science, technology & innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA

technology innovation AGENCY
Innovating Tomorrow Together

TSCT
TECHNOLOGY STATION
CLOTHING AND TEXTILES



SHORT LEARNING PROGRAMME 2027

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TSCT TECHNOLOGY STATION CLOTHING AND TEXTILES

SHORT LEARNING PROGRAMME 2027

CONTENTS

TSCT SERVICES OFFERED 1
SHORT LEARNING PROGRAMMES OVERVIEW 2
CONTACT DETAILS 3

FIELDS OF STUDY 4
- PRE-PRODUCTION TECHNOLOGY 5
- TECHNOLOGY AIDED COURSES 7
- TEXTILES TECHNOLOGY 8
- MANUFACTURING 9
- QUALITY 13
- SUSTAINABILITY 15
- NONWOVEN PRODUCTION 16

HOW TO APPLY 18
DOCUMENT REQUIREMENTS 19
PAYMENT OF FEES 19
COURSE REQUIREMENTS 20
ASSESSMENTS AND CERTIFICATION 20

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MANUFACTURING ADVISORY SERVICES

Manufacturing audits and assessments
Industrial engineering services for productivity improvement

Implementation of quality systems
Advice acquisition of new or improved technology





PRODUCT TESTING AND ANALYSIS

Tensile strength
Martindale Abrasion
Burst Strength
Air permeability
Fault Analysis

NB
We do an extensive collection of additional tests.

Woolworths Correlated Laboratory



TECHNOLOGY SUPPORT CENTRE

Electronic button-hole machine
Electronic button-sew on machine
Electronic bar-tacking machine
Electronic eyelet button-hole machine
Cover seam machine (elasticating)
Merrow edge machine, Hemming machine
Walking foot machine
Ultrasonic welding machine
Jet pocket machine
Feed off the arm machine



SMART ORGANIZATION

Clustering of small businesses
Network facilitation



RESEARCH

Product and process development
Anthropometry (body sizing using 3D body scanner)
Harmful substances determination in textiles
Antimicrobial textiles
Industry & academic consultations
PPE and Medical textiles



HUMAN CAPITAL DEVELOPMENT

Offer a menu of short learning programmes
Offer learnerships as a host training provider in conjunction with qualifying firms

TSCT
TECHNOLOGY STATION CLOTHING AND TEXTILES



Technical drawings
Pattern development (Gerber software)
3D simulation and 3D Body scanning

Mock up sample making
Product assembly
Pattern grading
Textile specifications

PRODUCT DEVELOPMENT

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HUMAN CAPITAL DEVELOPMENT

SHORT LEARNING PROGRAMME OVERVIEW

TSCT offers a menu of SHORT LEARNNG PROGRAMMES to the Clothing, Textiles, and related industry. The short learning programme schedule is revised on an annual basis and is offered with the guidance of industry stakeholders. New courses may be offered during the course of the acdemic period based on specific industry requirements.

The programme mix includes the following areas:

- Pre-Production Technology
- Textiles
- Quality
- Manufacturing; and
- Information workshops

All short learning programmes are governed by the CPUT Centre for Professional and Personal Development (CPPD) Short Course Policy and the Teaching and Learning Policy. Programmes are offered in a range of permutations, with more popular options of a one-day-per-week, weekday or a Saturday morning. If required, programmes can be offered after normal working hours to minimise disruptions to the manufacturing process. The latter option, however, will only be considered based on the minimum number of confirmed applications received for the course and availability of a course facilitator.

The main objective is to support the clothing, textile, and related industries to develop staff to meet organisational objectives and improve its competitiveness in the market.

