

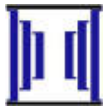
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## The Committee for Textile Competitiveness

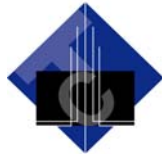


The North Carolina  
Department of Commerce

NC STATE UNIVERSITY  
College of Textiles



The North Carolina Community College System  
Economic and Workforce Development  
Focused Industrial Training Program



NC Center for Applied Textile Technology



Small Business Technology Development Center



The Committee for Textile Competitiveness was established by NC Commerce Secretary Jim Fain in order to increase the global competitiveness of the industry through public/private collaboration in support of the goal of improving the quality of life and economic well-being of all North Carolinians.

# North Carolina Textile and Apparel Resource Guide



## The Committee for Textile Competitiveness

*A public/private collaboration to enhance NC textile/apparel global competitiveness*

NC Department of Commerce  
301 North Wilmington Street  
Raleigh, NC 27699  
919 715-4452



[www.nccommerce.com](http://www.nccommerce.com)

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## The North Carolina Department of Commerce

In North Carolina you will find a [robust business climate](#) driven by a partnership between private industry and government, working to make North Carolina a better place to be. With one of the largest economic development networks in the nation, North Carolina is truly dedicated to giving textile businesses all the assistance and resources needed to meet their unique business requirements.

### Who we are:

- **Business and Industry Division:** The Business and Industry Division (B&I) leads North Carolina’s business and industrial recruitment efforts. The Division’s industrial developers work closely with other public and private development organizations to attract new textile business and suppliers to the state. Our job is singularly focused - your business is our business. We offer comprehensive facility location services for your company from initial contact through site location to future growth and expansion. In essence, we provide “one-stop shopping” for your relocation and expansion needs.
- **North Carolina Department of Commerce’s Regional Economic Development Offices:** These offices offer retention and expansion services to companies currently located in North Carolina. These programs are staffed by industrial developers located in nine offices spread throughout the seven regions of the state.
- **North Carolina’s Regional Partnerships for Economic Development:** The counties of North Carolina have been organized into seven joint public/private partnerships for economic development. North Carolina’s regional partnerships enable regions to independently market for new investment and to devise effective economic development strategies based on regional opportunities and advantages.
- **North Carolina Department of Commerce’s International Offices:** The function of these offices is multi-faceted to include company/country research and analysis, lead generation, calls on potential leads, targeting company visits, building of relationships and contacts, and assistance in arranging missions.

- **Site Selection**

- Statewide building & site database

- 1) Recommendation of appropriate buildings & sites
    - 2) Location, site & topographical maps & photographs
    - 3) Community/site evaluation based on project needs
    - 4) Personalized building/site/community tours
    - 5) Logistics/travel assistance
    - 6) Statewide network of allies

- **Research & Analysis**

- 1) Labor market analysis
  - 2) Wage data & comparisons
  - 3) Custom tax analysis
  - 4) State-to-state comparisons
  - 5) Climatological data
  - 6) Legal aspects
  - 7) Costs of conducting business analysis
  - 8) Customize site location/community research & investigation

- **Human Resources**

- 1) Labor market data
  - 2) Identification of qualified work force
  - 3) Wage & benefit surveys
  - 4) Labor productivity data
  - 5) Current employer interviews
  - 6) Customize worker training

- **Environmental**

- 1) Permitting assistance
  - 2) Site/building evaluation
  - 3) Recycling consultation
  - 4) Mediate between company & state regulators
  - 5) Services of an environmental consultant without regulatory inferences
  - 6) Identify opportunities to reduce cost in handling pollution/waste products

- **Incentives**

- 1) Tax credits for qualified businesses
  - 2) Low-interest loans
  - 3) Industrial Revenue Bonds
  - 4) Energy Improvement Program
  - 5) Coordinate state, regional & local incentive programs
  - 6) Assistance with infrastructure improvements
  - 7) Expedite permits & applications
  - 8) Customize worker training

***For more information regarding services for textiles, contact:***

North Carolina Department of Commerce  
Business & Industry Division  
301 N. Wilmington St.  
Raleigh, NC 27699  
919-733-4953

The Commerce Finance Center (CFC) provides a “one-step” financial center to which relocating companies and existing employers come for the articulation of the financing alternatives available in North Carolina for the textile and apparel industry. It is CFC’s responsibility to encourage and precipitate decisions to save and create new jobs, and to entice better paying jobs for North Carolina citizens by prospective employers.

### **Incentives and Programs**

The following is a list of programs and incentives administered by the CFC. For detailed information and forms, click on the program title.

