

Textiles Research & Training Institute  
Textiles Research & Training Institute  
Eastern Michigan University™  
Eastern Michigan University™

**Short Course & Workshop Offerings  
2005 - 2006**

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## **Instructors:**

### **Ms. Cathryn Amidei, MFA:**

Cathryn's expertises are in textiles and weave structures. She has received numerous awards in artistic excellence. She has expanded her knowledge of weaving to incorporate Weaving Technology, Construction and Surface Design. She continues her work by incorporating her textiles into costume and apparel design. Cathryn has used fiber structures in her research for the US military. [cathryn.amidei@emich.edu](mailto:cathryn.amidei@emich.edu)

### **Professor Patricia Williams, MFA:**

Pat's expertise is in complex weaving, dyeing, and fiber arts. She currently is a professor in the Fine Arts Department where she teaches weaving, fiber design, dyeing and finishing. Pat has conducted several workshops on digital weaving and jacquard pattern development on a computerized loom. She is knowledgeable on Adobe design as it is applied to weave structures. Pat has developed a certificate program in jacquard weaving that is offered through EMU Continuing Education. [pwilliams@emich.edu](mailto:pwilliams@emich.edu)

**Subhas Ghosh, PhD.:** Subhas is a Professor and the Program Coordinator of the Apparel, Textiles and Merchandising program within the College of Technology. He is an expert in fiber science, polymer and fiber development, and technical textiles. He also has 10 years of industrial technical management and 30 years of academic teaching and research. He is a fellow of the Royal Textile Institute in England. [subhas.ghosh@emich.edu](mailto:subhas.ghosh@emich.edu)

### **Ms. Julie Becker, BFA, MS:**

Julie has worked in the furniture industry for over 13 years. Her area of expertise is the application of textiles and product development. She works with Gerber Technology Software (AccuMark) for pattern development and design. Through the Textiles Research & Training Institute, Julie has trained numerous companies on the CAD system for the automotive, furniture, marine and apparel industries. She has installed over 33 industrial cutters throughout the United States and currently is working on fiber and design research with Dr. Subhas Ghosh for the US military. [julie.becker@emich.edu](mailto:julie.becker@emich.edu)

### **Al Bellamy, PhD:**

Al is a professor in the College of Technology. He received his PhD. in organizational science from Purdue University. He has over 26 years of experience in designing and implementation of a large variety of management and leadership workshops for industry. [al.bellamy@emich.edu](mailto:al.bellamy@emich.edu)

### **Mr. Ed Wolfe:**

Ed has worked in the Automotive & Marine Industries as a pattern developer and supervisor for over 30 years. He is very knowledgeable on draping, tailoring, and creating patterns for various shapes. He has experience in cutting and sewing and many manufacturing methods and techniques. Ed has guest lectured at Eastern Michigan University on manufacturing and product development.

**Mr. Dave Heikkinen & Ms. Renuka Reddy** are graduate students in the Apparel, Textiles and Merchandising Program in the College of Technology. They have been working closely with Julie Becker on the Gerber Technology CAD software and hardware. They have experience in product development, various sewing applications along with embroidery machine design.

### **Mr. Paul Majeske, MS, BS:**

Paul Majeske is an Associate Professor of Communication Technology at Eastern Michigan University. His recent research work is in the area of multimedia use in the classroom. He is currently working on the statistical portion of a multi-year study that combines interactive learning modules delivered by CD-ROM/DVD-ROM and online with traditional delivery that involves students in almost game-like learning conditions. Paul's areas of expertise and interests are: printing and publishing; digital image capture; image assembly and manipulation; website user interface design; multimedia authoring and planning. [paul.majeske@emich.edu](mailto:paul.majeske@emich.edu)

### **Mr. Jim Collins:**

Jim is a senior account executive with Gerber Technology; his expertise is in the automotive, marine, and technical textile industries. He has worked for Gerber Technology for over 9 years and was an integral part of the development of industrial cutting systems for Cutting Edge. [jcollins@gerbertechnology.com](mailto:jcollins@gerbertechnology.com)

[www.emich.edu/trti/](http://www.emich.edu/trti/)

## CAD Training on the Gerber AccuMark Software Version 8 Half Day Workshop on Notching and Walking of Pattern Pieces

**Prerequisite:** Basic familiarity of the Gerber AccuMark Software

**Instructor:** Julie Becker  
**Enrollment:** Limited to 10 people  
**Course Fee:** \$200 per person

**Location:** Training will be in the Textiles Research & Training Laboratory, Room 214, Roosevelt Hall on Eastern Michigan University campus.

