

# Computational Biology Study Plan

## For students with all 3 Science subjects

(For Student Cohort of AY2006/07 & AY2007/08)

<b>Semester 1 (24 MC)</b>  SSxxxx Singapore Studies GEMxxx (Unrestricted) CM1121 Basic Organic Chemistry MA1101R Linear Algebra I MA1102R Calculus LSM1101 Biochemistry Of Biomolecules	<b>Semester 2 (21 MC)</b>  GEMxxx (Unrestricted) CS1101C Programming Methodology LSM1102 Molecular Genetics PC1432 Physics IIE 1 Breadth module outside Faculty
<b>Semester 3 (22 MC)</b>  CS1102C Data Structures and Algorithms LSM2101 Metabolism And Regulation * LSM2201 Experimental Biochemistry (or LSM2202) * LSM2104 Essential Bioinformatics And Biocomputing (or CS2220) MA2213 Numerical Analysis 1	<b>Semester 4 (21 MC)</b>  LSM2102 Molecular Biology * MA2214 Combinatorial Analysis (or CS1231) ST2131 Probability 1 Level 3000 elective 1 Unrestricted elective
<b>Semester 5 (20 MC)</b>  CS2102 Database Systems LSM3231 Protein Structure and Function PC2267 Biophysics I ST2132 Mathematical Statistics ST3236 Stochastic Process I	<b>Semester 6 (20 MC)</b>  CZ3252/LSM3241 Bioinformatics & Biocomputing MA3259 Mathematical Methods in Genomics 2 Unrestricted electives 1 Level 3000 elective
<b>Semester 7 (16 MC)</b>  ZB4199 Honours Project CZ5225 Modelling and Simulation in Biology LSM4241 Functional Genomics 1 Level 4000 elective	<b>Semester 8 (16 MC)</b>  ZB4199 Honours Project CZ5226 Advanced Bioinformatics 1 Level 4000 elective 1 Unrestricted elective

**Total MC = 160**

\* LSM2201 Experimental Biochemistry (in Sem 1) or LSM2202 Experimental Molecular Cell Biology (in Sem 2)

\* MA2214 Combinatorial Analysis (Sem 2) or CS1231 Discrete Structures (both Sem)

\* LSM2104 Essential Bioinformatics and Biocomputing (both Sem) or CS2220 Introduction to Computational Biology (in Sem 2)