



**FASHIONTECH**  
**INTERLINE**

THE VIRTUAL DIMENSION  
OF FASHION DESIGN

SYLLABUS

**Project Number 612662-EPP-1-2019-1-IT-EPPKA2-KA - FTall**

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### **Participating Higher Education Institutions:**

Politecnico di Milano – School of Design (Italy)  
University of the Arts London – London College of Fashion (UK)  
Högskolan i Borås - Swedish School of Textiles (Sweden)  
TU/Delft - Industrial Design Engineering Faculty (The Netherlands)  
Ecole supérieure des Technologies industrielles avancées (France)

### **Collaborating Enterprises:**

Grado Zero Innovation (Italy)  
Pespow (Italy)

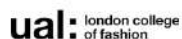
### **Guest Speaker Start-ups:**

Thrill Digital  
Wearfits  
IIL3X

#### **FULL PARTNERS**



PAULINE VAN DONGEN



PESPOW Creative  
Garment  
Engineering



#### **ASSOCIATE PARTNER**



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# /PART 1: COURSE INFORMATION

## COURSE DESCRIPTION

The course focuses on the field of Fashion-Tech exploring how fashion and technology are interconnected within different domains, and how their interconnection is transforming the design, prototyping, production, sales and distribution processes. The course aims to understand the impact of digital co-creation technologies in the Fashion sector, focusing on the potential application of Cloud-based technologies that are changing the fashion design, supply and production chains and the way today's fashion businesses operate, for faster, smarter, more efficient and sustainable garments.

**The course develops in 50 hours (8 weeks)** delivering the knowledge and understanding of new ways to design a fashion product that integrates and interfaces with digital technologies of various types through lectures about theory and application examples, lectures about tools and software to be used, and preparatory applicative exercises about the following topics: digital modelling and prototyping, materials digitalization (including smart and eco-sustainable materials), garment's style and functions simulation, advanced manufacturing, wearable sensors and technology.

**Contents will be delivered through a preliminary theoretical part aimed to level the knowledge of the students as a prerequisite for the practical and challenge-based part of the course.**

Besides, students will also be introduced to innovative ways of teaching that are based on digital tools used both to deliver the course and to develop project-work and group collaboration between teammates.

Students have the opportunity to work in interdisciplinary and international groups to experience the process and the methodological approach of a project development activity that includes design, engineering, product life management, costing and pricing, research and materials

management. Students have been selected from

- Politecnico di Milano – School of Design (Italy),
- University of the Arts London – London College of Fashion (UK),
- Hogskolan i Borås - Swedish School of Textiles (Sweden),
- TU/Delft - Industrial Design Engineering Faculty (The Netherlands)
- Ecole supérieure des Technologies industrielles avancées (France).

### **SUPPORTING AND COLLABORATING COMPANIES**

The course is partnered with two main Italian companies leading the sector of Fashion-Tech: Pespow and Grado Zero Innovation.

**Pespow** is an international leading company in the outerwear business, a creative and technical partner to fashion brands across the globe. For over 30 years, the company has operated alongside its customers, designing and producing innovative quality sportswear, mixing the traditional artisanal methods with the innovation of material, process and techniques. They offer their customers a full assistance: from the design to the pattern creation and sampling, and through the production. The company has the know-how to perform a wide range of innovative processing techniques, and the R&D department is constantly exploring new opportunities, new fabrics and new applications to test and experiment. The main goal of the company is to work alongside the costumers to design and manufacture innovative products capable to represent and enhance the specific identity of each brand. Currently, there are 80 people working in Pespow.

**Grado Zero Innovation** is an Italian company mainly involved in high-tech materials and products. The approach performed by GZI is a “business-to-business” approach applied to R&D, for designing, prototyping and upscaling innovative material solutions, manufacturing technologies, as well as new products and systems for several industrial fields: PPE (personal protective equipment & protection in general), automotive and aerospace (transportation), construction & buildings, healthcare & wellbeing, biomedical, advanced & smart wearables, textiles & technical

fashion, military & defence, yachting & marine/nautical technologies, energy, consumer goods (e.g. furniture & lighting). GZI represents one of the Italy's top companies for what is related to the development of new advanced solutions and novel processing and manufacturing know-how on sustainable products, with absolutely innovative features. The company comprises an e-shop Life Materials ([www.lifematerials.eu](http://www.lifematerials.eu)), and an industrial design dept., incorporating a lab specifically involved in 3d printing and additive manufacturing. A separate dept. Of Grado Zero Innovation is dealing with the development and integration of sensors & sensing technologies, including novel typologies of human-machine interfaces and cyber physical systems. GZI takes particularly into account all the product life cycle, including ecoefficiency of the manufacturing process and the recycling and reuse of materials at the eol.

### **Participating Start-ups**

**[Thrill Digital](#)** is a fashion technology studio on a mission to digitize the fashion industry, especially for small to medium-sized brands. They believe the future of fashion exists in a “phygital” form where all fashion products are digital-first before they are bought and sent to the customer in physical form.

**[Wearfits](#)** is a 3D and AR virtual internet fitting room for e-commerce with a comfort and size advisor, improving customer experience of online shopping with regards to clothing and footwear. Their technology provides photorealistic clothing visualization and animation on customer silhouettes.

**[IL3X](#)** is an AR enabler for fashion brands, creating digital garments which are designed to be worn in digital spaces only, like Instagram, TikTok and Snapchat. IL3X builds off of a new need in younger generations to buy trending and exclusive apparel that is both affordable and has zero impact on the environment.



## BACKGROUND

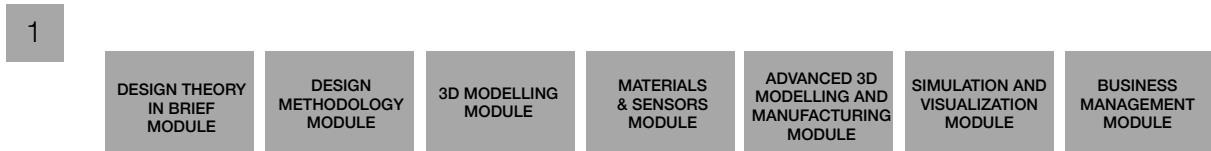
The digital twin toward 3D applications in fashion has been recently accelerated due to the COVID-19 pandemic emergency that has transformed radically the manual and often handcraftsmanship-based methodology of pattern construction but also the mock-up, the prototyping, the distribution, as well as the showcase and selling processes within a digital/virtual formula: 3D design, modelling, prototyping and 3D rendering and visualisation, along with body scanning or morphology body measure virtualisations for better personalization and fitting simulation in the collection development, and finally virtual showrooms and shows in the selling and commercial side. 3D garments can be designed, simulated, prototyped, modified, personalized and tailored in a digital world before becoming physical products with increased accuracy and design capabilities and shorter timeframe. Furthermore, the process of designing digital garments has become more complex and engineered, including materials, geometry, manufacturing processes specifications that can be carefully defined beforehand, thus facilitating innovation. More than solely design, this transformation has impacted the whole product development process by cutting costs, changing the value-chain, decreasing the time-to-market for the development of the collection, increasing the sustainability of the whole fashion value chain, and also impacting the organization and the business model of companies. Consequently new roles and skills are required in the fashion companies facing this huge rapid transformation.

