |  |  | HSS Elective #3 |  |  | List course: \_\_\_\_\_\_\_ |
|  |  |  |  | Unrestricted Elec |  |  | List course: \_\_\_\_\_\_\_ |

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| **CS Electives (5): Course ID & Title** | | **Grade:** | **Semester:** |  |
| 1) |  |  |  |  |
| 2) |  |  |  |  |
| 3) |  |  |  |  |
| 4) |  |  |  |  |
| 5) |  |  |  |  |
| **Tech Electives (3): Course ID & Title** | | **Grade:** | **Semester:** | **Approved by advisor: signature here:** |
| 1) | *(2000+ level)* |  |  |  |
| 2) | *(3000+ level)* |  |  |  |
| 3) | *(3000+ level)* |  |  |  |
| **Gen. Edu. Electives (3): Course ID & Title** | | **Grade:** | **Semester:** | **Approved by advisor: signature here:** |
| 1) |  |  |  |  |
| 2) |  |  |  |  |
| 3) |  |  |  |  |

**Advisors: You may choose to do the following if you make use of this form for a graduation check during the 4th year:  
  
(1) List Minor or Additional Majors here: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
(2) Sign and Date below when reviewed for Application for Degree. Attach copy to SEAS application form.**

**Computer Science (BSCS) Suggested Schedule (Requirements effective Fall 2009)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **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 1511 | Intro Chem for Engr. Lab | 1 |  | PHYS 1429 | Physics I Workshop | 1 |
| ENGR 1620 | Prob. Solving & Design | 4 |  | CS 1110 | Intro. To Computer Sci. | 3 |
| STS 1010 | Lang. Comm. & Tech. Soc. | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | Science Elective 1 | 3 |
|  |  | 15 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS Elective 2 | 3 |
|  |  |  |  |  |  | 17 |

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| **Third Semester:** |  |  |  | **Fourth Semester:** |  |  |
| APMA \_\_\_\_\_\_\_ | APMA Elective or 310 5 | 3 |  | CS 2150 | Prog. & Data Representatn | 3 |
| PHYS 2415 | General Physics II | 3 |  | CS/ECE 2330 | Digital Logic Design | 3 |
| PHYS 2419 | Gen, Physics II Workshop | 1 |  | CS 3102 | Discrete Math II | 3 |
| CS 2110 | Software Develop. Methods | 3 |  | CS 2190 | CS Seminar I | 1 |
| CS 2102 | Discrete Math I | 3 |  | STS \_\_\_\_\_\_\_ | 2xx / 3xx Elective | 3 |
| \_\_\_\_\_\_\_\_\_\_\_ | HSS Elective 2 | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | Technical Elective 3 | 3 |
|  |  | 16 |  |  |  | 16 |

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| **Fifth Semester:** |  |  |  | **Sixth Semester:** |  |  |
| CS/ECE 3330 | Computer Architecture | 3 |  | CS 3240 | Adv. SW Develop. Tech. | 3 |
| CS 4102 | Algorithms | 3 |  | CS \_\_\_\_\_\_\_\_\_ | CS Elective | 3 |
| APMA \_\_\_\_\_\_\_ | APMA Elective or 310 5 | 3 |  | APMA \_\_\_\_\_\_\_ | APMA Elective or 310 5 | 3 |
| \_\_\_\_\_\_\_\_\_\_ | Technical Elective 3 | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | HSS Elective 2 | 3 |
| \_\_\_\_\_\_\_\_\_\_ | Unrestricted Elective 4 | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | Gen Edu Elective 6 | 3 |
|  |  | 15 |  |  |  | 15 |
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| **Seventh Semester:** |  |  |  | **Eighth Semester:** |  |  |
| STS 4010 | West. Tech & Culture | 3 |  | STS 4020 | The Engineer in Society | 3 |
| CS 4414 | Operating Systems | 3 |  | CS \_\_\_\_\_\_\_\_\_\_\_ | CS Elective | 3 |
| CS \_\_\_\_\_\_\_\_\_ | CS Elective | 3 |  | CS \_\_\_\_\_\_\_\_\_\_\_ | CS Elective | 3 |
| CS \_\_\_\_\_\_\_\_\_ | CS Elective | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_ | Gen Edu Elective 6 | 3 |
| \_\_\_\_\_\_\_\_\_\_\_\_ | Gen Edu Elective 6 | 3 |  | \_\_\_\_\_\_\_\_\_\_\_\_\_ | Technical Elective 3 | 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, MSE 2090, or PHYS 2620.
2. HSS Electives are chosen from the approved list available in A122 Thornton Hall or the SEAS website.
3. Technical Electives are courses whose emphasis is mathematics, science, or engineering. Technical electives must be at the 2000-level or higher, but at least two must be at the 3000-level or higher. See the department webpage for more information. Courses that do not clearly qualify should be approved by the student’s advisor and recorded with a signature on the reverse side.
4. 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.
5. 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.)
6. General Education Electives include all those allowed for HSS Electives and other non-technical courses. See the department webpage for more information. Courses that do not clearly qualify should be approved by the student’s advisor and recorded with a signature on the reverse side.