



Planning, recording,  
editing – how to  
make educational  
videos

# Programme

- Video production at Section for teaching and learning support
- Use of screencast videos in maths
- Questions

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# Seksjon for læringsstøtte

- Del av Avdeling for utdanningskvalitet som ligger under prorektor for utdanning
- Støtter NTNU i utviklingen av **varierte og studentaktive** undervisnings-, lærings- og vurderingsformer
- **Jobber** målrettet med **bedre koordinering** av NTNUs støtteenheter i alle tre campusbyer **for** et likeverdig og helhetlig tilbud

## Lokasjoner:

- **Trondheim**
- **Ålesund**
- **Gjøvik**





# The three stages of video production



## Planning

Topic, idea, scope, concept, script out your video (storyboard)



## Recording

Use phone, video camera, microphone



## Editing

Finding relevant graphics, sound, trimming

# Creating videos

## Aims and target audience

- What are you trying to achieve with your video?

## Communication

- Who are you talking to?
  - Think about how to adapt the language and content to your audience. Be personal.

## Universal design

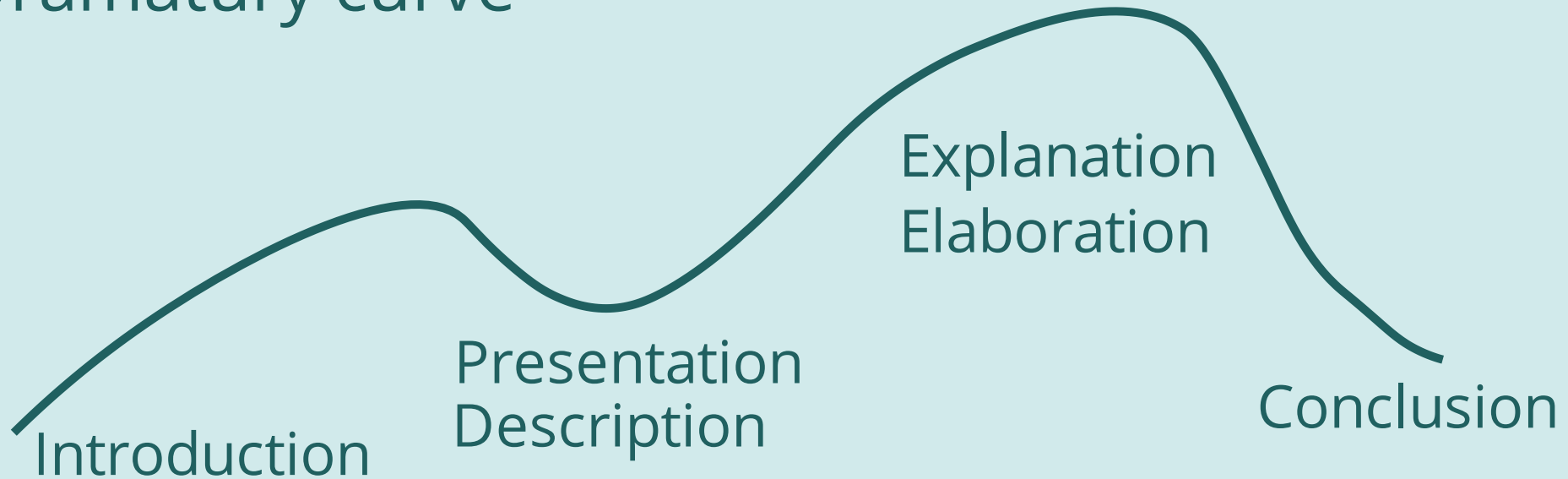
- [Universal design of videos](#)



# Building the Story

Who is saying what to who with what intention and in what channel?

