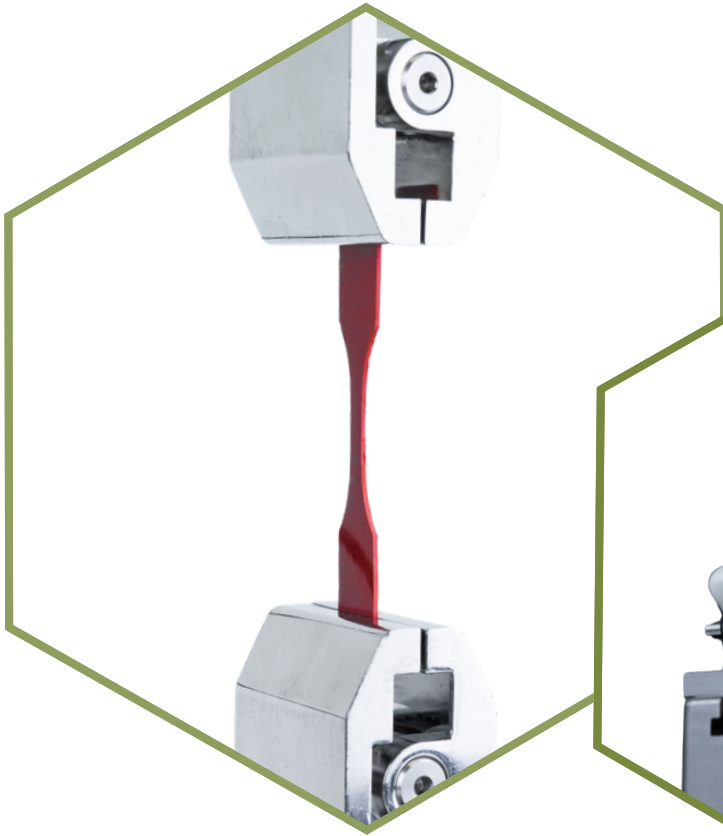




UniVert Classroom Kit

Mechanical Testing Kit for Teaching Labs

The **UniVert Classroom Kit** is a mechanical testing lab kit that allows students to learn how to prepare specimens, run real mechanical tests, collect force-displacement data, and interpret stress-strain behaviour using an approachable classroom mechanical testing instrument.



Classroom-Ready Lab Kit

Includes specimen materials, preparation tools, synthetic tissue and bone analogs, and fixtures for core mechanical testing labs



Built for Teaching Success

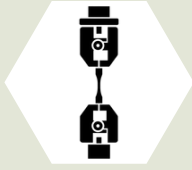
Step-by-step student and instructor guides help students run tests, analyze data, and connect results to mechanical principles



Accreditation Aligned Learning

Designed to support ABET, CEAB, and engineering education outcomes through hands-on experimental learning

Core Lab Modules



Tension

Students prepare specimens, run tension tests, generate stress-strain curves, and compare stiffness, strength, and strain at failure



Compression

Students examine how loading mode, specimen geometry, and boundary conditions affect compressive response and failure behaviour



3-Point Bend

Students explore flexural mechanics, support span, stiffness, peak load, and the combined tensile and compressive behaviour of beam-like specimens

What's Included:

- UniVert benchtop mechanical testing instrument
- Fixtures and grips for tension, compression, and 3-point bending
- Specimen materials for repeatable class results
- Specimen preparation tools and teaching supplies
- Student and instructor guides with step-by-step lab procedures
- Analysis guidance for force-displacement and stress-strain interpretation



Learning Outcomes:

- ✓ Connect **force-displacement** data to **stress-strain** interpretation
- ✓ Compare **tensile**, **compressive**, and **bending** behaviour
- ✓ Estimate **stiffness**, **strength**, **yield behaviour**, and **failure properties**
- ✓ Understand how geometry and boundary conditions **influence** results
- ✓ **Build confidence** with professional mechanical testing workflows

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Request A Demo

Talk with our team about course goals, lab modules, cohort size, curriculum resources, and recommended UniVert configurations for your teaching lab

