

3D Animation teaches students how to create their own animated 3D movie while also learning the fundamentals of animation. Using Blender®, a professional open-source 3D animation software, students use the same industry-standard techniques and workflows as animators in leading animation studios. By the end of the course, students will complete an incredible 3D Animation that they created from scratch.

This is a project-based course where students take on the role of creator. In addition to technical skills, students develop the creative, critical thinking, and problem-solving skills necessary to build amazing projects from start to finish. Throughout the course, students work with industry-standard tools used by professionals. If they need any help along the way with their coursework or projects, students can reach out to experts for support by e-mail, chat, or phone.

By the end of this course, students will have built an original, professional-grade project and developed the knowledge, skills, and confidence to become creators on their own, in further study, or professionally.

### Course Materials

All required materials are included with this course.

Length: One semester

## UNIT 1: WELCOME TO 3D ANIMATION

### LESSON 1: INTRO TO BLENDER

#### Study: Intro to Blender

Navigate in 3D and how to take the course.

Duration: 1 hr Scoring: 0 points

#### Review: Intro to Blender Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### LESSON 2: BLENDER BLUNDERS

#### Study: Blender Blunders

Conquer the most common Blender blunders.

Duration: 1 hr Scoring: 0 points

#### Review: Blender Blunders Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### LESSON 3: WRAP UP

#### Practice: Troubleshooting

Fix a broken file.

Duration: 1 hr Scoring: 15 points

#### Quiz: Quiz

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

#### Explore: Bonus Content

Explore extra content from the unit.

Duration: 0 hrs 20 mins Scoring: 0 points

## UNIT 2: GET THE BALL ROLLING

## LESSON 1: YOUR FIRST KEYFRAMES

### Study: Your First Keyframes

Move a ball across the stage.

Duration: 1 hr Scoring: 0 points

### Review: Your First Keyframes Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## LESSON 2: GET THE BALL ROLLING

### Study: Get the Ball Rolling

Animate the ball's rotation to make it look like it's rolling.

Duration: 1 hr Scoring: 0 points

### Review: Get the Ball Rolling Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## LESSON 3: BOUNCING

### Study: Bouncing

Use the graph editor to make a ball bounce across the stage.

Duration: 1 hr Scoring: 0 points

### Review: Bouncing Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## LESSON 4: WRAP UP

### Practice: Troubleshooting

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### Quiz: Quiz

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

## UNIT 3: ENTER NOBBIE

### LESSON 1: INTRODUCING NOBBIE

#### Study: Introducing Nobbie

Animate Nobbie as he bounces into the scene.

Duration: 1 hr Scoring: 0 points

#### Review: Introducing Nobbie Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### LESSON 2: FLIP OUT

#### Study: Flip Out

Make Nobbie flip over the ball.

Duration: 1 hr Scoring: 0 points

#### Review: Flip Out Review

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### LESSON 3: SET THE SCENE

#### Study: Set the Scene

Design the set for the animation to make a scene.

Duration: 1 hr Scoring: 0 points

### **Review: Set the Scene Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 4: WRAP UP**

### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

### **Explore: Bonus Content**

Explore extra content from the unit.

Duration: 0 hrs 20 mins Scoring: 0 points

### **Project: Checkpoint**

Upload your course project for review.

Duration: 0 hrs 15 mins Scoring: 30 points

## **UNIT 4: LET'S PLAY BALL**

### **LESSON 1: DODGEBALL**

#### **Study: Dodgeball**

Animate the ball hitting Nobbie in head.

Duration: 1 hr Scoring: 0 points

#### **Review: Dodgeball Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 2: THE BIG BALL**

#### **Study: The Big Ball**

Animate a giant ball chasing Nobbie off scene.

Duration: 1 hr Scoring: 0 points

#### **Review: The Big Ball Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 3: WRAP UP**

#### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

#### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

## **UNIT 5: MORE BONES**

### **LESSON 1: THE DOPE SHEET**

#### **Study: The Dope Sheet**

Add head wobbles to Nobbie's bounces.

Duration: 1 hr Scoring: 0 points

### **Review: The Dope Sheet Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 2: EYES WIDE OPEN**

### **Study: Eyes Wide Open**

Animate Nobbie's reactions using his head and eye bones.

Duration: 1 hr Scoring: 0 points

### **Review: Eyes Wide Open Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 3: BLINKING**

### **Study: Blinking**

Make Nobbie Blink throughout the animation.

Duration: 1 hr Scoring: 0 points

### **Review: Blinking Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 4: WRAP UP**

### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

### **Explore: Bonus Content**

Explore extra content from the unit.

Duration: 0 hrs 20 mins Scoring: 0 points

## **UNIT 6: SET THE SCENE**

### **LESSON 1: A WHOLE NEW SCENE**

#### **Study: A Whole New Scene**

Set up scene two with Nobbie, a new set, and camera.

Duration: 1 hr Scoring: 0 points

#### **Review: A Whole New Scene Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 2: COMPOSTING 101**

#### **Study: Composting 101**

Set up some compositing for the scene.