## Dramaturgy curve





# Find SLS online:

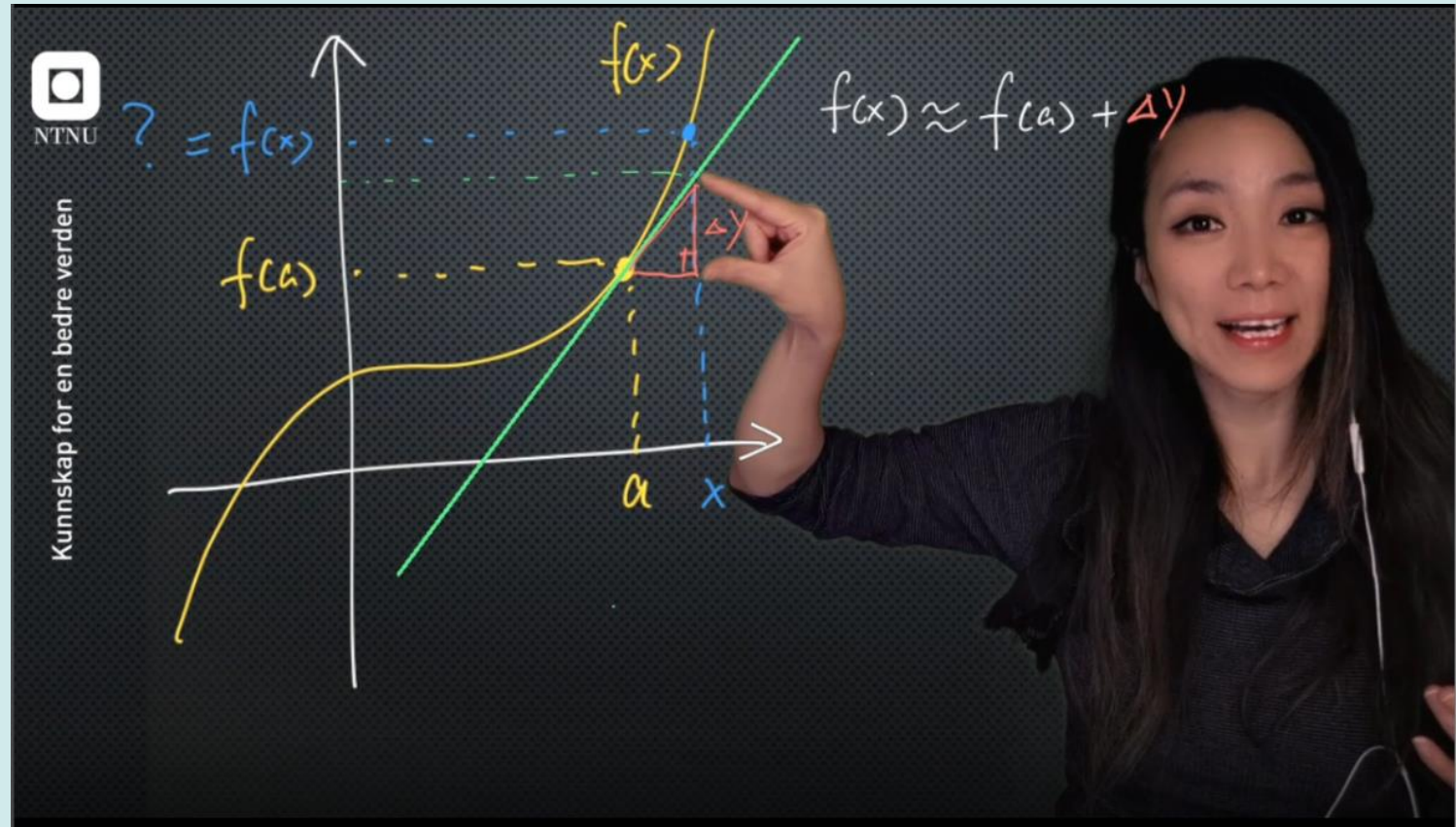
**Contact:**  
[hjelp.ntnu.no](https://hjelp.ntnu.no)

