Curriculum Planning Advanced Professional Courses Professional Basic Courses Mechanical Properties of Solid state thermodynamics **Graduate Seminar** Materials(Elective/3) (Elective/3) (Obligatory/ 2) **Phase Transformation Advanced Materials** Physical Metallurgy Science (Elective/3) (Elective/3) (Elective/3) **Material Testing and Analysis Courses Crystallography and Diffraction** Interface structure and Properties of (Elective/3) crystals(Elective/3) **Electron Microscopy** Materials Characterization (Elective/3) (Elective/3) **Magnetic Materials Green Energy** Other Professional and Process **Materials and Process** Courses Solid State Physics **Energy Science and** Applied Numerical Technology (Elective / 3) Analysis in Material (Elective / 3) Science **Heat Treatment** (Elective / 3) Unit Operation Practice of (Elective/3) **Green Energy** (Elective / 2) Magnetic Materials Practicums in Material (Elective / 3) Sciences (Elective / 3) Special Lecture on Energy storage and Energy Saving Materials (Elective/3) Introduction to Semiconductor Practicum for plastic Manufacturing Technology materials and big data (Elective / 3) analysis for molding Special Topics on simulation (Elective / 3) Transparent Introduction to Electrodes(Elective / 3) Spintronics (Elective / 3) Practicum on Green Thin Films Technology **Energy and Materials** (Elective / 3) Technology (Elective / 3) Transcranial Magnetic Advanced Stimulation & Nanomaterials and Their Electroencephalography ı Applications in Green Physical Principles 1 Energy (Elective/3) (Elective / 3)