

Templates for programs Physics (PHY)

Template for BS program in Physics

Semester 1	Semester 2	Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-1 (9) ELC111/ELC112/ELC113 *	ETH111 (3) **	SCHEME-2 EME (9-11)	SCHEME-3 HSS-I (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	
MTH 111 (6)	MTH 113 (6)	PHY224 (12)	ESC201 (14)	PHY315 (9)	PHY412 (11)	PHY461 (8)	DE-5/UGP-3 (9)
MTH 112 (6)	MTH 114 (6)	E/SO-1 (12) (MSO202M [§] , MSO203M [§])	PSO201 (8)	PHY421 (11)	DE-2 (9-12) (PHY617 [§] - old PHY473A)	DE-3 (9)	DE-6 (9)
PHY 113 (11)	PHY 112 (11)	OE-1 (9)	PHY210M (6)	PHY431 (11)	PHY552 (11)	DE-4/UGP-2 (9)	DE-7 (9)
PHY 111 (3)	CHM 111 (3)	PHY401 (11)	PHY226M (6)	DE-1 (9)	OE-2 (9)	OE-3 (9)	OE-5 (9)
TA 111 (9)	ESC 111 (7)		E/SO-2 (9-11) (MSO201 [§])	PHY600A(3)	UGP-1 (4) (Optional)	OE-4 (9)	OE-6 (9)
CHM 112 (4)	ESC 112 (7)						
CHM 113 (4)	LIF111 (6)						
PE111 (3)	PE112 (3)						
55	52	53-55	52-56	52	49-52	53	45

§ These courses are suggested; however, students can take other courses in the E/SO basket also such that total credits including PSO201 is at least 29.

Credit table for BS program in Physics		
Course type	Allowable Credit	Credits in the department
Institute Core (IC)	112	112
E/SO	18-45	29
Department	144-179	162-164 (99 DC + 63-65 DE)
Open electives (OE)	51-57	54
SCHEME	54-58	54-58
Total for 4-year BT/BS	391-420	411-417

Template for BSH program in Physics

Template for 3 rd to 8 th semester for BSH program in Physics					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 EME (9-11)	SCHEME-3 HSS-I (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	
PHY224 (12)	ESC201 (14)	PHY315 (9)	PHY412 (11)	PHY461 (8)	UGP-3 (9)
E/SO-1 (12) (MSO202M [§] , MSO203M [§])	PSO201 (8)	PHY421 (11)	DE-2 (9-12) (PHY617 [§] - old PHY473A)	DE-3 (9)	DE-4 (9)
OE-1 (9)	PHY210M (6)	PHY431 (11)	PHY552 (11)	UGP-2 (9)	DE-5 (9)
PHY401 (11)	PHY226M (6)	DE-1 (9)	OE-2 (9)	OE-3 (9)	OE-5 (9)
	E/SO-2 (9-11) (MSO201 [§])	PHY600A(3)		OE-4 (9)	OE-6 (9)
			DEH-1 (9-11)	DEH-2 (9-11)	DEH-3 (9-11)
53-55	52-56	52	58-64	62-64	54-56

[§] These courses are suggested; however, students can take other courses in the E/SO basket also such that total credits including PSO201 is at least 29.

- DEH from the basket of: PHY626A(432A), PHY625A(422A), PHY612A(524A), PHY623A(543A), PHY628A, PHY681A (Old course numbers in bracket)
- CPI criteria for BSH: 8.5
- UGP-2 and UGP-3 are mandatory UGPs for BSH

Template for BSM program in Physics

Template for 3 rd to 8 th semester for BSM program in Physics					
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8
SCHEME-2 EME (9-11)	SCHEME-3 HSS-I (9-11)	SCHEME-4 HSS-II (9)	SCHEME-5 HSS-II (9)	SCHEME-6 HSS-II (9)	
PHY224 (12)	ESC201 (14)	PHY315 (9)	PHY412 (11)	PHY461 (8)	DE-3 (9-11)
E/SO-1 (12) (MSO202M [§] , MSO203M [§])	PSO201 (8)	PHY421 (11)	DE-1 (9-11)	DE-2 (9-11)	DE-4 (9-11)
OE-1 (9)	PHY210M (6)	PHY431 (11)	PHY552 (11)	OE-3 (9)	MTB-4 (9)
PHY401 (11)	PHY226M (6)	OE-2 (9)	MTB-1 (9)	MTB-2 (9)	MTB-5 (9)
	E/SO-2 (9- 11) (MSO201 [§])	PHY600A(3)	UGP-1 (4) (Optional)	MTB-3 (9)	MTB-6 (9)
53-55	52-56	52	51	53	46

[§] These courses are suggested; however, students can take other courses in the E/SO basket also such that total credits including PSO201 is at least 29.

Template for five-year dual-degree program

BS Template for 3 rd to 8 th semester							
Semester 3	Semester 4	Semester 5	Semester 6	Semester 7	Semester 8	Semester 9	Semester 10
SCHEME-2 EME (9-11)	SCHEME-3 HSS-I (9- 11)	SCHEME- 4 HSS-II (9)	SCHEME- 5 HSS-II (9)	SCHEME- 6 HSS-II (9)		DEPG-1 [9]	DEPG-2 [9]
PHY224 (12)	ESC201 (14)	PHY315 (9)	PHY412 (11)	PHY461 (8)	DE-5/ UGP-3 (9)	OEPG-1 [9]	OEPG-2 [9]
E/SO-1(12) (MSO202M [§] , MSO203M [§])	PSO201 (8)	PHY421 (11)	DE-2 (9- 12) (PHY617 [§] - old PHY473A)	DE-3 (9)	DE-6 (9)	PHY563 [11]	PHY566 [11]
OE-1 (9)	PHY210M (6)	PHY431 (11)	PHY552 (11)	DE-4 / UGP-2 (9)	DE-7 (9)	PHY565 [11]	PHY568 [11]
PHY401 (11)	PHY226M (6)	DE-1 (9)	OE-2 (9)	OE-3 (9)	OE-5 (9)		
	E/SO-2(9- 11) (MSO201 [§])	PHY600A (3)	UGP-1 (4) (Optional)	OE-4 (9)	OE-6 (9)		
53-55	52-56	54	49-52	53	45	40	40

[§] These courses are suggested; however, students can take other courses in the E/SO basket also such that total credits including PSO201 is at least 29.

BS-MS: UG-requirements: (old course numbers in bracket)

1. Category A: PHY625A(422A)/PHY692A; PHY626A(432A); PHY462; 1 of the *DE
2. Category B: PSO201/PHY114; PHY210M (or an equivalent course)/ PHY226M; PHY401; PHY412; 1 of the *DE; PHY552; PHY421 (or an equivalent course); PHY625A(422A)/PHY692A; PHY431; PHY626A(432A); PHY461; PHY462.
3. * DE courses basket: PHY 612A(524A), PHY611A(526A), PHY623A(543A), PHY628A, PHY681A.

Template for the Double Major: Second Major in Physics

PSO201/PHY114; PHY210M (or an equivalent course)/PHY226M; PHY401; PHY412; PHY552; PHY421 (or an equivalent course); PHY431; PHY461

Minors in Physics

1. Quantum Mechanics: PSO 201/PHY114, PHY210M, PHY226M, PHY431
2. Statistical Mechanics: PSO 201/PHY114, PHY210M, PHY226M, PHY412
3. Soft Matter: PHY210M, PHY205M, PHY412, PHY628
4. Gravity: PSO 201/PHY114, PHY210M, PHY226M, PHY407