**Link to Slides and Example Project:**

<https://drive.google.com/drive/folders/1gl7S-Ezv8WQAsnLK8ntHLOmws4AK1gBU>

Suggested Tutorial:

<https://www.youtube.com/watch?v=kFaEf8V8XYY>

The same project can be found in the Epic Launcher under Learn -> Office Blueprint

**Notes:**

Workflow

* First light pass: start from scratch -> no lights, only the emissive materials.
  + Focus on main light sources first
* Second light pass: Light corners with fill light

On specific lights:

* **Fill lights** are lights that are used to help achieve the mood of a scene, help create a specific effect (scene colour, for example, or simulate bounce), or improve visibility in dark areas (never let areas completely dark!)
* When setting **directional lights**, it’s generally better to use temperature instead of colour

Specific properties:

* **Source radius** of lights can be observed in reflections
  + Pay attention so that players can’t see that there’s an invisible light emitting stuff there
  + The reflections can also be used to help you place the lights
* **Soft source radius** softens the look on surfaces, thus can make everything look quite flat
* **Use Inverse Squared Falloff** is usually good for fill lights
* **Shadow Bias** change the accuracy of the shadows
  + It can help with precision of soft shadow
  + What the lecturer most uses when she needs to adjust shadows

Other elements:

* **Lightmass Importance Volume**
  + It what tells the engine what to render -> use this volume when setting up baked (static) lights, so that you don’t have to keep re-building the entire scene with every change, but can rebuild just that specific area
* **Auto-exposure** can be turned off by:
  + using a post-processing volume under Lens > Exposure > Min Brightness and Max Brightness should be the same value (around 1 is standard)
  + Can be switched off in Character Blueprints also
  + Can be switched off for the Viewport under the 3rd Button (Usually “Lit”) > Uncheck Game Settings (very bottom, under the headline “Exposure”)
    - Turning off for the viewport not necessarily turns it off in-game
* **God rays** (light shafts) can be adjusted under Directional Light > Light Shafts
  + When god rays are wanted in a place where the player can’t access, it’s cheaper to use a cylinder mesh with a translucent texture that simulates the look of god rays.
* It’s possible to use a **colour look up** table to apply filters from Photoshop to your scene. You need to export the look up table from Unreal, apply the filters to a screenshot of your scene, apply the same filters to the table, and then reimport the table into Unreal in the Post Process Volume