MOES Undergraduate Program

◎The minimal credit requirement for graduation: 140 credits

Professional Required Courses		
1st year (freshman)	2nd year (sophomore)	3rd year (junior)
Calculus(I)(3), General Chemistry(I)(3), General Physics(I)(3), General Chemistry Laboratory(I)(1), General Physics Laboratory(I)(1), Introduction to Materials Science(3)	Engineering Mathematics(I)(3), Electromagnetism(I)(3), Crystal Structure and Defects(2)	Experiments on Material Characterization and Optoelectronics(I)(2)
Calculus(II)(3), General Chemistry(II)(3), General Physics(II)(3), General Chemistry Laboratory(II)(1), General Physics Laboratory(II)(1), Introduction to Opto-electronic Science and Technology(3)	Engineering Mathematics(II)(3), Introduction to Scientific Computing with Python(3), Quantum Mechanics(3)	Experiments on Material Characterization and Optoelectronics(II)(2), Research Project(I)

Professional Multi-division Required Courses		
Divisions	2nd year (sophomore)	3rd year (junior)
Material Science **(A)**	Thermodynamics of Materials(3), Physical Chemistry(3), X-ray and electron diffraction(3)	Phase Transformation(3), Physical Properties of Materials(3), Introduction to Polymer Material(3), Polymer Physics(3)
Optoelectronic Science **(B)**	Optics(I)(3), Electromagnetism(II)(3)	Solid State Physics(3), Optoelectronic Engineering(I)(3), Electronics(I)(3), Electronics(II)(3)
◎At least 15 credits from Professional Multi-division Required Courses, and no lesser than 6 credits in both A and B categories		

Professional Elective Courses	
Divisions	Courses
Material Science	Mechanical Behavior of Materials(3), Microanalysis Techniques of Material Characterization(3), Material Process and Design(3), Introduction to Energy Materials(3), Characteristics of Nanomaterials and Their Applications(3), Organic Chemistry(I)(3), Organic Chemistry(II)(3), Introduction to Crystal Structure and X-ray Diffraction (3)
Optoelectronic Science	Semiconductor Materials(3), Electrical and Optical Properties of Materials(3), Optoelectronic Engineering(II)(3), Applications of Materials to Electro-optical Engineering(3), Optics(II)(3), Laser Optics(3), Introduction to Semiconductor Physics(3)
Research Project, Writing, and Others	Research Project on Materials Science and Optoelectronic Engineering(I)(1), Research Project on Materials Science and Optoelectronic Engineering(II)(1), Research Project on Materials Science and Optoelectronic Engineering(III)(1), Research Project on Materials Science and Optoelectronic Engineering(IV)(1), English Technical Writing(3)
◎At least 21 credits from Professional Elective Courses	

If there is any discrepancy between the Chinese and English versions, the Chinese version shall prevail.