

COHORT 2004/2005
Students matriculated AY04/05 (Registered for Minor in AY05/06)
Minor in Bioengineering

Requirements (Applicable to students who registered for the Minor in AY05/06)

To satisfy the Minor in Bioengineering, students are required to fulfill at least 24 MCs and read at least ONE module from each of the following 3 options:

- + No more than 3 level-1000 modules should be read.
- # Students taking AY1104 are NOT permitted to take LSM1202 and vice versa.
- + Students taking LSM1401 are NOT permitted to take LSM1101 and vice versa.
- * Pre-requisite: LSM2104 Essential Bioinformatics and Biocomputing.

(a) Bioengineering Option +

	Module Code	Module
1	BN1901	Principles of Bioengineering (Compulsory)
2	BN3401	Biomedical Electronics & Systems
3	BN3402	Bio-Analytical Methods in Bioengineering
4	BN4201	Musculoskeletal Biomechanics
5	BN4202	Biotransport
6	BN4203	Rehabilitation Engineering
7	BN4301	Principles of Tissue Engineering
8	BN4402	Electrophysiology
9	BN4403	Cellular Bioengineering
10	BN4404	Biomicroelectromechanical Systems – BioMEMS
11	BN4406	Biophotonics and Bioimaging

(b) Life Science Option +

(No. of Level 1000 modules taken should not be more than 2)

	Module Code	Module
1	AY1104 #	Anatomy
2	LSM1101	Biochemistry of Biomolecules
3	LSM1102	Molecular Genetics
4	LSM1201	General Physiology
5	LSM1202 #	Human Anatomy
6	LSM1401	Fundamentals of Biochemistry
7	LSM2101	Metabolism and Regulation
8	LSM2102	Molecular Biology
9	LSM2103	Cell Biology
10	LSM2104 *	Essential Bioinformatics and Biocomputing
11	LSM2202	Experimental Molecular and Cell Biology
12	LSM3241	Bioinformatics and Biocomputing
13	PY1105	Physiology I
14	PY1106	Physiology II

(c) Engineering Electives Option

(modules for double counting up to 8 MCs)

	Module Code	Module
1	CE3143	Wastewater Microbiology
2	CE4257	Linear Finite Element Analysis
3	CE5408	Membrane Tech in Environmental Applications
4	CN4208	Biochemical Engineering
5	CN4210	Membrane Science and Engineering
6	CN4241	Engineering Principles for Drug Delivery
7	EE3101	Digital Signal Processing
8	EE3206	Intro to Computer Vision and Image Processing
9	EE3601	Bio-Instrumentation and Signal Analysis
10	EE4601	Sensors for Biomedical Applications
11	EE4602	Bioelectronics
12	EE4603	Biomedical Imaging Systems
13	LSM3401B	Bioanalytical Instrumentation
14	LSM3241	Molecular Biotechnology
15	ME4233	Computational Methods in Fluid Mechanics
16	ME4253	Biomaterials Engineering
17	ME4291	Finite Elements Analysis