



COMPUTER PATTERNMAKING USING PATTERNMAKER 7.5 Spring 2018

Wednesdays, Jan 31 – June 6, 2018
9 AM – 2 PM

Room 206 (Computer Room) and Room 211 (Sewing Room)

West City Campus
3249 Fordham Street
San Diego, CA 92110
Room 211

Instructor: Joan McKenna
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HOSPITALITY AND CONSUMER SCIENCES

SLOs, Visions, Missions

Program Purpose/Vision

The purpose is to provide San Diego Community College Continuing Education with non-credit courses consistent with the current Family and Consumer Sciences Program Plan for Community Colleges.

Mission Statement

Students completing courses or programs in San Diego Continuing Education's Hospitality and Consumer Sciences department will gain knowledge and skills in any of the possible subject matter offerings (foods/nutrition; culinary arts/hospitality/fashion productions/fashion merchandising/textiles/interior design/life management/consumer issues and personal development) in order to prepare for vocational careers in the above and to positively affect one's quality of life. The vision is to increase professional development, expand course diversity, enhance CE's image and grow enrollments in HCS.

SDCE Institutional Student Learning Outcomes

1. **Social Responsibility** - SDCE students demonstrate interpersonal skills by learning and working cooperatively in a diverse environment.
2. **Effective Communication** - SDCE students demonstrate effective communication skills.
3. **Critical Thinking** - SDCE students critically process information, make decisions, and solve problems independently or cooperatively.
4. **Personal and Professional Development** - SDCE students pursue short term and life-long learning goals, mastering necessary skills and using resource management and self-advocacy skills to cope with changing situations in their lives.
5. **Diversity** - SDCE students incorporate and use principles of civility and compassion as they develop knowledge and skills: recognizing, respecting and valuing the place and role of all individuals in their community.

Fashion Discipline Student Learning Outcome (SLO)

Students completing a fashion or fashion production course or program will be able to understand and apply concepts, technologies, related skills and techniques by successfully completing class projects in order to prepare for fashion careers.

Computer Patternmaking Student Learning Outcome (SLO)

Students will demonstrate their Fundamentals of Patternmaking course learning and competencies by using a computer patternmaking program to plot a master pattern, edit their measurement charts, design and construct their own original design.

Course Goals

Upon successful completion of the course the student will be able to:

1. Embrace industry specific nomenclature, reading, writing, math, communication and teamwork skills used to interact successfully with employers, customers, family and friends
2. Evaluate and problem solve using computer patternmaking methods and techniques
3. Combine computer patternmaking skills with other forms of patternmaking to attain the most efficient way of designing a garment
4. Assess information on entry level employment opportunities in the apparel and costume industry
5. Synthesize drafting and flat pattern manipulation skills for an entrepreneurial sewn product business venture, family, friends and personal use

Course Objectives

Students will demonstrate their class acquired learning and competencies through practical applications, plus written and oral communications. At the end of the course, with *reasonable attendance*, the student should be able to demonstrate the ability to:

1. Define, describe, and demonstrate computer patternmaking nomenclature, basic patternmaking tools and techniques
2. Measure a man, woman, child, dress form or doll and draft the measurements into a well-fitting pattern using computer patternmaking techniques
3. Design a sloper garment on a croqui silhouette drawing that flatters the body proportions of the fit model
4. Use the principles of computer drafting and flat pattern manipulation to pattern and problem solve an original design that fits your fit model
5. Demonstrate time saving equipment and techniques used in pattern production, such as but not limited to: planning, organizing, and sequencing
6. Purchase appropriate fabric and findings for a given fashion design to create the finished image desired
7. Identify skills that are transferable to the entrepreneurial career market including but not limited to: research, communication, soft skills, and patternmaking competencies

Methods of Instruction

Methods of instruction may include, but are not limited to: classroom lectures, laboratory classroom discussions, digital and hardcopy handouts, collaborative learning, peer guidance, demonstrations, patternmaking software programs, internet research, YouTube and other online videos, accounting and document processing programs, books on disk, textbooks, library building books, recommended readings, audio-visual presentations, field trips, guest speakers, completion of portfolios, student presentations, sewn projects, personalized attention, and other student projects. This course, or sections of this course, may be offered through hybrid distance education. To get individualized help: write your name on the white board in descending order under the word "Help."