• **Tax Credits**

The William S. Lee Quality Jobs and Expansion Act rewards eligible companies expanding or relocating in North Carolina that hire within the North Carolina workforce to fill positions.

• **Industrial Revenue Bonds**

The State’s principal interest in Industrial Revenue Bonds is assisting new and expanding industry while seeing that North Carolinians get good jobs at good wages.

• **Community Development Block Grants**

These funds may be accessed by local government applicants (municipal or county, excluding entitlement cities or designated urban counties) with proposed projects that involves a specific business creating or retaining jobs.

• **The Industrial Development Fund**

IDF provides incentive industrial financing in the form of grants and loans. These funds may be accessed by local government applicants (municipal or county).

• **Business Energy Loans**

The Business Energy Improvement program provides loans between \$100,000 and \$500,000 to industrial and commercial businesses located or moving to North Carolina.

*For more information regarding services for textiles and apparel, contact:*

Commerce Finance Center  
4318 Mail Service Center  
Raleigh, NC 27699-4318  
Phone: 919-733-5297 • Fax: 919-715-5297  
or visit: [www.nccommerce.com/finance/](http://www.nccommerce.com/finance/)

**North Carolina’s International Trade Division**—through two domestic and six foreign office locations—provides expert assistance to North Carolina businesses seeking to take advantage of overseas market opportunities. Trade consultants in Raleigh and High Point are available to assist you in tapping into resources and programs that can help your business grow through international sales. We invite you to contact us to discuss your business needs and to determine the services we offer which are most applicable to your business objectives.

*We offer to any NC business the following basic array of export support services:*

**Counseling and Referral**

Before you launch your product or service into the international marketplace, we encourage you to contact the trade consultant in your industry. Your consultant can recommend how you can build the best infrastructure for supporting your international business’ growth. Through discussion and one-on-one contact, your consultant can help you delineate your business needs and can put you in touch with resources to address them. In addition to applying expertise to your unique business circumstances, international trade consultants are able to match you with appropriate sources for international trade support services within other organizations, both public and private. We function as your portal to available trade support services in North Carolina.

**Distributor and Agency Searches**

NC’s foreign office locations are committed to the completion of your international sales transactions. Foreign office directors, located in the world’s foremost industrialized regions, can assist you to establish strategic distribution channels in your identified best foreign markets. Your ITD trade consultant will work with the foreign office to articulate your needs and strategies for product market entry.

NC’s foreign offices also maintain relationships with buyers and agents and have real-time knowledge of the market opportunities available for NC companies. Foreign office directors review trade policies which affect the market circumstances, assist foreign buyers in procurement of NC products, and promote brand awareness of North Carolina.

**Trade consultants are available for the following specific services:**

- Review product/company-specific assessment for marketability
- Market entry strategy recommendations
- Perform contact searches

- Analyze pricing information and competitive analysis
- Provide in-country assistance/visits with companies on a selective basis
- Make recommendations for fine-tuning of marketing/promotional documents
- Complete basic information reports on foreign companies

### Trade Events and Trade Shows

The International Trade Division monitors trade events worldwide and through this web page will keep you informed of events in your industry which can help you enter new foreign markets. Some events include a North Carolina “pavilion” of companies as well as ITD staff presence, while other listed events are included for your information only. We hope you will find our page a vital source of worldwide, industry-specific trade events information and encourage you to contact us with other events we should include.

• **Road Show** Each year the International Trade Division of the North Carolina Department of Commerce brings its export ready services to seven different locations across the state. Business executives have the opportunity to meet with Glenn Jackman, Textile and Apparel Business Development Manager, and North Carolina’s six (6) foreign trade representatives from – Toronto, Mexico City, Frankfurt, Tokyo, Hong Kong, and Seoul. In addition, there are representatives from the North Carolina Department of Agriculture, the US Export Assistance Center, the State Ports Authority, the World Trade Center of North Carolina, the North Carolina World Trade Association, the Small Business and Technology Development Center and the seven North Carolina Regional Economic Development Partnerships.

The Export Ready program is designed to prepare North Carolina businesses and business people to sell their products and/or services in the international marketplace. Experts will guide participants through the export process, with current detailed information and practical real life examples. For more information on the Road Show visit our website: <http://www.exportnc.com/roadshow>.

• **Textile Trade Symposium/Industry Days** An industry-specific program held each October for North Carolina textile and apparel business leaders who are actively seeking commercial opportunities overseas. Throughout the conference, NC Department of Commerce International Trade Representatives from Korea, Japan, China, Germany, Mexico, and Canada are available to discuss investment and trading opportunities in their regions. There is a diverse mix of presentations from academia, industry, and government and panel discussions.