For a menu of short courses on offer, kindly click on the following link:
https://www.cput.ac.za/academic/shortcourses/fields/7871-clothing-and-textiles



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TECHNOLOGY STATION CLOTHING AND TEXTILES

CONTACT DETAILS

TRAINING COORDINATOR

Karin Hock
(021) 959 6075
vanwykk@cput.ac.za
https://tsct.co.za/human-capital-development/

ALTERNATIVE CONTACT DETAILS

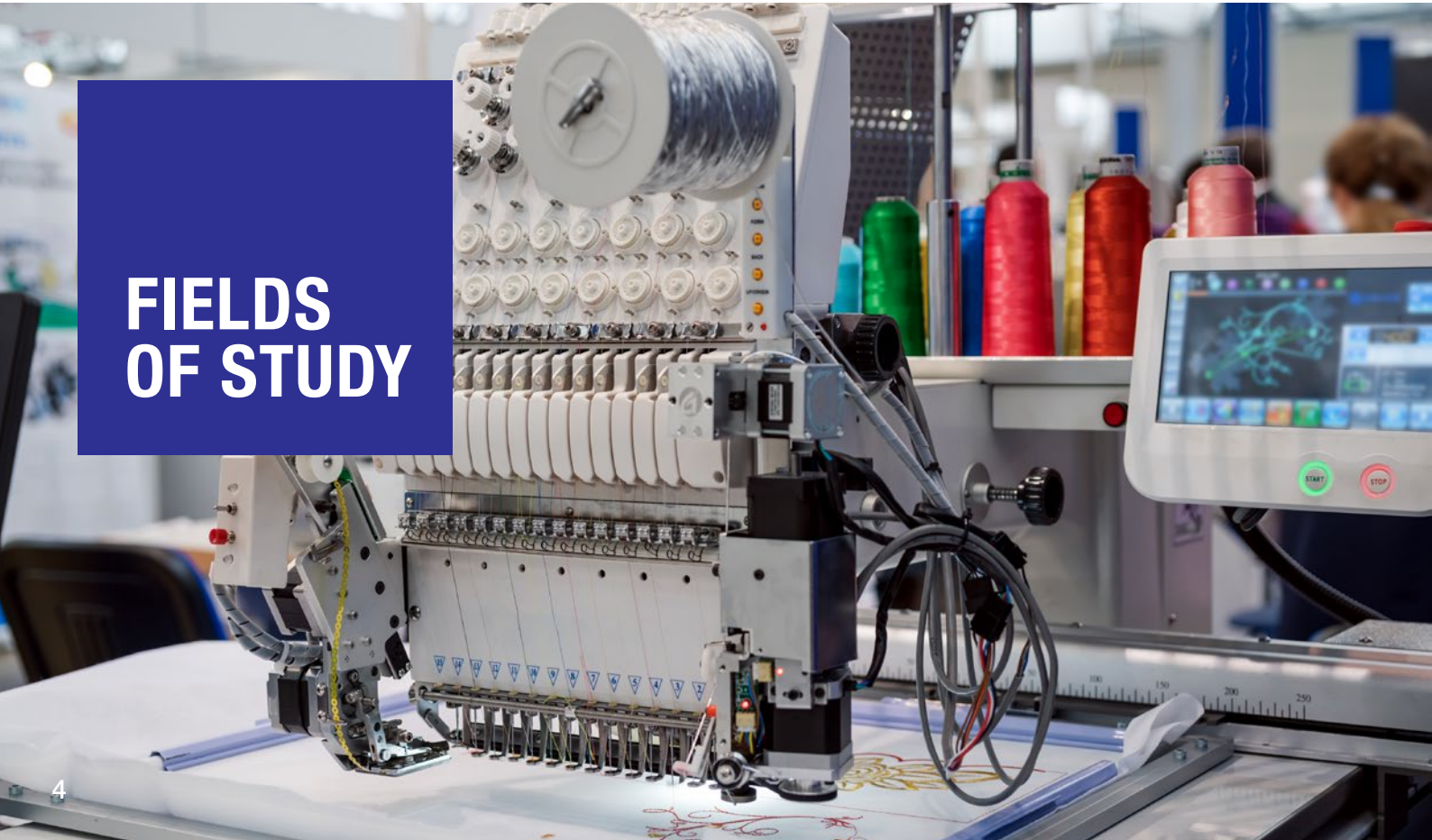
(021) 959 6826
techstation@cput.ac.za
082 895 9327