# COURSE STRUCTURE

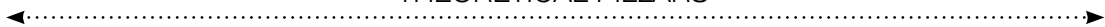
## THEORETICAL PART

0 **WELCOME + INTRODUCTION + SYLLABUS**

### DISCOVER



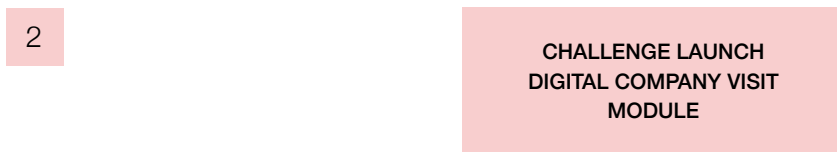
### THEORETICAL PILLARS



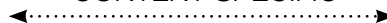
FLEXIBILITY: FREE CALENDAR + HOURS/ETC (SUGGESTED TWO WEEKS)

## BRIEF LAUNCH + COMPANY INTRO

### DEFINE

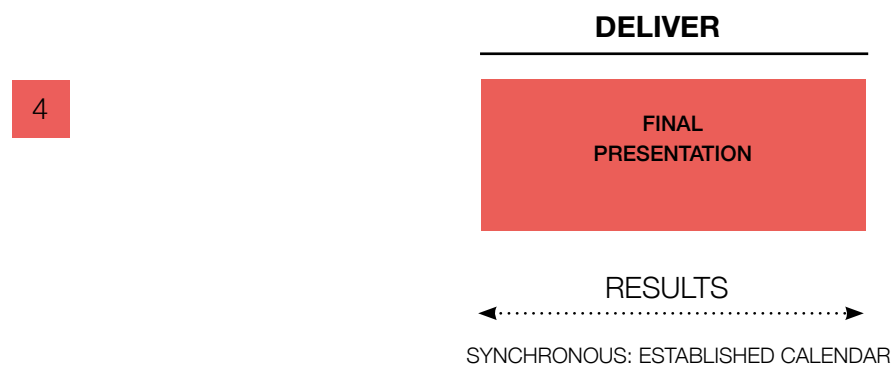
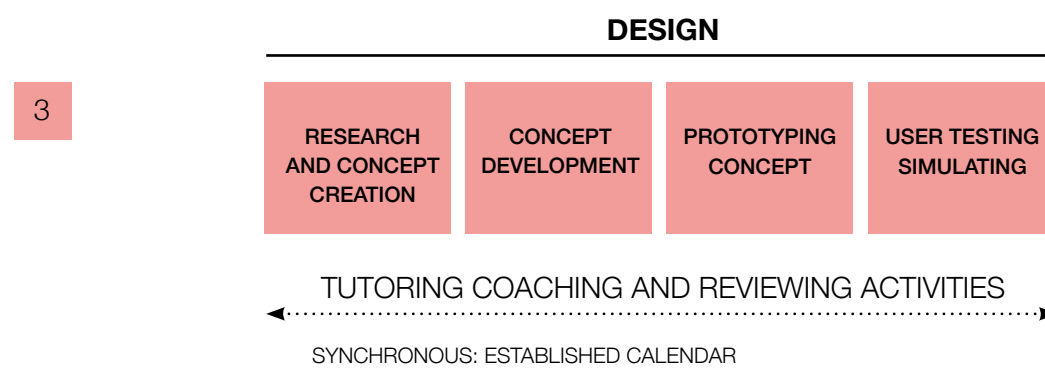


### CONTENT SPECIFIC



SYNCHRONOUS: ESTABLISHED CALENDAR

PRATICAL CHALLENGE BASED PART



## INDICATIVE CONTENTS

The digital course will be delivered with a preliminary **theoretical part** assigned in **an asynchronous way (Discover)** and a subsequent **synchronous challenge-based part (Design)**. This two main parts will be divided by a **presentation of the challenge through a brief launch and Companies presentation (Define)**. Students will then present **a solution including concept prototypes of new products / processes / services developed (Deliver)**.

The contents of the theoretical part will be delivered through lectures, preparatory exercises and applicative sessions to level the knowledge of students in the five different disciplinary domains of the project: design, material management, engineering, product management and business development. These theoretical pillars focus on:

- Fashion-Tech definitions
- Near future trends and far future scenarios
- Design Methodology of 3D modelling and virtual prototyping of garments
- Digitalizing Materials for 3D Modelling
- Simulating and rendering for digital Fashion experiences
- Advanced Manufacturing techniques in the digital fashion
- Advanced 3D Modelling for Additive Production
- Sensors and actuators for application in smart textiles
- Digital value chain and business model development/experimentation
- Circularity and Industry 4.0

In the challenge-based part of the course, students will work in group to develop a virtual capsule collection made of one to three products of outerwear, whose aesthetics and functionalities could range from extremely fashionable to extremely technological. They should develop a comprehensive solution, tackling design, material management, engineering, project management and business development issues as a whole. Based on the specific disciplinary background, each component

of the interdisciplinary groups will take care of the following activities and tasks in order to complete the project and the final assignment:

- Concept definition and design of the collection/products.
- 3D modelling and prototyping the collection/products, including Fitting and Ergonomics modelling.
- Materials digitalization, visualization and simulation, in both style and functional perspectives.
- Business development and business model innovation.
- Project management innovation.

The software systems for 3D modelling, prototyping and rendering will be chosen appropriately between a set that includes Clo3D and a glimpse of Rhinoceros, 3DS Max, Blender.

## LEARNING AND TEACHING METHODS

### LANGUAGE

The language of instruction is English.

### VIRTUAL LEARNING ENVIRONMENTS

The course is delivered totally digitally through the following tools. The Virtual Learning Environment (VLE) for the course content are:

- [Beep](#)
- [Microsoft Teams](#)
- [Miro](#)

These VLEs are together used to deliver the online sessions and for students to access the course content, view recorded sessions and upload assignments.

In **Beep**, students will access the **Discover part** of the course that is delivered in an asynchronous way: online recorded lessons, digital materials and resources such as webcast or podcast, documents,

readings and multimedia presentations. This initial theoretical part will be participated asynchronously by students in an individual and self-paced modality. Students are required to follow the lectures and to carry out small tests, assignments and exercises to assess their achievements and preparation on the specified topics. This preliminary preparation need to be achieved due to a deadline that will be common to all the participating students from the different HEIs (January 24th, 2021). In this phase, students are also required to participate to different activities of interaction on the **platform Beep**. These will consist of chat, blogs, forums for a curated online discussion aimed at communicating with course peers during this individual phase to exchange course materials, information, insights, results of the assignments and to start to know each other.

On January the 25th, students will be challenged with a specific brief. Online webinars from Companies will be delivered, allowing students to gather direct information and to ask questions/interact.

