Pre-Approved IMSE PhD Electives (April 10, 2022)

E35 ESE	531	Nano and Micro Photonics
E35 ESE	532	Introduction to Nano-Photonic Devices
E35 ESE	5331	Nanophotonic Optical Media - From Metamaterials to Photonic Crystals and Beyond
E35 ESE	536	Introduction to Quantum Optics
E35 ESE	436	Semiconductor Devices (*Check with IMSE DGS before enrolling*)
E37 MEMS	463	Nanotechnology Concepts and Applications
E37 MEMS	5102	Materials Selection in Design
E37 MEMS	5427	Fundamentals of Fuel Cells
E37 MEMS	5506	Experimental Methods in Solid Mechanics
E37 MEMS	5507	Fatigue and Fracture Analysis
E37 MEMS	5560	Interfaces and Attachments in Natural and Engineered Structures
E37 MEMS	5601	Mechanical Behavior of Materials
E37 MEMS	5602	Non-metallics
E37 MEMS	5603	Materials Characterization Techniques I
E37 MEMS	5604	Materials Characterization Techniques II
E37 MEMS	5605	Mechanical Behavior of Composites
E37 MEMS	5606	Soft Nanomaterials
E37 MEMS	5607	Introduction to Polymer Blends and Composites
E37 MEMS	5608	Introduction to Polymer Science and Engineering
E37 MEMS	5610	Quantitative Materials Science and Engineering
E37 MEMS	5611	Principles and Methods of Micro and Nanofabrication
E37 MEMS	5612	Atomistic Modeling of Materials
E37 MEMS	5613	Biomaterials Processing
E37 MEMS	5614	Polymeric Materials Synthesis and Modification
E37 MEMS	5616	Defects in Materials
E37 MEMS	5617	Thermodynamics of Materials
E37 MEMS	5618	Electronic Behavior of Materials
E37 MEMS	5801	Micro-Electro-Mechanical Systems I
E44 EECE	502	Advanced Thermodynamics in EECE
E44 EECE	504	Aerosol Science and Technology
E44 EECE	505	Aquatic Chemistry
E44 EECE	534	Environmental Nanochemistry
E44 EECE	574	Electrochemical Engineering
E44 EECE	576	Chemical Kinetics and Catalysis
E62 BME	461	Protein Structure and Dynamics
E62 BME	479	Biofabrication & Medical Devices
E62 BME	4904	Interfaces and Attachments in Natural and Engineered Structures
E62 BME	523	Biomaterials Science
E62 BME	532	Physics of Biopolymers and Bioinspired Polymers
I52 IMSE	510	Special Topics in Biomaterials: Structures and Properties of Endogen
L07 Chem	426	Inorganic Electrochemistry and Photochemistry
L07 Chem	452	Synthetic Polymer Chemistry
L07 Chem	462	Synthetic Polymer Chemistry Laboratory
L07 Chem	465	Solid-State and Materials Chemistry
L07 Chem	542	Special Topics in Inorganic Chemistry: The Chemistry of Energy Storage
L07 Chem	543	Physical Properties of Quantum Nanostructures
L07 Chem	562	Statistical Thermodynamics
L07 Chem	571	Quantum Chemistry
L07 Chem	578	Nuclear Magnetic Resonance Spectroscopy
L07 Chem	5721	Quantum Chemistry in Practice
L07 Chem	580	Special Topics in Physical Chemistry: NMR for Biological Solids
L19 EPSc	511	Mineral in Aqueous Environments
L19 EPSc	567	Planetary Materials
L19 EPSc	569	Thermodynamics and Phase Equibria
L19 EPSc	580	Deformation of Planetary Materials
L31 Physics	463	Statistical Mechanics and Thermodynamics
L31 Physics	472	Solid State Physics
L31 Physics	529	Statistical Mechanics
L31 Physics	537	Thermodynamics & Kinetics of Materials
L31 Physics	539	Structure and Diffraction in Materials
L31 Physics	549	Solid State Physics I
L31 Physics	550	Solid State Physics II
L31 Physics	565	Magnetism and Superconductivity: Basics and Applications