*Note: Special pricing and times can be arranged for in house training, contact Julie Becker for more information.*

**Date:** April 04, 2006  
June 23, 2006

**Time:** 8:30 – 11:30

**Objective:**

Utilizing the Gerber AccuMark software, you will learn about the software notch philosophy, notch definitions, and notch parameter table. With multiple pattern pieces, you will learn how to walk the pattern pieces matching and aligning notches and verifying the sewing accuracy.

**Features that would be covered in this workshop:**

|                            |                         |                           |
|----------------------------|-------------------------|---------------------------|
| Add notches/remove notches | Reference Notches       | Walking of Pattern pieces |
| Notch parameter table      | Modification of Notches | Seam Allowances           |

## 2-Day Basic Training on Gerber AccuMark Software

**Prerequisite:** Basic understanding of sewing and pattern development

**Instructors:** Julie Becker  
**Enrollment:** Limited to 10 people  
**Course Fee:** \$950 per person

**Location:** Training will be in the Textiles Research & Training Laboratory, Room 214, Roosevelt Hall on Eastern Michigan University campus.

**Date:** November 7 & 8, 2005  
January 18 & 19, 2006  
March 23 & 24, 2006

**Objective:**

This workshop will introduce the basics of the AccuMark pattern design software. It will start with basic set-up of the storage area, and identify and modify as needed its contents and parameter tables. Using PDS, you will then learn to manipulate points, lines and pieces, with an initial focus on “cleaning” up or editing the digitized pattern pieces. Next, you will learn the fundamentals of defining a model, an order, and a marker.

**Features that would be covered in this workshop:**

|                        |                    |                   |
|------------------------|--------------------|-------------------|
| Storage area set up    | Point manipulation | Line Menu         |
| Parameter table set up | Piece creation     | AccuMark Explorer |
| Reports                | Model creation     | Order creation    |
| Basic Marker making    |                    |                   |

## 2 -Day Intermediate Training on Gerber AccuMark Software

**Prerequisite:** Basic understanding of sewing and pattern development and knowledge of the basic features of the AccuMark software. Attendee should be using the PDS software but may not be aware of all the features available.

**Instructor:** Julie Becker  
**Enrollment:** Limited to 10 people  
**Course Fee:** \$950 per person

**Location:** Training will be in the Textiles Research & Training Laboratory, Room 214, Roosevelt Hall on Eastern Michigan University campus.

**Date:** November 9 & 10, 2005  
January 11 & 12, 2006  
March 20 & 21, 2006  
May 4 & 5, 2006

**Time:** 8:30-4:30

**Objective:**

This workshop will continue the training of the AccuMark pattern design software. It will start with an overview set-up of the storage area, edit and set-up of the parameter tables. Further creation of pattern pieces using point, line, piece, and notch menus. The menu items will be covered more in depth. Developing models, orders and marker making will be covered. DXF file conversion, block buffer tables, alterations tables, sew seam menu and cost reports will be reviewed.

**Features that would be covered in this workshop:**

|                        |                     |                |
|------------------------|---------------------|----------------|
| Storage area set up    | Point manipulation  | Reports        |
| Parameter table set up | Piece creation      | Model creation |
| Line Menu              | AccuMark Explorer   | Order creation |
| Marker making          | DXF file conversion |                |

## Half Day Digitizing Training on Gerber AccuMark Software

**Prerequisite:** Basic understanding of sewing and pattern development.

**Instructor:** Julie Becker  
**Enrollment:** Limited to 10 people  
**Course Fee:** \$200 per person

**Location:** Training will be in the Textiles Research & Training Laboratory, Room 214, Roosevelt Hall on Eastern Michigan University campus.