From then on, students would work synchronically and synergistically in multidisciplinary international groups with a practical assignment to be developed (Design). They will participate in group-paced activities using alternative Internet-based technologies which allow better remote collaboration. The VLEs required for working together remotely, for setting up a remote team culture, for managing the project and delivering the project passing through iterative phases of research, concept development, project development, prototyping, testing are **Microsoft Teams** together with **Miro**. On these two platform, students are working together and are supported by tutors for reviewing the project phases.

During the overall duration of the course, teachers will be academics and professionals from the Company. Tutors from each HEIs will be available for supporting the reviews to cover different topics and disciplines. The final exam will be delivered digitally and remotely by groups as a digital exhibit and/or presentation.

## COURSE REQUIREMENTS

Students will use their given POLIMI account (xxxxxxx@polimi.it or xxxxxxx@mail.polimi.it) to login to the course from the login page (<https://beep.metid.polimi.it/welcome>). They will be directly included in the course “FASHION-TECH INTERLINE. The virtual dimension of fashion design”. Students from the external HEIs has been assigned to a POLIMI account that includes a **Person Code, an email and a password**. Students will receive by email these information that enable to access the course. Please save the person code, the email and the password in a safe and trustworthy place where it is possible to find it again.

To access this course on Beep, students will need access to the Internet and a supported Web browser (Internet Explorer, Firefox, Safari). Refer to the Beep page for instructions (<https://www.youtube.com/watch?v=4Do2x8rHfO8>) . In case technical assistance is needed at any time during the course or to report a problem with either the platform, the materials, students can send an inquiry to [chiara.dilodovico@polimi.it](mailto:chiara.dilodovico@polimi.it).

### **System requirements**

- Reliable Internet connection (DSL, LAN, or cable connection desirable)
- Laptop/PC with webcam
- Microphone and earphones (recommended)
- Mobile phone with camera
- An up-to-date web browser (Firefox or Chrome recommended)
- Course specific materials like drawing materials, camera, fabrics

### **Software for digital and remote co-working**

Prior to start the course, students need to download, install and try the follogin software:

- [Beep](#)
- [Microsoft Teams](#) (download and install the desktop app: it takes 2/3 minutes)
- [Miro](#) (create a free account: it takes 2/3 minutes)

### **Software for project development**

For exercises and for developing the challenge based part, students have to download and install the following software:

**Clo 3D** (create a free account: it takes 2/3 minutes)

We suggest to start working with trial version that has to be downloaded on personal computers. You need to use the students' institutional e-mail from your belonging University (to be recognized as a student) (e.g. xxxxx@mail.polimi.it for **POLIMI**; xxxxx@net.estia.fr for **ESTIA**; xxxxx@arts.ac.uk for **UAL**; xxxxx@student.tudelft.nl for **TUD**; xxxxx@student.hb.se for **HB**) to ensure your student eligibility via this link: <https://www.clo3d.com/join>. We kindly ask you to use the password provided by us. In case the system does not recognize you as an enrolled student, please fill in and upload one of the three requirements (accepted the following types of proof of enrolment: valid International Student Identity Card (ISIC), valid Student ID Card, valid certificate of enrolment) and submit for manually assistance. After submit, please sign up with your student email and given password (DON'T SUBSCRIBE YET). You would receive the email after your account is applied to the student discount.

### **Access email**

Each student will receive an email with instruction on how to access and use:

- Beep: through the website page, the person code and the given password;
- Clo 3D: through the website page, your insitutional email and the given password;

For Beep, students would also find information in a video tutorial included in Beep.

## **COURSE TIMING**

From 7th January 2021 to 8th March 2021



## COURSE CALENDAR

Students should refer to the course calendar for specific meeting dates and times. Dates might be changed during the course. In case this happens, students are going to be advised through beep announcements. Please keep controlling your Polimi assigned e-mail..

## COURSE MATERIALS

For the **Discover part (asynchronous theoretical part)**:

- An in-depth series of **video lectures and multi-media presentations** with high-quality graphics & detailed descriptions **(24 videos -Total 840 minutes)**
- High-detail examinations of the topics produced through digital documents, readings (texts, documents, presentations)
- A comprehensive **set of quizzes as assessment tests** via Google modules that provide direct feedback on the learning outcomes **(5)**
- **Practice based propedeutical exercises (12)**
- **Assignment with a peer-review activity among students via the online forum (3)**

### **Recommended Textbook, texts and other readings**

The list of required course textbooks, texts and other readings are indicated at the end of every lecture in the videos, pdf files of the presentations and also as extra material. These are intended as optional materials to be read and studied to complete the learning objectives.

DATE	HOURS	ACTIVITY
<b>7 January 2021</b>	morning 10-12 CET	Course Kick-off
<b>From 7 to 24 January 2021</b>	free	Autonomous Study Experience
<b>25 January 2021</b>	morning 10-12 CET	Ice-breaking activity: students teamwork and presentation
<b>25 January 2021</b>	afternoon 14.00 - 15.00 CET	Brief launch Q&A
<b>26 January 2021</b>	morning 10- 13 CET	Companies presentation
<b>1 February 2021</b>	morning 10-14 CET	Review and tutoring: RESEARCH, TREND AND CONCEPT
<b>8 February 2021</b>	morning 10-14 CET	Review and tutoring: CONCEPT AND PRODUCT DEVELOPMENT
<b>9 February 2021</b> (the class will be split in two cohorts)	morning 10-13 CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
	morning 10-13 CET	Review and tutoring: BUSINESS MANAGEMENT AND INNOVATION
<b>15 February 2021</b>	morning 10-14 CET	MIDTERM REVIEW: PROJECT DEVELOPMENT PRESENTATON
<b>16 February 2021</b> (the class will be split in two cohorts)	morning 10-13 CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
	morning 10-13 CET	Review and tutoring: BUSINESS MANAGEMENT AND INNOVATION
<b>22 February 2021</b> (the class will be split in two cohorts)	morning 10-14 CET	Review and tutoring: DEVELOPING, EXPERIMENTING, TESTING
	morning 10-14 CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
<b>1 March 2021</b>	morning 10-14 CET	Review and tutoring: FINALIZING
	morning 10-14 CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
<b>8 March 2021</b>	morning 10-14 CET	Final exam

## STUDENT PARTICIPATION

50 students from the following Universities has been selected to create the classroom:

- 10 students from Ecole supérieure des Technologies industrielles avancées (ESTIA)
- 10 students from Hogskolan i Borås - Swedish School of Textiles (HB)
- 10 students from Politecnico di Milano – School of Design (POLIMI)
- 14 students from University of the Arts London – London College of Fashion (UAL-LCF)
- 6 students from TU/Delft - Industrial Design Engineering Faculty (TUD)

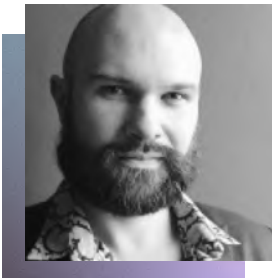
The teamwork configuration in the Design phase will be constituted of 10 groups of 5 people with an interdisciplinary scope: the most of the groups will be composed from students from different HEI.

