



## SYLLABUS

Course Code	Course Num.	Course Name	Credit Hours	Lec.	Lab.	Tut.	Private study	Pre-requisites	Course Level	Language
PHY	498	Research Project	2		3		5.5	PHY 462, PHY 464	8	English

### A. Course Description

This final course (final year project) represents the culmination of study towards the Bachelor degree of Science in Physics. It offers the opportunity to apply and extend material learned throughout the program. The project undertaken spans a diverse range of topics, including theoretical, simulation and experimental studies.

### B. Course Outcomes

At the end of this course the student will be able to:

1. Make literature review of current state of the art of specific scientific subjects.
2. Understand and develop new scientific concept to solve and overcome a real life problem.
3. Carry out and accomplish the work described and find solutions to a specific scientific problem.
4. Gain research experience and communication skills.
5. Able to communicate technical information in written and oral to scientific community.
6. Write-up of results and final report.

### C. References

*This depends on the project topic.*

**Course Website:** <http://www.imamm.org/>

### D. Topics Outline

1. *Plan and execute a 16 week project in experimental or theoretical physics in nature (or a mixture of both) and might involve substantial computing, construction and design, theory, measurements, and numerical modeling or analysis.*
2. *Planning report: Project topic selection and accompanying justification.*
3. *Planning report: Proposed project outline.*
4. *Planning report: Project schedule individual or as a team member tasks identified.*
5. *Involve constant review of the plan.*
6. *Setting and meeting deadlines and dealing with changes to the project plan as they arise.*
7. *Interim report.*
8. *Regular interaction and discussion with student's project supervisor and the outcome results and experimentations.*
9. *Undertake a literature review on a topic of relevance to the overall project.*
10. *Deliver a final report presentation, structure and supported appropriate drawings, figures, characteristics curves, experimental equipments and tests, calculations and appendices) and oral presentation of student's project work summarizing the essential scientific and practical aspects and outcomes of the project at the end of semester.*



## E. Office Hours

Office hours give students the opportunity to ask in-depth questions and to explore points of confusion or interest that cannot be fully addressed in class.

## F. Exams & Grading System

Meeting the deadlines assigned by the supervisor: 5 %	Understanding the project objectives: 5 %	Ability to write literature review and references: 5 %
Understanding and completion of the scientific and practical steps of the project: 10%	Participation and contribution to the project (teamwork, creativity, effectiveness): 5 %	Data collection and implementation of the project steps: 5 %
Ability to process, analyze and present the results: 10%	Ability to explain and discuss the results, and draw conclusions: 10%	Quality of the project writing: 5 %
Final Exam: 40 %		

The grading distribution:

A+	A	B+	B	C+	C	D+	D	F
[95, 100]	[90, 95)	[85, 90)	[80, 85)	[75, 80)	[70, 75)	[65, 70)	[60, 65)	[0, 60)

## G. Student Workload

#	Teaching/Learning activities	Contact hours	Frequency	Total contact hours	Self-study hours	Total self-study hours	Student learning time
1	Lecture	1	14	14	1	14	28
2	Scientific research	0	14	0	3	42	42
3	Final written project	0	1	0	15	15	15
4	Final written presentation	1	1	1	10	10	11
<b>Total</b>				<b>15</b>		<b>81</b>	<b>96</b>

The independent self-study is approximately 5.5 hours per week.

## H. Student Attendance/Absence

Only three situations will be considered as possible excused absences:

- Occurrence of a birth or death in the immediate family will be excused. ("Immediate family" is defined by the University as spouse, grandparents, parents, brother, or sister).
- Severe illness in which a student is under the care of a doctor and physically unable to attend class will be excused. Students are not excused for a doctor's appointment. Do not make appointments that conflict with rehearsals. Notes from the University Health Center will be accepted.

[Executive Rules for Study Regulations and Exams](#)

[goo.gl/ykm7t3](http://goo.gl/ykm7t3)