CLASS 1 ORIENTATION (Room 206)

Course Notes

1. **Syllabus is always subject to change**
2. Register via computer or with smart phone
3. Email absences to instructor
4. Print this syllabus
5. This is an advanced course (good idea to know how to sew first)
6. Cutting in the Sewing Room
7. Take everything with you to class
8. Take notes and keep up with assignments
9. Always bring a 4 GB USB flash drive
10. Cleaning up after each class

Recommended Texts

Strongly recommended - Download from the 52 Patternmaker PDFs: Print Patternmaker version 7.5 Quick Start Manual (30 pages). Get this from the instructor on shared drive in Room 206 and save on USB.

Optional texts (check www.amazon.com): For Computer Patternmaking: *Custom Patternmaking with Patternmaker Software: A Step by Step Manual for the Professional Studio with an Introduction to Macro Generator* by Jennifer K. Smith.

For Hand Patternmaking: *The Practical Guide to Patternmaking for Fashion Designers: Juniors, Misses, and Women* by Lori Knowles. Note: Lori Knowles also published a Patternmaking book for men entitled: *The Practical Guide to Patternmaking for Fashion Designers: Menswear*

Course Assessment

A student's completion/competency from this course will be based on multiple measures of performance. Assessment will measure the development of independent critical thinking and demonstrable basic patternmaking skills. Final course evaluation of the student's ability will be based on, but not limited to, the following criteria:

1. Completion of a Student Learning Outcome self-evaluation form which evaluates the achievement of said outcomes upon completion of the course
2. Measure a man, woman, child, dress form or doll and draft the measurements into a well-fitting pattern using computer patternmaking techniques
3. Design a sloper garment on a croqui silhouette drawing that flatters the body proportions of the fit model
4. Use the principles of computer drafting and flat pattern manipulation to pattern and problem solve an original design that fits your fit model
5. Use the principles of drafting and flat pattern manipulation to pattern and problem solve an original design that fits your fit model
6. Demonstrate time saving equipment and techniques used in pattern production, such as but not limited to: planning, organizing, and sequencing
7. Purchase appropriate fabric and findings for a given fashion design to create the finished image desired
8. Identify skills that are transferable to the entrepreneurial career market including but not limited to: research, communication, soft skills, and patternmaking competencies
9. Student must attend 80% of all class hours per course. Missing more than 20% of the class hours of the course will affect their grade.

Note: There are no longer any Certificates of Completion for individual courses. There are certificates for Program Completions at graduation. This course is a skills builder course and is not in a program (the program is being developed now).

CLASS 1 CONTINUED

Introductions • Computer/phone registration • Student Learning Outcome sheets • Student authorization form • Sewing and cutting in Room 211; computers in Room 206 • TLC for the school's machines • Signing and sewing machines to use • Optional texts • Soft skills • Fandango field trip • Spring Fashion Show put on by Mesa College • Buying your project needs: fabric, notions, and lifetime sewing kit • Buying your project needs: fabric, notions, and lifetime sewing kit • Receiving help and learning from each other • Always list your name and topic on the "Help" board • Overview of patternmaking program • www.Patternmakerusa.com • *Always Save and Save As on flash drive* • DO NOT save files in Room 206 because it is on a shared drive • Cute PDF free software and plotter/printer discussion

Fandango (optional field trip)

A field trip to buy sewing supplies at Yardage Town and Central Sewing with Joan McKenna. Bring your syllabus and some form of payment (about \$100). My other classes may join.

First Saturday after first class (date): _____

9:30 AM: Yardage Town. 1043 Broadway, El Cajon 92021. Phone: 619-444-3206.

