MSE 6140
Computational Materials Science and Engineering

**Course Description**
There is significant urgency and heightened interest in academia and industry to integrate computational and data science methodologies to accelerate materials discovery and development cycles. This intensifying interest is supported by the rapid surge in the number of patents on “materials design” filed purely based on computational work over the last couple of decades (at the same rate as peer-reviewed journal publications). In order to exploit the full spectrum of benefits offered by computational and informatics techniques, students need to be trained in and exposed adequately to these emerging tools. The School of Materials Science and Engineering at Georgia Tech has responded to this need by creating a course that covers the essence of modern computational and data-driven methodologies aligned with emerging scientific and technological need.

**Pre- and/or Co-Requisites**
A background in Materials Science & Engineering or a related discipline (e.g., Chemistry, Chemical Engineering, Mechanical Engineering, Physics, etc.) is recommended.

**Why Take this Course?**
This course aims to provide a broad understanding of a spectrum of modern state-of-the-art computational methods used in materials science and engineering so necessary in today’s industry.

**Who Can Take this Course?**
This course is most appropriate for advanced master’s and doctoral students in Materials Science & Engineering or a related discipline (e.g., Chemistry, Chemical Engineering, Mechanical Engineering, Physics, etc.).

**CRN #: 57494**

**Semester: Summer 2020**

**Days/Times:**
MW 12:30 - 2:40pm

**Location:** BlueJeans

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