

SENATE

MEETING DATE: *August 23, 2010*

AGENDA #: *3.3*

PRESENTED BY: *Dana Cserepes*

Issue: Approval of a full program proposal for a Bachelor of Design in Product Design and Innovation

For approval: THAT Senate approve the full program proposal for a Bachelor of Arts Major in Product Design and Innovation

Full Program Proposal

*Bachelor of Design,
Product Design*

Faculty of Design

Kwantlen Polytechnic University

August, 2010

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Part 1 - Executive Summary

a) *Overview of the organization's history, mission and academic goals*

Founded as a community college for the South Fraser Region in 1981, subsequently granted university college status in 1995, and university status in 2008, Kwantlen Polytechnic University has provided outstanding undergraduate education for more than twenty-five years. Undergraduate degrees have been offered at Kwantlen since 1996, along with a wide array of diplomas, associate degrees, certificates and citations in different fields of study. The university continues to prepare its students for successful careers as well as helping them develop the skills and critical awareness to be responsible citizens and community leaders. Today, Kwantlen serves approximately 17,500 students each year and is the fourth largest university in British Columbia.

Designated as a “special purpose teaching university”, Kwantlen Polytechnic University was specifically directed to serve the region encompassing the Langley, Surrey, Delta and Richmond school districts, and to provide additional post-secondary programs, and English as a second language and continuing education services. Across its four main campuses in Cloverdale, Langley, Richmond and Surrey, Kwantlen takes up its role as B.C.'s polytechnic university by offering in excess of 130 programs spanning diverse educational areas: Trades, Vocational, Preparatory, Professional, and Academic. As a leader in innovative education, Kwantlen creates relevant and engaging programs that integrate a broad-based university education, community service opportunities, undergraduate and applied research experience, and essential skills practice. The learning culture at Kwantlen is learner-focused, academically rigorous, innovative, interdisciplinary and socially responsible.

Arising from its commitment to serve the Fraser Region, Kwantlen offers all learners, regardless of background and preparation, and from across the country and abroad, opportunities to achieve the highest standards of academic performance. Access and support services, multiple entry points, and bridging programs are examples of this commitment. Transition programs, international education, workplace experiences and continuing education are also part of Kwantlen's commitment to lifelong learning across a broad range of educational options.

Our university culture is based on critical inquiry, collegial debate, knowledge generation, freedom of expression, diversity, and environmental stewardship and sustainability.

See the Mission & Mandate document at: <http://www.kwantlen.ca/mission/mission-mandate.html#>.

b) *Proposed credential to be awarded, the level and category of the degree and the specific discipline*

The Bachelor of Design, Product Design.

c) *Location*

Kwantlen Polytechnic University, Richmond campus.

d) *Faculty(ies) or school(s) offering the proposed new degree program*

The Faculty of Design will be offering the Product Design degree.

e) *Anticipated program start date*

The anticipated start date of the program is Fall 2011.

f) *Anticipated completion time in years or semesters*

Students engaged in full-time study will be able to complete the Bachelor of Design, Product Design in four years or 8 semesters.

g) *Summary of the proposed program*

Context

The Product Design degree will be the first of its kind in Canada and will fill a void between traditional industrial design and fashion design in order to meet the growing demand for the design and manufacture of recreational and technical apparel and related consumer products – sometimes called ‘soft goods’ design. For example: backpacks, bags, tents, recreational and sports accessories (ski gloves, protective gear). Increased demand for these types of recreational products is coming from all sectors of society: children, adults, seniors, those with special needs, e.g. those with physical disabilities or cultural requirements in what they wear and use. Our product design degree program will provide rigorous training that concentrates on a much needed and emerging hybrid between industrial design and fashion design.

There are many industries that can benefit from implementation of the Product Design degree. With the increase in imports coming from Asia, manufacturers are looking for new and innovative ways to get people to buy Canadian. “The industry was spooked last year when the economy tanked, it held its own and is rebounding fast. The recession hardly nicked it – sales were down 2 percent in 2009 but are rising at a rate of 6 percent” said Frank Hugelmeyer, president and CEO of the Outdoor Industry Association. Even with the economic downturn Canadian companies such as North Face and Patagonia, with \$330 million in sales, grew 12 percent last year. British Columbia has an established outdoor/recreational market which is show-cased throughout the year to international and domestic visitors.

According to Industry Canada, the overall performance of the product design industry has been strong in the past decade, with above-average revenue and wage growth (Industry Canada, State of Design, The Canadian Report 2010). “The Canadian product design service industry has outperformed the Canadian economy by 60% in terms of revenue growth over the 1999 to 2007 period. Revenue for the Canadian consumer fashion design section has increased by 10% a year over the same period, and revenue growth for industrial design services has also been strong with average annual growth of 9% (Industry Canada, State of Design, The Canadian Report 2010, p.12)

In the U.S. the Outdoor Recreation Industry supports 6.5 million jobs and \$50 billion worth of sales in outdoor gear and many brands such as The North Face (Canadian) and Mountain Hardware have moved into the Fashion mainstream.
(Associated Press August 8, 2010)

Internationally-renowned for all kinds of recreational and sports activities, British Columbia is the perfect setting for this proposed degree in Product Design, taking advantage of this unique gap in the design industry between traditional industrial design and fashion design.

As per Kwantlen's other design programs, graduates will enter industry with qualifications and experience which enable them to quickly progress to supervisory positions, technical specialties, and to move into leadership roles. This dynamic program will feature industry-based education and training using leading-edge technology, class projects facilitated by faculty and guests who are current in the field of design. The program's curriculum will be industry focused and will provide distinct educational outcomes geared to the needs of industry.

Students will formulate design solutions that are both creative and marketable for the local and global economy. They will develop a broad range of relevant skills, knowledge and attitudes that are necessary for them to become effective practitioners and leaders in the field of product design in soft goods. They will acquire marketing and business capabilities to strategize, develop and promote leading-edge prototypes and products in the marketplace, and will design and produce products sustainably using new and existing materials.

The program will work in collaboration with the BC Manufacturers' Association as well with large and small businesses in BC and across Canada. We anticipate that with the focus on designing for and working with the recreational and sports sector that the program over time will have a positive impact on developing manufacturing opportunities for this and other areas of production.

General education and electives in English, marketing, business and courses from a wide range of offerings at Kwantlen that students will take as part of the degree, will expose them to a breadth of study which enriches students as designers. Writing and making presentations are important elements of the program.

This unique degree will provide an innovative program that meets evolving employment needs. Students will be job ready for opportunities in BC, Canada and internationally.

h) *Name, title, phone number and e-mail address of the institutional contact person in case more information is required.*

Barbara Duggan, M.ED, B.I.D.

Dean, Faculty of Design

Barbara.duggan@kwantlen.ca

604 599 2525

Part 2 – Degree Content

The aim and goal of the program is to offer a degree in product design that fills the gap between industrial design and product design. The program will focus on the design of soft goods and will be unique in Canada.

By incorporating key elements and best practices of Kwantlen's other design programs and elsewhere in the Polytechnic, we intend through structure, content and delivery to offer a program that contributes to Kwantlen's mandate by fostering a new paradigm for design education within Kwantlen Polytechnic University. Graduates of the program will be able to demonstrate a number of essential skills such as innovation, technical skills team work, entrepreneurial and intercultural skills.

Work Experience

Students will engage in a short term work experience placement with members of the product design industry in order to apply their classroom knowledge and skills, develop an understanding of business practices, and develop connections within the industry for purposes of future employment. Some BC companies that will be approached to place students are: Arc'teryx Equipment, lululemon, Mountain Equipment Co-op, Ocean River Sports, and St. Moritz Watch Corporation.