## TEACHING STAFF INFORMATION

In case of necessity (in terms of the overall contents and structure of the course, students would refer to the teaching assistant staff on-line (via e-mail) using the following contacts:

chiara.dilodovico@polimi.it; daria.casciani@polimi.it; susanna.testa@polimi.it.

## / COURSE TEACHING STAFF



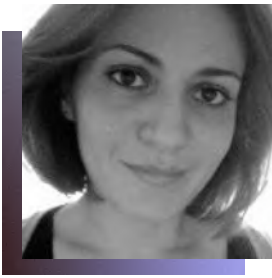
**DOUGLAS ATKINSON**  
UAL- LCF

Douglas is a Lecturer in Wearable Technology at London College of Fashion (LCF). He has a background in fashion pattern cutting, working with sustainable micro businesses and large international luxury brands. Douglas is currently completing a PhD at UCL Knowledge Lab investigating the role of touch in garment design development, and the potential for digital technologies to support garment designers' touch practices. His research at LCF's Digital Anthropology Lab has explored methods of digitally capturing the sensory and emotional experience of designing and making clothing.



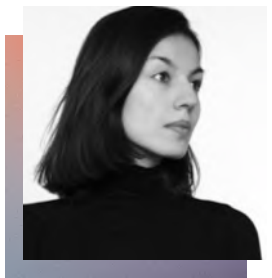
**ALICE BUSO**  
TUD

Alice Buso obtained her MSc Integrated Product Design at the Faculty of Industrial Design Engineering at TU Delft (the Netherlands, 2019). After a year as a researcher on soft robotics and comfort at the same university, she is now PhD candidate in the Emerging Materials group. Her research focuses on the seamless integration of Smart Textiles into our everyday lives. The goal of her work is to create interconnected Smart Garments and to explore to what extent they could positively influence human behaviour in the context of active living.



**MARINA CARULLI**  
POLIMI

Marina Carulli is Assistant Professor at the Department of Mechanical Engineering of Politecnico di Milano. She graduated in Product Design and obtained her PhD in Virtual Prototypes and Real Products at Politecnico di Milano. Her research interests include design methods, the integration of 3D Modelling and Virtual Prototyping methods and tools within the design process of industrial and fashion products, and the use of Virtual Reality and Augmented Reality methods and tools for the development of multisensory applications.



**DARIA CASCIANI**  
POLIMI

PhD in Design, is Assistant Professor at the Design Department of Politecnico di Milano teaching Design for Fashion system, teaching about the Innovative use of advanced manufacturing and technologies enabling Fashion-Tech projects. In 2015, she started teaching at the School of Design of the Politecnico di Milano, as adjunct professor in the Interior Design Courses and at the at the Master in Lighting Design & LED Technology. Besides, she has collaborated to the research activities of the Laboratorio Luce, and since 2019 she is part of the research group Fashion in Process at the Politecnico di Milano.



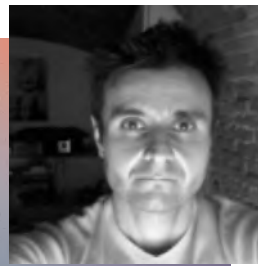
**YOUNGJIN CHAE**  
TUD

Youngjin Chae (Marie), PhD in Textile Science (Yonsei University, Korea, 2014), is Post-doctoral researcher at TU Delft in the area of smart textiles and wearable system. Her research interests includes developing (i) smart textiles with enhanced performance and comfort, (ii) technologically-intensive design framework for smart clothing and wearables, and (iii) wearable electronics for smart cities and future living. She a founder of Lifetech wear PTE LTD., which aims to provide solution of 'EVERYTHING SMART YOU WEAR', from idea conceptualization to product development of smart clothing system and wearables.



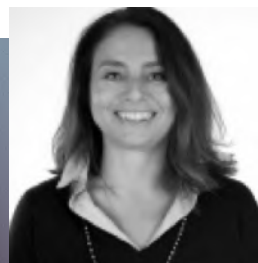
**OLGA CHKANIKOVA**  
HB

Olga works as a Senior Lecturer in Textile Management at the University of Borås. She holds a PhD in Industrial Environmental Economics from Lund University. Her research interests pertain to sustainable supply chain management, standardization & certification, and how digitalisation affect the business practices in fashion value chains. In her research she applies the institutional perspective exploring what new (inter-) organisational structures, 'rules of the game' and capabilities need to be developed to ensure that adoption of digital technologies delivers the desired business benefits. Olga also worked as research fellow at UNEP, and collaborated with European Topic Centre on Sustainable Consumption and Production (ETC/SCP) at the European Environmental Agency (EEA).



**ENRICO COZZONI**  
GZE

Enrico has an MSc in Aerospace Engineering, a BSc in Mathematics, and PhD in Industrial Engineering. He works for GradoZero from 2011, as main responsible for R&D projects. His skills and competencies are strongly related to innovative high-tech and advanced materials, composites, hybrid (nano-)composites, metamaterials, stimuli-responsive materials, functional and meso- porous materials, nanomaterials (Si, C, h-BN, etc.), graphene and structured carbons, biomaterials and biocomposites. He is strongly skilled in technical fibres, including carbon, quartz and basalt fibres, and in surface engineering technologies. His competencies extend also to systems and life cycle engineering, with a strong experience in digital manufacturing, applied to several fields and industrial domains, including 3DP/AM, IIoT and I4.0. In his consulting work and research activity, he also deals with photo-assisted and photo-catalytic technologies, mainly applied to (bio-)fabrication. He is an expert in (bio-)sensors and sensing technologies, including wearable sensors and IoT devices.



**CINZIA D'AGOSTINO**  
PESPOW

Cinzia D'Agostino is Pespow Spa CEO and Founder of the Working Room Project. Her primary objective is to help people and organisations to work more effectively because she firmly believes that working well is an art that produces wellbeing for individuals, workplaces and society as a whole. In order to do so successfully, she has developed a range of skills and competencies, namely: strategic and organisational change management, planning, management control, skill and potential analysis, business planning and coaching. She has also delved into areas such as psychology, philosophy and sociology applied to the corporate world. She has deliberately chosen to alternate senior corporate positions with consulting and training roles to gain first-hand experience from difference perspectives of the issues involved in strategic and organisational change management. She is convinced that many principles, methods and values are common to both individuals and organisations, especially when it comes to responsibility, proactiveness, ongoing innovation, result and added value orientation as well as the quest for partnerships and strategic alliances.