**Date:** December 19, 2005  
March 22, 2006  
May 11, 2006

**Time:** 8:30-11:30

**Objective:**

This software will cover how to use the AccuMark Digitizer input device. Using the cursor along with a series of pattern input commands, this workshop will allow the student to bring in pattern pieces to input into the computer system. You will learn how to identify internal lines, assign attributes to points, mirror pieces, edit and verify the pattern pieces. You will learn basic alteration techniques to clean up the pattern piece, set-up a grade rule table, alternate grain lines, internal cutouts, smooth points, non-smooth points, digitizing of oversized pattern pieces, and graded nest of pieces.

## 1 Day Advanced Training on Gerber AccuMark Software

**Prerequisite:** Knowledge of the AccuMark Pattern Design Software

**Instructor:** Julie Becker

**Enrollment:** Limited to 10 people

**Course Fee:** \$500 per person

**Location:** Training will be in the Textiles Research & Training Laboratory, Room 214, Roosevelt Hall on Eastern Michigan University campus.

**Date:** May 6, 2006

**Time:** 8:30-4:30

**Objective:**

This workshop will cover all the features of the PDS software. You will learn more techniques for pattern alterations covering pleats, darts, fullness and combine / merge pattern pieces. If you are faced with difficult pattern alterations, bring in your difficult pattern pieces and we will work on advancing your pattern making skills. Pattern knock-offs will be covered in this class. Understanding the industrial cutters and cut file set-up will also be included in this session.

## Sewing and Construction Workshop Basic Training (2- Day)

**Prerequisite:** Basic knowledge of sewing and operation of a sewing machine

**Instructor:** Cathryn Amidei

**Enrollment:** Limited to 10 people

**Course Fee:** \$100 per person plus a \$20 material fee

**Location:** Sewing & Construction Laboratory, Room 212, Roosevelt Hall - EMU

**Date:** May 20-21, 2006

**Time:** 8:30-4:30

**Objective:**

In this hands-on workshop, you will be introduced to the basics of a typical home sewing machine; the key components and controls, basic operation and general techniques. The importance of organizing your workspace, healthy posturing, and efficient operation will be discussed. Basic techniques of pattern development will then be covered with an exercise to develop a simple multi-piece pattern. With a completed pattern, you will be taught the proper way of transferring the pattern to fabric, cutting the pattern pieces out, and then sewing and assembling the resulting product. Pressing and ironing techniques will also be covered.

Janome sewing machines are available but you may bring in your own sewing machine to this training session.

## 1- Day Sewing & Construction Workshop – Sleeves

**Prerequisite:** Sewing and Construction Workshop – Basic Training or can display an ability to sew and assemble.

**Instructor:** Cathryn Amidei

**Enrollment:** Limited to 10 people

**Course Fee:** \$80 per person plus a \$20 material fee

**Location:** Textiles Research & Training Laboratory, Room 214, Roosevelt Hall -EMU

**Date:** May 5, 2006

**Time:** 8:30-4:30

**Objective:**

Sleeves are a simple yet critical part of many apparel items. However the attachment of the sleeve to the bodice pieces can be a difficult and often challenge the less experienced. This workshop first reviews the different types of sleeves and typical pattern pieces for each and then discusses the proper techniques for basting, fitting and attachment of the sleeve into the garment. Using already prepared muslin pattern pieces and a classroom sewing machine, the majority of the workshop will be spent in a hands-on manner so that each student can develop the necessary techniques under close supervision. Janome sewing machines are available but you may bring in your own sewing machine to this training session.

## 1-Day Industrial Sewing & Construction Techniques

**Prerequisite:** Sewing and Construction Workshop – Basic Training

**Instructor:** Ed Wolfe

**Enrollment:** Limited to 8 people

**Course Fee:** \$250 per person

**Location:** Training will be in the Sewing & Construction Laboratory, Room 212, Roosevelt Hall on Eastern Michigan University campus.

**Date:** March 18, 2005

**Time:** 8:30-4:30

**Objective:**

Class will start with an overview on the state of the industry for industrial sewing, to include a summary of the most common types of industrial sewing equipment used. The more common specialty equipment will also be introduced to include machines used for lock stitch, chain stitch and flat felled. The basics of how industrial sewing machines operate will be presented including an important discussion on safety. A few typical industrial machines will be demonstrated with opportunities for some hands-on. Key sewing techniques will then be demonstrated. Finally, samples of some industrial patterns will be presented, markings as they related to construction will be discussed, and manual walking of pattern pieces will be demonstrated to verify patten accuracy.

