PHY8004: POSTGRADUATE SEMINAR

Effective Term
Semester B 2024/25

Part I Course Overview

Course Title
Postgraduate Seminar

Subject Code
PHY - Physics
Course Number
8004

Academic Unit
Physics (PHY)

College/School
College of Science (SI)

Course Duration
Two Semesters

Credit Units
0-2

Level
R8 - Research Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
Nil

Precursors
Nil

Equivalent Courses
AP8004 Postgraduate Seminar

Exclusive Courses
Nil

Part II Course Details

Abstract

The course aims to broaden the scientific horizon of postgraduate students in the fields of physics via active participation on research and scientific seminars. This course is a scientific forum for postgraduate students to exchange research information and to discuss scientific problems.

The course is designed to develop the communication skills at presentation of research and scientific work. It provides the basic principles for: (i) effective abstract preparation; (ii) logically organized presentation of research work; (iii) development of efficient presentation techniques; and iv) active and adequate moderation of scientific discussions. It contributes to the systematic building of self-confidence and the rational and logical presentation of research results as well as the defense of the conclusions made.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Recognize different research methodologies, and designs in multiple areas of research. Engage in a scientific presentation forum/ discussion with a respectful attitude towards the ethical principles of research reporting and interaction.	25	x		
2	Apply the concept of the rational writing of abstracts announcing a scientific presentation.	25		x	
3	Develop the basic skills to present the topics of their own research discovery and innovation in an organized and rational manner, encourage the effective use of data and scientific principles to support rational conclusions as well as their defense in the discussion part of a research presentation.	25		x	
4	Develop the ability to comment critically on other research presentations and provide constructive ideas to presenters. Build self-confidence in the public presentation and discussion of research and scientific work.	25	x		

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	1	Lecture	1	4
2	2	Seminar Activities	2, 3, 4	22

Additional Information for LTAs

The Postgraduate Seminar is the course conducted in both A and B semesters. The seminar is scheduled weekly with at least three different presentations in two hour blocks.

Scheduled activities:

A semester: 12 × 2 h seminar

A semester: 1× 2 h lecture

B semester: 12 × 2 h seminar

B semester: 1 × 2 h lecture

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Written Presentation	2	10	
2	Oral Presentation	1, 3	20	
3	Active Discussion	4	70	

Continuous Assessment (%)

100

Examination (%)

0

Additional Information for ATs

The course comprises the teaching components in two sections that are focused on the effective communication of research objectives, methodology and results. It emphasizes the critical steps of abstract writing, research design, data analysis, and efficient redaction of conclusions. Considerable attention is also given to the ethical principles of research reporting and interaction, such as the proper citation of work by others.

Individual tasks are assessed continuously during individual seminars and recorded on cards supplied to students for this purpose. The record cards contain attendance information, active discussion and seminar presentation. The chairman of the seminar is an appointed student, who introduces the presentations and leads the discussion. Each student can present and chair a couple of seminars during the course. Each oral presentation is preceded by writing an abstract. Abstract improvement is advised by the chairman of the given seminar and then by the course leader prior to internet posting for public announcement. Presentation topics are based on the research areas of individual postgraduate students.

The students are required to attend a minimum of 16 seminars and 2 lectures. A total of 26 seminar attendances is completed by joining 8 additional seminars either organized by the department or prescribed by the supervisors.

Assessment Rubrics (AR)

Assessment Task

Written Presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The student is able to write his/her research presentation abstract in a rational and comprehensive manner.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

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Assessment Task

Oral Presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The student is able to: i) present his/her own research data; ii) interpret his/her data based on physical and scientific principles; iii) defend the conclusions reached.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

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Assessment Task

Active Discussion (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The student has to attend 2 lectures and 26 seminars* including a minimum of 16 graduate seminars and 8 seminars organized by the department or prescribed by the supervisors (if otherwise). In addition, the student has to participate in at least 8 discussions to show he/she is able to take a critical view of presented materials and discuss them on a satisfactory level.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

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Assessment Task

Written Presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The student is able to write his/her research presentation abstract in a rational and comprehensive manner.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

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Assessment Task

Oral Presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The student is able to: i) present his/her own research data; ii) interpret his/her data based on physical and scientific principles; iii) defend the conclusions reached.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

Assessment Task

Active Discussion (for students admitted from Semester A 2022/23 to Summer Term 2024)

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The student has to attend 2 lectures and 26 seminars* including a minimum of 16 graduate seminars and 8 seminars organized by the department or prescribed by the supervisors (if otherwise). In addition, the student has to participate in at least 8 discussions to show he/she is able to take a critical view of presented materials and discuss them on a satisfactory level.

Pass (P)

(P) The student completes all assessment tasks/activities

Failure (F)

(F) The student fails to complete the assessment tasks/activities

Part III Other Information

Keyword Syllabus

There is no fixed syllabus for this course. Presentation topics are based on the research areas of the postgraduates.

Reading List

Compulsory Readings

	Title
1	Nil

Additional Readings

	Title
1	Nil