**CHIARA DI LODOVICO**  
POLIMI

MS in Design for the Fashion System, Chiara Di Lodovico is a PhD Candidate at Politecnico di Milano, Design Department, where she is developing a research on Fashion-Tech. Her research focuses on wearable technologies, self-tracking practices, design research and postphenomenology. As a freelance, she has been working for knitwear and editorial studios, broadening her competences in fashion design, branding, graphic



**KASPAR JANSEN**  
TUD

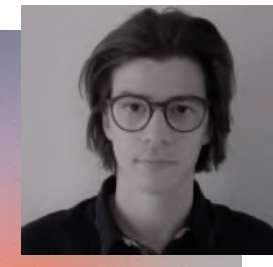
Kaspar Jansen is a professor at the Industrial Design Engineering faculty of TU Delft focussing on smart materials and textiles with sensor and actuator functions.



**JONAS LARSSON**  
HB

System innovator within apparel- and textile value chains with a vision of positive environmental- and social impact. Much in line with the principles of a circular economy from Ellen McArthur. The core idea of Jonas' research approach is that most established systems work well enough for enough many stakeholders to benefit enough from it, but they often have redundant and unnecessary processes. By understanding these systems, innovation potential is identified and solutions designed and demonstrated. These solutions are politically, culturally and technically feasible systems that better fulfil stakeholder's demands and wishes and where the redundant and unnecessary processes in the benchmark system cannot exist.

Jonas' research focus on minimizing wastes and to create positive impact. Projects typically pivot around the creation of resource efficient apparel and textile systems. This includes development and implementation of new sales channels, different approaches to product- and material development, and novel logistics and production solutions for more sustainable value chain management.



**ALEX MARQUOIN**  
ESTIA

Alex Marquoin graduated from the Ecole supérieure des technologies avancées in France and the University of Salford in the UK where he specialized in robotics and automation. He is a robotics engineer and currently in charge of robotics at CETIA for one year. CETIA is a technological platform dedicated to the automation of circularity in fashion and textiles. He is therefore at the heart of the 4.0 industry applied to the textile industry. He is involved in different projects in order to find economically viable solutions to be implemented on our territory. In particular, he is working on the development of automated processes allowing the dismantling and recycling of different products (footwear, clothing, bedding). He is also working on processes that facilitate product design, production on demand and material sorting. Thus he designs processes and develops them using different technologies: robots, artificial intelligence, augmented reality, virtual reality... Sustainable development is also at the heart of his work and his convictions in order to improve the environmental impact of the industry and in particular the textile industry which is one of the most polluting in the world.



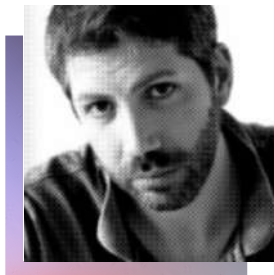
**RUDRAJEET PAL**  
HB

SRudrajeet is a practitioner, consultant, advisor, researcher and educator within the field of textile and fashion for over 15 years. He is Associate Professor in Textile Value Chain Management at Swedish School of Textiles, University of Borås, and holds a doctoral degree in engineering, specifically on resilience and risk management of textile and clothing firms. He has also worked as an expert for many organizations, such as United Nations Economic Commission for Europe, Swedish National Platform for Sustainability, European Technology Platform for Fibres, Textile and Clothing (ETP) etc.



**ALEXA POLLMANN**  
UAL- LCF

Alexa likes to collaborate, co-create and facilitate. She describes her work as 'Design Culturing' and whilst her practice is body-centric, she constantly seeks to challenge the current notion of 'wear'. Originally a fashion designer, Alexa leads the Wearable Futures MA at Ravensbourne College London and holds a Master in Design Interactions from the Royal College of Art.



**CLAUDIO PUCCI**  
GZE

He has a MSc in Industrial Design by Politecnico of Milan. He is a product and systems senior designer with design management and product management skills and experiences acquired working for the following companies: LG Electronics, Whirlpool, Elica, Targetti, Atlas Concorde. Claudio has proven design project abilities with long years of experience on a wide range of products, from household appliance to furniture, from interior design to lighting products. Claudio has also an extended knowledge in LCA analyses and Life Cycle Engineering (including Social LCA). He is strongly skilled in Multiphysics Simulation and Simulation Modelling, Design for 3DP and Eco-Design. He has designed a modular and smart lighting system for Repro-Light H2020 project.



**ELLA SHARP-MITCHELL**  
UAL- LCF

Fashion Academic specialising in design & product development, production and marketing designing and producing womenswear in the UK, founder of 'esharpstyle'. SCurrently the course leader for the MA Innovative Fashion Production course at London College of Fashion, Ella is a graduate of Kingston University with over 30 years of diverse professional and academic experience. Independent practice includes overseeing the whole process of 'concept to customer' including design, product development, manufacture and retailing. Experience in Ready to Wear, Limited Editions and collaborations with clients in bespoke projects ranges from tailored daywear to tango performance pieces for internationally renowned dancers. Current research focuses on remote measuring, collaborative digital creation on bespoke fit avatars rigged with individual dancers' motion capture animation with a view to improving the client's understanding in the decision making process and reducing environmental impact by making fewer samples during product development/manufacture.



**LIVIA TENUTA**  
POLIMI

PhD in Design, Livia Tenuta is Assistant Professor and Fashion Design Program Board Secretary at Politecnico di Milano, Design Dept. Her research is dedicated to future scenarios and innovation for fashion, focusing in particular on wearable accessories. She is faculty member and vice-director of the 'Fashion Direction: Brand&Product Management' post graduate course at the Milano Fashion Institute. Since 2014 she is curatorial coordinator at the Museum of Jewellery in Vicenza, the first museum in Italy dedicated to jewellery. Among her publications: Fashion in the Age of Technology (Aracne, 2020), Jewellery& (Marsilio, 2018), Skin (Marsilio, 2016), Around the Future (Marsilio, 2014).



**SUSANNA TESTA**  
POLIMI

Susanna Testa, PhD in Design, is Assistant Professor at the Design Department of Politecnico di Milano. Her research focuses on interaction and technological innovation within the field of fashion, benchmarking state-of-the art initiatives, technologies and products related to the fashion ecosystem. Among academic activities, Susanna lectures at the Bachelor's courses in Jewellery and Accessory Design working primarily with emerging manufacturing technologies, Fashion Illustration and Portfolio & Digital Branding (Politecnico di Milano) and she is didactic coordinator of the Master in Accessory Design and of the Master in Fashion-Tech (POLI.design). She is part of the faculty of the Master in Fashion Direction: Brand & Product Management at Milano Fashion Institute (consortium of Bocconi, Politecnico di Milano and Cattolica universities). Among her publications: "Jewellery Between Product and Experience: Luxury in the Twenty-First Century" in "Sustainable Luxury and Craftsmanship" (Springer, 2020) and "Fashion Tech Today" and "Future Scenarios" in "Education for Fashion Tech. Design and Technologies for Future Fashion Creatives" (Nielsen Book, 2020).





