

Master of Education Program in Physics

Research Focus

- Physics Education Management
- Holistic Student Development in Physics
- Context-focused Physics Instruction

Structure of the Program

1. Credit Requirements *

Requirements	Option 1.2	Option 2.1
Coursework	24	30
- Required Course	3	3
- Core Courses	18	18
- Electives	3	9
Required Non-credit Courses	5	5
Thesis	12	-
Independent Study	-	6
Total	36	36

* Minimum credits required

2. Required Courses

Requirements	Option 1.2		Option 2.1	
	Course No.	Cr.	Course No.	Cr.
Theoretical Foundations of Education	366511	3	366511	3
Total	1	3	1	3

3. Core Courses

Requirements	Option 1.2		Option 2.1	
	Course No.	Cr.	Course No.	Cr.
Advanced Mathematical Physics 1	271511	3	271511	3
Classical Mechanics	271512	3	271512	3
Electromagnetic Theory	271513	3	271513	3
Scientific Literacy and Curriculum Development	378511	3	378511	3
Research in Science Education	378512	3	378512	3
Development of Learning Management in Physics	380501	3	380501	3
Total	6	18	6	18

4. Electives

Requirements	Option 1.2		Option 2.1	
	Course No.	Cr.	Course No.	Cr.
Nuclear and Particle Physics 1	261553	3	261553	3
Astrophysics	261574	3	261574	3
Advanced Physics Laboratory	261580	3	261580	3
Geophysics and Earth Science	271545	3	271545	3
Renewable Energy Technology	271554	3	271554	3
Thermo-fluid Mechanics	271556	3	271556	3
STEM Education	378513	3	378513	3
Organization of Science and Mathematics Camp	378514	3	378514	3
Total	≥1	≥3	≥3	≥9

5. Required Non-credit Courses

Requirements	Option 1.2		Option 2.1	
	Course No.	Cr.	Course No.	Cr.
Research Methodology in Social Sciences	366513	3	366513	3
Seminar 1	378581	1	378581	1
Seminar 2	378582	1	378582	1
Total	3	5	3	5

6. Thesis/Independent Study Credit Requirements

Requirements	Option 1.2		Option 2.1	
	Course No.	Cr.	Course No.	Cr.
Thesis 1, Option 1.2	378583	6	-	-
Thesis 2, Option 1.2	378584	6	-	-
Independent Study 1	-	-	378591	2
Independent Study 2	-	-	378592	2
Independent Study 3	-	-	378593	2
Total	2	12	3	6