

Welcome to Pawan Thapaliya Teaching Portfolio!

Explore my journey as an educator and discover my teaching philosophy, experiences, and innovations.

Teaching Portfolio:

- Teaching Philosophy
- Narrative
- Innovation/Improvement

Key Highlights in Physics Lab Tutoring – Specific Undergraduate Experiments:

1. Projectile Motion Experiment:

- Developed a hands-on projectile motion experiment using real-world scenarios.
- Utilized video analysis tools to analyze and visualize projectile trajectories.

2. Optics Lab with Interference Patterns:

- Designed an optics lab focusing on interference patterns.
- Guided students through the double-slit experiment, emphasizing wave interference.

3. Circuit Analysis and Electronics Workshop:

- Led an electronics workshop with circuit building and analysis.
- Used simulation software for experimentation and troubleshooting.

4. Thermodynamics and Heat Transfer Investigation:

- Conducted a comprehensive thermodynamics experiment.
- Explored specific heat capacities and heat transfer processes.

5. Quantum Mechanics Simulation:

- Introduced quantum mechanics concepts through interactive simulations.
- Guided students in exploring wave-particle duality using computer simulations.

6. Mechanical Waves Laboratory:

- Orchestrated a lab session on mechanical waves.
- Explored wave properties with experiments involving wave generators.

7. Magnetic Fields and Faraday's Law Experiment:

- Led a practical session on magnetic fields and electromagnetic induction.
- Connected theoretical concepts to real-world applications like electric generators.

8. Modern Physics Exploration:

- Guided experiments in modern physics, including the photoelectric effect.
- Used modern instrumentation to emphasize the connection between theory and results.

These highlights demonstrate a hands-on and application-oriented approach to teaching physics, engaging students with fundamental concepts through direct experimentation.



Call-to-Action:

- Explore each section to learn more about my teaching approach!
- Contact me for any inquiries: pkthapaliya@usf.edu or LinkedIn: <https://www.linkedin.com/in/pawan-thapaliya-2a7377125/>