# /PART 2: COURSE OBJECTIVES

The general purpose of the course is to train professionals who are able to employ the **potentials of digital technologies in the domain of fashion, to drive design processes in multidisciplinary contexts**. To this end, the course, through an innovative way of teaching, will provide students with **useful tools and skills** to critically interpret the project dimension **within the broader context of social, cultural, and technological contemporary shifts** (new lifestyles and needs, new typological configurations and innovative technological scenarios). In particular **digital theoretical lessons, preparatory exercises and applicative sessions (Discover)** will be delivered to transfer students knowledge on how fashion and digital technologies are interconnected, the potential as well as the limitations of this interconnection and how **this interconnection** is transforming the entire value chain, from ideation to production, from retail to communication. The **challenge-based part of the course (Design)** will be addressed to explore the potential of **interdisciplinary teamwork practice activities** where students will be asked to develop a project, a capsule collection made of one to three products of outerwear, with particular attention both to creative/stylish aspects as well as to functional, structural and technical ones. From **product ideation, design and engineering phases, to business model strategy development**, students will be asked to explore and exploit the potential of **advanced prototyping and digital rendering tools, developing 3D models** and identifying and critically evaluate 3D software tools, as well as the implications of digitalization and virtualization of the design process in relation to the innovation of the product development management. Hence, the challenge-based phase aims at training **adaptive professionals** able to collaborate to deliver a project in the field of fashion tech, as in those sectors **requiring the combination of a creative attitude and knowledge on technical materials and innovative technologies**, interacting with other professionals.

## LEARNING OUTCOMES

Upon successful completion of the unit the students will deepen the impacts of the digital twin toward 3D applications in fashion, exploring its transformation in design, production, distribution, business management and sales processes. The students will improve in the following sectors:

### Knowledge and understanding

- Demonstrate in-depth knowledge of the implications of digitalization and virtualization of the design process in relation to the entire product life management cycle, referring to the impact in terms of different structures of costs;
- Demonstrate in-depth knowledge of the implications of digitalization and virtualization of the design process in relation to the innovation of the garment product in the design process, in communication, in the selling and commercial side;
- Demonstrate in-depth knowledge of the implications of digitalization and virtualization of the design process in relation to business management.

### Skills and abilities

- Ability to research and understand innovation and methodological processes;
- Ability to develop 3D models from 2D technical drawings of fashion products;
- Ability to digitize, visualize and simulate materials for the fashion tech application;
- Ability to identify and critically evaluate 3D software tools in textile and garment design;
- Ability to develop an innovative business model related to digital/virtual design processes and products;
- Ability to handle and understand digital/data-driven sustainable supply chains;
- Ability to handle, plan and direct innovative and complex project

management;

- Ability to dialogue with other disciplinary contexts;
- Ability to synthesize interdisciplinary contributions into possible innovation tracks and solutions;
- Ability to Learn by doing.

#### **Evaluation ability and approach**

- Identify and critically describe the limits and opportunities of 3D software tools in textile and garment design in all the phases of value chain: ideation, prototyping, visualization, communication, distribution, showcase, selling and retailing,
- Identify and critically describe the economic, environmental, and societal impacts of implementing a completely digital/virtual design and product development process,
- Reflect on complexities associated with virtual/digital implementation of a 3D collection /business,
- Critical skills and awareness of the ethical dimension of the profession,
- Co-Learning and co-working abilities in an international community.



# /PART 3: TOPIC OUTLINE/SCHEDULE

## **WELCOME**

The course will be introduced in a two hours recorded presentation that will welcome the students in the experience and explain the course syllabus in all its aspects.

## **DISCOVER**

This part of the course includes both **theoretical and practical activities** to be conducted **within 1/2 weeks**. It comprises **14 hours of learning** through video lectures and documental instructions and student work through assessments, peer interactions and propaedeutic exercises. This preliminary theoretical part is divided into 7 modules of contents about the design, technology, methodology and business perspectives. The topic and related methods and/or tools are introduced by the relevant lecturers. In this phase, assignments are programmed with a very tight schedule: at the end of each module students are assigned a number of small tests or exercises to keep them paced with the course. Exercises will be preparatory to the challenge based part so they are a very important part of the course and also fun.

WHEN	TOPICS	TEACHING STAFF	
from January 7th to 24th 2021	1.1 Fashion-Tech today	Livia Tenuta, Susanna Testa (POLIMI)	Module 1 Design Theory
	1.2 Defining near future trends	Ella Sharp-Mitchell (UAL – LCF)	
	1.3 Sociotechnical imaginaries of emerging & near future technology	Douglas Atkinson (UAL-LCF)	
	1.4 Designing far future scenarios	Alexa Pollmann (UAL –LCF)	
	2.1 Design Methodology of 3D modelling and virtual prototyping of garments	Marina Carulli (POLIMI)	Module 2 Design Methodology
	2.2 Measuring product experience: methods and tools	Alice Buso, Youngjin Chae (TUD)	
	3.1 3D Modelling and virtual prototyping of garments – Interface and avatar	Marina Carulli (POLIMI)	Module 3 3D Modelling
	3.2 From 2D to 3D Modelling (Part A)	Marina Carulli (POLIMI)	
	3.3 From 2D to 3D Modelling (Part B)	Marina Carulli (POLIMI)	
	3.4 3D Modelling of complex garments	Marina Carulli (POLIMI)	
	4.1 Basics of materials' virtual prototyping	Marina Carulli (POLIMI)	Module 4 Materials & Sensors
	4.2 Techniques for Digitalizing Materials for 3D Mapping, Texturing & Rendering	Enrico Cozzoni, Claudio Pucci (GZI)	

from January 7th to 24th 2021	4.3 Sensors and actuators for application in smart textiles	Kaspar Jansen (TUD)	Module 4 Materials & Sensors
	4.4 Soft and textile based sensors	Kaspar Jansen (TUD)	
	5.1 Advanced 3D Modelling	Marina Carulli (POLIMI)	Module 5 Advanced 3D Modelling and Manufacturing
	5.2 Advanced Manufacturing techniques in the digital fashion	Marina Carulli (POLIMI)	
	5.3 Importing 3D Models	Marina Carulli (POLIMI)	
	5.4 4.0 technologies at the service of circularity: Industry 4.0; Circularity; Technologies for circularity actions	Alex Marquoin (ESTIA)	
	6.1 3D Simulation and visualization	Marina Carulli (POLIMI)	Module 6 Simulation & Visualization
	6.2 3D Garment Testing	Marina Carulli (POLIMI)	
	6.3 3D Rendering	Marina Carulli (POLIMI)	
	6.4 3D model exporting	Marina Carulli (POLIMI)	
	7.1 SDG operationalisation for digital fashion value chains	Jonas Larsson (HB)	Module 7 Business Management
	7.2 Perspectives on digital value chain and business model development/experimentation	Rudrajeet Pal (HB)	



## DEFINE

The third week includes a **synchronous class session** to attend the webinar with **industry experts from the Companies and Start-ups**, to follow the **launch of the brief** and to start **collaborating** with teaching staff and teammates. This part of the course will be of **6 hours**.