**Website:**  
[s.ntnu.no/ls](https://s.ntnu.no/ls)



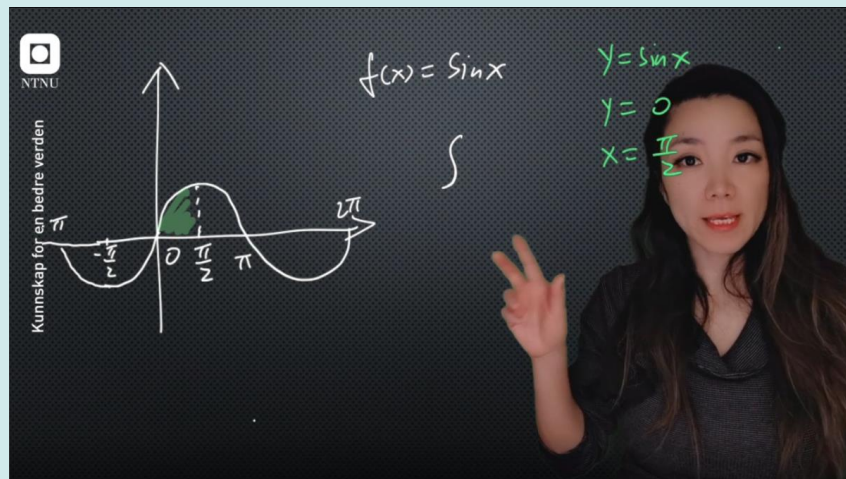
# TeachUs

- Content in front
- Eye-contact
- Body gestures
- Merged digital content



# TeachUs

## Combination of content

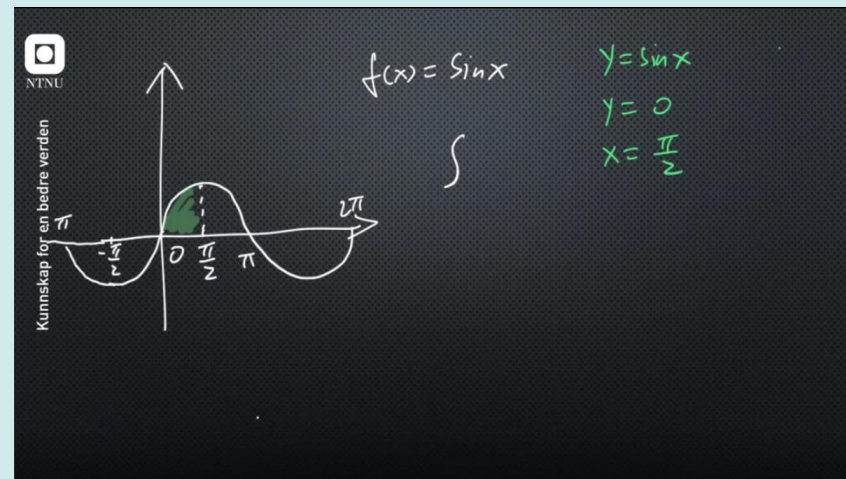


NTNU logo and slogan: Kunnskap for en bedre verden

Graph of  $f(x) = \sin x$  from  $-\pi$  to  $\pi$ . The area under the curve from  $0$  to  $\pi/2$  is shaded green.

Handwritten notes:  
 $f(x) = \sin x$   
 $y = \sin x$   
 $y = 0$   
 $x = \frac{\pi}{2}$

Presenter pointing to the graph.

