

# HTML5 Web Animation with GreenSock

The GreenSock Animation Platform (GSAP) has become the industry standard for scripted animation due to its advanced features and incredible performance. This class offers a comprehensive exploration of GSAP. Learn how it can bring powerful & engaging animation to your interactive projects.

Group classes in NYC and onsite training is available for this course. For more information, email [hello@nobledesktop.com](mailto:hello@nobledesktop.com) or visit: <https://www.nobledesktop.com/classes/greensock>



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## Course Outline

### Section 1

#### Basic Tweening

- Loading Scripts
- Anatomy of a TweenLite Tween
- The TweenLite.to() Method
- Tweening Multiple Properties
- Easing

#### Creating a Simple Sequence

- The TweenLite.from() Method
- Relative vs. Absolute Values
- Pros and Cons of Sequencing with Delays
- Animating 2D Transforms Scale and Rotation

#### Creating an Image Slider

- jQuery's \$(document).ready() and .click() Functions
- Triggering Tweens with Buttons
- Tracking Code Changes in Chrome's DevTools
- Using Conditional Logic to Loop a Tween

#### Tween Control

- Using set() to create a 0-duration Tween
- Introducing the transformOrigin Special Property
- Controlling the Direction of Rotation
- Giving a Tween a var Reference

- The play() and reverse() Methods

## Section 2

### Tween Methods and Callbacks

- Getting and Setting Tween-Related Values
- Event Callbacks
- Changing the timeScale() of a Tween

### TweenMax

- Introduction to TweenMax
- Only in TweenMax: repeat, repeatDelay and yoyo
- Calbacks: onStart, onRepeat and onComplete

### Staggered Animation in 3D

- TweenMax's staggerFrom() Method
- Using transformPerspective to Animate in 3D
- Using transformOrigin in a 3D Tween

### TimelineLite

- Sequencing Tweens with TimelineLite
- Adjusting Timing with the Position Parameter
- Using Labels in a TimelineLite
- Modifying an Ease with Config()
- Seeking a Position Relative to a Label
- Creating an Animated Progress Bar

## Section 3

### TimelineLite Control

- Adding Play and Pause Buttons
- Adding Reverse, Resume & Restart Buttons
- Adding Timescale Buttons
- Configuring a jQuery UI Slider

### TimelineMax: Burger Boy Banner

- Creating the TimelineMax & Animating the First Panel
- Animating the Second Panel
- Animating the Third Panel
- TimelineMax's repeat and repeatDelay

### Promo: Starfield Particle Effects

- Creating the Starfield Timeline Within a Function
- Positioning the Stars
- Using math.Random() to Enhance the Animation

### Promo: SlowMo Ease

- Intro to SlowMo Ease

- Configuring linearRatio and power parameters
- Using jQuery each() to Create Unique Tween Parameters
- SlowMo yoyoMode

## Section 4

### Promo: Nested Timelines

- Nesting Timelines within a Parent Timeline
- Adding Individual Tweens to the Parent Timeline
- Making Provisions for Connectivity Problems

### Rocket Launch: TextPlugin

- Enabling TextPlugin
- Coding the Ready-Set-Go Countdown
- Creating a Dramatic Animation for "GO!"

### Rocket Launch: Special Eases

- Animating the Rocket with RoughEase
- Animated SpriteSheet Flames with SteppedEase
- Fine-Tuning the Timing and Launching the Rocket

### Board Member Biographies

- Using GSAP's ScrollTo Plugin
- Precise Positioning with jQuery's offset() Method
- Adding Functionality to the Navigation Buttons
- Tweening className with CSSPlugin