Scoring

Part 0: Properly turned in assignment – 10%

Part 1: Create title screen and UI – 20%
> *This includes all menus.*

Part 2: Render arena with player movement – 10%
> *At this point there will be no collision detection on the player.*

Part 3: Render enemies with basic AI – 10%
> *Enemies will walk towards the player.*

Part 4: Add collision detection to the arena – 10%
> *The player and enemies will not be able to walk through obstacles or each other.*

Part 5: Hitboxes, attacks, and health – 10%
> *The player and enemies will be able to attack, deal damage, and die. Attacks will need a time delay between them.*

Part 6: Render player weapons – 10%
> *Render the player's weapon and allow the player to select different weapons. This will involve adding attack types as well as a weapon spawn and switch system.*

Part 7: Animate movement and attacks – 20%
> *Add animations to all player and enemy movement and attacks.*

Total: 100%

Extra Credit:

Jumping – 2%
> *The player can now jump. Jumps can clear short obstacles.*

Additional arena with obstacles – 2%
> *Add Arena 2 or Arena 3 listed below. Credit can only be received for one.*

Damage numbers – 2%
> *When enemies take damage, display a damage number above their head for 0.5 seconds.*

Additional weapons – 2%
> *Add one of the extra weapons (or something similar) listed below. Credit can only be received for one additional weapon.*

Additional enemies – 2%
> *Add one of the extra enemy types (or something similar) listed below. Credit can only be received for one.*

Waves – 2%
> *When all enemies are defeated, more will spawn after a 5 second delay. Show a message telling the player which wave it is. If additional weapons are implemented, spawn a new weapon.*

Weapon Types

Sword – Basic, high damage melee weapon. Range 90 degree 2 meter frontal cone. 2 second attack timer.

Wand – Basic, low damage ranged weapon. Wands will instantly damage the first thing in line of sight. No projectile or ammunition. No range limit. 0.5 second attack timer.

Bow – Low-high damage ranged weapon. Attacks can be charged over 2 seconds, increasing damage and velocity. Projectile weapon, limited ammo. Projectile follows parabolic path and damages the first target hit. No cooldown.

Lightning Staff – Medium damage ranged weapon. Continuously damages the nearest enemy in a 120 degree 20 meter frontal cone. Limited ammo. No cooldown.

Fireball – High damage ranged weapon. Creates a 5 meter radius explosion at a target location or enemy. 4 second cooldown. Limited ammunition.

Arena Types

Arena 1 – Basic octagonal arena, lights on each wall. Dungeon themed, no obstacles.

Arena 2 – Arena 1 but with obstacles. Forest themed, obstacles are trees.

Arena 3 – Volcano theme, obstacles are rocks and pits of lava. You can fall into the pits of lava and die.

Wall Types (for arena obstacles)

Tall: You can't see over this.
Medium: You can see/attack over this but can't jump it.
Short: You can jump this but can't walk over it normally.

Enemy Types

Zombie – Basic melee enemy. Deals damage when it collides with the player. Slight knockback on hit.

Wizard – Ranged enemy. Uses projectile attacks that the player can dodge. No knockback.

Flying – Ranged enemy that moves around the air in a box

Ghost – Enemy that ignores unit collision and can move through walls