- DO NOT buy serger thread here
- Buy woven inexpensive light denim or pants weight fabrics, woven interfacing, some supplies
- Buy your pattern for Sewing Fundamentals II according to your bust/chest, waist, and hips

11 AM: Central Sewing East. 1125 North Second Street, El Cajon 2021. Phone: 619-447-3244.

- Corner template, Simflex, mechanical chalk pencil, bobbins, Schmetz needles, some curves and rulers
- Manila 150 pound paper

Optional lunch:

- MJ's Family Restaurant at 576 North 2nd Street, El Cajon 92021. (619) 444-1902.
<http://mjsfamilyrestaurant.com/>

Future Events

Mesa College Fashion Show (Saturday before Mother's Day)

Date: _____

Class 1 Homework

- Download and print from www.sewalongwithjoanie.com
- Obtain supplies needed for Class 2 (Do NOT miss this class)

Class 2 (DO NOT Miss)

Room 211.

If you are going to be working with a fit model, he/she needs to come. All fit models who enter this classroom must be human and over the age of 18. Wear or bring a bathing suit, body suit, leggings, a tight T-shirt, or exercise wear. You will need socks. We will be taking measurements to enter into Patternmaker and plot close fitting master patterns. Note: we will ONLY be measuring the main charts: Women's, and Men's. Dogs and children will have to be measured at home. Everyone needs to be at least 18 years old to be in the classroom. Remember: the program plots patterns based on measurements. They need to be very accurate. Come prepared! Read your syllabus cover to cover! There are directions for this class and supplies that are needed.

DO NOT LEAVE WHEN YOU ARE DONE BECAUSE THE INSTRUCTOR WILL TAKE CROQUI PICTURES OF YOU.

The class will break up into groups of 3: the Victim, the Scribe, & the Measurement Taker. Then, we will change positions until the entire group of 3 has been measured. This will get the job done in a timely manner. Remember the "victims" gets tired. Do not let them lose their perfect posture. Being FAST and ACCURATE is a necessity. We will ONLY be measuring the main chart for women or men. There is a handout.

Review all instructions BEFORE you take measurements. ALWAYS put the victim's name and the date on their measurement chart. Remember: Always measure at/to the bottom of the elastic.

Do the following prep before measuring (can be done before class):

- You will need an elastic for your bust, natural waist, abdomen, hips
- Fasten ends together with a safety pin BEFORE coming to class
- Mark the bust elastic "BUST" and put your name on it
- Mark the waist elastic "WAIST" and put your name on it
- Mark the abdomen elastic "ABDOMEN" and put your name on it
- Mark the hip elastic "HIP" and put your name on it

Supplies Needed to Measure for Patternmaker:

- 4 pieces of 1 inch wide elastic. Buy enough elastic to encompass your bust, NATURAL waist, abdomen, and hips.
- Bring a leotard, bathing suit, leggings, close fitting knit shorts, a close fitting knit tank top, T-shirt, sock (measurements are taken without shoes on)
- Great fitting bra
- Wash off marker. If you do not mind marks on your body: Sharpie FINE POINT Marker
- Pencils and eraser
- NEW measuring tape that will go around the largest part of your body
- Underarm/pan inseam tape measure
- An EVERYTHING scissors
- Weighted cord
- 6 inch sewing gauge
- Calculator
- 4 large safety pins
- Nice to have on hand: extra safety pins, 3" x 3" Post-it notes, dry line correction tape
- Women's or men's patternmaker measuring chart

Supplies Needed for Class 3 and Thereafter:

- 4 GB (or larger) USB flash drive. Bring to every class, with class downloads
- Function key strip (3 are attached to this syllabus)
- Access to a Staples, Office Depot or Fed Ex
- 3/4-inch Magic Tape
- Rubber bands
- Variety of pens and pencils
- Set of 4 colored Sharpie markers - Ultra-fine point
- Paper scissors
- 1 – 2 pattern hooks
- Fairgate plastic rule: 01-128(P). There is also one made by Dritz.
- Complete basic sewing kit
- One bobbin for a Pfaff 2036, or Bernina 130
- New or fairly new tape measure
- Broadcloth or muslin (INEXPENSIVE, non-stretch, solid color, woven. I always buy a bolt at a time. I would start with 8 yards and use discount coupons).
- Access to a sewing machine
- Access to a computer
- Non-matching thread
- Straight pins
- Fabric shears
- Thread nips or scissors
- Scrap fabric
- All sewing notions and supplies for final project to be discussed in class**
- The following are nice to have ONLY if you are going into this as a career.
 - Item #12-124 Vary Form Curve
 - Kit #15-102 Fashion Designer's Kit: L-Square, hip curve, armhole curve, 18-inch see through ruler, Booklet.
 - Patternmaking Tools: awl, 1/4" x 1/16" notcher

