

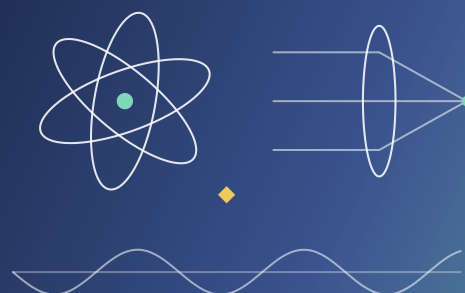
Module code

SPP-3201

Type of module

Undergraduate: Applied Physics – Major Core

Research Project



Modular credits

8

Total student
engagement

112 hours

Prerequisite

**SPP-1201 Experiments
in Physics 1**

Anti-requisite

None

Aims

To develop students' ability to investigate physics-related problems through independent research.

Module learning outcomes (MLO)

On successful completion of this module, a student will be expected to be able to:

MLO 1

Apply scientific and mathematical principles to investigate and solve physics-related problems using theoretical, practical, or computational methods.

MLO 2

Design and execute structured investigations to test hypotheses, collect and analyse data using appropriate techniques, and evaluate the reliability and significance of results.

MLO 3

Integrate information from diverse sources to support scientific reasoning and relate experimental findings to established physics theories and models.

MLO 4

Critically assess methodologies and data accuracy to make informed judgements and propose multiple viable solutions to physical problems.

MLO 5

Communicate project outcomes effectively through written reports, oral presentations, and graphical representations, while demonstrating independent initiative and collaborative teamwork where applicable.

Module contents

Project planning, proposal writing, and time management

Literature review and critical evaluation of scientific sources

Research methods: experimental, theoretical, or computational approaches

Data collection, analysis, error evaluation, and interpretation of results

Communication of project outcomes through a written report and presentation

Research ethics, health and safety, and professional practice

Assessment

0%

Examination

100%

Coursework

10%

Written reports*
40%

Seminar presentation*
25%

Viva voce*
25%

Supervisor Assessment — 10%

Written reports* — 40%

Seminar presentation* — 25%

Viva voce* — 25%

Formative assessment

Weekly discussion, feedback and preliminary reports

Summative assessment

COMPONENT

WEIGHTING

Examination

0%

Coursework

100%

Individual

100%

Supervisor Assessment

10%

Written reports*

40%

Seminar presentation*

25%

Viva voce*

25%

*Assessed by at least two examiners other than the supervisors

Graduate attributes and skills

Programme learning objectives (PLO) addressed

1	PLO 1 (Core Disciplinary Knowledge)	2	PLO 2 (Critical Thinking and Comparative Analysis)
3	PLO 3 (Experimental and Instrumentation Skills)	4	PLO 4 (Numerical and Analytical Competence)
5	PLO 5 (Interdisciplinary Applications, Materials and Sustainability)	6	PLO 6 (Communication and Professionalism)

Sustainability concept addressed

4	SDG 4 Quality Education
8	SDG 8 Decent Work and Economic Growth
9	SDG 9 Industry, Innovation and Infrastructure

Digital skills/software used (not limited to)

■	Word processing software (e.g. Microsoft Word)
■	Data processing software (e.g. Microsoft Excel)
■	Presentation software (e.g. Microsoft PowerPoint)
■	Web browsers (e.g. Internet Explorer, Google Chrome)
■	Graphing software (e.g. Origin)
■	Learning Management Systems (e.g. Canvas)
■	Communication software (e.g. Microsoft Teams)

Micro-credentialling option

No

Stackable towards GenBESTARI Undergraduate Degree Programme or other relevant Lifelong Learning Programmes

No

Document details

Office **ODVCE** Document date **23 June 2026** Status **New** Approval **GBF (12/02/2026)**