

Transformative Couture: STEAM-Based Approaches for Fashion

Fusing Science and Style to Define the Future of Fashion!

Outcome: Each group will design and create their own complete outfit!

Duration: 16 Contact Hours

ABOUT THE PROGRAM

From science formulas to runway fashion! Led by the expert team from the School of Fashion and Textiles at The Hong Kong Polytechnic University (PolyU), this cross-disciplinary QEF funded STEAM project brings Physics, Chemistry, and Biology into the creative world of fashion design. Learn STEAM knowledge through the hands-on fashion design process—don't just follow trends, become a creator of STEAM fashion!

TRANSFORMATIVE FASHION STEAM WORKSHOPS

Robotics Fashion (Physics Focus)

- Circuit Design: Explore electronic circuits for smart and responsive clothing.
- Kinetic Structures: Build mini motorized components to make your garment structures move and transform dynamically.

Smart Photochromic Textile (Chemistry Focus)

- Molecular Science: Unlock the molecular secrets of color-changing materials.
- Interactive Printing: Try screen-printing techniques to create magical fabrics that react to temperature shifts.

Plant-Based Eco Leather (Biology Focus)

- Sustainable Innovation: Discover eco-friendly Mycelium Leather grown from fungi roots.
- Material Crafting: Apply material science to assemble and craft your own sustainable fashion accessories.

WHAT STUDENTS WILL GAIN

1. Hands-On STEAM Mastery: Gain deep, applied knowledge of Physics, Chemistry, and Biology through practical fashion design.
2. Collaborative Creation: Work in teams to bring a full outfit from initial concept to completed garment.
3. Design Thinking and Process: Master the full creative process—from brainstorming and sketching to physical prototyping.
4. Master Experimental Innovation: Build interdisciplinary agility, practical problem-solving, and team collaboration skills.
5. Portfolio Highlight: Stand out with unique, self-designed fashion pieces to boost your future academic profile.

Call to Action

Ready to define the future of fashion?

Contact your teacher now to enroll in the program!