|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Course Number and Title* | *Credits* | *Completed* | *In Progress* | *Future* |
| Required Core Courses |  |  |  |  |
| MSE 605 Crystallography and Crystal Chemistry | 4 |  |  |  |
| MSE 608 Solid State Thermodynamics | 4 |  |  |  |
| MSE 618 Phase Transformations and Kinetics | 4 |  |  |  |
| Required Core Emphasis Course  Choose at least three credits from the following, or alternative Core Emphasis Course(s) approved by the graduate program coordinator:  MSE 510 Electrical, Optical, and Dielectric Materials  MSE 512 Mechanical Behavior of Materials  \*PHYS 515 Solid State Physics | 3 |  |  |  |
| Required Characterization Course  Choose at least three credits from the following, or alternative Characterization Course(s) approved by the graduate program coordinator:  CHEM 522 Spectroscopy  CHEM 540 Spectroscopic Identification  CHEM 560 Introduction to NMR Spectroscopy  MSE 521 Introduction to Electron Microscopy  MSE 525 Surface Analysis  \*PHYS 523 Physical Methods of Materials Characterization | 3 |  |  |  |
| Required Processing Course  Choose at least three credits from the following, or alternative Processing Course(s) approved by the graduate program coordinator:  MSE 540 Advanced Processing  MSE 542 Ceramic Processing  MSE 545 Nanoscale Processing | 3 |  |  |  |
| Culminating Activity  CHEM 593 Thesis or  MSE 593 Thesis or  PHYS 593 Thesis | 9 |  |  |  |
| Total | 30 |  |  |  |
| \*Recommended Course |  |  |  |  |