

# Certificate in Sustainable Materials and Design

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The undergraduate certificate in sustainable materials and design is a university-issued certificate. It is designed for engineering and technology professionals and undergraduate students enrolled in related fields who wish to gain training in this focused topic. Students completing this certificate will have a strong understanding of the fundamentals of materials, its sustainable technology and design, as well as indepth knowledge in critical and upcoming areas such as new computer aided engineering (CAE) based programs toward efficient design, high technology nondestructive analysis (analytical and numerical), meso- micro- nano-scale sustainable materials research, automation and recovery of engineering materials for environmental safety, security and health.

## Admission

Students seeking this certificate must be admitted to the university in one of the degree programs offered by the department or in a nondegree status. All university policies relative to admission apply. Students pursuing an undergraduate certificate must file a plan of study for the certificate program with the undergraduate coordinator before half of the required hours are completed. Students may apply certificate coursework toward a degree program.

## Program Requirements

The certificate requires the completion of 12 credit hours from a selected list of courses. A cumulative grade point average of at least 3.000 must be maintained for all courses comprising the certificate program and no grades below *C*.

Course	Title	Hours
Select four of the following seven courses		12
ME 541	Mechanical Engineering Design II	
ME 637	Computer-Aided Engineering	
ME 665	Selection of Materials for Design and Manufacturing	
ME 670	Introduction to Nanotechnology	
ME 673	Recovery of Engineering Materials	
ME 702	Energy and Sustainability	
ME 749	Applications of Finite Element Methods in Mechanical Engineering	
<b>Total Credit Hours</b>		<b>12</b>

Students completing the certificate program receive an appropriately-worded certificate from the university and a notation is made on the student's transcript when the certificate has been awarded.