**Items to be covered:**

Basic terminology

Hands on sewing machines

Basic Draping

Basic Draping

Basic Sewing

Basic flat patterning

Use of measurement tools

Basic math

Walking of patterns

## 3 - Day Industrial Sewing & Construction Workshop for the Automotive and Marine Industry

**Prerequisite:** Sewing and Construction Workshop – Basic Training

**Instructor:** Ed Wolfe & Julie Becker

**Enrollment:** Limited to 8 people

**Course Fee:** \$600 per person for all 3 days plus a \$25 material fee

*Note: This course can be conducted on site at your facility, contact Julie Becker to arrange dates along with course fee.*

**Location:** The Sewing & Construction Laboratory, Room 212, Roosevelt Hall - EMU

**Date:** November 4, 5, & 6, 2005 class filled  
January 26, 27 & 28

**Time:** 8:30-4:30

**Objective:**

Class will start with an overview on the state of the industry for industrial sewing, to include a summary of the most common types of equipment used. The class will learn how to drape plastic over a shape, develop a hard pattern off the shape, and cut and sew the item to verify the development. Pattern development techniques will be demonstrated with opportunity for hands on from start to finish.

**Items to be covered:**

|                          |                       |                          |
|--------------------------|-----------------------|--------------------------|
| Basic terminology        | Basic Sewing          | Basic Draping            |
| Hands on sewing machines | Basic flat patterning | Use of measurement tools |
| Basic math               | Walking of patterns   | Pattern alterations      |

## Adobe Photoshop Elements – Basic Training

**Target Audience:** Jacquard Weavers and Surface Designers

**Prerequisites:** Experience using graphics soft ware

**Enrollment:** Limited to 8 participants

**Course Fee:** \$200 per person

**Location:** Eastern Michigan Campus location to be announced

**Date:** To Be Determined

**Time:** 8:30-4:30

**Instructors:** Pat Williams & Cathyrn Amidei

**Objectives:**

This 2 day workshop will cover image development and preparation for weaving and other surface design techniques. An introduction to the various tools and their adaptation for usage by textile artists is presented. Tasks specific to image and weave development for the TC-1 are covered. Color reduction and generating repeats are two important functions that will be covered in depth.

## Adobe Illustrator – 1 Day Basic Training

|                         |   |
|-------------------------|---|
| <b>Target Audience:</b> | Those Interested in an Introduction to an Industry-Standard Graphics Design Tool. |
| <b>Instructor:</b>      | <b>Paul Majeske</b>   |
| <b>Prerequisites:</b>   | Detailed Knowledge of Using Personal Computers and Windows                        |
| <b>Enrollment:</b>      | <b>Limited to 20 people</b>   |
| <b>Course Fee:</b>      | <b>\$350</b>  |
| <b>Location:</b>        | Roosevelt Hall Computer Lab at EMU  |
| <b>Date:</b>            | <b>Please contact Julie Becker for dates available</b>                            |
| <b>Time:</b>            | 9:00-3:30   |

### **Objective:**

In this one day workshop, students will discover the use of Adobe Illustrator which is the industry standard vector-based graphic tool for designing logos and creating professional graphics. Illustrator will be contrasted with bitmap design tools such as Photoshop. Illustrator's workspace will be introduced and basic navigation discussed including document and page setup. Each of the drawing tools and the various tool boxes will be explained together with several demonstrations. You will then be shown how to create a few graphic images from beginning to end. The student will work with colors, layers, text and editing tools. Finally, the use of Illustrator in the apparel and soft goods industry will be discussed.

Those students that are interested in tracing images, complex paths and/or just practicing under supervision are encouraged to sign up for the second day (2-Day workshop).

