King Saud University
College of Science
Department of Physics and Astronomy

PLO's - Master's Program

1. Knowledge (Core Physics Principles):

1.1 Define the fundamental concepts in their discipline.

1.2 Outline the recent development in their discipline.

1.3 Recognize and characterize various scientific equipments.

2. Skills (Modeling and Analysis):

2.1 Apply theoretical and/or computational models to formulate and solve problems in the core areas of physics.

2.2 Ability to perform new experiments to test new ideas.

2.3 Obtain and analyze data from theoretical models and experiments.

2.4 Evaluate the theoretical and experimental results.

3. Values (Communication and Responsibility):

3.1 Conduct scholarly or professional activities in an ethical manner.

3.2 Present solution of problems systematically with appropriate mathematical details.

3.3 Conduct research or produce some other form of creative work.

3.4 Ability to communicate concepts and results at an appropriate level of sophistication for a broad range of audiences.

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Definition of the Program Learning Outcomes (PLO's), Teaching Strategies and Assessment Methods

Code	Dimension	Definition	Teaching Strategies	Assessment Methods
PLO1	Knowledge	Ability to integrate and generate in-depth relevant scientific knowledge for the benefit of related physics disciplines.	• Lectures • seminars • assignments • directed reading	• Examinations • presentation • written assignments • problem-based exercises
PLO2	Skills	Ability to apply knowledge to analyze and solve physics problems scientifically to explain physics phenomena.	• Lectures • assignments • research project • simulation exercises • problem-based learning	• Examinations • written assignments • problem-based exercises • written reports.
PLO3	Values	Ability to acquire knowledge independently, and ability to integrate professional ethics in life, organization, society	• Supervised project • research work • group assignment • seminar	• Written assignments • presentations • research dissertation