# Computer Science Curriculum - Bioinformatics/Cheminformatics Option (For students entering in Fall 2008) 

| Freshman Y | ear/Fall Semester | Cr. | Freshman | Year/Spring Semester | Cr. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 91.101 | Computing I | 4 | 91.102 | Computing II | 4 |
| 92.131 | Calculus I | 4 | 92.132 | Calculus II | 4 |
| 42.101 | College Writing I | 3 | 42.102 | College Writing II | 3 |
| 81.111 | Principles of Biology I ${ }^{(5)}$ | $\underline{3}$ | Slot 1 | Gen. Ed. Course ${ }^{(2)}$ | $\underline{3}$ |
|  |  | 14 |  |  | 14 |
| Sophomore | Year/Fall Semester | Cr. | Sophomore | Year/Spring Semester | Cr. |
| 91.201 | Computing III | 4 | 91.204 | Computing IV | 3 |
| 91.203 | Computer Org. \& Assem. Language | 4 | 16.265 | Logic Design | 3 |
| 92.321 | Discrete Structures I | 3 | 92.322 | Discrete Structures II | 3 |
| 84.121 | Chemistry I | 3 | 84.122 | Chemistry II | 3 |
| 84.123 | Chemistry Lab I | $\underline{1}$ | 84.124 | Chemistry Lab II | 1 |
|  |  |  | 81 . or 8 | .Bio/Cheminfo. Elective | $\underline{3}$ |
|  |  | 15 |  |  | 16 |
| Junior Year/ | /Fall Semester | Cr. | Junior Yea | r/Spring Semester | Cr. |
| 91.304 | Foundations of Computer Science | 3 | 91.301 | Org. of Programming Lang. | 3 |
| 91.305 | Computer Architecture | 3 | 91.308 | Intro. to Operating Systems | 3 |
| 42.220 | Gen. Ed.: Oral \& Writ. Comm. for CS | 3 | 92.386 | Probability \& Statistics I | 3 |
| Slot 2 | Gen. Ed.: CS Ethics ${ }^{(2)}$ | 3 | 81.405 | Bioinformatics ${ }^{(4)}$ | 3 |
| Slot 3 | Gen. Ed. Course ${ }^{(2)}$ | $\underline{3}$ | 81.407 | Bioinformatics Lab ${ }^{(4)}$ | 1 |
|  |  |  | Slot 4 | Free Elective | $\underline{3}$ |
|  |  | 15 |  |  | 16 |
| Senior Year/ | /Fall Semester | Cr. | Senior Yea | r/Spring Semester | Cr. |
| - 91._- | Project Course ${ }^{(1)}$ | 3 | 91. | Project Course ${ }^{(1)}$ | 3 |
| 91.404 | Analysis of Algorithms | 3 | 81. or 8 | 4.Bio/Cheminfo Elective ${ }^{(3)}$ | 3 |
| 81. or 84. | Bio/Cheminfo Elective ${ }^{(3)}$ | 3 | Slot 7 | Free Elective | 3 |
| Slot 5 | Gen. Ed. Course ${ }^{(2)}$ | 3 | Slot 8 | Gen. Ed. Course ${ }^{(2)}$ | 3 |
| Slot 6 | Free Elective | $\underline{3}$ | Slot 9 | Free Elective | $\underline{3}$ |
|  |  | 15 |  |  | 15 |

## Minimum Total Credits $=\mathbf{1 2 0}$

${ }^{(1)}$ Students will need to consult with their advisor to select the appropriate Project Course Sequence.
${ }^{(2)}$ Consult the Schedule of Classes booklet regarding General Education (Gen. Ed.) requirements. Courses satisfying the CS Department Ethics Requirement are listed at the CS website.
${ }^{(3)}$ These are generally advanced courses in the respective area (CS or Biology or Chemistry) that have applicability in Bio/Cheminformatics. If in doubt whether a course is applicable, see the undergraduate coordinator, your advisor or the bioinformatics program coordinator.
${ }^{(4)}$ Students may replace this requirement with Cheminformatics, if offered. If neither course is available, check with the undergraduate coordinator, your advisor or the Bioinformatics program coordinator for an alternative course.
${ }^{(5)}$ Students will need a permission number to take Principles of Biology I without the co-requisite Experimental Biology I.