Class 3

Room 206. Bring your USB to every class.

Work on and complete making personal croqui in Microsoft Paint and PowerPoint (or Photoshop if you know how) • Complete your 4-view croqui in PowerPoint. Print it out, trace it, and put your name & date on it. If you give me your original croqui, I will PDF and make 10 copies of your croqui.

Download complete 7.5 Patternmaker documentation. Complete your croqui. In-between making your sloper, put Google pictures of what you want to pattern, in Patternmaker, on your USB. Use the pictures for inspiration. Draw your designs on your personal croqui. One style to one croqui. You need to show the same style on all 4 views of 1 croqui. These pictures can be colored or just sketched. You will need the approval of the instructor to pattern what you have drawn. (Trust me, I will NOT let you choose something that is above your skill level). **You will need to draw 5 garments. Two garments will be chosen to be patterned.** It can be a jacket and skirt, or an Historical Creation from 1795 with panniers, a corset, bodice, underskirt and skirt. Or a dress with a bolero jacket. Gentlemen can draw a shirt and pants. Bathing trunks and a shirt. Your final toile will be of woven fabric. (So will your final 2-piece collection). Design accordingly. Take this class period to finish the croqui and become inspired!

Croqui Silhouette

Make sure you have the required 4 pictures: front view, left side view, right side view and back view. Each picture should be complete from toe through hair. (Cell phone pictures work well.) Save often to your USB in jpg format.

Use Microsoft Paint. Keep the scale correct. But **DO NOT** make body narrow. Instead, CROP to make pictures long and narrow. Do not lose feet and hair.

In PowerPoint, select new slide. Landscape Orientation: 11 x 8.5 inches.
Resolution should be 300 – if you know how to do this.
Put the first picture on in the center. Use the side view.

Put the first cropped picture on the slide toward the center. Use a side view.

Select and import other 3 pictures.
Make sure the 4 pictures are all the same size: from head to toe. 7 to 8 inches.
The slide should be size 11 x 8.5.
From left to right, you should have: Front View, Side Views and Back View.

Save croqui picture in jpg format. Print completed picture two times.

Trace around the 4 silhouettes, manually. Now you will have a silhouette of each view: Front, 2 Sides, and Back on one sheet of paper. Use this as your original croqui. Keep in clear sheet protector.
Photocopy the original and design on your personal croqui.

Give the instructor a copy of your croqui. The instructor will PDF and give it back to you.

Download FREE Paint.net at <http://www.getpaint.net/> for use at home.

Class 4

Room 206. Introduction to Patternmaker software. Learn Patternmaker's tools.

Take a deep breath and let's jump in.

Bring your measurements and cut function key strip. Remember to save OFTEN to your USB. You will be creating your sloper(s). In this way, you will be checking whether or not your patternmaker measurements are correct. Bring a fairly new tape measure.

Follow Patternmaker instructions on the next page.

Open Patternmaker Program

Commands: Purple color = inactive. Green = active. Bottom blue bar = tells you exactly what you have to do.

Open Macro: Input your Measurements in Create Measurements.

Copy your original measurements file to your USB for safekeeping

Designer: Leena

Women 1 Collection

Fitting bodice and pants

Choose your measurements when program asks for MTBs

Choose minimum ease

Choose "0" seam allowances

Keep track with NOTES as to what happens when the pattern appears

Analyze. 100% OF THE TIME it is one or two measurements that are wrong.

