Department of Physics

School of Sciences, Uttarakhand Open University, Haldwani

Guideline for M.Sc. IV Semester (Physics) Dissertation

Procedure for allotment of supervisors:

1. Learners can select their supervisors from their study centers/nearby study centers/ faculties of UOU/ faculties nominated by University.

2. For finalizing the allotment of the supervisors a zoom meeting was held on will be held earlier.

Synopsis Preparation:

1. Learners have to submit soft copy of synopsis approved and duly signed by the supervisor in the mail id: dop@uou.ac.in

   Synopsis contents following sections:

   i. Title of the Dissertation

   ii. Introduction

   iii. Plan of work and objectives

   iv. Material and method

   v. References

2. Synopsis should be of 2 to 4 pages. The standard font shall be Times New Roman of 12 pts with 1.5 line spacing. Synopsis must signed by Learner and supervisor.

Evaluation Procedure:

1. After finalizing the topic the learners have to submit soft copy of dissertation approved and duly signed by the supervisor in the mail id: dop@uou.ac.in

2. Learners have to give viva/presentation after submission of dissertation, in the Uttarakhand Open University Haldwani campus for Kumaun region, and SGRR College, Dehradun for Garhwal region. **[Date and time will announce by the University].**

3. A hard copy of the final dissertation work have to be submitted in the department of Physics, Uttarakhand Open University Haldwani Campus.**[Date will announced by the University]**

Format for dissertation is given below:

The dissertation should be presented chapter wise. Each chapters will have a precise title as given below. A chapter can be subdivided into sections, and sub-section so as to present the content discretely and with due emphasis.

Content Page

Chapter 1: Introduction:

It shall justify and highlight the problem posed, define the topic and explain the aim and scope of the work presented in the dissertation. This chapter also include objective of the research work. It may also highlight the significant contributions from the investigation.

Chapter 2: Review of Literature:

This Chapter presents a critical appraisal of the previous work published in the literature pertaining to the topic of the investigation.

Chapter 3: Material and Methods:

This chapter deals with a detail methodology/technique/theory by which researcher used to carry out the research work.

Chapter 4: Results and Discussions:

This chapter includes a thorough evaluation of the investigation carried out and bring out the contributions from the study. The discussion shall logically lead to inferences and conclusions as well as scope for possible further future work.

Chapter 5: Summary and Conclusions

A brief report of the work carried out shall form the first part of the Chapter. Conclusions derived from the logical analysis presented in the results and discussions chapter shall be presented and clearly enumerated, each point stated separately. Scope for future work should be stated lucidly in the last part of this chapter.

Chapter 6: References/Bibliography:

The candidates shall follow the style for references as mentioned below.

For journal:
S. Lakhera, K. Devlal, M. Rana, V. Dhuliya, N. Pandey, Non-Linear Optical Behavior of 2,9-Dimethylquinacridone with Adsorbed Gold and Silver Nanoclusters, Optik. 286 (2023) 170983. https://doi.org/10.1016/j.ijleo.2023.170983
For book:
C. Kittel, Introduction to Solid State Physics, Wiley India (P) Ltd., New Delhi (2013).

Chapter 7: Appendix:

Detailed additional information, lengthy derivations, raw experimental observations etc. are to be presented in the separate appendices.

Type -Setting, Text Processing and Printing

1. The text shall be printed employing using a standard text processor. The standard font shall be Times New Roman of 12 pts with 1.5 line spacing.

2. **Binding:** Hard/Spiral Binding

3. **Front Covers:** The front covers shall contain the following details:

- Full title of thesis in 6 mm/22 point's size font properly centered and positioned at the top.
- Full name of the candidate in 4.5 mm 15 point's size font properly centered at the middle of the page.
- A 40 mm dia replica of the University emblem followed by the name of department, name of the University and the year of submission, each in a separate line and properly centered and located at the bottom of page.

4. **Title Sheet:** This shall be the first printed page of the thesis and shall contain the submission statement: the dissertation submitted in partial fulfillment of the requirements of the Degree e.g. M.Sc., the name and enrollment No. of the candidate, name(s) of the Supervisor and Co-supervisor (s) (if any), Department, University and year of submission.

5. **A Declaration of Academic Honesty and Integrity by Candidate:** A declaration of Academic honesty and integrity is required to be included along with every thesis/dissertation after the Supervisor's certificate. The format of this declaration is given in Annexure `II' attached. (Annexure II)

6. Certificate from Candidate/Supervisor and Convener (Annexure 'III')**:**

7. **Abstract:** The 500 word (maximum) abstract shall highlight the important features of the dissertation.

Annexure I: Front page

Specimen for cover page

Specimen `II'

CANDIDATE'S DECLARATION

I declare that this written submission represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and referenced the original sources. I also declare that I have adhered to all principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in my submission. I understand that any violation of the above will be cause for disciplinary action by the University and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

_____
(Signature)

_____
(Name of the student)

_____
(Enrolment No./Roll No.)

Date: _____

KU-SRICC-2018

Annexure II: Specimen for declaration certificate

Department of Physics

Uttarakhan Open University, Haldwani

CERTIFICATE

I hereby certify that the work is being proposed in the dissertation entitled ''……..'' in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics and submitted in the Department of Physics in Uttarakhand Open University in an authentic record of my own work carried out during a period from ……..2023 to …….2023 under the supervision of Dr…….. . Department of Physics Uttarakhand Open University, Haldwani.

The matter presented in the thesis has not been submitted by me for the award of any other degree of this or any other University/ institution.

Name of learner

This is to certify that the above statement made by the candidate is correct to the best of knowledge.

Name of supervisor

Annexure III: Specimen of supervisor certificate

Themes for M. Sc. Physics Dissertation

During the course of study all the learners have to do a compulsory short term research and submit a dissertation for partial fulfillment of the requirement of the M. Sc. degree. University offers number of themes for M. Sc. dissertation from which a learner can select a research topic under the guidance of allotted supervisor. The themes for work should be decided by the supervisor after discussion with student. Some possible themes for M. Sc. Dissertation research work are proposed as follows:

1. Solar physics(Astronomical Observations)
2. Molecular Spectra
3. Role of Fiber optics in Communication
4. Semiconductor devices(Fabrication of IC)
5. Non Linear optical Materials
6. ADVANCES IN Solar Technology
7. Quantum Computing
8. Computational Physics
9. Gravitational Waves
10. Nanotechnology and Nano science.
11. Quantum Dots
12. Physics beyond standard model
13. Dark Matter and Dark Energy
14. Quantum Field and String theory
15. Role of Supersymmetry in High Energy Physics
16. Sources of Renewable Energy in Indian Context
17. Other topics related to Physics.