(For students admitted in 2012-13 under the 3-year degree)

Curriculum for BSc in Physics - Physics and Mathematics Option

General Requirements

Students are required to complete the following general requirements for graduation in addition to program specific requirements:

Required Courses in English Communication
Common Core Requirements
Required Course in Physical Education

For details please refer to the section "General Requirements" on this website.

Program Specific Requirements

Credit(s)

Required courses

		PHYS 2022	Modern Physics	3
		PHYS 2023	Modern Physics Laboratory	1
		PHYS 2080	Physics Seminar	1
		PHYS 2421	Fundamentals of Physics	4
		PHYS 3032	Classical Mechanics	3
		PHYS 3033	Electricity and Magnetism I	3
	or	PHYS 3053	Honors Electricity and Magnetism I	4
		PHYS 3034	Electricity and Magnetism II	3
	or	PHYS 4051	Quantum Mechanics II	3
(1)		PHYS 3036	Quantum Mechanics I	3
		PHYS 3411	Methods of Experimental Physics	2
		PHYS 4050	Thermodynamics and Statistical Physics	3
		PHYS 4080	Physics Seminar and Tutorial III	1
		MATH 2023	Multivariable Calculus	4
		MATH 2033	Mathematical Analysis	4
		MATH 2121	Linear Algebra	4
		MATH 2352	Differential Equations	4
		MATH 3033	Real Analysis	4
	or	MATH 3121	Algebra I	3
	or	MATH 4223	Differential Geometry	3
(2)		MATH 4023	Complex Analysis	3
		MATH 4052	Partial Differential Equations	3

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(3)	PHMA	Physics/Mathematics Elective	1	3
(4)	FREE	Free Elective	-	-

Notes:

(1) The course PHYS 3036 can be replaced by PHYS 3037.

(2) MATH 4023 may be replaced by MATH 4223.

(3) Physics Elective Courses have to be chosen from PHYS 2090 and any PHYS courses at 3000-level or higher. For Mathematics Elective Courses, one must be of 3000-level or higher and the rest must be of 4000-level or higher.

(4) Students need to take free electives to make up the credits shortfall so as to meet the minimum credit requirement for graduation. Students are not permitted to take more than eight credits of 1000-level courses as free elective. Free electives must be at 3000-level or higher if physics courses are chosen, with the exception of PHYS 2021 and PHYS 2090. Free electives must be at 2000-level or higher if mathematics courses are chosen.

For graduation, students are required to complete both the general requirements and requirements specified for the program, and to earn a minimum of 90 credits.