



School of Physics

# Course Outline 2020

## PHYS3117

### Physics Laboratory

School of Physics

Faculty of Science

T3, 2020

# 1. Staff

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| Position                 | Name                    | Email  | Consultation times and locations                | Contact Details |
|--------------------------|-------------------------|--|---|-----------------|
| Course Convenor          | Peter Reece             | <a href="mailto:p.reece@unsw.edu.au">p.reece@unsw.edu.au</a>                         | Consultation times: by arrangement via email    | (02) 9385 4998  |
| Laboratory Manager       | Tamara Reztsova         | <a href="mailto:t.reztsova@unsw.edu.au">t.reztsova@unsw.edu.au</a>                   | 142D, OMB K15                                   | (02) 9385 4577  |
| Teaching Support Officer | Zofia Krawczyk-Bernotas | <a href="mailto:z.krawczyk-bernotas@unsw.edu.au">z.krawczyk-bernotas@unsw.edu.au</a> | School of Physics office G06, Old Main Building | (02) 9385 5969  |

## 2. Course information

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Prerequisites:

PHYS3112

Teaching times and locations: Students will be allocated one of the following four-hour lab sessions:

Tuesday 09:00-13:00 (Weeks 1-5, 7-10)

Tuesday 14:00-16:00 (Weeks 1-5, 7-10)

### 2.1 Course summary

This course provides students with the opportunity to conduct advanced experimental investigations in a range of areas including: Electromagnetism; Lasers and Spectroscopy; Optics and Photonics; Solid State Physics; Atomic Physics & Nuclear Physics. Some experiments will be performed in research laboratories, guided by researchers.

#### Graduate Attributes Developed in this Course:

- Research, inquiry and analytical thinking abilities
- Capability and motivation for intellectual development
- Ethical, social and professional understanding
- Communication in a scientific/technical context
- Collaborative and management skills
- Information literacy

## **2.3 Course learning outcomes (CLO)**

By the end of this course, you will be able to:

1. Plan and conduct advanced experimental studies





experiments may be chosen from any stream. In addition, project-based experiments are available for high-performing students.

Assessments will be based on a written lab report and interview with the course coordinator. Marks will be allocated based (i) an understanding of the principles, (ii) the quality of the experimental results and analysis, and (iii) the presentation of the written report. There will be two additional assessments for the course – a laser safety assignment and a presentation. Further details will be provided.

### **Further information**

UNSW grading system: [student.unsw.edu.au/grades](http://student.unsw.edu.au/grades)

UNSW assessment policy: [student.unsw.edu.au/assessment5.2](http://student.unsw.edu.au/assessment5.2)

## **Assessment criteria and standards**

Please see Moodle for a marking rubric for each assessment task.

### **5.3 Submission of assessment tasks**

#### **Assignment Submissions**

Unless otherwise specified, assignments should be submitted online by 5pm on the due date.

A downloadable assignment cover sheet is available from <https://www.physics.unsw.edu.au/current-students/cover-sheet>

Marks will be deducted for late assignments, at a rate of 5% of the maximum possible mark for the assignment per day. A weekend will count as two days. An assignment submitted after the solutions have been posted will automatically receive 0%.

### **5.4. Feedback on assessment**

Please see Moodle for details on how feedback will be provided for each assessment task

## **6. Academic integrity, referencing and plagiarism**

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**Referencing** is a way of acknowledging the sources of information that you use to research your assignments. You need to provide a reference whenever you draw on someone else's words, ideas or research. Not referencing other people's work can constitute plagiarism.

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- ◁ The *Current Students* site [student.unsw.edu.au/plagiarism](http://student.unsw.edu.au/plagiarism), and
- ◁ The *ELISE* training site [subjectguides.library.unsw.edu.au/elise](http://subjectguides.library.unsw.edu.au/elise)

The *Conduct and Integrity Unit* provides further resources to assist you to understand your conduct obligations as a student: [student.unsw.edu.au/conduct](http://student.unsw.edu.au/conduct).

## 7. Readings and resources

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### Prescribed Text:

None

### Other Resources