DATE	TIME	ACTIVITIES
25 January 2021	10-12am CET	Students Presentation and Team Building
	2-3pm CET	Brief Launch and Q&A
26 January 2021	10am-2pm CET	Pespow, a new transition toward a different way to combine design and production using technologies and human capabilities
		GradoZero: materials and product innovation through design and prototyping
		Fashion tech entrepreneurship: the case studies of Thrill Digital, Il3x and Wearfits

## DESIGN

The next part of the course is practice and challenge based and will be divided in **four phases: Research and Trend Analysis, Concept Development, Project Development (Including virtual simulation, communication, project and business management), Experimenting and Testing** toward the elaboration of virtual prototypes and proof of concepts to be delivered at the final exam. Teamwork are going to be tutored and supported by a team composed of teaching staff and tutors from each HEIs to review the work of the students from different disciplines and perspectives. This part of the course will be of 4/8 hours/week. Students should refer to the course calendar for specific meeting dates and times. Activity and assignment along with VLE to be used will be explained in detail within each week's corresponding learning module in the synchronous part.

DATE	TIME	ACTIVITIES
1 February 2021	10am-2pm CET	Review and tutoring: RESEARCH, TREND AND CONCEPT
8 February 2021	10am-2pm CET	Review and tutoring: CONCEPT AND PROJECT DEVELOPMENT
9 February 2021 (split the cohort)	10am-1pm CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
	10am-1pm CET	Review and tutoring: BUSINESS MANAGEMENT AND INNOVATION

15 February 2021	10am-2pm CET	Plenary Midterm Review: PROJECT DEVELOPMENT PRESENTATION
16 February 2021 (split the cohort)	10am-1pm CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
	10am-1pm CET	Review and tutoring: BUSINESS MANAGEMENT AND INNOVATION
22 February 2021 (split the cohort)	10am-2pm CET	Review and tutoring: DEVELOPING, Experimenting, testing
	10am-2pm CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
1 March 2021 (split the cohort)	10am-2pm CET	Review and tutoring: Finalizing
	10am-2pm CET	Review and tutoring: 3D MODELLING AND VIRTUAL PROTOTYPING
8 March 2021	10am-2pm CET	Final exam

## **DELIVER**

### **Assignments and Deliverables of the Discover part (theoretical)**

#### **Uploading**

Please follow the instructions in the assignments to understand what is required as assignment for each lecture and module of the theoretical pillars.

#### **Answering to questionnaires**

You will be given a link to google quiz with a questionnaire to be filled after the lectures.

#### **Uploading materials (assignments and exercises)**

There are multiple ways to upload your work:

In specific folders (homework) uploading any kind of file format up to 52 MB (preferably compressed files in .pdf format. You might use [www.ilovepdf.com](http://www.ilovepdf.com)).

In forum discussions providing either texts and images. Images can be uploaded as attachments to the posts.

#### **Share your work**

If you want to get direct feedback from your peers (as required in some assignments and activities) please do it in an open conversation using the Interact section of BEEP. We suggest students to share their work on the discussion forum (INTERACT in BEEP) when required for the assignments of the asynchronous phase (DISCOVER) but also in proactively creating new discussions in the forum.

### **Assignments and Deliverables of the Design part (challenge based)**

#### **Co-design and share your work.**

You will also be required to work together as a classroom and as a group (during the challenge-based part) on a visual collaborative board (using MIRO) that is commonly shared between groups. This is giving the opportunity to collaborate as a team in a unique space but also as a classroom because you will be allowed to see others' activities and feedback (and provide feedback as well).

### **Templates**

A deliverable template is defined for every review session during the DESIGN phase using the Miro Board collaborative space. These templates will act as a guideline of the process of design for students toward the final presentation.

### **Presentation**

You are required to make a final presentation that shows the design process and the project finalization. The table of content of the presentation would include: Concept definition and design of the collection/products, 3D modelling and prototyping the collection/products, including Fitting and Ergonomics modelling, Materials digitalization, visualization and simulation, in both style and functional perspectives, Business development and model innovation and Project management innovation.

### **Video**

You are required to make a final video of your project in which you discuss your output. Please make sure your video has a maximum length of 3 minutes. If you place your video file on an online streamer (for example Youtube or Vimeo) double-check if it works and if it is available for anyone watch. While making a video make sure if there is enough light and that you talk clearly.

## **INTERACT**

In this digital course, an important part of the learning happens on the discussion forum and digital classrooms. The discussion forum is an important tool on the BEEP platform to share and discuss assignments, exercises and reflections as long as to create fruitful discussions among students. The forum is all about the students showing their work to peers and giving feedback each other also during the asynchronous part of the course: it allows students to learn from peers and to interact, also during the asynchronous part. Sharing on the Discussion Forum will also give teachers the possibility to interact with students during the asynchronous part of the course. Other than the assignments that need a peer interaction among students, we suggest to share experiences on the forum, post questions as well as launch discussion during the whole learning experience.

### ***Rules and guidelines***

It is important that the students follows a Virtual Learning Netiquette (VLN) in using the forum and the digital classrooms so that this course is a pleasant experience for everyone.

The aim of the VLN is to create a safer space as possible for those who are participating in virtual learning spaces. As such we have created the following rules to safeguard the participants. We have produced a list of key netiquettes to consider as part of the virtual learning environment either in the Discussion Forum either during the digital classroom sessions. We expect all participants to treat the virtual space as a professional environment.

### ***Discussion Forum***

- **Peer respectfulness**

Please, show respect to the fellow participants. We encourage debate and discussion but only when that is done in a polite and respectful manner. We do not tolerate rude behavior, condescending or abusive

words. Instances will be reported and removed.

- **Constructiveness in feedback**

Learning in an online community is about interacting with each other. When commenting or providing feedback on work of others be constructive and whenever possible provide suggestions for improvement.

- **Sensitiveness to peers' disciplinary background and culture**

Students will arrive from different countries and different background. Please be sensitive to this when discussing your own work or results of others.

- **Content appropriateness**

Content that violates the Terms of Service is not permitted. You may not post inappropriate or copyrighted content, advertise or promote outside products or organizations, or spam the forums with repeat content.

### *Digital classroom*

- **Frontal Lectures (Webinar and presentations)**

We encourage participants to turn off microphones and turn on cameras as and when appropriate/required. It is important to mute the session whilst the session is taking place when others are talking/presenting.

- **Dialogic activities (interaction and revisions)**

All virtual sessions are dialogic spaces, supported/defined by an agenda of tasks. We encourage participants not to talk over one another, interrupt or shout to allow others to participate safely. Please, use the chat or the hands on function to ask for interact. If disruptive behaviour continues repeatedly then the facilitator will ask the perpetrator to leave the space. We are not going to tolerate any form of discrimination in the virtual face to face sessions.

- **Privacy and recordings**

What is discussed and or shared within a session on every used platform, we treat as learning contents that might be recorded and shared again within the classroom via the Beep platform. We expect all participants to adhere to our policy of not audio or audiovisually recording the sessions.







# **/PART 4: ASSESSMENT METHOD**

Students would work either individually (in the asynchronous part: DISCOVER) either in teams (in the synchronous part: DEFINE, DESIGN and DELIVER). Individually they are required to follow the lectures, participate to experts webinar and to carry out individual assignment such as exercises and tests. The individual work will be evaluated through the individual assignments.