Potential areas of employment for graduates

Upon graduation from the four-year degree program in Product Design, students will have produced an extensive portfolio of work, including a major research project embodying all of the skills, knowledge and attitudes that are necessary for them to become effective practitioners and leaders in the field of product design.

The nature of the work students are being prepared for includes (but is not exclusive to):

- Product Designer (e.g. outer recreational wear and equipment, gloves, hats, backpacks, sportswear)
- Product Developer (e.g. overseeing the design, technical specification and manufacturer of products)
- Product Buyer (e.g. identifying the location and purchasing of retail supplies)
- Retailer (e.g. entrepreneur selling recreation-related products)
- Environmental Designer (e.g. tents and other types of shelter, entertainment industry, exhibitions)
- Packaging Designer (e.g. developing new uses of materials for protection/transportation of goods)
- Furniture Designer (e.g. development of upholstery components)
- Race wear designer – performance products
- Swim and cold weather accessories
- Survival and safety wear

Graduates could work independently as entrepreneurs, as staff designers for existing design studios, retailers, manufacturers, or as independent consultants.

The fashion industry for example has over 300 apparel companies in the lower mainland, and offers career choices that can dovetail to product design in soft goods. Much like our graduates in fashion, graduates could work in the design, marketing and production departments for vibrant lower mainland companies such as Arc'teryx, Mountain Equipment Co-op, Sugoi Athletic Wear, and

lululemon. Similar opportunities are available worldwide at companies such as Nike, Adidas, and Abercrombie & Fitch. Depending upon capabilities and interests, students could work for large companies as members of design, production or marketing teams, or for smaller design houses where they are expected to work in all aspects of the business, or engage in entrepreneurial or freelance endeavours.

Opportunities for Further Study

While other Industrial Design programs exist in Canada and in British Columbia (i.e. Carleton University in Ontario, University of Alberta, Emily Carr University in BC), and other Fashion programs exist (Kwantlen) our research and feasibility study indicate that such a program that focuses on soft goods and technical gear would not only be new to Kwantlen but also be the first of its kind in Canada.

In Canada, Emily Carr University of Art and Design, University of Alberta, and Ryerson University offer post graduate degrees in design. There are also numerous graduate programs in industrial design offered throughout the US, Europe, and Asia, e.g. The Arts Centre of Pasadena (California), Savannah College of Art and Design (Georgia), The Rochester Institute of Technology (New York) Domus Academy (Italy), Royal Melbourne Institute of Technology (Australia), and Kanazawa College of Art (Japan). Formal transfer and exchange agreements will be sought with these and others.

Graduates will also have access to conferences, and upgrading seminars and workshops offered by professional associations, such as British Columbia Industrial Designers (BCID), Association of Canadian Industrial Designers (ACID), and the International Council of Societies of Industrial Design (ICSID), as well as numerous annual conferences and events in fashion and design, such the Aspen Design Conference.

There are a number of Master's programs in design at major universities around the world, and even the emergence of some PhD offerings, that students from the Kwantlen program would be eligible to apply to.

Delivery Method

The program will offer a four-year curriculum is comprised of three-credit modules (sometimes merged into larger blocks of credits), divided into three categories:

- a. Design & Concept Courses
- b. Technical & Production Courses
- c. Breadth & Social Context Courses

Please refer to the following chart *Curriculum Design*, which identifies existing and new courses required in the Product Design program.

Program Strengths

Features of the program are the following:

1. Graduates will have completed relevant work experience, field trips to manufacturers, and visits to trade shows to learn about the discipline of product design in soft goods, various markets, manufacturers, distributors, and production centres locally, regionally, nationally.

2. Students will have the opportunity to participate in a study exchange for one semester in a similar program abroad. Our fashion, graphics and interior design degrees have established partnerships with several reputable educational institutions for student exchanges (e.g. in the U.K., Taiwan, Finland).
3. The program will include an opportunity to visit major manufacturing countries such as China, India or Vietnam which are major production sites for Canadian recreational goods. (Note: precedent-setting out-of-country field trips are already in place for students in Kwantlen's Interior Design degree program and in our Fashion degree program. The product design development team has consulted with faculty in these two areas and examined their policies, procedures, and practices). Feedback from external experts has emphasized this as a unique and invaluable component of our proposed program, given that up to 70% of manufacture of Canadian recreational products is off-shore. Canadian companies are reporting considerable time monitoring production facilities, for quality assurance, meeting environmental and sustainability targets, and holding to ethical work practices.
4. Students will develop leadership and citizenship skills by fulfilling a community service project that will engage team skills, personal management, problem solving and organizational skills.
5. The program will simulate a professional atmosphere by providing relevant equipment and by demanding punctuality and strict adherence to schedules while developing professional standards in critical thinking and technical skills.

Levels of Support

Numerous meetings with representatives from professional bodies and practitioners have confirmed that there is gap in this aspect of product design (soft goods).
(See Appendix C: Summary of Consultations and Appendix D: Letter of Support.)

Curriculum Design

The program will support and build on the best practices of existing programs at Kwantlen by including in its list of requirements a blend of elective courses from the wide range offered at this polytechnic university.

The curriculum will incorporate program-to-program collaborations. Design is increasingly related to other disciplines, such as Trades, Humanities, and Social Sciences and requires the kind of comprehensive education available at Kwantlen. Students from this design program may access courses in many Faculties, e.g. Design (Foundations in Design, Fashion Design, Graphic Design for Marketing, Interior Design), Humanities (e.g. English, philosophy, fine arts, liberal education), Social Sciences (e.g. anthropology, sociology, psychology), Business (e.g. entrepreneurship, information technology, business and marketing), Community and Health Studies (gerontology-based health and wellbeing, nursing), Sciences (e.g. environmental protection, mathematics, science), and Trades and Technology (e.g. CADD technology, welding). Conversely, students from these areas may wish to access courses in the Product Design program as electives.

Bachelor of Design, Product Design (PDES – denotes new courses)

	Design & Concept Courses		Technical & Production Courses	Breadth & Social Context Courses	
1 Fall	IDDS 1260 2D Design 3 credits	FIND 1110 Visualization, Drawing & Rendering 3 credits	PDES 1100 Materials and Soft Goods I 3 credits	MRKT 1199 Intro to Marketing 3 credits	ENGL 1100 Writing, Reading and Thinking 3 credits
1 Spring	IDDS 1261 3D Design 3 credits	PDES 1270 The Product Design and Soft Goods Industry 3 credits	PDES 1200 Materials and Soft Goods II 3 credits	FIND 1150 Design for Humanity 3 credits	IDDS 1362 Design History 3 credits

Possible Selective Entry Point for Transfer Students

2 Fall	FASN 1120 Production Basics 3.5 credits	PDES 2350 Design & Innovation Studio I 3 credits	PDES 2300 Computer Fundamentals (CS5) 3 credits	FASN 1215 Textile Science 3 credits	GDMA 2140 Consumerism & Popular Culture 3 credits
2 Spring	PDES 2450 Design & Innovation Studio 2 6 credits		PDES 2400 CAD 3D Design 3 credits	PDES 2460 Human Factors & Ergonomics 3 credits	PDES 2470 Recreation and Sports Gear 3 credits

Non semester based course: **PDES 2480 Trade Show Experience** exp
 PDES 2490 Retail Work Experience 1 credit

Possible Selective Entry Point for Transfer Students and PLA applicants

	Design & Concept Courses		Technical & Production Courses	Breadth & Social Context Courses	
3 Fall	PDES 3510 Product Development 3 credits	PDES 3520 Design & Innovation Studio 3 3 credits	FASN 3140 CAD (Production & Grading) Gerber software 3 credits	MRKT 2455 International Marketing 3 credits	Elective 3 credits
3 Spring	PDES 3650 Design & Innovation Studio 4 5 credits		PDES 3600 Sourcing & Production 3 credits	Elective 3 credits	Elective 3 credits

Third Year Spring semester: International student exchanges (optional),
Third Year Spring Intersession: Overseas Experience 2 credits

Possible entry point for PLA applicants

4 Fall	PDES 4710 Design & Innovation Studio 5: Major Project Research and Development 5 credits	PDES 4700 Soft Goods and the Global Economy (Manufacture & Production) 3 credits	PDES 4720 Business Practices for Product Design 3 credits	MRKT 4177 Contemporary Issues in Marketing 3 credits
4 Spring	PDES 4850 Design & Innovation Studio 6: Major Project 6 credits	PDES 4800 Self Directed Study 3 credits	PDES 4860 Work Experience 2.5 credits	Elective 3 credits

Graduation Bachelor of Design, Product Design (120 credits)

(See Appendix A: Calendar Descriptions of Courses.)