### • Annual Trade Shows/Trade Events

-Magic International – apparel	Las Vegas, NV	August
-EXINTEX Textile Machinery & Supplies	Pueblo, Mexico	March
-Japan International Apparel Show	Tokyo, Japan	January
-Showtime - textile	High Point, NC	July
-ShanghaiTex – textile machinery & associated industry	Shanghai, China	June
-Heimtextil – textile home furnishings	Frankfurt, Germany	January
-Appalachia Meets Mexico Initiative	Mexico City, Monterrey	December
-NC Commerce European Mission	England, Finland, Germany	April
-NC Commerce Asian Mission	Japan, Korea, China	September

### Fast Track Service

The new ITD Fast track service will give NC firms quick entry into the 6 foreign markets where we have foreign trade representatives: Canada, Mexico, Japan, Germany, China, & Korea. The goal is to develop partners on an accelerated basis for NC export ready firms committed to finding contacts in these major markets.

The Department will build on the success of its international partnership service and add one additional step by having the NC firms get on a plane & meet with possible partners in the Dept’s foreign representatives’ offices to speed their entrance to the market. This new service was rolled out during the Spring 2001 Road Show on a pilot basis.

The NC Dept. of Commerce would basically ask the companies to fly to one of our six foreign trade offices at their own expense and we will schedule appointments for them in our representative’s office or at the foreign company offices with firms we have already developed as part of the partnership matching service.

The division has set a target of a 30 day turn around from receiving all NC company literature in the foreign representative’s office to actually having appointments confirmed with potential partners overseas.

### Education and Training

Learning about a new area of business requires expertise and management training. The International Trade Division staff can also refer you to educational programs and opportunities throughout the state, especially the Export Ready Program offered through the North Carolina Community College System, which can help you develop new skills to support your business growth. In their consultation with you, trade consultants can determine which available resource can help you acquire the skills you need.

### Export Financing

Though the International Trade Division provides no direct subsidies for exports, Trade Consultants can help you to identify public and private sources for funding

and insuring your overseas business expansion. Many of these funds are at favorable rates and terms to small and medium-sized enterprises. Contact our office to learn how you can tap into available resources.

### **Advocacy**

As we recognize the often unfair competition in the worldwide marketplace, the International Trade Division helps North Carolina businesses “even the playing field” in foreign markets by tapping into the collective might of the U.S. Government’s Advocacy Center in Washington, D.C. We encourage you to work with us to protect your products and markets through intellectual property protection, effective market research, and aggressive maintenance prior to the onset of a conflict. For more information about how this program works, contact our Division Headquarters in Raleigh today at (919) 733-7193

#### ***For more information regarding ITD services, contact:***

Glenn Jackman, Textile Business Development Manager  
301 N Wilmington St., Raleigh NC 27699-4320  
919 733-2829 • 919 733-7193  
gjackman@nccommerce.com

## **Cotton Incorporated**



COTTON INCORPORATED

### **COTTON INCORPORATED**

**6399 Weston Parkway**

**Cary, NC 27513**

Cotton Incorporated is the not-for-profit company established by U.S. upland cotton growers to carry out a coordinated program of research and promotion to improve and expand markets for cotton and cotton products. The company is supported by U.S. cotton growers and the importers of cotton textile products. Our primary mission is to increase the demand and profitability of U.S. cotton. In addition to the World Headquarters in Cary, North Carolina, the company has seven offices in the U.S. and worldwide.

The Cotton Incorporated Research Center is also located in Cary, North Carolina. Our laboratories are equipped with state-of-the-art instruments and textile processing equipment to conduct research and provide technical services to the textile industry.

At the Research Center, we are intent upon improving the fiber itself and all resultant products. The company is active in fabric development, dyeing and finishing developments, fiber quality improvement, fiber processing research and agricultural research. We provide (usually at no charge) information, problem-solving assistance and technical service to textile mills, manufacturers, and dyers and finishers. The agricultural, fiber quality and fiber management research and development programs are also directed from the Cary location.

Promotion, which refers to advertising, fashion marketing, public relations and retail marketing programs, is the main tool for increasing demand. U.S. promotion covers the entire textile chain, from the mill/manufacturer at the beginning to the retailer and consumer at the end. The overall promotion strategy is one of strengthening consumer preferences for cotton through consumer advertising to create product “pull through”, supported by a “push through” marketing effort directed at the mill, manufacturer and retailer to ensure that cotton products are available and are promoted in the marketplace.