Yes, the program requires tweaking! Once you get the sloper correct, the program is MUCH easier

Then all you need to worry about is the design and its changes to get that way

Keep notes as to what you are changing. There is always a way to get it to do what you want.

Ask Instructor for help. Don't let your frustration level go up.

When ANY pattern creates, save to USB (version 1, 2, etc.)

When you are satisfied, choose "1 inch" seam allowance

Print/Plot. Your choice. Move the fitting bodice and pants patterns with seam allowance to the pattern to 36" x 108" paper. Leave 1 inch space on each side. Save. ALWAYS GET THE OKAY FROM THE INSTRUCTOR TO PLOT/PRINT. I am is your safety check.

File

Print Set up

Choose: HP 500

Go into Properties

Paper Options

Choose 34 inches by 108 inches (this may not be long enough)

Paper Quality

Make sure source is a roll

Press Custom Button

Sometimes there is a "Select From" Place

If not, we can input the 34 inches by 108 inches

Press OK for the set up

Notice the page lines changed on the main patternmaker screen

Press "page up" to zoom out (Or use your function keys)

"Move" one piece at a time and put pattern pieces all on the page

Sleeve "sometimes" needs to be turned 90 degrees.

You can input the 90 degrees or rotate around the grainline.

Sometimes you get kicked out of the program. (fixed in version 7.5)

Need to save your work often. Remember to save to USB.

Press "page down" to zoom in (or use your function keys)

Add your name using print to each piece before you print. Save.

Print to Cute PDF and save to your USB.

You can plot at Staples, Fed Ex, Office Depot. Some places are better than others. Rancho San Diego Staples is the best! The cost is between \$15 and \$20 per pattern.

NEVER turn off your computer until you check that ALL your pattern(s)/PDFs are on your USB.

Supplies needed immediately after the initial printing (be prepared to “tweak”):

- Paper scissors and ¾ inch Scotch magic tape (green label.)
- One Dritz patternmaking ruler or if this will be future business: A set of patternmaking rulers.

Class 5

Room 206. Continue to work on perfecting your computer pattern slopers. Work with no seam allowances. We will put them on at the end before plotting. Make sure you text your name on each pattern piece. Add 1 inch seam allowances. Group pattern and seam allowances together. Plot/print to Cute PDF, put on your USB, and have the pattern plotted at Staples or FedEx or print at home.

Class 6

Room 211. Cut out your paper sloper patterns. Place on your ON GRAIN toile fabric (broadcloth or muslin). Sew it up with the school's Pfaffs or Berninas. Sew with NON-matching thread. Have a fitting with the instructor. You may or may not have additional changes to make to your patternmaker measurements before you start patterning your design. Note: Your inputted measurements must be as accurate as possible before you start patternmaking your original design.

Continue to sew your muslin toiles.

Final croqui designs due today. The instructor will photocopy them. This is the final date to have your final 2 garments croqui approved by the instructor.

Class 7

Room 206. In Patternmaker, let's find macros that are close to what you want your designs to look like. Input your measurements. Cute PDF the patterns with “FIT to Page.” You will use these patterns to show the instructor (in quarter size) the patternmaking technique to achieve your final garment designs.

Class 8

Room 211. Bring paper scissors, ¾ inch Scotch magic tape. Let's practice what you are going to do with Patternmaker's tools. The instructor will approve what you want to do. This will make your project time in Room 206 much more productive.

Class 9

Room 206. Begin our computer pattern final toile project.

Class 10

Room 206. Continue computer pattern final toile project. Remember interfacings, facings and other details as per Lori Knowles. Pattern your final garment toiles without seam allowances. Show instructor. Add seam allowances. Plot and print to Cute PDF.

Class 11

Room 206. Work on perfecting your 2 pattern garment toiles. Plot/print to Cute PDF, put on your USB, and have the pattern plotted at Staples or FedEx or print at home.

Within first 2 weeks in May, Mesa College will have their fashion show. Let's talk.

Classes 12-15

Room 211. Sew final toiles. Use woven cotton (pattern fabric OK). Have fittings with the instructor or peer.

Classes 16-17

Room 206. Learn to make a tech pack for your computer generated collection.