In teams they are required to develop a Fashion-Tech project, participate to reviews and deliver the final project. They are going to work with their teammates by using the digital tools. During working hours each team will meet professors, experts and teaching assistants to present their work-in-progress. Sometimes these meetings would be informal reviews to help the development of the project. Some other meetings would have the shape of mid-term assessment to verify if the main project milestones are achieved and also if some needs or problems occurred. The teamwork will be evaluated with a final presentation on a digital platform. The final exam will be held in the form of a digital exhibition/presentation.

Students will pass the course if they through a combination of the following activities in this course:

- Attending the theoretical modules
- Completing the quiz and evaluation tests
- Participating actively to the available platforms for peer interaction
- Completing the assignments timely and qualitatively
- Participating to the reviews sessions
- Delivering the final assignment (exam)

Each HEIs will formulate the modality of evaluation of the course for their students.

**POLITECNICO DI MILANO – SCHOOL OF DESIGN**

The evaluation of the course will follow this rules. The assessment of preliminary exercises/assignments together with the final presentation will determine whether students passed the course or not. For the asynchronous part students have to complete and submit all the assignments. For the DESIGN synchronous part, each student should be present at least for the 75% of the lectures. The presence to the final presentation to deliver the project is mandatory for every student. The final evaluation will not be based on the arithmetic mean of all grades but will be based on the assessment of the gradual qualitative advancement, in relation to the abovementioned aspects, demonstrated by each team and each team member through the sequence of assignments and activities planned. Individual assessment will be then supported by the quality of the student-professor interaction during weekly review, peer-to-peer evaluation, individual exam.

The evaluation of the final assignment will cover the following aspects:

- Research skills and critical thinking: Understanding of the Brief; quality, level of definition and consistency of the research; quality of sources;
- Creativity and design attitude: Capability to give a critical and original design solution
- Representation skills and graphic project: quality and accuracy of freehand and computer assisted drawing skills, quality of graphic elements to support the visual presentation of the project (graphic layout, color fidelity, image quality and definition, accuracy in the application of material samples, etc.);
- Team collaboration: Equal share of workload among team members, cohesiveness, and fairness
- Motivation and participation: Timeliness, accountability, active and critical participation during lectures and reviews. Students are expected to participate in all online activities as listed on the course calendar (75% of the steps on a course as complete). Motivation and active participation will be measure also using a peer-to-peer evaluation system, consisting in a team self-evaluation by each team

members for each required delivery.

- Commit to Integrity: students are expected to maintain high degrees of professionalism and also integrity in your behaviour in and out of the classroom without using dishonest, deceptive and fraudulent means.

If students are verified learner, given the previous elements, they will receive the cfu-extraCV for the course attendance and a digital certification provided from Bestr through the School of design.

## **UNIVERSITY OF THE ARTS LONDON – LONDON COLLEGE OF FASHION**

The work generated from the project will be submitted as part of the MA Innovative Fashion Production coursework in the two units specified below:

- Students at LCF will negotiate with the MA IFP Course Leader as to which asynchronous units they want to study with a rationale as to what is most relevant to their research area of interest.
- Evidence of the asynchronous study will be submitted in their 'Innovation in Production Technologies' Unit Portfolios as part of your wider studies
- Evidence of their work and contribution to the team project (Jan 27th - March 8th) will again depend upon individual research areas of interest and be assessed as part of the 'Connecting Production to the Consumer' Unit Portfolio.

The 'Interline' presentation on the 8th of March will be recorded and submitted as part of the 'Connecting Production to the Consumer' and your

**HOGSKOLAN I BORAS - SWEDISH SCHOOL OF TEXTILES**

Students would work individually and in teams. Individually they are required to follow the lectures, to carry out individual assignment such as exercises and tests. Students should follow 4 out of 7 modules in the theoretical part. Students have to complete at least one of the modules related to technical skills development (Module 3 to Module 6). Module 7 on Business Management is mandatory for all HB students. To demonstrate their frequency to the modules, students are required to answer 4 questionnaires, out of which 2 questionnaires in Module 7 (Business) are mandatory, having participated to peer interaction assignments on the forum and having performed 2 practise exercises. In teams they are expected to develop a Fashion-Tech project, participate to reviews and deliver the final project. The grade for the course is attributed on A-Fx scale. The grade is determined by results of four modules:

- To get an A, students have to answer over 90% of questions correctly (please note the percentage is based on total number of questions answered correctly from 4 undertaken quizzes).
- To get a B, students have to answer 80-90% of questions correctly.
- To get a C, students have to answer 69-79% of questions correctly.
- To get a D, students have to answer 51-68% of questions correctly.
- To get an E students have to answer 40-50% of questions correctly
- If less than 40% of questions are answered correctly, the assigned grade is Fx and individual re-examination will be organised by HB.

If you have questions regarding course examination, please contact Olga Chkanikova at: [olga.chkanikova@hb.se](mailto:olga.chkanikova@hb.se)

### **TU/DELFT - INDUSTRIAL DESIGN ENGINEERING FACULTY**

The Fashion Tech course is integrated in the IDE curriculum as part of the Research elective ID5502 van 6 EC.

Students will have to follow all the theoretical modules and complete the questionnaires and practical exercises related to the different modules. In the synchronous part, the students have to work in groups on the given assignments. The questionnaires, exercises and the final presentation of the team work are all taken into account in the assessment. The course will be graded as sufficient or insufficient and no detailed grading will be used.

### **ECOLE SUPÉRIEURE DES TECHNOLOGIES INDUSTRIELLES AVANCÉES**

Students will have to follow all the theoretical modules and complete the questionnaires and practical exercises related to the different modules. The ESTIA textile activities teaching team (3 people) will be at the disposal of students throughout the learning phase.

Then, in teams of 5, they will have to develop a Fashion Tech project by putting into practice the knowledge acquired during the theoretical part. The project will give rise to a written report and an oral presentation in front of all the partners.

The Fashion Tech Alliance project is integrated into the internship phase of the ESTIA students. An additional 4-week period of practice will be carried out in the ESTIA textile centre on subjects related to the recycling and transformation of materials. Students will benefit from sustained supervision by the ESTIA engineering team.

All of the actions: theory, practice, complementary internship will lead to the be awarded by the corresponding ECTS credits.

## **COURSE QUALITY EVALUATION**

Before the end of the course, you will be required to complete a questionnaire for course evaluation that will ask your opinion related to the overall experience to understand your perspective in terms of Context Specific Quality, Knowledge sharing efficacy, Quality of coaching and Satisfaction with educational experience. Part of the questionnaire will also focus on the importance of this course for your future profession and asks your perspective in terms of Improved skills and competences and in terms of relevance of skills for future profession and employability.

*Important Note: This syllabus, along with course assignments and due dates, are subject to change. It is the student's responsibility to check the platform on Beep for corrections or updates to the syllabus. Any changes will be clearly noted in course announcement or through email.*