Program Delivery

Considerable demands will be placed on students to develop professional standards in critical thinking and technical skills. Courses will be offered within a flexible delivery framework and incorporate a variety of delivery methods in order to meet the needs of different student learning styles and achieve the desired learning outcomes at degree level standards. Our design programs have proven over the past twenty years to have the expertise and resources to support a variety of methods of delivery.

The program will simulate a professional atmosphere by providing relevant equipment and by demanding punctuality and strict adherence to schedules. The majority of the course work embraces problem based learning methods and applied learning.

Studio based experiential studies will help students to develop critical thinking and problem solving skills which are core to all fields of design. The cohort program model provides excellent contact with faculty and staff and in our existing design programs and attest to 80-90% retention and completion rates.

As a cohort program, students receive ongoing support from faculty, staff, and from their peers which fosters a sense of identity and provides a network of support. Dedicated facilities also contribute to students' success and identity with the program and with Kwantlen. Other element of the program that fosters student success is the focus on group work and collaboration. This is supported through field trips within BC and internationally and introduces students to the manufacturers, designers, business, and production in BC and internationally.

Studio courses combine theory and hands-on work that simulates the workplace. In all courses, students are expected to demonstrate a satisfactory level of performance and rate of progress within the timelines set for various course activities.

(See Appendix C: Calendar Descriptions of Courses.)

Admission Requirements

The entry requirements for this degree program are consistent with the academic requirements of year one courses. In addition to the University entrance requirements, the program requirements (or their equivalent) are English 12 with a B. Applicants will be required to provide a statement of intention.

Many people practicing in the area of product design /soft goods became interested in the field through their passion for specific recreational or sports activities. Therefore, besides the typical academic and creative design skills expected in applicants, the applicant's interest and experience in recreational activities, such as various sports and recreation pursuits will be considered. Accordingly, some specialized target groups for recruitment may be from fitness, wellbeing, health, sports and kinesiology programs.

Professionals from industry may wish to upgrade their credentials in order to progress into more senior positions within their current organizations. Those with experience in the design industry may gain credits through Prior Learning Assessment (PLA). Applicants may challenge segments of the program for course work taken elsewhere and gain advanced standing at various levels.

Faculty

Because the program is comprised of several existing courses, we have qualified faculty to teach many of the courses in the early years of the required curriculum. With new courses, however, a search for qualified faculty will be necessary through a phased-in process. The program will build on teaching expertise through guest speakers, guest critiques, and extra-curricular activities.

Mary Androsiuk, Dip. F.A. (Ryerson), Dip. Industrial Fash. (A.I.F.D.), M.Ed. (S.F.U.)

Fashion Design and Technology faculty specializing in mass manufacturing using apparel industry-based software.

Pat Bennett, Dip. Applied Design (4 year) (A.C.A.D.), M.G.D.C.Ed.

Foundation in Design Coordinator and faculty specializing in design related issues of society, cultures, and the environment.

Mary Boni, B.Ed. (Sask.), M.A. (U.B.C.)

Fashion Marketing Coordinator and faculty specializing in textiles sciences, the apparel industry in the global economy and history of costume.

Pat Browne, Dip. Marketing (Tor.), B.A. (Hons) (Qu.), M.A. (San Diego State)

School of Business, Marketing faculty specializing in marketing, marketing management, and consumer behavior.

Marge Damon, P.I.D. (U.B.C.), Associate (O.C.A.D.), B.A. (U.B.C.), M.A. (U.B.C.)

Foundation in Design and Graphic Design for Marketing faculty specializing in design history, consumerism and popular culture.

Dale Davies, B.A.D. (Emily Carr)

Foundation in Design faculty specializing in two-dimensional and three-dimensional design development and problem solving.

Alex Diaz, Dip. Fash. Des. (Kwantlen)

Fashion Design and Technology faculty specializing in computer-based pattern drafting systems, technical fashion drawing and business practices.

Sharon Greeno, P.I.D. (Vancouver), B.H.E. (Mount Saint Vincent)

Fashion Design and Technology and Fashion Marketing faculty specializing fashion retail management, event planning, and industry networking.

Ken Hughes, Dip. Art/ Design (London College of Printing), M. Des. (R.C.A.)

Graphic Design for Marketing Coordinator and faculty specializing in typographic design, corporate communications and research methods and processes for design.

Robert Johnston, B. Des., Industrial Design (Emily Carr)

Specializing in new technologies, rapid prototyping/manufacturing. Manufacturing for industrial design and product development. Ergonomic studies.

Evelyn May, B.H.E. (U.B.C.)

Fashion Design and Technology Coordinator and faculty specializing in pattern drafting, sewing, production, and draping.

Lesley Pollard, Dip. Fash. Des. (Kwantlen), Dip. Fash. Merc. (Elizabeth Leslie)

Fashion Design and Technology faculty specializing production sewing, pattern drafting and grading.

Dan Robinson, B.Sc. (U.B.C.), M.Sc. (S.F.U.), Ph.D. (S.F.U.)

Interior Design faculty specializing in Ergonomics and human factors research methods and application.

Keith Wallace, B.A. (Middlesex), M.Sc. (Salf.)

School of Business, Marketing faculty specializing in international market research, product adaptation and cross cultural promotions.

Carla Wolf, Dip. F.A. (Vancouver), B.A. (S.F.U.)

Foundation in Design and Interior Design faculty specializing in drawing, composition, specializing design and computer software skills.

(See Appendix B: Faculty Curriculum Vitae.)

Program Resources

Library resources: It is not anticipated that any extraordinary library resources will be required. A comprehensive library assessment has been completed.

Facilities:

Discipline specific courses in the first year of the program can be accommodated in existing space at the Richmond campus but because of the specialized nature of this design program, there needs to be additional classroom, studio and technical laboratory spaces phased in as the more advanced stages of the program are implemented. Because of its proximity to the design community to Vancouver and industry in Richmond, members of industry have indicated the Richmond campus is ideally situated for this industry related program.

High quality production equipment includes industrial straight sewing and specialty machines, sergers, steam irons, a vacuum press and a fusing machine and a 3D modeling machine. State-of-the-art computers and industry software are used for designing, creating specifications, drawings, buyers' kits, media kits, costing, pattern manipulation, grading, and digital portfolio development. Some classrooms and resources will be shared with other design programs.

We intend to implement this program in fall 2011 starting with several of our existing Foundation in Design courses (FIND and IDDS). Two new first year courses will be developed by building on existing courses from our fashion program. This will allow faculty sufficient time to develop new (PDES) courses for the years two, three, and four and to budget and plan for necessary space and resources.

