Materials Informatics (Certificate)

The Materials Informatics (MI) Graduate Certificate Program (GCP) is designed for interdisciplinary graduate education at the intersection of materials science, engineering, and data science with the aim of preparing the next generation of materials engineers given the growing demand for data-science skills and knowledge of artificial intelligence. The skills and knowledge obtained will serve as a foundation for the understanding of materials informatics and high throughput materials discovery that will improve career prospects.

More Information

Materials Informatics Program Website (https://www.mse.ncsu.edu/graduate/migcp/)

Admission Requirements

- BS degree in the sciences or engineering from an accredited four-year college or university
- Overall (or major) GPA of at least 3.0 on a 4-point scale
- Potential applicants without the prior background in Materials Science and Engineering are advised to complete MSE 500 prior to applying, although success in that course does not guarantee admission into the certificate program.
- Distance education students enrolled through Engineering Online (EOL) are eligible to apply for the MI GCP. With many online MSE and Statistics (ST)/Mathematics (MA) courses to choose from, students can customize their particular certificate programs to focus on specific areas of materials science that interest them.

Applicant Information

- **Delivery Method:** On-Campus, Online, Hybrid
- **Entrance Exam:** None
- **Interview Required:** None

Application Deadlines

- **Fall:** March 1
- **Spring:** October 1

Plan Requirements

Code	Title	Hours	Counts towards
Required Course		**3**	
MSE 723	Materials Informatics		
Materials Science Course		**3**	
Select one of the following courses:			
MSE 710	Elements Of Crystallography and Diffraction		
MSE 721	Nanoscale Simulations and Modeling		
MSE 725	Quantitative Materials Characterization Techniques		
Statistics/Mathematics Course		**3**	
ST 517	Applied Statistical Methods I		
ST 533	Applied Spatial Statistics		
MA 540	Uncertainty Quantification for Physical and Biological Models		
Additional Course		**3**	
Additional Course is determined in conjunction with the academic committee [1]			
Total Hours		**12**	

[1] The fourth course will be taken from outside of the student's degree department. For example, an MSE student's fourth course must be from the ST or MA list (above), whereas a ST or MA student's fourth course must be from the MSE list (above).