

In Mod Design 1, students learn the fundamentals of Java™ programming by creating their own Minecraft® Mod for the PC/Mac version of Minecraft®. For every item, block, or creature they want to add, students will first design and then code their object in Java. At the end of the course, they will have their own polished Mod 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 MOD DESIGN 1

- Lesson 1: Start Modding
- Lesson 2: Intro to Java
- Lesson 3: Wrap Up

UNIT 2: A WHOLE NEW SWORD

- Lesson 1: Draw Your Sword
- Lesson 2: Wield Your Sword
- Lesson 3: Craft Your Sword
- Lesson 4: Wrap Up

UNIT 3: YOUR PICK

- Lesson 1: Pick Your Colors
- Lesson 2: Mine in Style
- Lesson 3: Forge a Material
- Lesson 4: Wrap Up

UNIT 4: BRAND NEW ITEMS

- Lesson 1: Item From Scratch
- Lesson 2: Calling All Methods
- Lesson 3: Mmm...Food
- Lesson 4: Wrap Up

UNIT 5: ORE GALORE

- Lesson 1: Block Party
- Lesson 2: Ore Properties
- Lesson 3: Loop - There it is
- Lesson 4: Wrap Up

UNIT 6: SUIT UP

- Lesson 1: That's a Wrap

- Lesson 2: Armor Code
- Lesson 3: New Armor Material
- Lesson 4: Wrap Up

UNIT 7: A BIOME BY YOU

- Lesson 1: A Biome By You
- Lesson 2: Change the World
- Lesson 3: Wrap Up

UNIT 8: CUSTOM CREATURE

- Lesson 1: Your Very Own Mob
- Lesson 2: Harvest Some A.I.
- Lesson 3: Mob Spawning
- Lesson 4: Wrap Up

UNIT 9: WAY MORE INSTANCES

- Lesson 1: New Items, For Instance
- Lesson 2: A New Class of Biome
- Lesson 3: Wrap Up

UNIT 10: NEW FRIENDS

- Lesson 1: Two Mobs in a Mod
- Lesson 2: Higher Intelligence
- Lesson 3: Wrap Up

UNIT 11: ENTER THE INTERFACE

- Lesson 1: Achievements Get
- Lesson 2: Handle It
- Lesson 3: Create a Creative Tab
- Lesson 4: Wrap Up

UNIT 12: PACKAGE IT UP

- Lesson 1: Standards of Excellence
- Lesson 2: Pack up your Mod

UNIT 13: ADVANCED TOPICS

- Lesson 1: Exploding Projectiles
- Lesson 2: Animated Textures
- Lesson 3: Second Set of Armor
- Lesson 4: Export your Mod