### **Features that would be covered in this workshop:**

- Shaping tools
- Bezier curves
- Working with type
- Pen tools
- Working with layers

## Adobe Illustrator – 2 Day Basic Training

|                         |   |
|-------------------------|---|
| <b>Target Audience:</b> | Those Interested in an Introduction to an Industry-Standard Graphics Design Tool. |
| <b>Instructor:</b>      | <b>Paul Majeske</b>   |
| <b>Prerequisites:</b>   | Detailed Knowledge of Using Personal Computers and Windows                        |
| <b>Enrollment:</b>      | Limited to 20 people  |
| <b>Course Fee:</b>      | <b>\$600</b>  |
| <b>Location:</b>        | Roosevelt Hall Computer Lab<br>Eastern Michigan University                        |
| <b>Date:</b>            | <b>Please contact Julie Becker for available dates</b>                            |
| <b>Time:</b>            | <b>9:00-3:30</b>  |

### **Objectives:**

This course continues where the 1-Day workshop left off. In addition to discovering the use of Adobe Illustrator workspace, navigation, and drawing tools, students will work with traced images, multiple paths and groupings. Guided practice using drawing tools and the various tool boxes will be explained together with several demonstrations.

### **Features that would be covered in this workshop:**

- Shaping tools
- Pen tools
- Bezier curves
- Working with layers
- Working with type
- Complex shapes
- Applying attributes, styles and effects
- Transparency and blending

## Technology Management within the Textile Industry

|                       |                       |
|-----------------------|-----------------------|
| <b>Instructor:</b>    | <b>Dr. Al Bellamy</b> |
| <b>Prerequisites:</b> | None                  |
| <b>Enrollment:</b>    | Limited to 30 people  |
| <b>Course Fee:</b>    | <b>\$200</b>          |
| <b>Location:</b>      | Halle Library-EMU     |
| <b>Date:</b>          | <b>April 25, 2006</b> |
| <b>Time:</b>          | <b>9:00-3:00</b>      |

### **Objectives:**

This course will describe the principles of technology management.

Technology Management will consist of:

- Assessment of the technology's capabilities relevant to enhancing the organization's competitive position
- Developing a strategy for new technology selection and implementation changes needed for effective technology deployment
- Principles of technology management
- Assessment of human resource capabilities and training requirements
- Utilizing project management skills for new technology implementation
- How to build a "team" from a collection of individuals
- Effective communication skills
- Proven methods for enhancing employee morale and performance
- Assessing your leadership skills
- How to handle employees with various type of personalities

## Emotional Intelligence: The New Paradigm for Leadership & Management Effectiveness

- Instructor:** Dr. Al Bellamy
- Enrollment:** Limited to 30 people
- Course Fee:** \$200
- Location:** Halle Library - EMU
- Date:** April 26, 2006
- Time:** 9:00-4:00

**Objectives:** Emotional Intelligence (EQ) represents one of the most intriguing new concepts in management and leadership development. EQ is the ability to manage one's emotions so that:

- They enhance the capability of forming effective work relationships with others
- Inappropriate behaviors do not interfere with making critical work judgments and decisions.
- Enable supervisors to manage conflict and mediate issues and to accomplish goals by working through as well as with others.

This type of intelligence is currently seen as more important than IQ or technical skills. Managers and supervisors who don't have a high EQ will probably have little success in managing others. The good news is, unlike IQ, Emotional Intelligence can be learned.

Supervisors and managers attending this workshop will obtain:

- A thorough understanding of each of the components of Emotional Intelligence
- An assessment of their EQ level using a validated measuring instrument.
- A description of how EQ is affecting their ability to manage the work of others
- A description of how EQ impacts their ability to apply critical thinking to important management decisions
- Ideas of how to improve their EQ

## 1-Day Textile Fiber Science Workshop

**Instructor:** Dr. Subhas Ghosh

**Enrollment:** Limited to 25 people

**Who should attend?**

- Quality Control Managers
- Engineers
- Supervisors
- Marketing Managers
- Buyers
- Educators
- Automotive Personnel
- Marine Personnel
- Furniture Personnel
- Anyone that works with fabrics

**Course Fee:** \$200

**Location:** Roosevelt Hall - EMU

**Date:** May 24, 2006

**Time:** 9:00-3:00

**Objectives:**

This workshop will cover the basic principles and classification of fibers and why it is important to your industry. Fiber composition, yarn structures, and general properties of the construction of fabrics will be discussed. Fiber structures, principles of fiber formation, morphology, and fundamental properties of fibrous materials unique chemical and physical properties along with basic manufacturing techniques will also be reviewed and discussed.