Program Consultation

In September 2009 an extensive feasibility report was completed. Included in this report were consultations with a number of Industrial designers, product designers, and with members of the BC Manufacturers Association. It was on the basis of this report that the focus of this degree is on Product Design/Soft Goods in order to fill the gap identified by industry.

Since October 2009 the development team met with a number of Product Designers from well established and nationally recognized firms in BC as well as members of the British Columbia Industrial Design Association in order to ascertain the level of need, demand and direction of the degree.

The degree development team conducted meetings with a number of individuals internally including members of faculty representing our three other design degrees (Fashion, Graphics and Interior Design) and faculty in our Foundations in Design program as well as other faculty in Trades (Drafting), Communications, Business, the Learning Centre, the Office of Advancement (regarding scholarship and bursary opportunities) as well as the Faculty of Design Faculty Council and Curriculum committee.

(See Appendix C: Summary of Consultations and for list of individuals consulted.)

(See Appendix D: Letter of Support.)

While other Industrial Design programs exist in Canada and in British Columbia (i.e. Carleton University in Ontario, University of Alberta, Emily Carr University in B.C.), and other Fashion programs exist (Kwantlen, University of the Fraser Valley) our research and feasibility study indicates that a program that focuses on soft goods and technical gear would not only be new to Kwantlen but also be the first of its kind in Canada.



**Bachelor of Design, Product Design
Appendices**

August 2010

List of Appendices

Bachelor of Design, Product Design

Appendix A: Calendar Descriptions of Courses

Appendix B: Faculty Curriculum Vitae

Appendix C: Summary of Consultations

Appendix D: Letters of Support

Calendar Descriptions of Courses

List of program courses

First Year:

ENGL 1100 - Writing, Reading and Thinking – 3 credits (or equivalent writing intensive course)

Students will learn to apply principles of rhetoric and critical analysis in response to selected readings, which will include examples of scholarly writing and academic argument. They will develop their writing skills through exploratory writing, academic argument, and critical analyses of material from a variety of contexts.

PDES 1100 - Materials and Soft Goods – 3 credits

Students will learn about fundamental materials used in recreational design and technical apparel. They will learn about the properties and explore conventional and potential applications of a variety of materials such as rubber, plastic and fabric. They will consider conventional and potential uses of these materials. Students will acquire a technical vocabulary, and develop a comprehensive understanding of color theory, material components and their applications. Emphasis will be on understanding the history, development, characteristics, sustainability, and behavior of materials.

FIND 1110 - Visualization, Drawing & Rendering – 3 credits

Students will focus on drawing as a foundation for design and will learn the methods, tools, and vocabulary of visualization, drawing and rendering. They will explore the role of visualizing and rendering in understanding and communicating ideas in visual form. Students will apply what they learn to project work that relates to a range of design disciplines.

IDDS 1260 - Two-dimensional Design – 3 credits

Students will design solutions for a series of comprehensive, two-dimensional projects that emphasize the development of creative conceptualization and problem-solving skills relating to a range of design disciplines. They will create designs for a variety of contexts and will utilize diverse mediums, materials and presentation methods.

MRKT 1199 – Introduction to Marketing – 3 credits

Students will learn the fundamentals of marketing and will explore the relationships between companies, their customers, and their competition. They will examine concepts that are integral to the field of marketing including marketing environment, customer behavior, marketing research, product analysis, distribution, pricing and promotion strategies. They will apply these concepts in solving marketing problems.

FIND 1150 - Design for Humanity – 3 credits

Students will examine the relationship between design decisions, humanity and current and historical environmental issues. They will understand the way design impacts individuals, society and the environment through research, case studies and field trips. Students will also investigate such things as over-packaging, built-in obsolescence, toxic materials and sustainable development.

PDES 1200 - Materials and Soft Goods II - 3credits

Students will learn about component materials, joinery and fasteners, their construction and associated technologies used in the development of recreational design and technical apparel. They will learn about the properties and explore conventional and potential applications of a variety of component materials and fasteners. They will consider conventional and potential uses of these materials in order to develop more innovative approach to design.

IDDS 1261 - Three-dimensional Design – 3 credits

Students will apply creative conceptualization and problem-solving skills to comprehensive three-dimensional design projects. They will explore principles and processes, mediums and materials as well as three-dimensional modeling techniques and presentation methods relating to a range of design disciplines.

IDDS 1362 - Design History – 3 credits

Students will examine developments in visual design from the Industrial Revolution to the present day, primarily in the context of the Western world. They will study concepts from design and fine arts history, sociology, and cultural anthropology that influence design movements, designers, and consumers of design.

PDES 1270 – The Product Design and Soft Goods Industry - 3 credits

Students will acquire an historical awareness of the apparel and soft goods industry and the current workings of the industry in local, national and global contexts. They will learn to identify the sectors of the industry from raw materials through to design, production and marketing to the consumer. Through field research, students will discover the wide range of local niche market apparel and soft goods companies. Students will explore a variety of careers available in design, production and marketing of apparel and soft goods and how the positions interrelate. They will determine their place as professionals in the field.

Second Year:**FASN 1120 - Production Basics - 3.5 credits**

Students will analyze and draft basic patterns. They will analyze and experiment with materials, draft and construct basic apparel components and create production reference binders. They will study and practice the fundamentals of quality control.

PDES 2300 - Computer Fundamentals - 3 credits

Students will examine basic computer hardware and software concepts, and the Internet. They will use the Windows operating system, spreadsheet software, presentation software and word processing software to develop solutions for business and design problems.

FASN 1215 - Textile Science - 3 credits

Students will develop their knowledge of how fabrics are created and used, and will be able to apply that understanding to make appropriate fabric choices in design and production. They will learn how factors such as industry issues, sourcing practices, labeling laws, fabric finishes and care instructions affect design, production and marketing decisions.

GDMA 2140 - Consumerism & Popular Culture - 3 credits

Students will examine visual communication design, consumerism, and popular culture in the context of the Western world in the 20th and 21st centuries. They will use concepts from sociology, marketing, cultural studies, and semiotics (the study of signs and symbols) to form analyses of design, culture, and society. Advertising design, product and packaging design, environmental graphics, and typography will be among the topics discussed during the course.

PDES 2350 - Design and Innovation Studio I – 3 credits

Students will design concepts for product design incorporating knowledge, skills and abilities acquired in prerequisite courses with a focus on design process and product.

PDES 2400 - CAD 3D Design – 3 credits

Students will learn about the fundamentals of computer-aided design for product design. They will explore the capabilities of production and grading using Gerber AccuMark™ pattern design system, 3D modeling, and other tools used in industry. This will engage in pattern manipulation and techniques to create

visuals and transfer manual pattern drafting skills and knowledge to computer-based pattern manipulation techniques.

PDES 2450 - Design & Innovation Studio 2 - 6 credits

Students will produce, individually and in groups, original designs that respond to specific, conceptual, behavioral, contextual, and technical criteria. They will focus on elaborating project requirements and incorporating knowledge and skills from other courses and program such as Trades.

PDES 2460 - Human Factors & Ergonomics – 3 credits

Students will develop an understanding of human factors research methods and their application to product design. They will research the interrelationship between recreational consumer products and human behavior; examine functional needs of the user and attributes of products relative to safety, health, comfort, well-being and optimizing human performance; and explore methods for developing detailed profiles of user requirements and for evaluating design alternatives relative to functional and task variables, human needs, capabilities and limitations.

PDES 2470 - Recreation and Sports Studies - 3 credits

Students will study the recreation and sports industry locally, nationally and internationally. They will look at the breadth and economics of the industry, at products used in the industry, product design and development, and user interface. They will meet with manufacturers, users and designers of recreational products to discuss product efficiencies (this course may present opportunities to collaborate with the Tourism and Recreation program at Capilano University).

