

# Tissue Engineering (Minor)

To see more about what you will learn in this program, visit the Learning Outcomes website (<https://apps.oirp.ncsu.edu/pgas/>)!

The minor in Tissue Engineering is intended to provide graduates with the knowledge base and practical skills that will prepare them to quickly contribute to research and manufacturing of devices designed for repair and replacement of tissues and organs. Interested students should contact the BME Student Services Coordinator for information and application materials.

## Admissions and Certification of Minor

The BME staff will hold primary responsibility for administration of the Minor in Tissue Engineering. Information about the minor and application materials will be handled by the BME student services coordinator. BME faculty members will serve as advisors for the minor.

## Contact Person

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**Effective Date: 6/2009**

**SIS Code: 14TISSEGRM**

## Plan Requirements

- Complete a minimum of 22 credit hours of designated courses. All courses required for the minor must be completed with a C- or better.
- To be admitted to the minor in Tissue Engineering, they will need to complete two prerequisite courses, CH 223 Organic Chemistry II and BIO 183 Introductory Biology: Cellular and Molecular Biology with a C- or better.

Code	Title	Hours
<b>Required Courses</b>		<b>16</b>
BIT 410	Manipulation of Recombinant DNA	
BIT 466	Animal Cell Culture Techniques	
BME/BEC 483	Tissue Engineering Technologies	
BME 484	Fundamentals of Tissue Engineering	
BME 498	Undergraduate Research in Biomedical Engineering	
Select one of the following:		3
CE 225	Mechanics of Solids	
CE 282	Hydraulics	
CHE 311	Transport Processes I	
CHE 315	Chemical Process Thermodynamics	
MAE 201	Engineering Thermodynamics I	
MAE 214	Solid Mechanics	
MAE 308	Fluid Mechanics	
MSE 301	Introduction to Thermodynamics of Materials	

TE 303	Thermodynamics for Textile Engineers	
Select one of the following:		3
TE 463	Polymer Engineering	
TE 466	Polymeric Biomaterials Engineering	
Total Hours		22