Basic yarn and fabric formation will also be covered.

# CutWorks & Industrial Cutting

- Instructor:** Jim Collins  
Julie Becker
- Enrollment:** Limited to 10 people
- Course Fee:** \$200 per person
- Location:** Textiles Research & Training Laboratory, Room 214, Roosevelt Hall -EMU
- Date:** December 9, 2005  
March 3, 2006
- Time:** 9:00-3:00

This course will cover working with the Gerber DCS2500 single-ply cutting system along with the CutWorks software. It will discuss proper tool path and optimization of the cut file for the machine. The course will go in depth on how to convert the geometry to map to specific tools on the machine. Additionally, the course will cover how to automatically nest the pattern pieces and re-tool path the marker for the best cuts and utilization of the cover.

Basic maintenance of the machine will also be discussed. There will be some demonstrations on the machine along with information on converting files from AutoCAD and the Gerber Technology pattern design system.

Items to be covered:

- Toolpathing
- Nesting
- Re-Cuts
- Digitizing
- Automatic nesting
- Optimization
- Plotting

# Registration & Payment Information

Course fees cover: individual computer for CAD classes, and program materials unless otherwise specified. Lodging, airfare and other meals are not included. A certificate of participation is presented to each registrant at the end of the session. All course offerings will be at the Eastern Michigan University main campus location. Visit [www.emich.edu](http://www.emich.edu) for campus map and parking location information.

*Checks should be made payable to Eastern Michigan University™*

Course Name: \_\_\_\_\_

Course Date: \_\_\_\_\_

Course Session number: \_\_\_\_\_

Name of attendee(s):

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Company Name:

Address:

Telephone number: \_\_\_\_\_

FAX number: \_\_\_\_\_

E-Mail address: \_\_\_\_\_

Purchase Order Number: \_\_\_\_\_

Charge to: \_\_\_\_\_ Master Card \_\_\_\_\_ VISA

EMU requires a signature for all credit card charges.

Account number: \_\_\_\_\_

Name on the Credit Card: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Signature of card holder \_\_\_\_\_

Mail your registration form with payment to:  
Textiles Research & Training Institute  
Eastern Michigan University  
206 Roosevelt Hall  
Ypsilanti, MI 48197

To register via e-mail, fax or telephone: contact **Marge Taylor at (734) 487-0354** or **Julie Becker at (734) 487-6419** or (734) 487-2490 leave message with dept. secretary.  
FAX (734) 487-7087 or e-mail [marge.taylor@emich.edu](mailto:marge.taylor@emich.edu)

**Registration deadline** for each session is 2 weeks prior to the session. You are not registered until payment has been received.

**Withdrawal/Cancellation Policy:** Any cancellation made after the registration deadline is subject to a \$50 non-refundable deposit fee. Cancellations must be made in writing. No cancellation after the course begins. You may, however send a substitute in your place. We are *not* responsible for expenses incurred if a course has to be cancelled. A course cancellation decision, due to insufficient registrations, will be made no later than two weeks prior to the course start date.

[www.emich.edu/trti/](http://www.emich.edu/trti/)

**Eastern Michigan University™**  
**College of Technology**  
**Textiles Research & Training Institute**  
**Short course schedule**  
Spring & Summer 2005  
(734) 487-6419

- Adobe Illustrator
- Adobe Photoshop
- Sewing & Construction
- Industrial Sewing & Construction
- Pattern Making for Auto & Marine
- Gerber AccuMark Software – several training options
- Emotional Intelligence
- Textile Fiber Science workshop

For more information or to register by phone call Marge Taylor or Julie Becker

Phone: (734) 487-0354  
Phone: (734) 487-6419  
FAX: (734) 487-7087  
E-Mail: [marge.taylor@emich.edu](mailto:marge.taylor@emich.edu)

**Textiles Research & Training Institute**  
**Eastern Michigan University™**  
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