The global marketing effort provides information and technical services to mills using U.S. cotton and encourages mills and manufacturers to use U.S. cotton and cotton products. The staff works directly with importers to enhance the usage of cotton in products imported into the U.S. Web Site address is [www.cottoninc.com](http://www.cottoninc.com), telephone 919/678-2220.

# Hosiery Technology Center



The Hosiery Technology Center (HTC) was established in 1990. The HTC is the only “hosiery specific” training center in the United States and was developed to provide training for the hosiery industry workers. Once established, however, we soon found that there were other needs to be addressed.

The following classes are offered by the HTC: knitting, seamer operator, knitter technician, boarding operators, and knitting machine electronics. Also, many seminars and workshops are offered on a variety of topics. Hosiery 101, Hosiery 102, and Hosiery Testing Methodology are some of the most attended seminars offered.

The HTC has a Dyeing and Finishing Laboratory and an Environment Laboratory. The Dyeing and Finishing Laboratory assists the industry in pursuing more environment-friendly procedures for dyeing and bleaching, and the Environment Laboratory assists the industry in the management of wastewater. The laboratories are here to serve the needs of the hosiery industry.

If you need help with non-English speaking employees the HTC can help in this area. HTC offers an “English as a Second Language” course on CD Rom. It is a multimedia course to teach non-English speaking employees the Basic English and job-specific vocabulary needed to function in the workplace. In total, the course contains over 1,200 photographs, plus hours of English audio, reinforced with the Hmong, Vietnamese, and Spanish translations.

Also, a teaching video is available to help anyone who needs to understand the basics of hosiery in a short amount of time. The Hosiery 101 Video Series consists of 5 tapes:

- Tape 1 – Sock terminology
- Tape 2 – Hosiery Yarns
- Tape 3 – Fabric Types
- Tape 4 – Stitch Formation
- Tape 5 – Machine Types

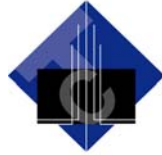
It is perfect for someone who is new to the hosiery industry and needs to get up to speed in a hurry!

In September 2000 the HTC opened a Standards and Testing Laboratory. Today the Center boasts a full service-testing laboratory that manufacturers and retailers can turn to for reliable hosiery testing services. The HTC uses the standardized test methods developed by the Hosiery Testing Consortium. The HTC hosts a website [www.legsource.com](http://www.legsource.com). This site has become indispensable to the industry. Today the website gets 4,000 – 5,000 hits a day from 450 unique users. For anyone interested in hosiery products, Legsource.com provides a central location to gather information. The manufacturers’ section has a human resource board, news board, question and answer section, and an online version of the industry magazine, LEGWEAR TRENDS & FASHIONS. Suppliers can post their information in the free, fully searchable database. The HTC staff maintains the website and are available to build websites for hosiery manufacturers and suppliers.

**The Hosiery Technology Center will assist companies with research and development projects. If a company has a product that they’re interested in developing, the HTC will help them by using all the Center’s resources to determine if the project can be run on hosiery equipment. It doesn’t have to be hosiery; it just has to be something that can be run on hosiery equipment.**

The Hosiery Technology Center’s services are continually evolving to help the hosiery industry compete in today’s economy. Information on the HTC training can be found by going to our website [www.hosetech.com](http://www.hosetech.com). For more information about the Hosiery Technology Center, Call 828-327-7000, extension 4292 or email [sockman@legsource.com](mailto:sockman@legsource.com).

## NC Center for Applied Textile Technology



The Center specializes in continuing education and extension instruction designed for the textile industry and is the only school of its kind in North Carolina. Unlike its community college counterparts, the Center's service area is not restricted to a surrounding county. NCCATT serves the entire state.

### *Examples of Courses Available:*

- Introduction to Textiles
- Supervisory Development
- Statistical Process Control
- Train-The-Trainer
- Pay-For-Knowledge Concept
- Statistical Process Control

### *NC Manufacturing Certification Program*

The days of the low-skill, low-wage factory job are over. Computerization and automation are here to stay. New, globally-accepted **quality** standards for all sorts of products require unprecedented **precision** in performance and measurement.

The concentrated courses are based on industry skill standards and, where applicable, national certifications, incorporating feedback from leading NC Manufacturers. They provide a jumpstart to a manufacturing career and further technical education.

The Center offers the Level 1 core courses and electives as well as the Level 2 Textile Technology courses.

### *NCCATT Programs*

#### **Continuing Education**

The Center Specializes in Continuing Education by offering a wide variety of courses and seminars in textiles, computers, and management. The classes range from one day to ten week sessions. The Center offers more one-on-one training by utilizing smaller classes.