Non Semester based requirements:

PDES 2480 - Trade Shows - exp

Prior to year three students must attend at least three trade shows and document their findings through sketches and journaling. They will observe how products are displayed and marketed and develop an awareness of the breadth of products and extent of various industries while looking for inspirations in design. The shows may be local, national or international.

PDES 2490 - Retail Work Experience - 1 credit

Students will work 80 hours, paid or volunteer to gain an understanding the retail component of the soft goods industry in order to further their design, production and marketing knowledge and skills. They will gain an understanding of the consumer, of merchandizing and sales. They will provide evidence of their learning in journal form, self assessment, and reference letters.

Third Year:

MRKT 2455 - International Marketing – 3 credits

Students will focus on the export needs of a small- to medium-sized firm, and on how its current product line can be marketed abroad. They will investigate how marketers must adapt to foreign environments and adeptly resolve conflicts between political, cultural and legal forces in order to be successful.

FASN 3140 - CAD Production & Grading - 3credits

Students will learn how to operate the Gerber Accumark™ pattern design system which prepares them for pattern manipulation conforming to industry standards. They will transfer manual pattern drafting skills and knowledge to computer-based pattern manipulation techniques, with emphasis on creating new soft goods products.

PDES 3510 - Product Development – 3 credits

Students will examine and analyze the product development process as it applies to the soft goods industry. In a collaborative environment, they will formulate design solutions for specific target markets, based on forecasting and market research. They will create a presentation integrating product development knowledge and practice verbal and visual communication skills.

PDES 3520 - Design and Innovation Studio V – 3 credits

Students will research and practice mass manufacturing methodologies. They will study and simulate domestic and global production planning and management. They will create complete specification packages and quality control manuals. They will practice and assess team dynamics in a production environment. Students will use industry software such as Gerber Science Technology Accumark and PDM. They will analyze the inter-relationships between production, design, and marketing functions within an apparel company.

PDES 3600 - Sourcing & Production – 3 credits

Students will research and practice sourcing and mass volume production methodologies. They will study and simulate domestic and global production planning and management. They will create complete specification packages and quality control manuals. Students will practice and assess team dynamics in a production environment. They will analyze the inter-relationships between production, design, and marketing functions within a product design company.

PDES 3650 - Design and Innovation Studio - 5 credits

Students will produce and construct prototypes addressing niche markets, individually and in groups, original designs demonstrating creativity, innovation, viability and personal vision.

Intersession:**PDES 3660 - Overseas Experience - 2 credits**

Students will engage in a five to seven consecutive day field study to another city or region. They will assimilate design theory and knowledge with respect to the context of site, culture, climate, and geography. They will attend and participate in the scheduled activities including tutorials at design firms, design educational programs, museums, showrooms, and other significant product design related projects of the region. They will visit major production and distribution sites for recreational goods in order to learn about the discipline of product design, its markets and production. Students, in collaboration with faculty, determine the destination to ensure compliance with objectives of the major site tutorial, the cost of which is borne by the student.

Fourth Year:**MRKT 4177 - Contemporary Issues in Marketing – 3 credits**

Students will analyze and gain insight into significant contemporary marketing issues such as globalization and cross-cultural marketing, online marketing and e-commerce, modern corporate culture, outsourcing and marketing and business ethics. They will interact with guest speakers, plan and lead seminar discussions, research and analyze contemporary marketing strategies and theories, and produce and present a comprehensive research project.

PDES 4700 - Soft Goods and the Global Economy – 3 credits

Students will analyze the apparel global economy by studying international trade agreements, importing and exporting regulations, fabric testing standards, and sourcing of raw materials, manufacturing and production methodologies. Students will explore logistics issues such as inventory control, packaging, warehousing and transportation systems. They will create a business plan, costing scheme, quality control strategy, product specifications and production schedules according to domestic and international standards. Students will learn how to work with contractors locally and globally, including negotiating costs and terms. They will use current software such as Excel, Word and Adobe Illustrator.

PDES 4710 – Major Project research and development – 5 credits

They will evaluate their own design skills and abilities in the context of the Major Project. Students will create a self-directed framework for a major design project consisting of a programming document, thesis statement, research and identification of a niche market, scope of work, schedule of activities, resources list, and mentor involvement and contribution.

PDES 4720 - Business Practices for Product Design – 3 credits

Students will learn fundamental business procedures relevant to working as employees, employers, or freelancers in the product design profession. Topics include government regulations, business planning and ethics, and administrative procedures for small businesses. They will estimate costs and formulate pricing strategies, prepare proposals, budgets, and schedules, and create components used in the day-to-day management of a design practice.

PDES 4800 – Self Directed Study – 3 credits

Students will have the opportunity in their final year to integrate personal areas of interest with practice in the profession (subject to faculty approval). They will gain proficiency in entry level job knowledge and skills, as well as develop habits of independent learning through planning, researching, developing and presenting a negotiated area of Product Design study.

PDES 4850 - Design & Innovation Studio 6: Major Project Completion – 6 credits

Students will demonstrate their ability to synthesize and apply the skills, knowledge, and research methods learned throughout the Product Design/Soft Goods program to a major design project identifying a hypothetical client. Students will draft and produce professional quality, originally designed soft goods line in order to create a sample line for a niche market as identified in PDES 4710. Students will create and fit or test prototypes as required. They will develop standard specification packages using advanced manual and computer-assisted techniques.

PDES 4860 - Work Experience – 2 credits

Students will participate in a practicum with a design firm that focuses on product design, with emphasis on observing, recording and understanding the operations of the firm. They will participate in the design processes within the firm to whatever extent is possible applying their design, production and marketing knowledge and skills. They will develop contacts in the industry and be able to identify opportunities for their place as professionals in the field. They will provide evidence of their learning in journal form, self assessment, and reference letters.

Faculty Curriculum Vitae

Mary Androsiuk, Dip. F.A. (Ryerson), Dip. Industrial Fash. (A.I.F.D.), M.Ed. (S.F.U.) is an instructor in the Faculty of Design, Fashion Design and Technology at Kwantlen Polytechnic University. Her fashion related background included areas such as Industrial Fashion Design, Fashion Arts (Ryerson Polytechnic institute) and Special Textile courses (North Carolina State University). Mary has a variety industry experience that include fashion design, drafting, merchandize sportswear, fashion marketing, raw materials purchasing and sourcing, production scheduling, outwear manufacturing as well as domestic and offshore product management. She is a team player who made numerous contribution to the success of Kwantlen's Fashion and Design degree program, including curriculum development, grad's fashion shows, and is instrumental in the new Gerber Web PDM software that will be offered in Fall 2010. Mary represented the Faculty in various Kwantlen committees. She is currently a faculty representative in the Senate.

Pat Bennett, Dip. Applied Design (4 year) (A.C.A.D.), M.G.D.C.Ed. is the Coordinator and instructor in the Faculty of Design, Foundation in Design at Kwantlen Polytechnic University. Pat has been involved in Design Education for close to thirty years and now specializes in 2D and 3D Design, Design Explorations as well as Designing for Humanity. One of Pat's primary goals is to help students understand the critical role they can play as designers and the influence they can bring to society and the environment. He is a strong advocate of sustainable design.

Mary Boni, B.Ed. (Sask.), M.A. (U.B.C.), is the Coordinator and instructor for the Fashion Marketing Diploma in the Faculty of Design at Kwantlen Polytechnic University. Mary has been involved in Fashion Education for over 30 years and has worked in the role of various Coordinator positions for 19 years of her career within Kwantlen. Mary has many industry contacts and strong student/graduate mentoring skill that have helped her place hundreds of Kwantlen graduates with organizations such as: Lululemon (30), Aritzia (5-10), Mac and Jack (12), Sugo (6), etc.

