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

Curriculum for BSc in Applied Physics - Science and Technology Option

Two options are offered for this program. One is Management Science Option and the other is Science and Technology Option. Two sequences of courses are offered for each program option: Sequence A for students with AL Physics but without AL Mathematics and Sequence B for those with AL Physics and AL Mathematics. For students who fall outside the above categories, please consult the academic advisor.

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
(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
(2)		PHYS 4411	Advanced Physics Laboratory	3
		MATH 2023	Multivariable Calculus	4
		MATH 2121	Linear Algebra	4
		MATH 2352	Differential Equations	4
(3)		COMP 1002	Computer and Programming Fundamentals I	3
	For Sequence A:			
		MATH 1018	Concise Calculus	4

Elective courses

	Elective types		Minimum no. of courses	Minimum total credits
(4)	APHYS	Applied Physics Elective	2	9
(5)	PHYS	Physics Elective	1	
(6)	FREE	Free Elective	-	-

Notes:

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

(2) The course PHYS 4411 can be replaced by PHYS 4482. Students who plan to take PHYS 4482 as the required course are reminded to take PHYS 3031 and PHYS 4060 first.

(3) The course COMP 1002 can be replaced by COMP 1004 (prior to 2013-14).

(4) Applied Physics Elective courses have to be chosen from the following courses: PHYS 3038, PHYS 3039, PHYS 3040, PHYS 3041, PHYS 4053, PHYS 4057, PHYS 4060.

(5) Physics Elective must be at 3000-level or higher, with the exception of PHYS 2090; and at least one of them must be a 3 or 4 credit course at 4000-level or higher.

(6) 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.

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.