#### **Customized Training**

NCCATT offers direct assistance to industry by designing highly specialized in-house training programs for companies and other organizations.

#### **High School Tech Prep**

The Center offers Tech Prep courses to Gaston County high school students. The students can take courses in Electrical Trades and Construction Technology. The program has had a positive impact for both NCCATT and the Gaston County School System. With more than 100 students each year, the program continues to prosper.

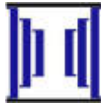
#### **Computer Testing**

NCCATT is an authorized Prometric Center. This allows the Center to administer Information Technology exams for students wanting to earn their A+, Cisco, Microsoft/MCSE, or other certification. The Center also provides Microsoft Office User Specialist (MOUS) training and testing.

**P.O. Box 1044  
7220 Wilkinson Boulevard  
Belmont, North Carolina 28012  
704.825.3737 • fax 704.825.7303  
[www.nccatt.org](http://www.nccatt.org)**

# NC Focused Industrial Training (FIT)

North Carolina Community College System



## PROGRAM BRIEF

As the state's traditional industries update operations to take advantage of rapidly evolving technology, many of them turn to the North Carolina Community College System for assistance in training workers in the skills new technologies demand. Since 1981 the Focused Industrial Training (FIT) Program has responded to a wide variety of training needs with a very significant number of the state's business or industrial firms.

Traditionally, FIT projects and training programs have been primarily directed toward veteran workers in manufacturing industries who need to renew their skills and technical knowledge; training assistance has been jointly planned by a sponsoring college and the participating industry to assure that the activities are focused on the reality of the identified needs

A special provision passed by the General Assembly in 2000 that expanded eligibility for the FIT Program to include industries "involved in the design and programming of computers and telecommunications systems." Therefore, in addition to manufacturing companies that were previously eligible (NAICS Codes 3111 through 3399) the action by the General Assembly and State Board made companies with the North American Industrial Classification codes 5112 and 5415 potentially eligible for some FIT program assistance.

FIT Centers are staffed with a director who works directly with industry personnel to assess training needs and develop training programs tailored to those needs. The director conducts and analyzes surveys within companies, develops and administers pre- and post-training tests to evaluate skills, determines skill and knowledge content of jobs, organizes that content into a learning sequence, and then jointly plans training that cannot be addressed through other existing occupational programs.

## INNOVATION

One of the most exciting new initiatives during the past two years resulting from utilization of the FIT Program resources has been the "launching" of the new *North Carolina Manufacturing Certification Program*. This is a unique new training program offered through North Carolina's community colleges, designed to provide North Carolinians with the enhanced career opportunities in manufacturing, and to provide North Carolina's manufacturers with a

world-class workforce. It was developed utilizing industry-based skill standards and national certification programs, manufacturing skill surveys, and interview feedback from representatives of leading North Carolina manufacturing companies. The program has garnered the recommendation of the National Association of Manufacturers' Center for Workforce Success, and the North Carolina Citizens for Business and Industry.

**The Manufacturing Certification Program consists of both a Level I fundamentals program and a Level II industry-specific program. The Level I: Fundamental Skills program provides successful completers with a solid base of fundamental manufacturing knowledge, and of preparation to further develop industry-specific skills. The Level II: Industry-Specific Skills program offers participants the opportunity to obtain more advanced skills in specific industry or manufacturing skills disciplines, as well as preparation to obtain industry-recognized skill certifications. Level II programs currently focus on the metals, plastics, textiles, and electronic industries.**

**It is pleasing to report that the Manufacturing Certification Program is increasing in popularity and has achieved positive results in the relative brief period since its introduction. Enrollment has steadily increased and well over 500 individuals have completed the required courses and received certificates of completion. Reports indicate that the program is being highly recognized by business and industry throughout the state.**

The North Carolina  
Community College System  
Economic and Workforce Development  
5003 Mail Service Center  
Raleigh, NC 27699-5003  
Telephone: 919-733-7051  
Web Page: [www.ncccs.cc.nc.us](http://www.ncccs.cc.nc.us)

Rick Kimrey  
Senior Director  
Customized Training & Development  
C/O Surry Community College  
P.O. Box 304  
Dobson, N.C. 27017  
Telephone: 336-386-9062  
E-Mail: [kimreyr@surry.cc.nc.us](mailto:kimreyr@surry.cc.nc.us)

## Applied Research

NC STATE UNIVERSITY

The College of Textiles (COT) at North Carolina State University is housed in a new 45 million dollar, 300,000 square foot research and teaching facility on the 1,000 acre Centennial Campus. The building contains a state-of-the-art Model Manufacturing Facility (MMF), consisting of individual laboratories that are capable of all manufacturing operations from spinning fibers to producing the end product. The MMF is the heart of the Applied Research Program for the College of Textiles as well as being an integral part of the education and basic research programs. The Applied Research Program bridges the gap between the traditional education, research and extension activities of the university and the Fiber-Textile-Apparel industrial complex.

