MATERIALS SCIENCE

mccormick.northwestern.edu/materials-science

Materials science is the study of processing-structure-property relationships in materials of importance to society, such as metals, ceramics, polymers, semiconductors, biomaterials, nanomaterials, and their combinations (composites). Materials scientists pay special attention to “microstructure” — i.e., how materials are constructed on the microscopic, submicroscopic, and even the nanometer levels, and how this affects their properties. Given the wide range of uses for materials, their properties of interest are similarly broad, from mechanical (e.g., strength) to electrical (e.g., semiconduction) to biological (e.g., biocompatibility).

By offering the opportunity to study materials science within the context of the liberal arts and sciences, the Materials Science Program in Weinberg College is distinct from the program in the Department of Materials Science and Engineering in the Robert R. McCormick School of Engineering and Applied Science. The Weinberg program has strong connections with Weinberg’s physical and biological sciences departments in addition to its links with McCormick’s various engineering disciplines.

Programs of Study

- Materials Science Major (https://catalogs.northwestern.edu/undergraduate/arts-sciences/materials-science/materials-science-major/)
- Materials Science Minor (https://catalogs.northwestern.edu/undergraduate/arts-sciences/materials-science/materials-science-minor/)
- Materials Science Second Major for ISP Students (https://catalogs.northwestern.edu/undergraduate/arts-sciences/materials-science/materials-science-second-major-isp-students/)

These courses are offered by the Robert R. McCormick School of Engineering and Applied Sciences. See Materials Science and Engineering (https://catalogs.northwestern.edu/undergraduate/engineering-applied-science/materials-science-engineering/#coursedata).