



## Big Data and Materials Informatics

### MSE 479/MSE 544

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Dive into the future of research with our cutting-edge course, "Big Data and Materials Informatics," co-developed by the esteemed Materials Science and Engineering Department and Chemistry Department at UW, in partnership with eScience and UW-IT. This innovative program is tailored to meet the demands of the Big Data era, focusing on groundbreaking research opportunities and challenges, particularly in materials research.

Unlock the power of high-performance computing and master cloud-based parallel computing as we explore practical applications of data science and machine learning solutions. You will gain hands-on experience with many Big Data methodologies, from cloud-host virtual machines to sophisticated machine learning tools, including Docker, serverless apps, parallel computing, batch processing, automated data analysis, data storage and NoSQL database, GPU, Large Language Models such as OpenAI, and other cloud-based big data processing and machine learning tools suitable for science research.

The Class is sponsored by **Microsoft Azure Cloud** and provide students access to Azure Cloud usage and **OpenAI** access through cognition services. Whether you're aiming to complete the UW Data Science Minor or simply looking to enrich your knowledge base, this course welcomes all students who meet the prerequisites or have completed equivalent classes. Embrace this opportunity to be at the forefront of technological and scientific exploration. Enroll now and shape the world of tomorrow with the insights gained from Big Data and Materials Informatics. Discover more and register today at UW Course Catalogue(<https://myplan.uw.edu/course/#/courses/MSE544>)!

