Teaching Biomedical Technology with zSpace

zSpace

Support the teaching of biomedical technology using applications on your zSpace AIO or laptop. Key concepts covered include cellular and molecular biology, evolution, genetics, human genetic variation, infectious diseases, medicine, neurobiology, and pathology. More details are provided for using Studio A3, VIVED Science, Human Anatomy Atlas, VIVED Anatomy, and zSpace Experiences.

Studio A3 | VIVED Science | Visible Body+ | Human Anatomy Atlas | VIVED Anatomy | zSpace Experiences

Studio A3 can be used to introduce, teach, and review key concepts in the study of biomedical technology.

Cellular and molecular biology

- Collection: Cells (A230)
- Proteins (A036)
- Lipids (A022)
- Macromolecules (A109)

Human Genetic Variation

- Are You a Carrier? (A054)
- Sickle Cell Disease (A277)

Evolution

- Embryology (A251)
- Comparative Anatomy (A282)

Neurobiology

- Hormones and Neurotransmitters (A017)
- Human Anatomy: Nervous System (A051)
- Human Anatomy: The Brain (A284)
- Chemical Impacts: Human Response (A046)

Genetics

- DNA: Genetic Mutations (A089)
- Probability and Genetics (A039)
- Crossing Two Traits (A276)
- Fruit Fly Research (A096)
- Mendelian Inheritance and Exceptions (A026)
- Non-Mendelian Genetics (A280)

Models include (AP21):

HPV (M0459)
Human PHYH Protein (M0460)
Influenza (M0461)
Insulin (M0465)
RNA Polymerase (M0466)
Thioredoxin (M0463)
Ubiquitin (M0464)

Tip:
Students can use Tinkercad to create models for import into Studio A3.

VIVED Science can be used to teach key concepts through the use of dissectible, labelled models (AP27).

Models include:

- Amoeba
- Arenavirus
- Bacillus Vasillus Subtillis
- Bird Flu Virus
- Blue Tongue Virus
- Bordetella Pertussis
- Coronavirus
- Corynebacterium
- Diphtheriae
- Echovirus
- Enterobacteria Phage T4
- Escherichia Coli
- Fusobacterium Nucleatum
- Giardia
- Halteria
- Helicobacter Pylori
- Hendra Virus
- Herpes
- HIV
- Klebsiella Pneumoni
- Legionella
- Pneumophila
- Marburg Virus
- Measles Virus
- Meningococcus
- Mycobacterium Tuberculosis
- Nudaurelia Capensis Omega Virus
- Parainfluenza Virus
- Rabies Virus
- Reovirus
- Thogotovirus

Pre-built sessions

- The Structure of DNA

Human Anatomy Atlas includes thousands of 3D models and simulations for human anatomy and biology (AP28).

Activities include:

- Visible Body+ Elbow Injuries
- Visible Body+ Investigating Relationships: Circulatory System and the Brain
- Visible Body+ Investigating Relationships: Nervous System and Skin
- Visible Body+ Investigating the Endocrine System

Models include:

- DNA Coiling and Supercoiling into Chromatin
- DNA Coiling into Nucleosome
- Molecular Level of DNA

Human Anatomy Atlas can be used to teach medicine, neurobiology, and pathology (AP26).

Activities include:

- Anatomical Regions of the Human Body
- Investigating the Nervous System
- Investigating the Endocrine System
- Investigating the Lymphatic System
- Cystic Fibrosis

Available guides include:

Cranial Nerves - Part I (Lab Activity)

Cranial Nerves - Part II (Lab Activity)

Guides are accessible on zspace.com/edu/info/human-anatomy-atlas-for-zspace.

VIVED Anatomy can be used to teach dry lab dissection with a fully dissectible and labeled human body (AP31).

zSpace Experiences can be used to teach about viruses, human health, and lab techniques as well as introduce human anatomy.

Experiences include:

- Exploring Anatomy (E452)
- Exploring Human Response to the Flu (E444)
- Exploring Lab Skills (E443)
- Human Response to the Flu (E436)
- Testing for the Flu (E435)