FIELDS OF STUDY



PRE-PRODUCTION TECHNOLOGY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
PATTERN DEVELOPMENT 1 Pattern Development Level 1 is an extensive course designed to equip students with a solid foundation in pattern making for fashion and garment design. This 120-hour course covers a wide range of topics, from measurements to advanced pattern manipulation techniques. **Prerequisite: Grade 12**	By the end of the course, students should be able to: • Demonstrate a deep understanding of pattern development principles. • Accurately take and interpret complex body measurements. • Create patterns for a variety of garments. • Apply advanced pattern manipulation techniques. • Solve pattern-related problems.	30 weeks, 4 hours/week Saturdays 08h30 – 12h30 **06 March 2027**	**R11 300.00**
PATTERN DEVELOPMENT 2 Pattern Development 2 is an advanced course designed to further enhance your skills in pattern making and garment construction. This 120-hour course will cover complex pattern development techniques, advanced sewing methods, and the application of patternmaking principles in creating custom-designed garments. Students will gain a deeper understanding of pattern manipulation, fit, and garment construction. **Prerequisite: Pattern Development 1**	By the end of the course, students should be able to: • Demonstrate advanced patternmaking skills. • Apply complex pattern manipulation techniques. • Construct custom-fit garments using advanced sewing methods. • Interpret and create patterns for a variety of clothing styles. • Develop the ability to design and create original garments. • Understand the principles of fit, draping, and garment balance.	30 weeks, 4 hours/week Saturdays 08h30 – 12h30 **13 March 2027**	**R12 300.00**

PRE-PRODUCTION TECHNOLOGY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
INTRODUCTION TO GARMENT TECHNOLOGY This 80-hour course introduces students to pattern making and garment construction. Students will learn essential skills for creating patterns, cutting fabric, and assembling garments. The course combines theoretical knowledge with practical hands-on experience to empower individuals with the ability to design and create their clothing. **Prerequisite: Grade 12**	By the end of the course, students should be able to: • Understand the fundamentals of pattern making and garment construction. • Learn how to create basic patterns for various garments. • Develop the skills to cut fabric accurately and assemble garments. • Gain an appreciation for fashion design and clothing construction. • Create finished garments.	20 weeks, 4 hours/week Saturdays 08h30 – 12h30 **13 February 2027**	**R12 350.00**
MANUAL PATTERN GRADING Manual pattern grading is an essential skill in the field of fashion design and garment production. This 16-hour course will take you through the fundamentals of pattern grading, teaching you how to transform a basic pattern into various sizes. You will learn the techniques, tools, and principles required to create graded patterns, ensuring a perfect fit for your target audience. Whether you're a beginner or an experienced pattern maker, this course will enhance your skills and broaden your understanding of pattern grading. **Prerequisite: Grade 12**	By the end of the course, students will be able to: • Understand the fundamentals of pattern grading. • Grasp the essential principles of pattern grading for different types of garments. • Apply manual pattern grading techniques to create graded patterns. • Develop a range of sizes for a given pattern while maintaining proper fit and proportions. • Identify common grading errors and how to rectify them. • Create a graded pattern for production garment.	4 weeks, 4 hours/week Saturdays 08h30 – 12h30 **DATES TBC** ***Please contact us for the updated training schedule***	**R 3 450.00**

TECHNOLOGY AIDED

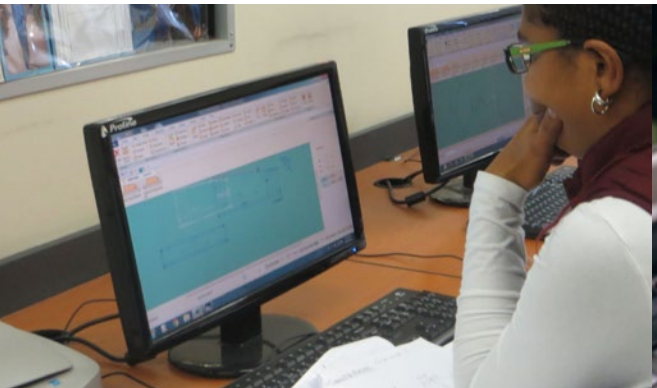
COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
COMPUTER PATTERN MAKING & GRADING This course will provide an in-depth understanding of computer patternmaking software, which is widely used in the fashion and apparel industry. Participants will learn how to create digital patterns, grade patterns, and generate marker layouts for efficient fabric utilisation. **Prerequisite: Basic computer literacy skills with a Pattern Development 1 certificate or have proven work experience in pattern making**	By the end of the course, learners will be able to: • Understand the basics of computer pattern making. • Create and modify digital patterns. • Learn to grade patterns for different sizes. • Generate marker layouts for optimal fabric usage. • Develop the skills needed to work with computer-aided design software in a professional setting.	16 weeks, 4 hours/week Saturdays 08h30 – 12h30 **20 February 2027**	**R12 100.00**
COMPUTER PATTERN GRADING This course provides a comprehensive introduction to computer pattern grading, a critical process in the apparel and fashion industry. Participants will learn how to use digital tools to scale and adjust patterns efficiently, reducing manual labour and improving accuracy. **Prerequisite: Basic computer literacy skills with Pattern Development 1 certificate or have proven working experience in pattern making**	By the end of this course, learners should be able to: • Have a good understanding of computer pattern grading techniques, • Be proficient in using CAD software for grading, Will have completed a practical project that demonstrates their skills in pattern grading.	4 weeks, 4 hours/week Saturdays 08h30 – 12h30 **DATES TBC** ***Please contact us for the updated training schedule***	**R 4 100.00**