Pat Browne, Dip. Marketing (Tor.), B.A. (Hons) (Qu.), M.A. (San Diego State) is an instructor in the School of Business (Marketing) at Kwantlen Polytechnic University.

Marge Damon, P.I.D. (U.B.C.), Associate (O.C.A.D.), B.A. (U.B.C.), M.A. (U.B.C.) is an instructor in the Faculty of Design, Foundation in Design and Graphic Design for Marketing at Kwantlen Polytechnic University. She was the past Coordinator of GDMA and was instrumental towards the successful creation and implementation of this degree program. A past graduate of Emily Carr Institute of Art & Design, Marge also holds a Bachelor's Degree in Fine Arts (Art History) from the University of British Columbia. Prior to joining Kwantlen, Marge taught as an Interior Design program coordinator and instructor and had years of experience working as a professional interior designer. Throughout the years, Marge has actively participated in a wide range of activities within Kwantlen. They include program and curriculum development, learning outcomes, student interview and assessments, committee representation, and workshops.

Dale Davies, B.A.D. (Emily Carr) is an instructor in the Faculty of Design, Foundation in Design at Kwantlen Polytechnic University. After completing Kwantlen's Interdisciplinary Design Studies certificate program (now FIND), Dale completed a Bachelor's degree in Applied Design at Emily Carr Institute of Art & Design. His work experience included work in a collaborative studio environment enhanced his research and organization skills as well as independent work. The latter brought him in close contact with a variety of clients, with projects ranging packaging, illustration to corporate identifies. Dale is a firm believer in an interdisciplinary approach to design, which allows for open mindedness and flexibility and,

in turn, builds a solid foundation for creative, contextual problem solving that is vital for long-term development and success.

Alex Diaz, Dip. Fash. Des. (Kwantlen) is an instructor in the Faculty of Design, Fashion Design and Technology at Kwantlen Polytechnic University. Alex has 11 years of teaching experience within the Fashion Design and Technology program. Prior to teaching at Kwantlen Polytechnic University Alex has had experience working in the fashion industry; which includes providing technical drawing specifications for clients of an industry service bureau (e.g. Patagonia, Kane Equipment, True North, Northwind Designs by Linda Beer) designing children's lines for a Hong Kong based company, writing software manuals for TukaStudio, and training private company personnel (Apparel Group, Oceanic Sportswear) in KaratCad and Tuka Studio.

Sharon Greeno, P.I.D. (Vancouver), B.H.E. (Mount Saint Vincent) A.A.F.M. (Long Beach) is an instructor in the Faculty of Design, Fashion Design and Technology and Fashion Marketing at Kwantlen Polytechnic University, specializing in fashion retail management, event planning and industry networking. Sharon's twenty years of experience and thirteen years of part-time teaching incorporate her passion for building self-confidence in women of all ages (and young men) and improving customer service in the local marketplace. She volunteers extensively in the fashion community and mentors her students to contribute to the community and to volunteer in fashion events. She has helped to establish scholarships at Kwantlen, worked with colleagues to launch the Fashion Marketing Diploma and collaborated on the 2009 Fashion Design Program Review. She has worked with her colleagues to make the annual Graduate fashion show one of the most successful Kwantlen and community events in the lower mainland.

Ken Hughes, Dip. Art/ Design (London College of Printing), M. Des. (R.C.A.) is the Coordinator and instructor in the Faculty of Design, Graphic Design for Marketing at Kwantlen Polytechnic University. Following his Master's degree from the Royal College of Art (UK), Ken Hughes now has forty years of experience as a faculty member and department leader in design programs at various Canadian institutions: University of Alberta, Douglas College, Emily Carr University of Art and Design, and Kwantlen Polytechnic University. During his academic career he has served on numerous committees and task forces, including Education Council, Senate, and government advisory groups. His expertise is in typography about which he continues to consult for community groups.

Robert Johnston, B.Des., Industrial Design (Emily Carr) is an industrial designer based in Vancouver who has strong ties to the professional, educational, and manufacturing communities in British Columbia. Robert has substantial teaching experience at Emily Carr as an Instructor -Core Studio Special Projects to 2nd and 3rd year students in the program and well as been a mentor for 4th year students completing graduate thesis.

Evelyn May, B.H.E. (U.B.C.) is the Coordinator and instructor in the Faculty of Design, Fashion Design and Technology at Kwantlen Polytechnic University. After completing her Bachelor of Home Economics, Honors, from the University of British Columbia Home Economics, Evelyn focused her education on fashion arts, patternmaking and garment construction. She has over 10 years experience working as pattern maker, production organizer and as fashion designer. As a higher school teacher and then later as the coordinator of the Fashion Arts program at Vancouver Community College, Evelyn demonstrates her strength in instruction as well as program/curriculum development. The latter produced results such as increased student registration and surplus revenue. Evelyn has solid industry and administrative skills and continues to be active in professional affiliations such as Apparel BC and Communications Team for National Apparel Affinity Group.

Lesley Pollard, Dip. Fash. Des. (Kwantlen), Dip. Fash. Merc. (Elizabeth Leslie) is an instructor in the Faculty of Design, Fashion Design and Technology at Kwantlen Polytechnic University, specializing in production sewing, pattern drafting and grading. Lesley has fifteen years experience in the fashion industry designing, pattern drafting and grading. As an entrepreneur she ran a successful pattern drafting and grading company for local apparel companies. She has also designed, produced and marketed her own women's wear collection throughout BC. She worked as a knitwear designer for seven years travelling globally for R & D, designing, drafting and handling local and overseas production. She has been involved

in creating and teaching professional studies courses for Home Economics teachers. Her desire to update and maintain creativity resulted in participating in a conference in California with UK phenomena, Julian Roberts, a rebel with a Masters Degree in pattern manipulation. Her passion to share his vision resulted in building a tour, talk and workshop for students, faculty and the community here at Kwantlen. This was one of two only Canadian dates and will lead to more such opportunities in the future. Lesley's passion is to add to her academic credentials and share her practical business experience through leading her students into innovative and current methods of pattern drafting.

Dan Robinson, B.Sc. (U.B.C.), M.Sc. (S.F.U.), Ph.D. (S.F.U.) is an instructor in the Faculty of Design, Interior Design at Kwantlen Polytechnic University, specializing in Ergonomics. Robinson Ergonomics Inc. and Dan Robison have experience in a broad range of environments that include office, construction, manufacturing, healthcare, retail, banking, municipal and provincial government, utilities, mining, forestry, military, laboratory, library, performing arts, warehouse and distribution, marine, and technology development. Dr. Dan Robison is a Canadian Certified Professional Ergonomist (CCPE) and Practicing Kinesiologists (BD Association of Kinesiologists) who has been consulting and performing research in ergonomics/human factors since 1989. Dan completed both PhD and MSc in Kinesiology at Simon Fraser University, and BSc in Biochemistry at the University of British Columbia.

Keith Wallace, B.A. (Middlesex), M.Sc. (Salf.), is an instructor in the School of Business (Marketing) at Kwantlen Polytechnic University.

Carla Wolf, Dip. F.A. (Vancouver), B.A. (S.F.U.) is an instructor in the Faculty of Design, Foundation in Design and Interior Design at Kwantlen Polytechnic University, specializing in drawing, composition, spatial design and computer software skills. A multimedia artist and freelance designer, Carla brings to the program 15 years' experience working with production media and software. Carla's enthusiasm and range of skills, as well as her patience and positive attitude in the classroom make her classes a joy.

