

Educational Plan for Academic Master Degree in Materials Science

I. Educational Targets

1. Mastering solid and profound knowledge of basic theories as well as further understanding in expertise. Mastering a foreign language for professional reading and writing.

2. Culturing rigorous and realistic attitude towards research, targeting the ability of independent research and practice in materials science.

3. Capable for teaching and engineering work in this field and related science and technology management work.

II. Research Orientations

1. Surface Science and Engineering
2. Nanomaterials and Novel Bulk Amorphous
3. Novel Metal and Ceramic Materials
4. Composite Materials
5. Novel energy Materials and Devices
6. Photoelectric Materials and Devices

III. Educational Duration

The duration of full-time academic master students is 2 years.

IV. Credits requirement

A Master student must take 37 credits of courses at least, including 25 credits of degree courses at least as well as 12 credits of research segment at least. Details are shown as follows:

Total Credits Required	≥ 37 credits	
Credits of Degree Courses	≥ 25 credits	Basic courses in general education ≥ 7 credits (Chinese language 4 credits, A survey of China 2 credits, Orientation for New Students 1 credit)
		16 discipline basic courses (limited optional courses). 2 credits for first-level crossed courses (elective courses).
Research Segment	≥ 12 Credits	Literature reading and report of subject selection, 1 credit
		Participation in public academic report, 1 credit
		Degree thesis ,10 credits

V. Curriculum and Credit Allocation

The curriculum for Master degree majoring in materials science.

Curriculum Type		Curriculum Code	Course Title	Credits hour	Credits	Season	College	Remarks
Degree courses	Public Compulsory Course	922.581	Chinese Language	160	4	Spring	School of International education	≥7 credits
		922.582	A Survey of China	32	2	Spring		
		922.583	Orientation for New Students	16	1	Autumn		
	discipline basic courses		Additive Manufacturing	32	2	Autumn	School of Material	Required in Master period ≥ 16 credits
			Precision Plastic Forming Theory and Application for Metals	32	2	Autumn		
			Preparation and Formation of Composite Materials	32	2	Autumn		
			Semiconductor Device physics and Technology	32	2	Autumn		
			Synthesis and Preparation of Nanomaterials	32	2	Autumn		
			Bulk Metallic Glasses	32	2	Autumn		
			Frontiers in Organic Chemistry	32	2	Autumn	School of Chemistry and Chemical Engineering	
			Frontiers in Polymer Science	32	2	Autumn		
first-level courses	crossed		Modern Photoelectric Analytical Technique	32	2	Autumn	2 credits	
Research Segment		650.501	Literature reading and the report on subject selection (Master)		1		School of Material	
		650.502	Giving lecture in academic conference (Master)		1			
		650.503	Degree thesis (Master)		10			

VI. Research Segment and Degree Thesis

Follow the relevant provisions in HUST

※The credits in this section could be achieved only when the requirement below is met: During the

Master period, master candidates should take part in the scientific report held by School of Material for at least 6 times.