NCSU College of Textiles  
Applied Research Office - Box 8301  
Raleigh, NC 27695-8301

Phone 919-515-3149 fax (919) 515-6629  
[www.tx.ncsu.edu/extension/service](http://www.tx.ncsu.edu/extension/service)

Dr. David Buchanan, Associate Dean for Research and Extension  
919-515-6649 or [david\\_buchanan@ncsu.edu](mailto:david_buchanan@ncsu.edu)

Cliff Seastrunk, Director of Extension and Applied Research  
919-515-6534 or [cliff\\_seastrunk@ncsu.edu](mailto:cliff_seastrunk@ncsu.edu)

## Professional Education

Professional Education courses are tailored to give practical, in-depth information and are presented by extension specialists, NCSU faculty, and invited industry guests. A list of the courses currently offered can be found at [www.tx.ncsu.edu/extension/service](http://www.tx.ncsu.edu/extension/service).

## In-Plant Education Program

The College of Textiles will develop an extension program to help your company compete in the next century with a program to meet your unique textile educational needs.

Professional Education Office - Box 8301  
Raleigh, NC 27695-8301  
phone (919) 515-3149 fax (919) 515-1342  
[www.tx.ncsu.edu/extension/service](http://www.tx.ncsu.edu/extension/service)

Wade Carter, Director of In-Plant Programs  
919-515-6536 or [wade\\_carter@ncsu.edu](mailto:wade_carter@ncsu.edu)

## Distance Education

The North Carolina State University Textile Off-Campus Televised Education (TOTE) program is designed to provide textile undergraduate and graduate courses to any individual seeking an improved textiles education or background (credit or audit). Presentations are actual classroom lectures complete with student questions and discussions. TOTE teaching faculty are professors in the College of Textiles. A Textile Certificate is also available. Certificates are available in the following: Advanced Textile Chemistry, Apparel Production, Dyeing and Finishing, Fabric Manufacturing, Textile Administration, Textile Fibers and Polymers, Textile Fundamentals and Yarn Manufacturing. A bachelor's degree is required to qualify for the certificate program. College of Textiles degree candidates are not eligible for the certificate program.

Teresa M. Langley, TOTE Program Director  
NCSU College of Textiles - Box 8301  
Raleigh, NC 27695-8301  
Phone: (919) 515-1532 Fax: (919) 515-8578  
[www.tx.ncsu.edu/academic/distance/index](http://www.tx.ncsu.edu/academic/distance/index)

**The Nonwovens Cooperative Research Center (NCRC)** was established as a State/Industry-University Cooperative Research Center (State/IUCRC) in 1991 as a result of a grant from the National Science Foundation (NSF). The NSF grant was matched by the State of North Carolina and grants from the nonwovens industry. The grants from the industry were in the form of membership dues. In addition to these sources, the Center has received and continues to receive grants, contracts and gifts from the industry. NCRC is a research center founded to serve the nonwovens and allied industries. It is housed in the College of Textiles at NC State University. Its functions are core research, non-core research, and technology transfer

**“NCRC WILL BE THE RECOGNIZED CENTER FOR NONWOVENS TECHNOLOGY, WORLDWIDE.”**

(Industrial Advisory Board, 1996)

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Phone (919) 515-1822  
[Behnam\\_pourdeyhimi@ncsu.edu](mailto:Behnam_pourdeyhimi@ncsu.edu)

Subhash Batra  
Co-Director  
Phone 919-515-6555  
[subhash\\_batra@ncsu.edu](mailto:subhash_batra@ncsu.edu)

## **The Center for Research on Textile Protection and Comfort (T-PACC)**

provides faculty and students with a coordinated environment where interdisciplinary problems related to textile comfort and protection performance can be studied and solved. The major goal is to support basic and applied research programs which will develop fundamental knowledge and

will be the basis for improved performance in comfort for clothing and protective clothing systems in various end use scenarios. The Center serves as a nucleus of activity for coordinating and managing diverse research projects in the area of combined textile comfort and protection. It draws on and unites the expertise of a diverse group of faculty and staff in order to utilize emerging technology and testing methodologies to strengthen the Nation's position in textile materials science, technology and industrial development.