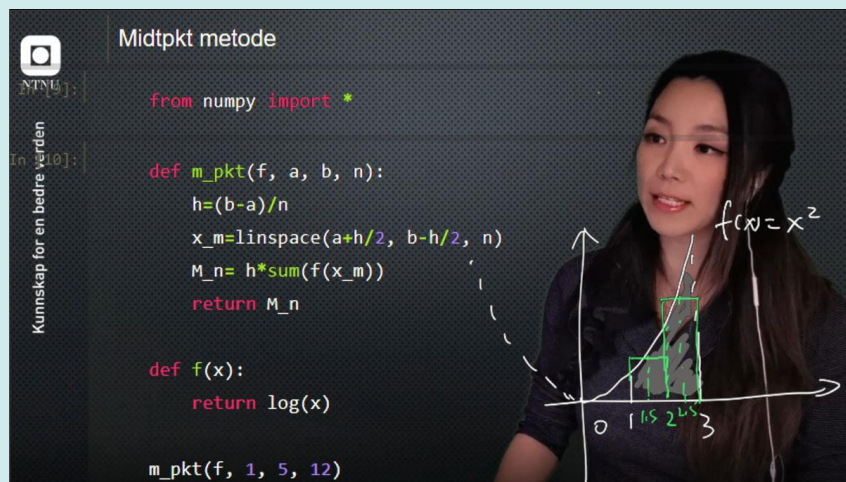


NTNU logo and slogan: Kunnskap for en bedre verden

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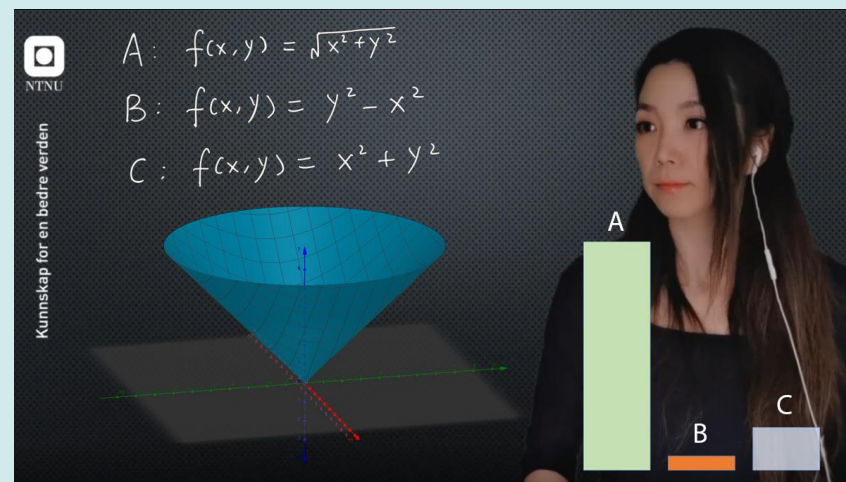
NTNU logo and slogan: Kunnskap for en bedre verden

Midtpkt metode

```
from numpy import *  
  
def m_pkt(f, a, b, n):  
    h=(b-a)/n  
    x_m=linspace(a+h/2, b-h/2, n)  
    M_n= h*sum(f(x_m))  
    return M_n  
  
def f(x):  
    return log(x)  
  
m_pkt(f, 1, 5, 12)
```

Graph of  $f(x) = x^2$  with a green rectangle representing the midpoint method approximation.

Presenter pointing to the graph.



NTNU logo and slogan: Kunnskap for en bedre verden

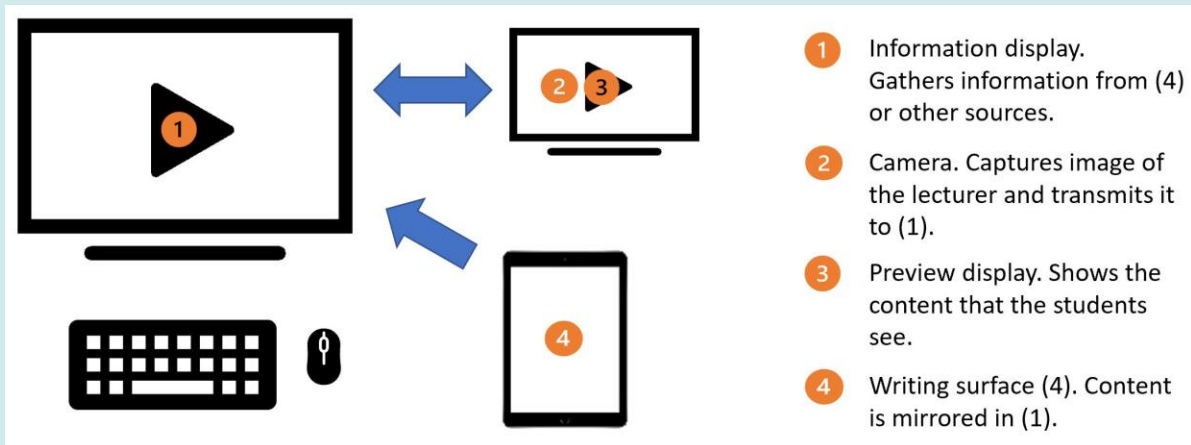
Handwritten notes:  
A:  $f(x,y) = \sqrt{x^2+y^2}$   
B:  $f(x,y) = y^2 - x^2$   
C:  $f(x,y) = x^2 + y^2$

3D surface plots for A, B, and C. A legend shows color-coded boxes for A (green), B (orange), and C (grey).

Presenter pointing to the plots.

# TeachUs

## Studio setup



IMAG1001 Matematiske metoder 1  
IMAG2031 Matematiske metoder 2A  
REA1141 Kalkulus  
REA0012 Forkurs i matematikk