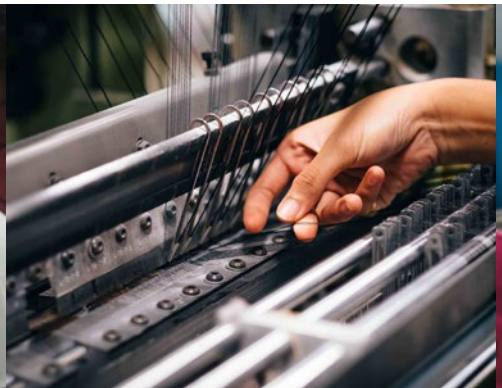
TEXTILES TECHNOLOGY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
TEXTILES and FABRICS This comprehensive 28-hour short course on textiles and fabrics will take you on a journey through the world of textiles, from the basics of raw materials and production processes to design and fashion applications. Whether you're a beginner or a budding fashion enthusiast, this course will provide you with a solid foundation in textiles and fabrics. **Delegates are invited to bring fabric swatches and garments to class for discussion & problem-solving.**	By the end of the course, learners will: • Have a deeper understanding of textiles and fabrics, their production processes, and their applications in various industries, particularly in the world of fashion. • Be better equipped to make informed choices about fabric selection and textile care.	7 weeks, 4 hours/week Wednesdays 12h30 – 16h30 **17 March 2027** **Optional for inhouse training** ***(3 consecutive training days, one day per week can be considered)***	**R 7 400.00**
TEXTILE TESTING This 16-hour course on Textile Testing provides a comprehensive introduction to the various techniques and methods used to test and evaluate textiles for quality, safety, and performance. Participants will gain a thorough understanding of textile testing standards, equipment, and procedures commonly employed in the textile industry. **Prerequisite: Industry-related work experience**	By the end of the course, learners will: • Have a deeper understanding of textiles and fabrics, their production processes, and their applications in various industries, particularly in the world of fashion. • Be better equipped to make informed choices about fabric selection and textile care.	2 consecutive weekdays 09h00 – 16h00 **DATES TBC** ***Please contact us for the updated training schedule***	**R 3 700.00**

MANUFACTURING

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
SMART SKILLS FOR SUPERVISORS The Smart Skills for Supervisors course is designed to equip individuals with the essential skills and knowledge required to excel in a supervisory role. Whether you are a new supervisor looking to build a strong foundation or an experienced one aiming to enhance your leadership abilities, this course will provide you with the tools and strategies needed to thrive in a supervisory position. **The course includes a blend of theoretical knowledge, practical exercises, case studies, and interactive discussions to ensure a well-rounded learning experience.**	This comprehensive course will equip supervisors with: • Skills to lead teams • Communicate effectively • Resolve conflicts • Manage performance and drive success in their organisations.	7 weeks, 1 day per week Tuesdays 09h00 – 16h00 **16 February 2027**	**R10 300.00**