**Center for Research on Textile Protection and Comfort (T-PACC)**

**Telephone: (919) 515-6550 Fax: (919) 515-2294**

**Email [t\\_pacc@ncsu.edu](mailto:t_pacc@ncsu.edu)**

**Director Roger Barker 919-515-6577 or [roger\\_barker@ncsu.edu](mailto:roger_barker@ncsu.edu)**

**Textile and Apparel Business Intelligence Consortium (TABIC)**

The Textile and Apparel Business Intelligence Consortium is a dedicated textile and apparel business research center. Its mission is to pursue knowledge and understanding of the dynamics of the industries and their markets around the world to support senior managers in the implementation of effective business change. TABIC provides accurate, timely, and high quality analysis of national and international markets and competition for individual clients and for company consortia.

**Director: Peter Kilduff**

**E-Mail: [pkilduff@unity.ncsu.edu](mailto:pkilduff@unity.ncsu.edu)**

**Phone: 919-515-1414**

**Fax: 919-515-3733**

**[Department Information](#)**

**Department of Textile and Apparel Technology and Management**

Please visit [www.tx.ncsu.edu/departments/tatm/](http://www.tx.ncsu.edu/departments/tatm/)

Dr. Trevor Little – Department Head

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## NCSU • Industrial Extension Service

[www.ies.ncsu.edu](http://www.ies.ncsu.edu)

919-515-5326

The Industrial Extension Service (IES) of NC State University provides education, training, and technical assistance to businesses and industries across the state. Created in 1955, IES is the oldest service of its kind in the nation.

Last year, IES provided \$209.5 million in direct annual gain to the state, as measured in an independent federal survey, on a budget of \$9.6 million (\$2.2 million from state appropriated funds; the rest from federal grants and fees.) This was accomplished through 8,103 technical service projects, 222 applied research/service contracts, and 490 continuing education courses serving 10,899 technical professionals.

As an extension of the University—with its long-standing tradition of engineering research, knowledge and experience—IES reaches into the offices and factory floors of North Carolina's small to medium-sized companies to help them stay competitive through a variety of programs:

**The Engineering and Technology Group** is part of the Manufacturing Extension Partnership (MEP), a federal program created to help manufacturers solve engineering and business problems. An IES engineering expert is located within 150 miles of any manufacturer in the state.

**The Lean Enterprise Advancement Program** (LEAP) assists manufacturers with implementing LEAN principles and practices (based on the Toyota Production System), which removes non-value-added activities in the manufacturing process.

**The Environmental, Health, and Safety Programs** offer training and consultation to companies about how to improve regulatory compliance in areas such as air and water quality, hazardous waste, and workplace safety. Training in ISO 14001, the international standard for environmental management systems, is also offered. Good environmental practices save money, while promoting human health and the health of the planet.

**The Advanced Performance and Standard Programs** promote quality and performance excellence by training companies on the Malcolm Baldrige National Quality Award criteria, North Carolina Quality Award criteria, and Six Sigma. The FORUM for Competitive Advantage hosts tours of exemplary manufacturing plants. IES also helps companies develop and maintain quality standards – ISO 9000, ISO 14000 and QS 9000 – that boost competitiveness in the global marketplace.

**The Energy and Facilities Management Programs** offer training and on-site technical expertise to help companies manage their resources. IES conducts workshops, surveys, and benchmarking assessments to help organizations identify inefficiencies and correct them. Investments in these programs get exceptionally high returns.

**The North Carolina Solar Center** serves as the state's clearinghouse and lead organization for solar and other renewable energy programs. North Carolina offers the most generous incentives in the nation for the use of renewable energy in the residential, commercial and industrial sectors.

**The Civil Engineering and Construction Programs** educate and advise industry professionals on best practices, tools and materials. IES brings the University's new knowledge to practitioners in the field, and relays practical problems and concerns of the field back to the University. Civil engineering and construction professionals save money, increase quality, and ensure safety.

## Small Business & Technology Development



SBTDC • 5 West Hargett Street, Suite 600 • Raleigh, NC 27601-1348 • phone 800-258-0862 • info@sbtcdc.org • www.sbtcdc.org

*a business development service of The University of North Carolina system operated in partnership with the NC Department of Commerce and the US Small Business Administration*

The SBTDC provides management counseling and educational services to small and mid-sized businesses. We help established firms, high-growth companies, and start-up businesses meet today's challenges, manage change, and plan for the future. Our services are well defined and are designed to meet our client's needs. We have over 50 management counselors in 17 offices across North Carolina – each affiliated with a college or university.

