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## **Learning Domains and Learning Outcomes:**

### **Knowledge:**

- Describe of the core knowledge in physics (major premises of classical mechanics, electricity & magnetism, optics, thermal physics, electronics, modern physics, etc).
- Recognize the impact of physics and science on society.
- State the basic skills necessary for the application of mathematical methods in physics.
- Recognize the analytical and numerical approaches in modeling and simulation processes.

### **Cognitive Skills:**

- Develop skills in problem solving, critical thinking and analytical reasoning.
- Appraise fundamental physical theories in laboratory.
- Execute a significant graduate research project.

### **Interpersonal Skills & Responsibility:**

- Show ability to work independently and as a part of group.
- Demonstrate responsibility for self-learning.

### **Communication, Information Technology, Numerical:**

- Demonstrate skills using computer, network and software packages.
- Illustrate effective written and oral communication skills, especially the ability to transmit complex concepts in a clear and concise manner.

### **Psychomotor:**

- Operate different instruments and handle laboratory equipment.