

# Teaching Video & Analysis

$\mathcal{L} = \oint E \cdot dt$

$f(\omega) = \int_{-\infty}^{\infty} f(x) e^{-2\pi i x \omega} dx \frac{dt}{d\omega}$

$\nabla \cdot E = 0$   
 $\nabla \times E = -\frac{1}{c} \frac{\partial H}{\partial t}$   
 $i\hbar \frac{\partial}{\partial t} \Psi = H \Psi$

$\nabla \cdot H = 0$   
 $\nabla \times H = \frac{1}{c} \frac{\partial E}{\partial t}$

$\rho \left( \frac{\partial v}{\partial t} + v \cdot \nabla v \right) = -\nabla p + \nabla \cdot T + f$

$H = -\sum p(x) \log p(x)$

$\frac{1}{2} G^2 S^2 \frac{\partial^2 V}{\partial S^2} + r S \frac{\partial V}{\partial S} + \frac{\partial V}{\partial t} - r \cdot V = 0$

$+ \sum_{i=1}^n \frac{q_i}{2} H_i^M + c_s \frac{D}{Q} + c_o D + \frac{Q(p-D)}{2p} H^M + F_o N + F_o N + \sum_{i=1}^n D_i \cdot w_i \cdot d_i \cdot \frac{(1+w_i)}{F_x} \frac{dt}{dt}$

$TC(Q, q_i, m_i) = \sum_{i=1}^n \left[ \frac{D_i}{m_i q_i} S_i + c_i^v D_i + \frac{q_i H_i^v}{2} \left( m_i \left( 1 - \frac{D_i}{P_i} \right) - 1 + 2 \frac{D_i}{P_i} \right) \right] +$

$\left[ \frac{d \Delta p(s, \phi)}{d \phi} \right] = \begin{bmatrix} \beta & -\beta \\ -\beta & 0 \end{bmatrix} \begin{bmatrix} \Delta p(s, \phi) \\ \Delta M(s, \phi) \end{bmatrix}$

$\int_0^{\pi} (\log \sin x)^2 dx = \int_0^{\pi/2} (\log \cos x)^2 dx = \frac{\pi}{2} \left\{ \frac{\pi^2}{12} + (\log 2)^2 \right\}$

# Bad Teaching

In this video, we see the teacher, who starts off by beginning his class, but a student seems to have gotten up, and he pauses, looks at the student and says " could you sit down?

We're starting..., yeah now please. Thank you" (in a not so kind tone) and then continues to explain, rather than teach. Throughout the video, he doesn't go into detail, and the lecture seems boring and uninteresting. Not only that, but in the middle of the lecture, he stops, pulls out his phone to see a message, and resumes. This is terrible teaching, especially for a class of teaching Python Coding. This video tells me that this teacher is the opposite of good teaching. Either he has not been trained properly on teaching or refuses to do more for his students.

This video was chosen to present the following problems:

**Lack of Engagement:** Teaching isn't just about delivering information; it's about engaging in students and making the material interesting and accessible. The teacher's tone, lack of detail, and uninteresting lecture likely made it difficult for students to stay focused and motivated.

**Classroom Management:** The teacher's approach to addressing the student's behavior was not ideal. Effective classroom management involves handling disruptions with respect and empathy, without making the student feel singled out or embarrassed.

**Lack of Depth:** Teaching, especially a subject like Python, requires going into detail and ensuring students understand the concepts. Simply explaining without teaching doesn't help students grasp the material or apply it effectively.

**Professionalism:** Checking a phone during a lecture is unprofessional and sends the message that the teacher is not fully present or invested in the class. This can negatively impact students' perception of the teacher and their willingness to engage.

**Interactive Learning:** A good lesson involves interaction, discussion, and hands-on activities. In a Python class, for example, students could benefit from coding exercises, group work, and real-time problem-solving, rather than a monotonous lecture.