MANUFACTURING

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
GARMENT COSTING The Garment Costing is designed to equip participants with the knowledge and skills needed to accurately calculate and analyse the costs involved in the production of garments. It covers various aspects of costing, from raw materials to labour and overheads, enabling students to make informed decisions in the fashion and textile industry.	By the end of the course, participants will be able to: • Understand the fundamentals of garment costing. • Calculate material costs, including fabric, trims, and accessories. • Estimate labour costs and productivity. • Evaluate overhead costs. • Determine the total cost of a garment. • Analyse cost breakdowns and make cost-effective decisions.	4 weeks, 1 day per week Thursdays 09h00 – 16h00 **15 April 2027**	**R 6 050.00**
PRODUCTION MANAGEMENT This Production Management short course is designed to provide participants with a comprehensive understanding of the principles and practices of effective production management in various industries. It covers key concepts, strategies, and tools necessary to optimise production processes and maximise efficiency.	By the end of this course, participants will be able to: • Understand the fundamentals of production management. • Apply production planning and scheduling techniques. • Implement quality control and improvement strategies. • Optimise resource utilisation in production. • Manage supply chains and logistics effectively. • Develop strategies for continuous improvement.	14 weeks, 4 hours/week Saturdays 08h30 – 12h30 **08 May 2027**	**R11 600.00**

MANUFACTURING

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
BASIC WORK STUDY The Basic Work Study Short Course is designed to introduce participants to the fundamental principles of work study, focusing on methods such as time and motion study, work measurement, and process analysis. This course aims to equip learners with the essential skills and knowledge required to optimise work processes, improve productivity, and reduce inefficiencies in various industries.	By the end of this course, participants will be able to: • Understand the principles and concepts of work study. • Apply time and motion study techniques to analyse work processes. • Perform accurate work measurement. • Identify and eliminate bottlenecks and inefficiencies in work processes. • Improve productivity and optimise resource utilisation. • Implement basic ergonomic principles for improved workplace design. • Interpret and present work study data effectively.	10 weeks, 4 hours/week Saturdays 08h30 – 12h30 **12 June 2027** **Optional:** 5 weeks, 1 day /week 09h00 – 16h00 *(Based on demand)*	**R 7 800.00**
INTERMEDIATE WORK STUDY This course is designed to help participants build upon their basic understanding of work study principles and techniques. It covers a range of topics to enhance their skills in optimising work processes and efficiency. **Prerequisite: Basic Work Study**	This course aims: • To deepen participants' understanding of work study principles and techniques. • To equip participants with advanced tools and methodologies for analysing and improving work processes. • To develop participants' skills in optimising work efficiency and resource utilisation. • To provide practical hands-on experience through case studies and exercises.	10 weeks, 4 hours/week Saturdays 08h30 – 12h30 **04 September 2027**	**R 8 300.00**

MANUFACTURING

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
CUTTING ROOM MANAGEMENT This course is designed to provide participants with a comprehensive understanding of managing a cutting room in the context of the textile and garment industry. Participants will learn about various aspects of cutting room management, workflow optimisation, quality control, resource allocation, and team coordination.	By the end of this course, participants will: • Understand the key processes in a cutting room. • Implement efficient workflow strategies to improve productivity. • Manage resources effectively, including machinery and personnel. • Ensure quality control and minimise wastage. • Lead and coordinate a cutting room team for optimal results. • Apply industry best practices for cutting room management.	5 weeks, 1 day per week Saturdays 08h30 – 12h30 **15 May 2027** ***Please contact us for the updated training schedule.***	**R 5 100.00**
CUTTING PRACTICE: PRACTICAL This hand-on fabric cutting course will guide you through the process of cutting fabric for clothing, from preparing your fabric to making your first cut. You'll learn how to handle fabrics, work with patterns, and avoid common mistakes while cutting. By the end of the course, you'll be able to confidently cut fabric for your own sewing environment	By the end of this course, participants will be able to understand: • Tools you will need for cutting • Preparing your fabric • Laying out fabric and pattern pieces • Marking and cutting the fabric • Checking and handling fabric after cutting.	7 weeks, 1 day per week Saturdays 08h30 – 12h30 **19 June 2027**	**R 7 400.00**

