

Study Plan for 2014/2015 intake

(Department of Chemistry, Faculty of Science)

Semester 1 (24 MC)	Semester 2 (20-24 MC)	Semester 3 (20 MC)	Semester 4 (20 MC)
SSxxxx Singapore Studies GEMxxxx (Unrestricted) - 2 * CM1191 Experiments in Chemistry I CM1111 Basic Inorganic Chemistry CM1131 Basic Physical Chemistry LSM1301 General Biology (if no A-level Biology) MA1421 Basic Applied Mathematics for Sciences	GEMxxxx# (Unrestricted) – GEMxxxx (Unrestricted) - 1 CM1121 Organic Chemistry 1 LSM1101 Biochemistry of Biomolecules LSM1102 Molecular Genetics CN1111 Chemical Engineering Principles (4MC)	CM2101 Principles of Spectroscopy CM2192 Experiments in Chemistry II CM2142 Analytical Chemistry LSM2101 Metabolism & Regulation CN2121 Chemical Engineering Thermodynamics	CM2191 Experiments in Chemistry III CM2121 Organic Chemistry CM2111 Inorganic Chemistry LSM2102 Molecular Biology LSM2103 Cell Biology
Semester 5 (20 MC)	Semester 6 (20 MC)	Semester 7 (24 MC)	Semester 8 (16 MC)
CM3221 Organic Synthesis & Spectroscopy CM3292@ Analytical & Physical Lab CM3xxx** (Elective) – 2 LSM2191 Laboratory Techniques in Life Sciences LSM3231 Protein Structure & Function	CM3291@ Inorganic & Organic Lab. CM3222 Organic Reaction Mechanisms CM3xxx** (Elective) - 1 CN2116 Chemical Kinetics & Reactor Design LSM3211 Fundamental Pharmacology	CM4199A+ Honours Project in Chemistry (16 MC) LSM4211 Toxicology CM4222 Advanced Organic Synthesis & Spectroscopy	CM4271 Medicinal Chemistry CM42xx LSM4221 Drug Discovery & Clinical Trials PR5212 Advanced Topics in Medicinal Chemistry

* Need to be taken if not taking LSM1301

@ Option to read module in Special term after Semester 4

Not necessary if done 2 GEMs in 1st Semester

+ 1 year honours project

** CM326x prefix not allowed but student can use 4 MC of CM4xxx prefix

Total MC = 166 (if student has “A” Level Biology)

Total MC = 170 (if student has no “A” Level Biology)

(Instead of the usual 160 for usual B.Sc.(Hons.))

Schedule for B.Eng. (ChE) Students in the Chemical Sciences Programme (AY2014-15)

Semester 1 (20 MCs)	Semester 2 (20 MCs)	Semester 3 (23 MCs)
GEK1549 Critical Thinking and Writing - GEM A (4)	CM2121 Organic Chemistry (4)	CN2121 Chemical Engineering Thermodynamics (4)
CM1501 Organic Chemistry for Engineers (4)	LSM1101 Biochemistry of Biomolecules (4)	CN2122 Fluid Mechanics (4)
ES1102 English	MA1506 Mathematics II (4)	LSM1102 Molecular Mechanics (4)
IT1005 Introduction to Programming with Matlab (4)	MLE1101 Intro Materials Science and Engrg (4)	LSM2101 Metabolism & Regulation (4)
MA1505 Mathematics I (4)	CN1111 Chemical Engineering Principles (4)	LSM2191 Laboratory Techniques in Life Sciences (4)
LSM1301 General Biology (4) - if no A-Level Biology OR Free Elective 1 (4)		EG2401 Engineering Professionalism (3)
Semester 4 (21 MCs)	Semester 5 (19 MCs)	Semester 6 (19 MCs)
CN2108 Chemical Eng Lab I (2)	CN3108 Chemical Engineering Lab II (4)	CM2142 Analytical Chemistry 1 (4)
CN2116 Chemical Kinetics and Reactor Design (4)	CN3121 Process Dynamics and Control (4)	LSM2102 Molecular Biology (4)
CN2125 Heat and Mass Transfer (4)	CN3132 Separation Processes (4)	GEM B (4)
CN3124 Fluid-Solid Systems (3)	CN3135 Safety, Health and Environment (3)	Singapore Studies (4)
LSM2103 Cell Biology (4)	CN3421 Process Modeling & Numerical Simulation (4)	HR2002 Human Capital in Organizations (3)
ES2331 Communicating Engineering (4)		
Semester 7 (20 MCs)	Semester 8 (19 MCs)	*Electives: LSM3211 Fundamentals Pharmacology LSM3224 Molecular Basis of Human Diseases LSM3231 Protein Structure & Function LSM3232 Microbiology LSM4211 Toxicology LSM4221 Drug Discovery & Clinical Trials
CN4118 B.Eng. Dissertation (7)	CN4118 B.Eng. Dissertation (1)	
CN4122 Process Synthesis and Simulation (3)	CN4123R Design Project (6)	
CM3221 Organic Synthesis & Spectroscopy (4)	*LSMx2xx Elective 2 (4)	
*LSMx2xx Elective 1 (4)	*LSMx2xx Elective 3 (4)	
CN3109 Chemical Eng Lab III (2)	Free Elective 2 (4)	

Total number of MCs for graduation: 161 MCs