

Course Outline

585.751: Immunoengineering

This outline provides an overview of the course and assignments by week. Each module runs from **Wednesday to Tuesday night (11:59 pm EST)**, for a period of seven (7) days (1 week). Due dates for readings and other assignments may be referred to by the day of the module week in which they are due. For example, if a reading assignment is to be completed by Day 3 and the module started on Tuesday, then the reading assignment should be completed by Thursday.

Please remember to check the calendar for specific due dates.

Module	Module Title	Assignments
Module 1	Immunoengineering: A New Frontier	<ul style="list-style-type: none">• Introductions• Module Discussion• Syllabus Review• Pre-test
Module 2	Immune Response: Pathogens	<ul style="list-style-type: none">• Module Discussion• Module Assignment• Quiz• Project Selection
Module 3	Immune Response: Autoimmunity, Allergens	<ul style="list-style-type: none">• Module Discussion• Module Assignment• Quiz• Project Background Research
Module 4	Immune Response: Cancer	<ul style="list-style-type: none">• Module Discussion• Module Assignment• Quiz• Project: Draft of Significance
Module 5	Immune Response: Biomaterials	<ul style="list-style-type: none">• Module Discussion• Module Assignment• Quiz• Project: Draft of Significance
Module 6	Midterm and Immune System Review	<ul style="list-style-type: none">• Module Discussion• Midterm• Project: Previous Engineering Approaches
Module 7	Engineering Therapies: Pathogens	<ul style="list-style-type: none">• Module Discussion• Module Assignment• Project: Previous Engineering Approaches



Module	Module Title	Assignments
Module 8	Engineering Therapies: Autoimmunity, Allergens	<ul style="list-style-type: none"> • Module Discussion • Module Assignment Project: Draft of Innovation
Spring break		
Module 9	Engineering Therapies: Cancer	<ul style="list-style-type: none"> • Module Discussion • Module Assignment Project: Experimental Approach Outline
Module 10	Engineering Therapies: Biomaterials and Implants	<ul style="list-style-type: none"> • Module Discussion • Module Assignment Project: Identifying Supporting Data/Figures/Potential Pitfalls
Module 11	Engineering Tools: Immunoprofiling	<ul style="list-style-type: none"> • Module Discussion • Module Assignment Project: Rough Draft
Module 12	Engineering Therapies: Tissue Engineering	<ul style="list-style-type: none"> • Module Discussion • Module Assignment
Module 13	Engineering Tools: Modeling	<ul style="list-style-type: none"> • Module Assignment Project: Pitch presentation
Module 14	Final Presentations	<ul style="list-style-type: none"> • Project: Final Proposals

