**How to learn machine learning**

**Theory and practical**

**Theory:  
1. Goal/ aim of given model**

**2. Basic structure of a given model**

**3. The properties of the cost/ loss function and the model**

**4. The proof for those properties (optional in real life, but it is important in our course)**

**5. The interpretation and applications for those properties.**

**Practical:**

1. **When we could use the model, and how to apply the given model**
2. **How to learn the model (estimating the parameters) and how to choose the hyperparameters and what is the standard for choosing it.**

**If we calculate it by hand,**

1. **Calculate the mean of x and y**
2. **Calculate the covariance and variance, cov(x,y), var(x)**
3. **Calculate the w1 and then w0**