Class 18

Room 211. This is the final day of Computer Patternmaking. Pictures will be taken.

Fractions to Decimals

Commit to Memory

If you do not have this committed to memory now, you will - by the end of this course.
(There will be a pop quiz.)

$$\mathbf{1/16 \text{ inch} = .0625}$$

$$\mathbf{1/8 \text{ inch} = .125}$$

$$\mathbf{3/16 \text{ inch} = .1875}$$

$$\mathbf{1/4 \text{ inch} = .25}$$

$$\mathbf{5/16 \text{ inch} = .3125}$$

$$\mathbf{3/8 \text{ inch} = .375}$$

$$\mathbf{7/16 \text{ inch} = .4375}$$

$$\mathbf{1/2 \text{ inch} = .5}$$

$$\mathbf{9/16 \text{ inch} = .5625}$$

$$\mathbf{5/8 \text{ inch} = .625}$$

$$\mathbf{11/16 \text{ inch} = .6875}$$

$$\mathbf{3/4 \text{ inch} = .75}$$

$$\mathbf{13/16 \text{ inch} = .8125}$$

$$\mathbf{7/8 \text{ inch} = .875}$$

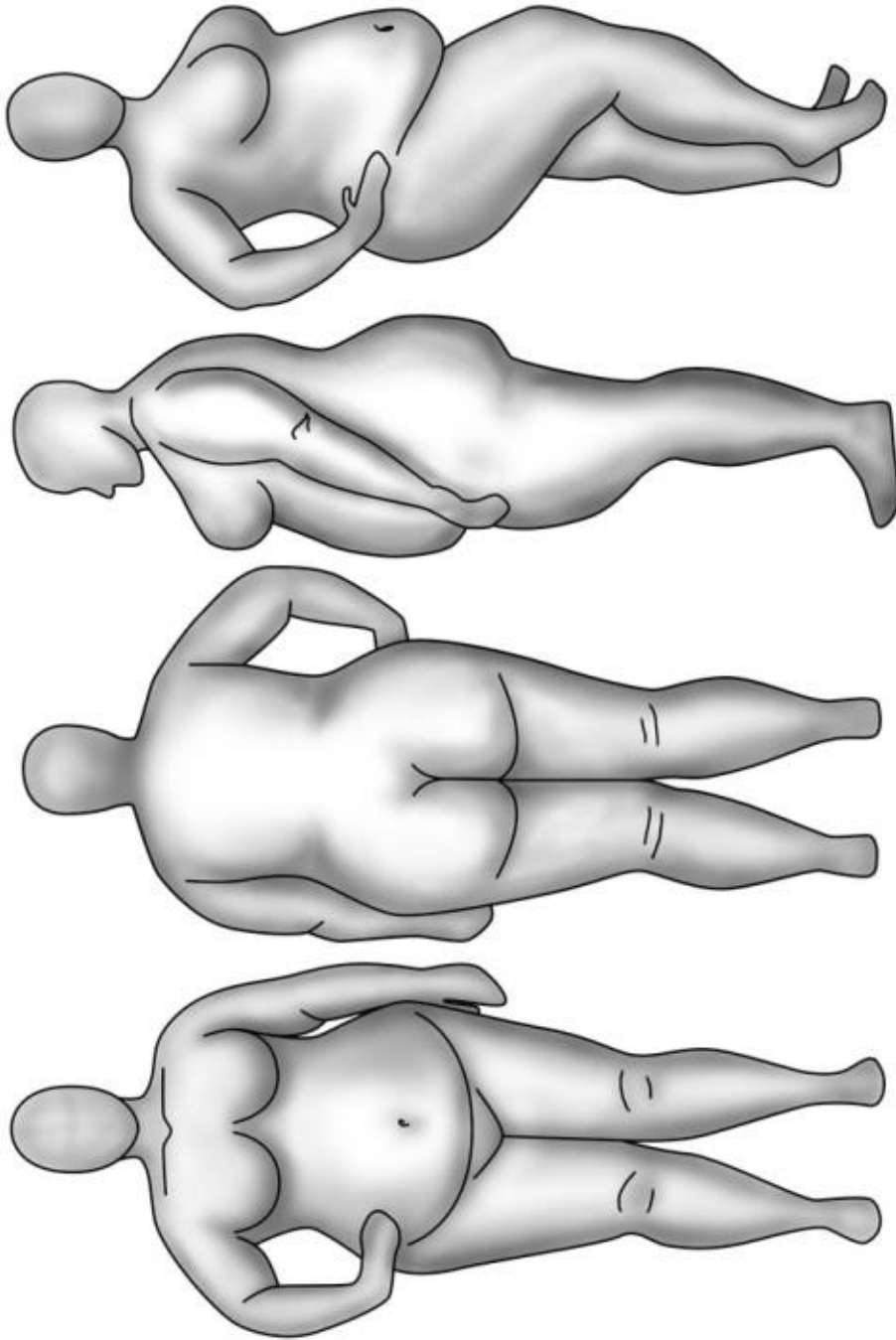
$$\mathbf{15/16 \text{ inch} = .9375}$$

$$\mathbf{1 \text{ inch} = 1.0}$$

Good to Know: $1/32 \text{ inch} = .03125$

$1/64 \text{ inch} = .015625$

Generic Croqui with 4 Poses



PatternMaker Software

Quick Guide to general PatternMaker concepts

Select command first, then select object(s) or point(s) to which the command will be applied

Left-click to select things, or to execute a command

Points to move, object to rotate, etc.

Right-click to stop selecting things, or to Cancel

Finish a selection set, or abort a command

Check the status bar to see the current command or most recent command. A command name **appears in purple** if it is active (the current command), and **appears in green** if it is inactive (the most recent command).

Check the command line for information on what the program is expecting you to do

The prompt returns to "Command:" when the previous procedure is completed.

Edit object commands found on the Edit menu

These commands affect entire objects (Move, Rotate, Cut, Erase, etc.)

Edit point commands found on the Point menu