QUALITY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
QUALITY CONTROL IN CLOTHING Quality Control in Clothing Manufacturing is designed to provide participants with a comprehensive understanding of quality control processes in the apparel industry. Participants will learn essential skills and techniques to ensure the production of high-quality clothing while minimising defects and improving efficiency. The course covers various aspects of quality control, from fabric inspection to finished product evaluation, and emphasises the importance of maintaining quality standards in the competitive world of clothing manufacturing.	By the end of this course, participants will be able to: • Understand the importance of quality control in clothing manufacturing. • Identify and rectify common defects in clothing production. • Implement effective quality control processes throughout the manufacturing cycle. • Utilise appropriate tools and techniques for quality assessment.	6 weeks, 1 day per week Saturdays 08h30 - 12h30 **DATES TBC**	**R 7 400.00**







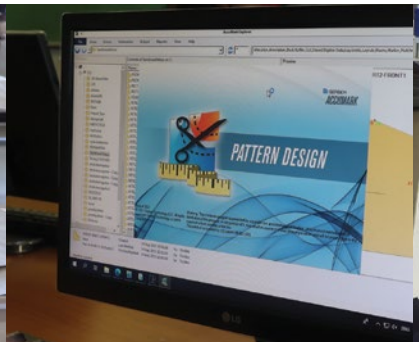
QUALITY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
FABRIC QUALITY INSPECTION & FAULTS CLASSIFICATION This course is designed to equip participants with the knowledge and skills required for inspecting fabric quality and classifying various faults that can occur in textiles. Participants will learn about different types of fabrics, quality standards, inspection techniques, and how to categorise and report fabric faults effectively.	At the end of the course, participants will: • Understand the importance of fabric quality inspection in the textile industry. • Learn how to identify and classify common fabric faults. • Develop proficiency in fabric inspection techniques and equipment. • Gain the ability to create comprehensive quality inspection reports. • Apply quality standards and best practices in fabric inspection.	4 weeks, 1 day per week Wednesday 12h30 – 16h30 **09 February 2027** *(Please enquire about the in-house group option available for companies with 5 or more applicants)*	**R 3 950.00**
QUALITY AWARENESS FOR SUPERVISORS & OPERATORS This course is designed to help supervisors and operators in clothing manufacturing gain a deeper understanding of quality control and assurance processes to ensure the production of high-quality garments.	At the end of the course, participants will: • Understand the importance of quality in clothing manufacturing. • Learn quality control techniques and best practices. • Improve communication and collaboration between supervisors and operators. • Identify and resolve common quality issues in clothing production.	2 weeks, 1 day per week Saturdays 08h30 – 12h30 **DATES TBC** ***Please contact us for the updated training schedule.*** *(In-house group option preferred for 8 or participants with a maximum of 20)*	**R 1 900.00**

SUSTAINABILITY

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
SUSTAINABILITY IN CLOTHING & TEXTILES The programme acknowledges that the clothing and textile industry is one of the largest contributors to environmental pollution. As a result, there is an increasing emphasis—both locally and especially internationally—on promoting sustainability within this sector. The training programme wishes to equip current technologists, designers, and managers etc. with a basic understanding of the principles and technologies in the fields of sustainable clothing and textiles development and production to help them navigate through this field and make positive improvements in the organisation.	Topics to be covered: • Introduction to sustainability and the circular economy in the Clothing & Textile sectors • Market and manufacturing sector interventions • Sustainable manufacturing processes and technologies • Cleaner production technologies • Circularity standards • Practical with a range of sustainable materials and evaluating their properties.	3 consecutive weekdays with an alternative option of 2 weekdays + Saturday 08h30 – 16h30 **30 - 31 August** **& 01 September 2027**	**R 7 875.00**







NONWOVEN PRODUCTION

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
NONWOVEN PRODUCTION TECHNOLOGIES AND MATERIAL CHARACTERISATION The purpose of this programme is to train employees in different nonwoven technologies and the characterisation of filtration products by testing their performance, chemical and thermal properties. This course is a mixture of theory and practical, including air filtration product manufacturing by the needle-punched nonwoven technology, followed by material characterisation.	This training will assist employees in evaluating various non-woven materials used for different end uses especially air filtration. Topics to be covered: • Introduction to nonwoven manufacturing technologies • Performance properties of the air filter materials • Chemical and thermal characterisation of air filter materials • Sustainable aspects in air filters • Practical demonstration for manufacturing air filters and evaluating their performance and chemical properties	3 consecutive weekdays 08h30 – 16h30 **23 – 25 March 2027**	**R10 050.00**