Summary of Consultations for the Bachelor of Design, Product Design

1. The overall consensus confirms that a Product Design program specializing in the design of recreational apparel and related consumer products is both welcomed and needed. No such comprehensive program exists in Canada. Designers entering this field are fashion designers, industrial designers or seasoned outdoors folk, who with an entrepreneurial bent, manage to turn their interest into a career;
2. The title of the new design program needs to be carefully considered. There may be better names than 'Soft Goods Design' since the boundaries between 'soft' and 'hard' are blurred. Better names should be more generic, such as 'Product Design' or 'Recreational Products' or 'Technical Apparel'. Whatever the final choice the name should not be limiting;
3. It's essential that the program include a high concentration of technical and manufacturing knowledge, and business/marketing 'know-how';
4. The program needs to be holistic: A blend of required curriculum with a broad range of electives so that students can customize their program;
5. The program must allow for innovation: The current market in recreational product design is relatively stagnant with lots of imitation. The future is with new ideas and approaches;
6. Knowledge of international markets, producers and cultures are essential;
7. Environmental and sustainability issues, ethics, leadership and professional standards must be included;
8. The professional community would welcome upgrading opportunities for specific components in the program;
9. British Columbia is respected as a centre for outdoor, recreational and sports activities and is therefore a logical location for a design related to this situation;
10. Real-life experiences would be endorsed as a vital part of any new product design program at Kwantlen.

External Consultations:

A. Members of the British Columbia Premier's Technology Council

Mari Nurminen, Lead Analyst, Maureen O'Reilly Director of Creative Industries

Andrew Wynn, Director of Operations

Eric Jordan

March, 2009

This meeting was a broad-based exploration of the potential for 3D design programs as they relate to the economy of the Province. It also included a tour of Kwantlen's Cloverdale Campus.

B. Roman Izdebski

Associate Professor of Industrial Design

Emily Carr University of Art and Design

Spring 2009

On instructions from the Dean of Design, Ken Hughes met with Roman (as a former colleague), to explore the response that might be expected if Kwantlen launched a second industrial design program in BC. The response was supportive with the basic premise that the province could only benefit from more offerings in industrial design education.

C. Rob Johnston

Feasibility Report - Draft

September 24, 2009

This nine-page feasibility study highlighted the situation of industrial design, the employment opportunities, and the status of industrial design curriculum in BC. It concludes that while the need for further programs of this kind was limited, there was potential for soft goods design: 'Over the past 15 years BC has developed a strong and successful industry in the soft goods and outdoors sports sector.' Such a program would integrate easily into existing programs at Kwantlen.

D. Rob Johnston

Soft Goods Primer

November 17, 2009

This later document elaborated on what exactly is 'soft goods design' and its role in BC. Further, the document elaborated on the integration of such a new program with existing programs at Kwantlen, such as links with Fashion and Technology.

E. Chris O'Brien Wheeler

President, British Columbia Industrial Design Association

January 13, 2009

Speaking from a BCID point of view, Chris O'Brien Wheeler was very supportive of the need for a design program focusing on soft goods design.

F. Nick Cienski

Director Innovation & Outdoor Design Under Armour Inc.

Tide Point

1020 Hull Street, Baltimore, MD 21230 Rob Gill

This meeting was held just prior to the start of the 2010 Vancouver Winter Olympic Games. Nick Cienski was the designers of sportswear for some of the American athletes competing in these games. The concept for Kwantlen's Product Design was discussed with him. He was very supportive of the plan and the need for such a program.

G. Robb Gill

Tangent Design Inc.

18 East 20th Avenue, Vancouver, BC V6V 1L6

H. Gordon Rose

Senior Industrial Design

Arcteryx

100-2155 Dollarton Highway

North Vancouver, BC, V7H 3B2

Meeting March 31, 2010

This meeting with two designers reached an overall consensus that there is a need for this kind of product design (soft goods) program and such a program would 'have applicants lining up at the door to take it' (Rob Gill Tangent Design). Because this was an extensive meeting session the following detailed notes are included:

Choosing an Appropriate Term for Program

One term for all this is technical gear or technical apparel, and is quite a distinct aspect of design from mainstream fashion or industrial design. Many employees working in the area have taken on responsibilities in designing or producing technical apparel with little or no specific training.

Emily Carr University

Emily Carr's Industrial Design program is considered too far towards fine art to be hugely useful in training suitable graduates, although those few who have taken a single course in soft design (i.e. backpacks) have usually found greater success in getting jobs.

Carleton University

Meanwhile the Carleton Industrial Design program, which has more of an architectural/engineering slant is proving to be more appropriate to the field of soft goods design. One of the recommendations from this lunchtime meeting is that an engineering/technical bent in the proposed Kwantlen program would be strongly advised.

Other Recommendations/Comments

- Strong support for educational experiences off-shore, such as China, India and Vietnam.
- Essential for students to enter program with a curiosity for and participation in the outdoors/sports. Students cannot idly consider Kwantlen's program; they must have a passion for what they hope to design when they graduate.
- Most professionals currently in the field have come from personal endeavours to make something that solves a personal need to do with the outdoors.
- Approximately, 90% of technical gear companies tend to deal with existing apparel (mainstream items) to make a living; the remaining 10% is focused on research and development, of which 50% is about looking for ideas in fields not typically related to outdoor gear, e.g. upholstery or sail making. (This comment was in response to a question about how forward-looking should a program be? Should it anticipate new applications of technical gear. The answer was yes, but to nurture a mindset that explores what's happening in other fields rather than too much emphasis on futuristic trend forecasting).
- The textile industry tends to be fairly static, whereas, the aspect of fasteners, adhesives, methods of joining is ever-changing and is often the feature that creates new possibilities in gear.
- Knowledge of kinesiology, human factors, the human body, are essential.
- Often the detail on technical gear makes a significant improvement in performance, e.g. padding on the knuckles of gloves, allowing for greater dexterity in certain activities.
- Imperative for students to have frequent visits and direct experiences in factories so that they can appropriately instruct in the manufacture of designs.
- A well-rounded program essential.
- Don't forget aspects such as leathers, gluing, non-woven, geo-tech styles.
- Guests stressed that breadth and technical bent of program would be useful and not to try to cover too many subject areas (i.e. not to second-guess everything a student might need). A solid core curriculum would be ideal. Too many designers have ideas but don't know how to produce them, or producers who don't know how to design, causing a rift in communication.

- Finding experienced faculty could be a challenge but since there are few programs in this area of design, may not be insurmountable.

Relevant Software

Typical software for technical apparel is:

- Gerber
- Rhino
- SolidWorks
- ProEngineering
- Alias
- Illustrator (and CS suite as rule-of-thumb)
- Many of these software programs are both expensive and require frequent updates to remain usable.

Importance of Trade Shows

It's essential for students and program developers to visit trade shows as part of the research, e.g. Outdoor Retailers' Exhibition (check name), Salt Lake City, the SIA (Ski Industry of America) and any other outdoors-related exhibit of journal.

Types of Students

The idea of a flexible program appealing to the time constraints and needs of different students was applauded. We were reminded of the Justice Institute as an example of how they have developed highly flexible curriculum that allows multiple entrance/exit formulas.

I. Johnny Golding

Director, Product Design
Designbomb Solutions Inc.
45 East Cordova Street
Vancouver, BC, V6A 1K3

Meeting April 7, 2010

Johnny Goulding is a product designer trained at Fanshawe College (London, Ontario), who currently runs his own business following experience at a number of companies in Vancouver. His studio, known as Designbomb Solutions Inc., is a five-year old full service industrial design facility located in Vancouver, equipped to design and prototype outdoor recreational products – from concept to manufacture. A major focus is on backpacks, tents and packaging.

