TECHNICAL APPAREL DESIGN (DETA)

Registration in some course sections is restricted to students in particular programs. See Timetables - kpu.ca/registration/timetables (http://www.kpu.ca/registration/timetables/) - for current section information.

Visit the BC Transfer Guide - bctransferguide.ca (https://www.bctransferguide.ca/) - for information about course transfer in B.C.

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.
Level: UG
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5120 3 credits
Technical Textile Technologies
Students will develop their knowledge of textile technologies that are revolutionizing the technical apparel industry. They will study the properties, processing, and testing of technical textiles for a range of applications including performance enhancing apparel, safety, medical, and military applications. Students will gain an understanding of the properties that influence function and performance of technical textiles and approaches for material sustainability. They will explore ways to apply research to further promote their understanding of technical textile applications.
Level: UG
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5140 3 credits
Introduction to Technical Apparel Production
Students will be introduced to specialized 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.
Level: UG
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5200 3 credits
Business Strategies for Technical Apparel
Students will explore and create new market opportunities by applying product development strategies and envisioning future trends for the technical apparel industry. Research skills will be used to validate viable products. They will critique business models and business strategies while considering diverse organizational, social, and cultural relationships. Students will also assess geographical, ethical, and sustainability issues related to the use and function of technical apparel in sourcing and product development processes.
Level: UG
Prerequisite(s): DETA 5210, DETA 5230 and DETA 5240
Co-requisite(s): DETA 5440 and DETA 5980
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5210 3 credits
User Research for Technical Apparel
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.
Level: UG
Prerequisite(s): DETA 5110
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5230 3 credits
Strategic Design Innovation
Students will explore technical apparel design opportunities, creative strategies, technological advances, and leadership styles. Through a rigorous design research process, they will solve technical apparel related problems innovatively and creatively. The methodology and skills in this course will be the foundation for the final capstone project.
Level: UG
Prerequisite(s): DETA 5110
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5240 3 credits
Technical Drawing for Product Development
Students will explore a variety of techniques in technical design and drawing that use both manual and digital applications for specification packages. They will apply garment components and apparel terminology for sketching and technical drawings. Students will apply computer applications and digital design communication used in the apparel industry. They will explore industry-standard software such as Adobe Creative Suite to create professional level communication tools. Students will develop their digital skills to create effective presentations.
Level: UG
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5440 3 credits
Technical Apparel Production
Students will research and analyze advanced production methodologies for technical apparel. They will further 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. Students will use industrial machinery, equipment, materials, and construction techniques specifically for technical apparel.
Level: UG
Prerequisite(s): DETA 5140
Co-requisite(s): DETA 5200 and DETA 5980
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5550 3 credits
Technical Apparel Industry Experience
Students will reflect on learning and career aims as they develop an individualized learning plan for their strategic career exploration within the technical apparel industry. Students will examine how the application of their skills affects their work and their relationships with others in an organization as they develop new industry contacts. They will provide professional strategic documents and analyze their learning.
Level: UG
Prerequisite(s): DETA 5980
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5980 3 credits
Capstone Research
Students will engage in market research, while exploring 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. Through research, students will develop an evidence-based strategic design direction that will inform their final capstone project.
Level: UG
Prerequisite(s): DETA 5210, DETA 5230 and DETA 5240
Co-requisite(s): DETA 5200 and DETA 5440
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)

DETA 5985 6 credits
Capstone Development and Production
Students will develop and conduct a complete design process for technical apparel based on the approval of the capstone proposal in DETA 5980 Capstone Research. They will apply the key elements of an iterative design process to generate and validate a detailed, responsive design and an associated business strategy. Students will incorporate an understanding of the human-centered systems approach, textile technologies, apparel production standards, user and market analyses, business strategies, project management, and innovation.
Level: UG
Prerequisite(s): DETA 5980
Attributes: DESN (https://calendar.kpu.ca/courses-az/#courseattributestext), F2A6 (https://calendar.kpu.ca/courses-az/#courseattributestext)