

# Computational Biology Study Plan

## For students without 'A' Level Physics

(For Student Cohorts of AY2004/05 and AY2005/06)

<p><b>Semester 1 (23 MC)</b></p> <p>SSxxxx Singapore Studies            GEMxxx (Unrestricted)            CM1121 Basic Organic Chemistry  <b>PC1221 Fundamentals Physics I</b>            MA1101R Linear Algebra I            MA1102R Calculus</p>	<p><b>Semester 2 (19 MC)</b></p> <p>GEMxxx (Unrestricted)            CS1101C Programming Methodology            LSM1101 Biochemistry Of Biomolecules            LSM1102 Molecular Genetics  <b>PC1222 Fundamentals Of Physics II</b></p>
<p><b>Semester 3 (22 MC)</b></p> <p>LSM2101 Metabolism and Regulation            LSM2201 Experimental Biochemistry            ST2131 Probability            MA2214 Combination Analysis            1 Breadth module outside Faculty</p>	<p><b>Semester 4 (21 MC)</b></p> <p>CS1102C Data Structures and Algorithms            CZ2105 Numerical Methods I            LSM2102 Molecular Biology            ST2132 Mathematical Statistics            PC1432 Physics IIE</p>
<p><b>Semester 5 (24 MC)</b></p> <p>LSM3231 Protein Structure and Function            ST3236 Stochastic Process I            CS2102 Database Systems            PC2267 Biophysics I            LSM2104 Essential Bioinformatics And Biocomputing            1 Level 3000 elective</p>	<p><b>Semester 6 (20 MC)</b></p> <p>CZ3252 /LSM3241 Bioinformatics &amp; Biocomputing            MA3259 Mathematical Methods in Genomics            2 Unrestricted electives            1 Level 3000 elective</p>
<p><b>Semester 7 (17 MC)</b></p> <p>CB4199 Honours Project            CZ4225 Methods in Computational Biology            LSM4241 Functional Genomics            1 Level 4000 elective</p>	<p><b>Semester 8 (17 MC)</b></p> <p>CB4199 Honours Project            CZ4226 Advanced Bioinformatics            1 Level 4000 elective            1 Unrestricted elective</p>

**Total MC = 163**

- LSM2201 Experimental Biochemistry (in Sem 1) or LSM2202 Experimental Molecular Cell Biology (in Sem 2)
- CZ2105 Numerical methods I (in Sem 2) or MA2213 Numerical analysis 1 (in Sem 1)
- MA2214 Combinatorial Analysis (both Sem) or CS1231 Discrete Structures (both Sem)
- LSM2104 Essential Bioinformatics and Biocomputing (both Sem) or CS2220 Introduction to Computational Biology (in Sem 2)