### Management Counseling

Our primary focus is management counseling. SBTDC counselors work with clients to develop a thorough understanding of their needs, then provide high-quality management counseling across a broad range of business-related issues, including:

- financing
- marketing
- human resources
- operations
- business planning
- strategy
- feasibility assessment

The SBTDC also collaborates with bankers, attorneys, accountants, university faculty and students, and a host of public and private business assistance organizations to ensure that clients' needs are addressed.

### Management Education Services

The SBTDC has carefully researched and developed educational products to fit the increasingly complex needs of today's small to mid-sized companies. Our educational programs focus on change management, strategic positioning, and leadership development. Among these are:

- *Strategic Needs Assessment* – designed to help owners and managers identify priorities and action strategies to evaluate their company in such areas as management vision, finance, marketing, human resources, operations, and information technology.
- *Management Performance Series* – tailored to a company's priorities in such areas as team building, attracting and retaining key people, sales performance, customer service, and career development.
- *Leadership Performance* – designed to help participants enhance their ability to lead through inevitable periods of change and learn what it takes to be a leader of the future.

## Government Procurement

The SBTDC's Procurement Technical Assistance Center (PTAC) assists businesses in their efforts to secure a share of government contracts by providing comprehensive assistance in selling products and services to the federal, state, and local governments. PTAC counselors can provide assistance in such areas as:

- researching contract award histories
- understanding solicitation requirements and terminology
- locating specifications and standards.

PTAC also conducts seminars and workshops on such topics as:

- how to do business with the government
- how to prepare bids and proposals

Businesses can find out about bidding opportunities by subscribing to PROBID, our electronic bid matching system. This service electronically searches the government databases and matches a company's products and services to federal and state needs.

## International Business Development

International Business Development (IBD) counselors help new-to-export, domestic market companies explore, identify, and target overseas markets for their products. The process begins with secondary market research. Research on market potential may cover trade statistics, industry reports, and country economic information. Trade counselors help businesses evaluate the findings and make recommendations for the business development process, and strategies for market entry and finding buyers. In addition, the SBTDC serves as North Carolina's City/State Partner for the US Export-Import Bank (Ex-Im Bank) which helps finance the overseas sales of US goods and services. The SBTDC also partners with the US Department of Commerce's Export Assistance Centers which offers numerous programs to help US exporters.

## Business and Research Services

The SBTDC Business and Research Services (BRS) staff performs a wide range of applied research for clients, counselors and the organization as a whole.

- Client research involves investigations of industry trends, supplier information, competition, and international market analysis.
- Industry studies provide industry-specific research for North Carolina including retail, restaurant, construction and tourism. Currently, we've contracted with North Carolina State University professor Peter Kilduff to conduct an industry overview of the **"US Market for Technical Textiles."** This study examines industry drivers and trends, and will be available on our website. Limited research services are provided at no cost to clients. Extensive projects, such as industry analyses or in-depth opportunity analyses, are provided on a cost recovery fee basis.

## Textile/Clothing Technology Corporation



[TC]<sup>2</sup>, Textile/Clothing Technology Corporation, created as a not-for-profit industry coalition in 1981, has evolved into a significant resource for the soft goods industry. In addition to the extensive products, services, support, and information exchange provided, [TC]<sup>2</sup> is:

- providing training and assistance in all aspects of sewn products manufacturing
- driving collaborative next generation supply chain strategies
- leading the world in 3D body scanning technology
- developing mass customization business models
- demonstrating digital printing capability on multiple substrates for testing, sampling, and production
- showcasing the latest in product development capability for full package production
- leading the industry's effort to establish fit criteria for apparel
- partnering with software vendors to integrate strategic business processes
- researching and disseminating information on the impact of WTO integration in 2005
- searching the world for appropriate technologies to bring to the soft goods industry

### *Consulting Services*

[TC]<sup>2</sup> is uniquely qualified to help manufacturers meet today's challenges. Our consulting staff consists of professionals with concentrated industry experience at both the operational and strategic planning levels.

### *Education and Training*

Thousands of professionals from all segments of the softgoods industry continue to benefit from [TC]<sup>2</sup> seminars, customized on-site training, and bilingual education tools.

### *Technology Development*

[TC]<sup>2</sup> plays a pivotal role in helping the industry understand and capitalize on evolving trends. Our engineers and scientists have multi-industry experience in technology development and deployment.

[TC]<sup>2</sup> assists companies who want to improve their current operations or are prepared to move to the next level in strategy and vision to improve their global competitive position. Call Karen Davis for an appointment at our center in Cary, North Carolina for a free consultation and demonstration.

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