

Physics

Applicable to students admitted in 2010-11

1. Major Programme

S6/S7 students

There are two streams of specialization: *Physics Stream*, and *Enrichment Stream in Theoretical Physics*. All students are initially under the *Physics Stream*. Students with cumulative Major GPA of at least 3.0, or with the permission of the Department, may apply at their second term of the second year of attendance or thereafter (for Secondary 6 entrants, at their second term of the third year of attendance or thereafter) to specialize in the *Enrichment Stream in Theoretical Physics* and select certain courses as prescribed below.

Courses Required of All: 34 units
 PHYS2001, 2002, 2003, 2004, 2005, 2011, 2022, 2351, 2811, 2822, 3011, 3041, 3201, 4011

Total: 34 units

Physics Stream

(i) Required Courses: 5 units
 PHYS3202, 3811

(ii) 24 units of Elective Courses from Groups A and B with at least 15 units from Group A: 24 units

Group A

PHYS3022, 3350, 3601, 4211, 4221, 4260, 4602, 4700, 5320, 5330

Group B

PHYS2400, 2910, 3401, 3402, 3412, 3710, 3720, 3751, 3752, 3822, 4022, 4360, 4370, 4440, 4450, 4460, 4520, 4530, 4610, 4620, 4711, 4712, 4721, 4722, 4751, 4752, 5350, 5410, 5420, 5430, 5570

Total: 63 units

Recommended course pattern	
First Year of Attendance	
1st term: PHYS2001, 2004, 2011, 2351, 2811	12 units
2nd term: PHYS2002, 2003, 2005, 2022, 2822	11 units
Second Year of Attendance	
1st term: PHYS3011, 3041, 3201, 3811	11 units
2nd term: PHYS3202, elective course(s)	7-10 units
Third Year of Attendance	
1st term: PHYS4011, elective courses	10-13 units
2nd term: elective course(s)	9-12 units
Total: 63 units	

Enrichment Stream in Theoretical Physics

(i) Required Courses: 19 units
 PHYS3022, 3202, 3601, 4211, 4221, 4260

(ii) At least 12 units of Elective Courses: 12 units
 PHYS3350, 4450, 4460, 4520, 4530, 4602, 4610 (OR 4620), 5410, 5420, 5570

Total: 65 units

Recommended course pattern	
First Year of Attendance	
1st term: PHYS2001, 2004, 2011, 2351, 2811	12 units
2nd term: PHYS2002, 2003, 2005, 2022, 2822	11 units
Second Year of Attendance	
1st term: PHYS3011, 3041, 3201, 3601	13 units
2nd term: PHYS3022, 3202, elective course(s)	10-13 units
Third Year of Attendance	
1st term: PHYS4011, 4221, 4260, elective course	10 units
2nd term: PHYS4211, elective courses	9 units
Total: 65 units	

There are two streams of specialization: *Physics Stream*, and *Enrichment Stream in Theoretical Physics*. All students are initially under the *Physics Stream*. Students with cumulative Major GPA of at least 3.0, or with the permission of the Department, may apply at their first term of the second year attendance or thereafter to specialize in the *Enrichment Stream in Theoretical Physics* and select certain courses as prescribed below.

Students with associate degrees

Students are required to complete a minimum of 60 units of courses as follows:

Courses Required of All (Note): 29 units
 PHYS2001, 2002, 2003, 2004, 2005, 2811, 2822, 3011, 3041, 3201, 4011

Total: 29 units

Physics Stream

(i) Required Courses: 5 units
 PHYS3202, 3811

- (ii) 26 units of Elective courses from Groups A and B with at least 15 units from Group A: 26 units
Group A
 PHYS3022, 3350, 3601, 4211, 4221, 4260, 4602, 4700, 5320, 5330
Group B
 PHYS2400, 2910, 3401, 3402, 3412, 3710, 3720, 3751, 3752, 3822, 4022, 4360, 4370, 4440, 4450, 4460, 4520, 4530, 4610, 4620, 4711, 4712, 4721, 4722, 4751, 4752, 5350, 5410, 5420, 5430, 5570

Total: 60 units

Enrichment Stream in Theoretical Physics

- (i) Required Courses: 19 units
 PHYS3022, 3202, 3601, 4211, 4221, 4260
 (ii) At least 12 units of Elective Courses: PHYS3350, 4450, 4460, 4520, 4530, 4602, 4610 (OR 4620), 5410, 5420, 5570 12 units

Total: 60 units

Students with higher diplomas

Students are required to complete a minimum of 57 units of courses as follows:

Courses Required of All (Note):

PHYS2001, 2002, 2003, 2004, 2005, 3011, 3041, 3201, 4011 26 units

Total: 26 units

Physics Stream

- (i) Required Courses: 5 units
 PHYS3202, 3811
 (ii) 26 units of Elective courses from Groups A and B with at least 15 units from Group A: 26 units
Group A
 PHYS3022, 3350, 3601, 4211, 4221, 4260, 4602, 4700, 5320, 5330
Group B
 PHYS2400, 2910, 3401, 3402, 3412, 3710, 3720, 3751, 3752, 3822, 4022, 4360, 4370, 4440, 4450, 4460, 4520, 4530, 4610, 4620, 4711, 4712, 4721, 4722, 4751, 4752, 5350, 5410, 5420, 5430, 5570

Total: 57 units

Enrichment Stream in Theoretical Physics

- (i) Required Courses: 19 units
 PHYS3022, 3202, 3601, 4211, 4221, 4260
 (ii) At least 12 units of Elective Courses: 12 units
 PHYS3350, 4450, 4460, 4520, 4530, 4602, 4610 (OR 4620), 5410, 5420, 5570

Total: 57 units

Note: Entrants holding associate degrees or higher diplomas may apply to the Department for the permission of exemption from the courses PHYS2001, 2002, 2003, 2004, 2005. Students who are exempted from the course(s) should take equivalent units of electives as listed in their respective streams.

2. Minor Programme

Students are required to complete a minimum of 18 units, including at least 6 units of PHYS courses at 3000 or above level, from the following courses and other elective courses as approved by the Department (Notes 1-3):

PHYS2001, 2002, 2003, 2351, 2400, 3011, 3022, 3041, 3201, 3202, 3350, 3402, 3412, 3601, 4211, 4221, 4260, 4360, 4370, 4440, 4450, 4460, 4520, 4530, 4602, 4700

- Notes:
1. Electronics Engineering Majors are not allowed to select PHYS3412 to fulfil the Minor Programme requirements.
 2. Mathematics Majors are not allowed to select PHYS3601, 4602 to fulfil the Minor Programme requirements.
 3. Computer Science and Computer Engineering Majors are not allowed to select PHYS2351 to fulfil the Minor Programme requirements.
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3. Course Exemptions

Physics Majors

Substitute Courses

Students who fail no more than one required course may be allowed to substitute it by another elective course at PHYS3000 or above level as approved by the Department, provided that: 1) the course is failed in the final two terms of attendance before graduation, and 2) the students concerned satisfy all other graduation requirements.

Physics Minors

Certain prerequisite/co-requisite conditions for registering for the courses may be waived; intending Minor students should consult the Department of Physics individually.