

TECHNICAL APPAREL DESIGN (DETA)

This is a list of the Technical Apparel Design courses available at KPU.

DETA 5110 **3 Credits**

Technical Apparel in Context

Students will examine the relationship between technical apparel and the intended context of use. They will learn to apply a human-centred systems approach to characterize human, functional, and environmental design requirements and objectives. Students will explore selected topics in ergonomics, anthropometry, psychology, thermal physiology, kinesiology, and safety as they relate to technical apparel design for recreational, occupational, athletic, survival, and therapeutic contexts.

Co-requisites: DETA 5120 and 5130 and 5140 DETA 5120 and 5130 and 5140
Not Transferable

DETA 5120 **3 Credits**

Technical Textile Technologies

Students will enhance their knowledge of advances in textile technologies that are revolutionizing the technical apparel industry. They will study the properties, processing, and testing of high tech textiles and new millennium fibres for a range of applications including: athletic and recreational performance, protection, occupational, survival, medical, smart fabrics, and eco-textiles for sustainability. Students will gain an understanding of the properties that influence function and performance. They will explore ways to apply research to further promote their understanding of technical textile applications.

Co-requisites: DETA 5110 and 5130 and 5140 DETA 5110 and 5130 and 5140
Not Transferable

DETA 5130 **3 Credits**

Creative Innovation

Students will explore, interpret, and conceptualize innovative processes for creative solutions in the designing of technical performance apparel. They will envision future technical apparel opportunities through evaluation of the current marketplace, interpretation of economic forecasts, sustainability issues, and target market user profiles. Students will systematize the effective application of design processes resulting in a variety of exploratory and defensible options.

Co-requisites: DETA 5110 and 5120 and 5140 DETA 5110 and 5120 and 5140
Not Transferable

DETA 5140 **3 Credits**

Advances in Apparel Production

Students will research and analyze advanced production methodologies for technical apparel. They will examine technical apparel components to understand the implications of product integrity. Students will execute rapid prototyping techniques as an iterative process and evaluate production methodologies for fit, function, and environmental sustainability.

Co-requisites: DETA 5110 and 5120 and 5130 DETA 5110 and 5120 and 5130
Not Transferable

DETA 5200 **3 Credits**

Global Business Strategies for Technical Apparel

Students will reach beyond existing market demands to create new opportunities. They will critique business models, leadership practices, and global strategies while considering diverse organizational, social, and cultural relationships within the technical apparel industry. Students will assess geographical, ethical, and sustainability issues related to the use and function of technical apparel in global sourcing, trade negotiations, and logistical planning.

Prerequisites: DETA 5110 and 5120 and 5130 and 5140
Not Transferable

DETA 5210 **3 Credits**

User Experience

Students will apply and critique methods of engaging with and learning from technical apparel users throughout an iterative design process. They will formulate and implement testing strategies to evaluate user experience of technical apparel products.

Prerequisites: DETA 5200
Not Transferable

DETA 5230 **3 Credits**

Strategic Design Direction

Students will research market opportunities and critique creative strategies, technological advances, and leadership approaches in the design of technical performance apparel. They will evaluate principles of research design methodology for the purposes of measuring potential innovation and creative solutions. Students will, through divergent thinking and exploration, debate strategic design directions and research to inform the final capstone project in DETA 5300.

Prerequisites: DETA 5200
Transferable (refer to transfer guide)

DETA 5300 **9 Credits**

Capstone Project

Students will develop and conduct a complete design process for technical apparel based on approval of the capstone proposal developed in DETA 5230, Strategic Design Direction. They will apply the key elements of an iterative design process to generate a detailed, responsive design and an associated business strategy. Students will incorporate an understanding of the human-centred systems approach, current textile technologies, apparel production standards, user and market analyses, business strategies, project management, and innovation.

Prerequisites: DETA 5200 and 5210 and 5230
Not Transferable