Programme Structure for Cohort AY2021/22 onwards – For Physics and Mathematics Major

College of Humanities and Sciences (CHS) and FDDP Curriculum

CHS Common Curriculum For more details, please refer here https://www.science.nus.edu.sg/undergraduates/general-academic-requirements-and-policies/ and here https://chs.nus.edu.sg/programmes/common-curriculum/ .	
Writing	
Data Literacy	
Communities and Engagement	
Artificial intelligence	
Design Thinking	
Digital Literacy	
Humanities	52 units
Social Sciences	
Asian Studies	
Scientific Inquiry I	
Scientific Inquiry II	
Inter-disciplinary Course I	
Inter-disciplinary Course II	
Math and Physics Preparation	
FDP2011 Special Class in Math (8 units) FDP2021 Special Class in Physics (8 units) FDP2012 Special Class in Math (4 units) FDP2022 Special Class in Physics (4 units)	24 units
French Language Preparation	
LAF1201 French 1 (4 units) LAF3201 French 3 (4 units)	8 units

Physics Major Requirements

PC1101 Frontiers of Physics (new course) (4 units) PC2130 Quantum Mechanics I (4 units) PC2031 Electricity and Magnetism I (4 units) PC2032 Classical Mechanics I (4 units) PC2135 Thermodynamics and Statistical Mechanics (4 units) PC2174A Mathematical Methods in Physics I (new) (4 units) PC2193 Experimental Physics and Data Analysis (4 units) PC3XXX (4 units) PC3XXX (4 units)	36 units

Mathematics Major Requirements

MA1100/MA1100T Basic Discrete Mathematics (4 units) MA2001 Linear Algebra I (4 units) MA2002 Calculus (4 units) MA2101 Linear Algebra II (4 units) MA2104 Multivariable Calculus (4 units) MA2108 Mathematical Analysis I (4 units) MA2216/ ST2131/ MA2116 Probability (4 units) MA22XX and above (4 units) MA22XX and above (4 units) (except MAx288/MAx289/MA4288x)	36 units

Total: 120 units

Sample Study Plan for Physics Major, with effect from Cohort AY2021/22 onwards

Year/Sem	Courses to be read	Units
Year 1 Sem 1	Common Curriculum (12 units) *Major Requirements (4 units)* PC1101 Frontiers of Physics (new course) (4 units)	16
Year 1 Sem 2	Common Curriculum (16 units), Admission into the FDDP *Math and Physics Preparation* FDP2011 Special Class in Math (4 units) FDP2021 Special Class in Physics (4 units) *Major Requirements (8 units)* PC2130 Quantum Mechanics I (4 units) PC2031 Electricity and Magnetism I (4 units)	32
Year 1 Special Term	French preparation in special term + immersion in France LAF1201 French 1 (4 units)	4
Year 2 Sem 1	Common Curriculum (16 units) *Math and Physics Preparation* FDP2011 Special Class in Math (4 units) FDP2021 Special Class in Physics (4 units) LAF3201 French 3 (4 units) *Major Requirements (8 units)* PC2032 Classical Mechanics I (4 units) PC2135 Thermodynamics and Statistical Mechanics (4 units)	36
Year 2 Sem 2	Common Curriculum (8 units) *Math and Physics Preparation* FDP2012 Special Class in Math (4 units) FDP2022 Special Class in Physics (4 units) *Major Requirements (16 units)* PC2174A Mathematical Methods in Physics I (new) (4 units) PC2193 Experimental Physics and Data Analysis (4 units) PC3XXX (4 units) PC3XXX (4 units)	32
Year 3 Year 4	In France	
Year 5 S1	MSc Physics	
Year 5 S2	MSc Physics	
Total		**120**

Sample Study plan for Mathematics Major, with effect from Cohort AY2021/22onwards

Year/Sem	Courses to be read	Units
Year 1 Sem 1	Common Curriculum (12 units) *Major Requirements (4 units)* MA1100/MA1100T Basic Discrete Mathematics (4 units)	16
Year 1 Sem 2	Common Curriculum (16 units), Admission into the FDDP *Math and Physics Preparation* FDP2011 Special Class in Math (4 units) FDP2021 Special Class in Physics (4 units) *Major Requirements (8 units)* MA2001 Linear Algebra I (4 units) MA2002 Calculus (4 units)	32
Year 1 Special Term	French preparation (4 units) in special term + immersion in France LAF1201 French 1	4
Year 2 Sem 1	Common Curriculum (16 units) *Math and Physics Preparation* FDP2011 Special Class in Math (4 units) FDP2021 Special Class in Physics (4 units) LAF3201 French 3 (4 units) *Major Requirements (8 units)* MA2101 Linear Algebra II (4 units) MA2104 Multivariable Calculus (4 units)	36
Year 2 Sem 2	Common Curriculum (8 units) *Math and Physics Preparation* FDP2012 Special Class in Math (4 units) FDP2022 Special Class in Physics (4 units) *Major Requirements (16 units)* MA2108 Mathematical Analysis I (4 units) MA2216/ ST2131/ MA2116 Probability (4 units) MA22XX and above (4 units) MA22XX and above (4 units) (except MAx288/MAx289/MA4288x)	32
Year 3 Year 4	In France	
Year 5 S1	MSc Mathematics	
Year 5 S2	MSc Mathematics	
Total		**120**