

SEED Online Curriculum Syllabus

Through these online courses, you'll explore the fields of architecture, interior design, planning and urban design, and landscape architecture. You'll learn about the questions designers ask and the tools they use. You'll watch interviews with design professionals. And you'll practice common design techniques and tools.

This online curriculum is a partnership between the [Sasaki Foundation](#), [Sasaki](#), and [American Student Assistance](#) and is based on the 2020 Summer Exploratory Experience in Design (SEED) internship for Greater Boston high school students, hosted by the Sasaki Foundation.

Course 1: Planning and Urban Design

What is planning and urban design?

Site Analysis (41:37): Site analysis is the foundation of the design process. In site analysis, we ask why, so we can make sure any design solution matches the location's unique characteristics.

Urban Design (18:37): We'll hear two urban designers at Sasaki share their process of articulating design ideas through diagrams that visually summarize all the analysis of a project.

What questions do planners ask?

ACTIVITY: Research and Site Analysis

You'll define your neighborhood on a map, then explore and research your neighborhood.

What tools do planners use?

Data Tools: Planners use all types of tools, but most of the time they work with data and use software to understand trends and patterns.

Data Visualization (33:17): We'll hear from Sasaki Strategies—a group of data scientists who crunch data and visualize it for planning projects.

Chat with a planner and an urban designer.

Mary Anne Ocampo, urban designer (15:10)

James Miner, planner (15:03)

Course 2: Landscape Architecture and Ecology

What is landscape architecture and ecology?

Streetscaping (11:23): We'll learn about how streets have evolved since Roman times, and how street design is a vital part of today's urban social life.

What questions do landscape architects ask?

ACTIVITY: Streetscaping

You'll focus on your neighborhood's streetscape: the streets, sidewalks, and stoops that form the border between the public realm of the city and the private realm of the home.

ACTIVITY: The Natural Environment

You'll focus on wildlife and environments in your neighborhood.

What tools do landscape architects use?

Graphic Tools: Designers use software to make compelling images that describe their work. Landscape architects create graphics to bring their designs to life and communicate their ideas.

Chat with a landscape architect.

Kate Tooke, landscape architect (14:35)

Michael Grove, landscape architect (28:30)

BONUS: Urban Agriculture (16:13)

A farm in the city?! Believe it or not, city farming is booming. More and more city dwellers want to grow their own food and improve the ecology of their neighborhoods.

Course 3: Architecture and Interior Design

What is architecture?

Programming and Visioning (25:04): An architect and an interior designer tell us how values are at the heart of the design process, and how physical space can reflect a client's personality.

Materials (23:20): Buildings have to stand up. It sounds simple, but the physical constraints are what separates architecture from many other art forms.

What questions do architects ask?

ACTIVITY: Materials

You'll take a close look at the materials and construction methods in your neighborhood.

ACTIVITY: Programming and Visioning

You'll look at everything you've learned about your neighborhood and decide on a program for your project. Then you'll explore what you'd like that project to look like.

What tools do architects use?

Modeling Tools: Architects design buildings, so it's useful for them to see their designs in 3D.

Chat with an architect and an interior designer.

Chris Sgarzi, architect (11:55)

Elizabeth von Goeler, interior designer (9:05)

BONUS: Fabrication (34:57)

So much of design is about making physical mock-ups. In architecture, that often means working with fabrication tools like CNC routers, laser cutters, and 3D printers.

Course 4: Other Design Disciplines

By now you've seen how many different types of design there are—and we're only scratching the surface! Here, we'll cover a few other disciplines that use design methods and thinking.

Graphic Design (27:07)

Graphic designers, like all designers, are communicators. They work with text, images, illustrations, and other devices to communicate ideas and values.

Marketing and Communications (33:09)

Marketing and communications are key to the design process, and both disciplines are really centered on telling stories.

Industrial Design (28:05)

Industrial design, despite its name, is not the design of industrial areas. Instead, it's the design of things: physical objects!

Storytelling and Presentation Skills (45:58)

A central part of design is storytelling (also called storyboarding). Designers use words and images to communicate ideas.

Course 5: Design techniques and tools

Drawing

Drawing is at the heart of all kinds of design, but plenty of designers start off not even knowing how to hold a pencil. You'll learn basic drawing exercises to use throughout your design career.

Lines: This exercise helps with hand-eye coordination and steadying your hand motion.

Circles and Ellipses: Now, let's work on creating a perfect circle or particular ellipse.

Blind Drawing: Blind drawing gets you comfortable holding a pen and making marks on the page.

Exquisite Corpse: Play this game with friends to see the comic results of isolated group work.

Doodling: Calming and expressive, this method will help improve and solidify your art style.

Entopic Graphomania: Similar to doodling, you'll look at the finer details in your subject matter.

Architectural Drawing

You'll explore some of the most common methods designers use to convey their work. Illustrating a design solidifies ideas and creates a base for more design iterations.

Hatching: Hatching is a quick shading method to create depth in a piece.

Sections: Sections show a design's scale, and give a sense of the experience of a space.

One-point perspective: This is one of the fundamental ways of drawing any environment.

Two-point perspective: This next step in creating perspective adds an additional point.