Mindluster Platform

# About the course Genetic Engineering Basics

Genetic Engineering course, in this course we explore the principles and applications of modifying genetic material in living organisms for various purposes.

**Science Category's Courses**

# Course Lesson(51)

Lesson 1 : **Genome Editing and Engineering Intro Video**

Lesson 2 : **Lec 1 Introduction Genes and Genome Organization**

Lesson 3 : **Lec 2 History and Basics of Genetic Engineering**

Lesson 4 : **Lec 3 Advantages and Limitations of Genetic Engineering**

Lesson 5 : **Lec 4 Breakage of Genomic DNA**

Lesson 6 : **Lec 5 Repair of Genomic DNA**

Lesson 7 : **Lec 6 Homologous and non homologous recombination**

Lesson 8 : **Lec 7 Site specific recombination**

Lesson 9 : **Lec 8 Targeted genetic modification I**

Lesson 10 : **Lec 9 Targeted genetic modification II**

Lesson 11 : **Lec 10 Basics of Zinc Finger Nucleases**

Lesson 12 : **Lec 11 Design of Zinc Finger Nucleases for genome editing**

Lesson 13 : **Lec 12 Applications of Zinc Finger Nucleases PART A**

Lesson 14 : **Lec 13 Applications of Zinc Finger Nucleases PART B**

Lesson 15 : **Lec 14 Basics of TALEN PART A**

Lesson 16 : **Lec 15 Basics of TALEN PART B**

Lesson 17 : **Lec 16 Design of TALEN for genome editing PART A**

Lesson 18 : **Lec 17 Design of TALEN for genome editing PART B**

Lesson 19 : **Lec 18 Application of TALEN Part A**

Lesson 20 : **Lec 19 Application of TALEN Part B**

Lesson 21 : **Lec 20 CRISPR system in bacteria Part A**

Lesson 22 : **Lec 21 CRISPR system in bacteria Part B**

Lesson 23 : **Lec 22 CRISPR Cas9 in Genome Editing Part A**

Lesson 24 : **Lec 23 CRISPR Cas9 in Genome Editing Part B**

Lesson 25 : **Lec 24 Applications of CRISPR Cas9 Part A**

Lesson 26 : **Lec 25 Applications of CRISPR Cas9 Part B**

Lesson 27 : **Lec 26 Computational Resources for CRISPR Cas Part A**

Lesson 28 : **Lec 27 Computational Resources for CRISPR Cas Part B**

Lesson 29 : **Lec 28 Human cell engineering in diseases Thalassemia Part A**

Lesson 30 : **Lec 29 Human cell engineering in diseases Thalassemia Part B**

Lesson 31 :
**Lec 30 Human cell engineering in diseases Severe combined immunodeficiency SCID Part A**

Lesson 32 :
**Lec 31 Human cell engineering in diseases Severe combined immunodeficiency SCID Part B**

Lesson 33 : **Lec 32 Human cell engineering in diseases Hemophilia Part A**

Lesson 34 : **Lec 33 Human cell engineering in diseases Hemophilia Part B**

Lesson 35 : **Lec 34 Animal models Part A**

Lesson 36 : **Lec 35 Animal models Part B**

Lesson 37 : **Lec 36 iPSc models Part A**

Lesson 38 : **Lec 37 iPSc models Part B**

Lesson 39 : **Lec 38 Cancer disease models Part A**

Lesson 40 : **Lec 39 Cancer disease models Part B**

Lesson 41 : **Lec 40 Engineered immune cells for Cancer therapy I Part A**

Lesson 42 : **Lec 41 Engineered immune cells for Cancer therapy I Part B**

Lesson 43 : **Lec 42 Engineered immune cells for Cancer therapy II Part A**

Lesson 44 : **Lec 43 Engineered immune cells for Cancer therapy II Part B**

Lesson 45 : **Lec 44 History and Basics Part A**

Lesson 46 : **Lec 45 History and Basics Part B**

Lesson 47 : **Lec 46 Genome editing and personalized therapy**

Lesson 48 : **Lec 47 Bioethics and Biosafety Part A**

Lesson 49 : **Lec 48 Bioethics and Biosafety Part B**

Lesson 50 : **Lec 49 Regulatory issues in Genome Editing**

Lesson 51 : **Lec 48 Bioethics and Biosafety Part B**

# Related courses

**Geography**

**Organic Chemistry**

**History of Science**

**Physics**

**Astronomy**

**Anatomy Physiology**

for Business Contact
business@mindluster.com