|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *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 3 credits from the following  MSE 510 Electrical, Optical, and Dielectric Materials (3 cr)  MSE 512 Mechanical Behavior of Materials (3 cr)  \*PHYS 515 Solid State Physics (3 cr) | 3 |  |  |  |
| Required Characterization Course  Choose 3 credits from the following (or alternate characterization course(s) approved by the graduate program coordinator)  CHEM 522 Spectroscopy (3 cr)  CHEM 540 Spectroscopic Identification (3 cr)  CHEM 560 Introduction to NMR Spectroscopy (3 cr)  MSE 521 Introduction to Electron Microscopy (3 cr)  MSE 525 Surface Analysis (3 cr)  \*PHYS 523 Physical Methods of Materials Characterization (3 cr) | 3 |  |  |  |
| Required Processing Course  Choose 3 credits from the following (or alternate processing course(s) approved by the graduate program coordinator)  MSE 540 Advanced Processing (3 cr)  MSE 542 Ceramic Processing (3 cr)  MSE 545 Nanoscale Processing (3 cr) | 3 |  |  |  |
| Thesis  CHEM 593 Thesis or  MSE 593 Thesis or  PHYS 593 Thesis | 9 |  |  |  |
| Total | 30 |  |  |  |
| \*Recommended Course |  |  |  |  |