

# PATHWAYS MINORS

# MATERIALS IN SOCIETY

## What is it?

The Materials in Society minor serves to help **students understand the reciprocal relationship between society and science specifically with regard to materials**. The minor addresses this issue by looking at the intersections of materials science, policy, and social equity.



## Why do it?

From alternative energy to quantum computers, the future of technology requires materials innovation and use. The next generation of engaged citizens, businesspeople, innovators, and policymakers will have to **consider the impact of technology on communities and cultures to drive society in a responsible direction**. Prepare to guide the future of technological advances from a global and holistic perspective while considering the environment, social equity, and the limitations of material properties.



## Who is it for?

The minor was developed with **non-STEM students from all majors** in mind. However, it will serve all students according to their interests.

### Pathways Core Concepts\*

- 1a - Advanced Discourse
- 2 - Critical Thinking in the Humanities
- 3 - Reasoning in the Social Sciences
- 4 - Reasoning in the Natural Sciences
- 5a - Advanced Quantitative and Computational Thinking
- 6d - Critique and Practice in Design
- 7 - Critical Analysis of Identity and Equity in the United States

### Pathways Integrative Concepts

- Ethical Reasoning
- Intercultural and Global Awareness

\*At least three of these core concepts will be completed, but concepts will vary depending on elective choices.

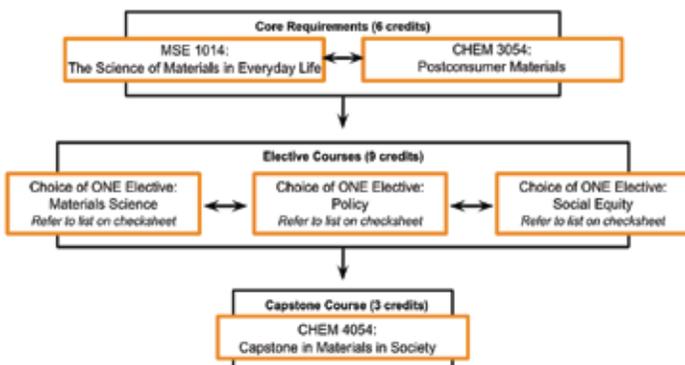
## Requirements

This 18-hour minor in Materials in Society includes 6 hours of required courses, 9 hours of elective courses from 3 categories, and a 3 hour capstone course.

## Required courses

MSE 1014: The Science of Materials in Everyday Life  
CHEM 3054: Post Consumer Materials  
CHEM 4054: Capstone in Materials and Society\*

\*Prerequisites: MSE 1014, CHEM 3054



## Elective courses

Students select 9 credit hours of elective courses within 3 categories: social equity, policy, and materials science. Course topics include morality and justice; science, technology, and the environment; energy and society; global science and technology policy; collaborative policy making and planning; data and the art of policy making and planning; energy and raw materials; geopolitics and sustainable development; chemistry in context; and Earth resources, society, and the environment.



- Develop scientific literacy skills and interdisciplinary knowledge.
- Gain an understanding of the design of materials to achieve desired properties.
- Build a better appreciation of scientific methodology.
- Consider the impact that science and engineering have on society.

[www.pathways.prov.vt.edu/minors](http://www.pathways.prov.vt.edu/minors)

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