

Master's Program Course Flow Chart of 2022 Fall and 2023 Spring Semester of the Graduate School of Materials Science

Approved by the 4th GSMS meeting on April 27th, 2022.

Required Courses (8 credits)

First academic year		Second academic year	
Fall Semester	Spring Semester	Fall Semester	Spring Semester
Graduate Seminar (I) 0-2-1	Graduate Seminar (II) 0-2-1	Master Thesis 3-0-3	Master Thesis 3-0-3
0-2-1	0-2-1	3-0-3	3-0-3

Elective Courses (at least 26 credits)

First academic year		Second academic year	
Fall Semester	Spring Semester	Fall Semester	Spring Semester
Crystallography and Diffraction 3-0-3	Mechanical Properties of Materials 3-0-3	Graduate Seminar (III) 0-2-1	Graduate Seminar (IV) 0-2-1
Applied Numerical Analysis in Material Science 2-2-3	Solid state thermodynamics 3-0-3	Practicums in Material Sciences 2-2-3	Special Lecture on Energy storage and Energy Saving Materials 3-0-3
Advanced Materials* Science 3-0-3	Physical Metallurgy* 3-0-3	Introduction To Semiconductor Manufacturing Technology 3-0-3	Interface structure and Properties of crystals 3-0-3
Energy Science and Technology 3-0-3	Electron Microscopy 3-0-3		Practicum for plastic materials and big data analysis for molding simulation 2-2-3
Solid State Physics 3-0-3	Magnetic Materials 3-0-3		Introduction to Spintronics 3-0-3
Materials Characterization 3-0-3	Unit Operation Practice of Green Energy 1-2-2		Phase Transformation 3-0-3
Heat Treatment 3-0-3	Advanced Nanomaterials and Their Applications in Green Energy 3-0-3		Thin Film Techniques 3-0-3
Special Topics on Transparent Electrodes 3-0-3			Practicum on Green Energy and Materials Technology 3-0-3
<u>Transcranial Magnetic Stimulation & Electroencephalography Physical Principles</u> 3-0-3			