These commands affect individual points (Delete Vertex, Move Vertex, etc.)

Use keyboard to enter precise coordinates

Relative, absolute, polar, or relative polar

Turn on yardage grid to estimate necessary fabric Set fabric width on the "Configure" form on the **Settings** menu.

Use "Print To Single Page" to create reference sheets

Automatically shrinks the entire drawing to fit on one piece of paper. Great for fabric layout diagrams!

Use special print commands to print or re-print specific parts of your pattern

Print Select prints one or more individual pattern pieces; Print Region prints a rectangular area of the drawing.

Read the User's Manual and use the Help file to find answers to your questions.



Patternmaker Control + F Key		Snap Off	Snap to Grid	Snap to End Point	Snap to Nearest	Snap to Ortho	Snap to Mid Point	Snap to Intersect	Snap to Offset	Snap to Meas. Dist.	Drag & Drop On/Off	Open Layers Box	Yardage Grid On/Off
Pg Up Pg Down Home End	Zoom Out Zoom In Z to Mouse Zoom all Pan	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
← ↑ →													

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← ↑ →													

er Patter

Patternmaker Control + F Key		Snap Off	Snap to Grid	Snap to End Point	Snap to Nearest	Snap to Ortho	Snap to Mid Point	Snap to Intersect	Snap to Offset	Snap to Meas. Dist.	Drag & Drop On/Off	Open Layers Box	Yardage Grid On/Off
Pg Up Pg Down Home End	Zoom Out Zoom In Z to Mouse Zoom all Pan	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12
← ↑ →													

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CHECKLIST FOR PORTFOLIO

Designer: _____

Date: _____

Presentation Date	Date Student Completed	Project
	1.	Final personal croqui
	2.	Final sloper patterns
	3.	Final sloper toile
	4.	Final 2 garment collection
	5.	Final garment patterns
	6.	Final garment toiles on finished garments
	7.	
	8.	
	9.	
	10.	
	11.	
	12.	
	13.	
	14.	
	15.	
	16.	
	17.	
	18.	
	19.	
	20.	