The same initial program concept and range of questions were presented as those used at the meeting with Gordon Rose and Rob Gill.

Need for this Program

Johnny believes that there is a need for the program proposed and would satisfy a deficiency in the current situation. Most practitioners in soft goods (he believes this may be a limiting term) are from the fashion or industrial design side of the design field.

His primary emphasis was on the need to develop and pioneer - through a new design program - a stronger level of skilled professionalism and ethical standards. Kwantlen has a good reputation for its graduates in Fashion so he has high hopes that we would do well with the proposed new program.

Our primary competition – Emily Carr University – has an industrial design program with an element of soft goods design but this is seen to be both insufficient and located in an institution that is not

training graduates sufficiently for the realities of the workplace. So Kwantlen's niche would be to do what the ECUAD program does not do:

- Present a holistic program that balances design and concept development with technical and production methods.
- Allow for innovation because the current market is flooded with look-alike knockoffs that are making everything the same.
- Work in tandem with professional design organizations and manufacturers, such as BCID and ICSID.
- Develop continuing education opportunities to attract professionals
- Create a program that includes making students aware of the manufacturing world, both offshore and within Canada.
- Include courses in ethics and legal issues to do with patents, copyright and intellectual property rights.
- Structure the program with core courses and the opportunity for students to add their own choice of electives (from a defined list) to tailor the program in a direction relevant to their future goals.
- Attempt to take a leadership role in the overall area of product design to regain the potential that good design can make in the Canadian market.
- Include sewing is an important inclusion in the new program.
- Offer a program that doesn't give students false expectations in what they can expect upon graduation, e.g. high salaries, senior level positions.
- Require and uphold strict standards and a professional work ethic.
- Part-time offerings that mimic what AIBC and MBA programs do: concentrated workshops in specialized subject area, such as rendering, computers, senior fashion design courses, taught by specialists.

Program Development

- Recommends that we use existing models to imitate in the development of the Kwantlen program, such as how the interior design association works with education in Canada.
- Recommends a better name for the program, such as Product Design (with a specialization in XXX – this could adapt to whatever specialization is), or Recreational Products, or Recreational Design/Wear.

J. Matt Groll

Product Development Manager
Mountain Equipment Coop
149 West 4th avenue
Vancouver, BC, V5Y 4A6

K. James Brittain

Product Designer
Mountain Equipment Coop
149 West 4th avenue
Vancouver, BC, V5Y 4A6
Meeting April 9, 2010

These representatives from MEC were able to confirm that no program such as that being proposed in this Concept document exists, but would be welcomed.

Advice from these experts stressed the need that such a program would need to understand the business realities of this market: outsourcing, environmental, ethical issues, testing, knowledge of manufacturing processes and a strong technical basis for the curriculum. However, innovation also needs to be balanced if Canada is to remain competitive.

There was strong support for professional studies within the proposed program.

Silverfoot Active Wear

Manufacture outdoor and pet accessories.
Sylvia Rayner
604-892-5918

Westcomb Outerwear

Manufacture state-of-the-art Canadian technical apparel
Ryan Yu
604-420-8964

This company is interested in partnering with Kwantlen and the program once it is established for the purposes of providing work experience opportunities.

Canadian Tourism

Michel Dubreuil
604-638-8331

Canadian Apparel Association

Bob Kirk
1-613-2200 ext 224

Vancouver Economic Development Commission

Jonathan Kassian
604-632-9668 ext 109

"If your course looks like it's a go, please send us information about it. In some of our work on Vancouver's creative economy, we generally cite our educational programs and our "design advantage" as key strengths; your program would definitely be something we'd like to highlight, both in terms of turning out skilled grads, and through our educational institutions working with businesses to develop relevant programs".

From Jonathan Kassian - Vancouver Economic Commission

Appendix D

Sarb Loodu
Operations Manager; Faculty of Design
Kwantlen Polytechnic University
12666 - 72nd Ave
Surrey, B.C.
V3W 2M8

Dear Sarb,

The Product Design and Innovation Degree program that Kwantlen is putting together is a needed program. The requirements we have for our designers, and design team in general, almost always requires that they have worked in the outdoor apparel and technical soft goods industry after their design program is completed. This experience is sometimes very difficult to get. The way that Kwantlen is approaching the program builds in a lot of the experience a student would normally have to seek out after their degree is finished. This program will certainly fill a gap in the current design programs offered by other universities between fashion design and pure industrial design.

Best regards,

Matt Groll

Product Development Manager



Mountain Equipment Co-op
149 West 4th Avenue
Vancouver, B.C.
V5Y 4A6

August 19, 2010

I am writing this letter to express my support of Kwantlen University's proposed Product Development Degree program. I have had the chance to discuss this program in depth both with faculty members of Kwantlen University as well as members of the local design community and feel that it would be a unique and fruitful program for BC's post-secondary students.

Product development for recreation and the outdoor industry continues to be an area of high growth in British Columbia. I had a chance to research this growth when asked to prepare a Program Feasibility Study for Kwantlen University in the spring of 2009.


I run a small design firm specializing in what would be considered "traditional" industrial design and product development. Over the last few years I have seen a shift in the makeup of our new projects with outdoor recreational projects overtaking medical devices as our primary area of focus.

As an executive member of the British Columbia Industrial Design Association I frequently see job postings from local soft goods and outdoor equipment manufacturing calling for applicants with a background in either fashion design or in industrial design. I am confident that a program that can bridge these two disciplines will provide graduates with in-demand skills and experiences that will position them very well for future employment.

BC is already a world leader in the development of recreational and outdoor products and having a design program providing students with the specific skills needed to excel in this industry can only improve on this success.

I look forward to hearing more about this exciting development.

Best regards,



Robert Johnston

Principal/Industrial Designer
Tangram Design

Past President / Executive Member
British Columbia Industrial Design Association

August 20, 2010



canadian apparel federation
fédération canadienne du vêtement

Ms. Sarb Loodu
Operations Manager, School of Fashion
Kwantlen Polytechnic University
Vancouver, BC

Dear Ms. Loodu:

I am writing further to our conversation earlier this week concerning the proposed program covering product development with an emphasis on technical apparel and outdoor products.

As we discussed I have reviewed the comments made by individuals from a number of our local member firms with whom Kwantlen has had meetings or focus groups. I have noted that the local companies have expressed strong support for this program. I also believe that Vancouver Economic Development has also established this sector as a local priority, so the comments you have received echo the views of local economic development authorities.

I wish to convey the support of the Canadian Apparel Federation for this program, and identify how it fits into the development of the industry nationally. Programs such as this have an important role to play in supporting the development of the apparel industry across Canada. Over the last 10 years many of the production jobs in the industry have moved to lower wage jurisdictions. Asia. Despite this we continue to have many successful firms in Canada, but they are increasingly focused on product design and development and higher value added processes. We need the trained workforce that can operate in such an environment and make a positive contribution to the growth of the industry.

In Canada there are many fashion programs focusing on fashion design in a traditional sense. It is well recognized that we produce many more graduates in fashion design than needed by the industry. The companies that succeed in the mid to long term will be those that develop core expertise in developing innovative products, especially in the areas targeted by this program. Many of the Canadian/BC firms that have been successful are well known, such as Lululemon, MEC and Arc'teryx. There are many others that are emerging, and programs such as this will allow them to draw upon a larger pool of talent well suited for employment in their companies.

In conclusion, I wish to reiterate our support for this program, encourage you to continue and I am available for further comment should that be necessary

Sincerely yours,

Bob Kirke
Executive Director

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www.apparel.ca/www.vetement.ca