NONWOVEN PRODUCTION

COURSE TITLE & DESCRIPTION	COURSE OBJECTIVES	DURATION	COST
ADVANCED NONWOVEN MATERIAL AND ANALYSIS The purpose of this training programme is to train employees in analyzing filter bag failures, root causes associated material characterisation and preventive steps that need to be taken by the System Engineers to avoid premature failure of filter bags. This course is a mixture of theory, practical and in-depth analysis of the practical results based on filter bags usage. This training will empower System Engineers and R&D personnel in their decision-making as well as planning to avoid unplanned downtime during power generation.	This training will assist employees in evaluating various non-woven materials used for different end uses especially air filtration. The programme includes the following: • Introduction to failure analysis of filter bags • Chemical and thermal characterisation of filter bags subjected to different operational hours • Evaluation of the performance properties, subjected to different operational criteria • Analysis of various test results and their relationship in understanding the failure analysis of filter bags • Practical laboratory demonstration of various test protocols related to filter bag failure analysis	3 consecutive weekdays 08h30 – 16h30 **21 – 23 June 2027** **24 – 26 June 2027** **28 – 30 June 2027**	**R 9 500.00**






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HOW TO APPLY

This application form must be completed in full by all students who are applying for a short course at the Cape Peninsula University of Technology and certified copies of all supporting documents must be enclosed. Once this application form has been completed and the supporting documents are attached, it must be submitted to the course administrator responsible for the short course that you will be attending. Once your application has been accepted and processed the course administrator will issue you with a student number.

DOWNLOAD THE APPLICATION FORM FOR THE SHORT COURSE:
https://www.cput.ac.za/storage/short_courses/CPUT_Application_Form_Short_Courses.pdf

DOCUMENT REQUIREMENTS

The supporting documents listed below are documents to be submitted with your application form. Ensure that certified copies are less than three months old. CPUT reserves the right to take legal action if documents are not authentic.

- ✓ **A certified copy of the first page of your Identity Document/Card.**
- ✓ **Proof of your highest level of school education.**
- ✓ **International students must submit a valid study visa and proof of medical insurance for the duration of their studies.**

PAYMENT OF FEES

Short course fees are payable in full, prior to the commencement date of the course.

Cash payments can be made at the Cashiers Office on the campus. Provide the cashier with your student number (that had been issued to you by the course administrator) as a reference when making payment.

Should you make payment using electronic payment transfer (EFT), **please use a student number quoted on the statement and/ or invoice**. Please forward proof of payment to the course administrator.

IF YOUR EMPLOYER IS PAYING YOUR COURSE FEE AND SUCH EMPLOYER IS:

A government department or parastatal - A letter must be obtained in which the employer commits to paying the course fee - An invoice will then be sent to the employer by the course administrator.

A company or other corporate entity – Payment should be made prior to the commencement of the course or a signed Service Level Agreement (SLA), from the company or sponsor, acknowledging the company/person taking responsibility to pay the account on behalf. This SLA must be submitted with the application form. Kindly note, that this does not include a "third party" payment arrangement.

COURSE REQUIREMENTS

Although a matric certificate is not required when enrolling on an industry-recognised short course, we urge companies to be mindful of the course content and the level of complexity when selecting staff. Most of our courses are benchmarked against level 5 of the National Qualifications Framework. If in doubt, please discuss the prerequisites with the course coordinator before enrolling as a delegate.

ASSESSMENTS AND CERTIFICATION

Delegates will be assessed continuously, in accordance with the assessment policy of the institution. Failure to complete assessments could result in the delegate being suspended from the course. Companies are urged to take an active interest in the progress of the delegates and to assist with assignments and exposure to areas of interest.

Certificates are only issued to candidates who have successfully completed all the assessment requirements.

- A statement of results will be issued to those who were not successful.
- Certificates/the statement of results will only be issued once fees are settled in full.
- Replacement of lost or damaged certificates: Damaged or lost certificates are replaced at a predetermined cost as per CPUT Short Course Policy

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