

La Cañada High School

Proposed Course Outline – Introduction to Sewing and Design

I. Course Title – Exploratory Arts - Introduction to Sewing and Design

II. Grade Level(s) – Grades 7-8

III. Length/Credit – 8-10 weeks - 2.5 units of 7/8 Elective Credit

IV. Preparations – There are no pre-requisites for this class

V. Course Description

The Exploratory Arts elective wheel is an approved course title that most typically features four topics that are each taught for one quarter. The structure of the Exploratory Arts elective course allows students to engage in introductory learning in a variety of topics such as commercial photography, culinary arts, video production, and digital media studies. Introduction to Sewing and Design is a new course to LCHS 7-12 that will join the above-mentioned Exploratory Arts elective wheel topics.

This eight to ten week course consists of three project-based learning units in which students draw on critical thinking skills, math concepts, and problem-solving skills as they learn how to operate a sewing machine, to construct various seams and hems, to lay out and cut a pattern, to make alterations, and to make their own clothing and accessories. Throughout all of these processes, students will work collaboratively to build technical skills, expand their knowledge of domain-specific vocabulary, make design choices, and solve design problems.

The first half of the class will introduce students to machine sewing as well as critical math concepts used in a variety of textile applications as students piece and create a pillowcase and a small quilt. In this segment of the class, students will learn how to operate and clean a sewing machine, distinguish among various sewing tools, and practice proper measuring, cutting, and construction techniques. Students will also apply math learning to date to real-world designs.

The second half of the class will focus on bag and garment construction. Students will gain a deeper understanding of the various functions and parts of the sewing machine and will be introduced to basic serging techniques. While constructing the final two projects, students will build on the sewing skills learned in the first unit, and use more complex mathematical concepts as they translate two-dimensional patterns into three-dimensional bags and garments. The second half of the class will teach students to read a commercial pattern, take measurements, make calculations that result in accurate alterations, examine the properties of various textiles, make judgements about the best tools to use for various projects, apply interfacing, and ultimately, to make their own laptop bags and garments.

By the end of the course, students will be able to describe design elements such as shape and form, perform basic sewing methods, understand textile vocabulary, identify fabric weaves and content, demonstrate correct sewing machine operation, read a commercial pattern, and they will have constructed 2-3 sewn projects. Concepts of fashion production and sustainability are also part of the course.

VI. Standards/ESLRs Addressed

1. California State Standards in English Language Arts, Mathematics, and Career Technical Education

A. English Language Arts Standards:

- a. CCSS.ELA-LITERACY.RST.6-8.7 - integrate quantitative or technical information expressed in words in a text with a version of that information expressed visually
- b. CCSS.ELA-LITERACY.RST.6-8.4 - Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to *grades 6-8 texts and topics*.
- c. CCSS.ELA-LITERACY.RST.6-8.3 - Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks.

B. Mathematics Standards:

- a. Standards of Mathematical Practice:
 - i. Make sense of problems and persevere in solving them.
 - ii. Reason abstractly and quantitatively.
 - iii. Model with mathematics.
 - iv. Use appropriate tools strategically.
 - v. Attend to precision.
 - vi. Look for and make use of structure.
 - vii. Look for and express regularity in repeated reasoning.
- b. CCSS.MATH.CONTENT.7.G.A.1 - Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
- c. CCSS.MATH.CONTENT.7.G.A.2 - Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
- d. CCSS.MATH.CONTENT.7.G.B.6 - Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

C. Career Technical Education Standards:

- a. A8.1 Know the basic process of manufacturing garments.
- b. A8.2 Identify equipment, tools, supplies, and software to construct or manufacture garments.
- c. FID.B.B3.1 Understand the elements and principles of design and their interrelationships.
- d. A8.11 Evaluate first-sample garments made from first patterns and make necessary adjustments.

VII. Brief Course Outline

A. Unit 1 - Constructing a Quilt

- a. Basic Sewing Techniques - Sewing ¼ inch seams on fabric
- b. The Sewing Machine - Threading the machine, placing bobbin and catching thread

- c. Sewing Practice - sewing on paper, straight lines, varying stitch length
 - d. Pinning, Cutting with Rotary Cutter, Pressing Seams
 - e. Color Combinations and Fabric Selection
 - f. Quilt Creations - Pillow Case Construction, Creating Blocks from Strips, Sew Borders on Quilt Top, Sandwich quilt top with batting and backing
- B. Unit 2 - Constructing a Bag- A Laptop or Messenger Bag
- a. Creating Outline of Bag - Prototyping with paper and fabric
 - b. Form Follows Function - Draft Bag using two-dimensional pieces into a 3-dimensional object.
 - c. Fabric Selection and Color Combinations
 - d. Develop Structure - Adding structure, depth, and volume to sewn projects
 - e. Constructing the bag - build on previously learned skills to create a bag with structural integrity.
- C. Unit 3 - Create Garment of Choice - Shorts or Skirt
- a. Commercial Patterns - Introduction
 - b. Commercial Patterns - Reading, cutting, and altering a commercial pattern
 - c. Altering and Completing the Garment

VIII. Methods of Assessment

Grades - Grades are comprised of projects, practice assignments, and occasional quizzes. Student grades in this class also involve meeting other responsibilities, such as showing up prepared for class and fully engaging in the creative process.

The following scale will be used for grade reporting:

90-100%	A
80-89%	B
70-79%	C
60-69%	D
59% and below	F

IX. Materials/Textbook(s)

Materials for all sewn projects are provided in class; however, students are welcome to purchase instructor-approved fabric if they wish, provided that the fabric is compatible with a current class project. Not all fabrics will work with a given project. Always check with the instructor prior to purchasing to make sure the fabric is compatible.

X. Seeking “a-f” Approval – Yes/No – No - 7/8 courses are not college preparatory in nature and are not submitted to the University of California for approval.

XI. Seeking AP Class Approval – Yes/No – This course does NOT seek AP approval.