Duration: 1 hr Scoring: 0 points

#### **Review: Composting 101 Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 3: TURNING THE CORNER**

#### **Study: Turning the Corner**

Animate Nobbie dodging the rolling ball.

Duration: 1 hr Scoring: 0 points

### **Review: Turning the Corner Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 4: WRAP UP**

### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

### **Project: Checkpoint**

Upload your course project for review.

Duration: 0 hrs 15 mins Scoring: 30 points

## **UNIT 7: PILLARS AND PENDULUMS**

### **LESSON 1: THE PILLARS OF ANIMATION**

#### **Study: The Pillars of Animation**

Animate Nobbie jumping from three falling pillars.

Duration: 1 hr Scoring: 0 points

#### **Review: The Pillars of Animation Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 2: SWINGING PENDULUMS**

#### **Study: Swinging Pendulums**

Animate pendulums swinging.

Duration: 1 hr Scoring: 0 points

#### **Review: Swinging Pendulums Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 3: THE PENDULUM DANCE**

#### **Study: The Pendulum Dance**

Move Nobbie through swinging pendulums.

Duration: 1 hr Scoring: 0 points

#### **Review: The Pendulum Dance Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 4: WRAP UP**

#### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

#### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

## **UNIT 8: SWING SET**

### **LESSON 1: HOP ON!**

**Study: Hop On!**

Make Nobbie hop onto a swing by constraining him.

Duration: 1 hr Scoring: 0 points

**Review: Hop On! Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 2: IN THE SWING OF THINGS****Study: In the Swing of Things**

Animate swing higher and higher.

Duration: 1 hr Scoring: 0 points

**Review: In the Swing of Things Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 3: FLYING OFF THE HANDLE****Study: Flying off the Handle**

Remove Nobbie's constraints to exit the swing.

Duration: 1 hr Scoring: 0 points

**Review: Flying off the Handle Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 4: WRAP UP****Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

**Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

**UNIT 9: HOME STRETCH****LESSON 1: THE BIG BALL IS BACK****Study: The Big Ball is Back**

Add a giant ball chasing Nobbie.

Duration: 1 hr Scoring: 0 points

**Review: The Big Ball is Back Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 2: LEAP OF FAITH****Study: Leap of Faith**

Animate Nobbie leaping over chasm.

Duration: 1 hr Scoring: 0 points

**Review: Leap of Faith Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 3: WOBBLES ALL AROUND****Study: Wobbles All Around**

Animate the head wobbles in scene two.

Duration: 1 hr Scoring: 0 points

### **Review: Wobbles All Around Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 4: WRAP UP**

### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

### **Explore: Bonus Content**

Explore extra content from the unit.

Duration: 0 hrs 20 mins Scoring: 0 points

## **UNIT 10: CAMERAS**

### **LESSON 1: CAMERA ANIMATION**

#### **Study: Camera Animation**

Animate the camera as it follows Nobbie in scene two.

Duration: 1 hr Scoring: 0 points

#### **Review: Camera Animation Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 2: WOBBLER N' SHAKES**

#### **Study: Wobbles n' Shakes**

Add natural wobbles and shakes to the camera.

Duration: 1 hr Scoring: 0 points

#### **Review: Wobbles n' Shakes Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

### **LESSON 3: CALLING ALL CAMERAS**

#### **Study: Calling All Cameras**

Add cameras and switch between them in your animation.

Duration: 1 hr Scoring: 0 points

#### **Review: Calling All Cameras Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

## **LESSON 4: WRAP UP**

### **Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

### **Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

## **UNIT 11: TIE IT ALL TOGETHER**

### **LESSON 1: OPENING CREDITS**

**Study: Opening Credits**

Add a title and name to your animation.

Duration: 1 hr Scoring: 0 points

**Review: Opening Credits Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 2: THE FINAL SEQUENCE****Study: The Final Sequence**

Tie the scenes together and add some music.

Duration: 1 hr Scoring: 0 points

**Review: The Final Sequence Review**

Review key concepts and skills from the lesson.

Duration: 0 hrs 10 mins Scoring: 0 points

**LESSON 3: WRAP UP****Practice: Troubleshooting**

Fix a broken file.

Duration: 1 hr Scoring: 15 points

**Quiz: Quiz**

Take a quiz to assess your understanding of the material.

Duration: 0 hrs 20 mins Scoring: 10 points

**UNIT 12: EXPORT AND SHARE****LESSON 1: STANDARDS OF EXCELLENCE****Study: Standards of Excellence**

Create a professional animation.

Duration: 1 hr Scoring: 0 points

**LESSON 2: RENDER, BLENDER****Project: Render, Blender**

Upload your course project for review.

Duration: 1 hr Scoring: 200 points

**UNIT 13: ADVANCED TOPICS****LESSON 1: SLOW MOTION****Study: Slow Motion**

Create slow motion in your scene.

Duration: 1 hr Scoring: 0 points

**LESSON 2: PARENTING A HAT****Study: Parenting a Hat**

Learn how to parent a hat.

Duration: 1 hr Scoring: 0 points

**LESSON 3: CREATING A NEW ANIMATION****Study: Creating a New Animation**

Create a new animation from scratch.

Duration: 1 hr Scoring: 0 points