

**UNIVERSITY OF OTAGO
ŌTĀKOU WHAKAIHU WAKA**

JOB DESCRIPTION

ROLE TITLE: Laboratory Technician

DEPARTMENT: Physics

SCHOOL / DIVISION: Science

REPORTS TO: Prof Harald Schwefel

DIRECT REPORTS (FTE): N/A

INDIRECT REPORTS (FTE): N/A

1. BACKGROUND:

Provide technical support for nonlinear and quantum optics research and assist with general lab functions.

We are seeking a highly motivated and detail-oriented Laboratory Technician to support experimental research in nonlinear and quantum optics. The successful candidate will work closely with researchers and students to operate and maintain advanced photonics and vacuum equipment as well as to provide support to machine basic mechanical structures.

2. PRIMARY PURPOSE OF THE ROLE:

- To provide technical assistance and undertake specific experiments within the resonant optics group.
- To collect experimental data and record it systematically.
- Ensure laboratory equipment and consumables are used safely and maintained appropriately.

3. ACCOUNTABILITIES:

Involvement in the following experimental techniques used in the laboratory:

- Femto-second laser machining.
- Thin film deposition.
- SEM and AFM surface analysis.

General laboratory tasks:

- Ensure that all equipment is cleaned and maintained to a high standard.
 - Maintain fresh stocks of laboratory consumables such as chemicals.
 - Advise of malfunctioning equipment.
- General administrative tasks including ordering of components and consumables.
- Grind and polish samples to suitable dimensions.

- Assist in the fabrication of high-quality optical resonators and keep thorough records of fabricated samples.
- Set up and maintain high-vacuum systems, including pumps, gauges, and vacuum chambers used for thin-film vapour deposition.
- Maintain inventory of lab supplies and coordinate with vendors for equipment servicing and procurement.
- Other duties, as may be required from time to time.

Health and Safety:

- Ensure the health and safety practices are observed in all workplace activities.
- Report all accidents, incidents and near misses in accordance with policy.
- Take responsibility for ensuring that you have carried out relevant health and safety training.
- Identify and report all hazards.
- Assist the Department Health and Safety Officer, when requested.

4. KEY RELATIONSHIPS:

- Staff within the Laboratory for Resonant Optics, administration staff and other academic staff within the department.

5. QUALIFICATIONS & EXPERIENCE:

- Bachelor's degree in Physics, Engineering, Photonics, or a related field (or equivalent technical training).
- Familiarity with vacuum technology and safe handling of vacuum systems, or willingness to learn.
- Ability to work independently and collaboratively in a research environment.
- Demonstrated experience in laboratory environment.
- Good technical background and can-do attitude.
- Have good communication skills.
- Have good organisational and prioritisation skills.
- Be able to work competently and effectively in unsupervised situations.
- Have good record keeping skills.
- Experience in relevant research techniques.

6. SPECIAL REQUIREMENTS:

N/A

7. DIRECT BUDGET ACCOUNTABILITY:

Does this position have responsibility for a budget, or delegated authority to authorise expenditure from another position's budget?

Nil

8. MĀORI STRATEGIC FRAMEWORK:

Act in a manner consistent with the principles and implications, as well as the University's commitment to the Treaty as articulated in the Māori Strategic Framework.

9. PACIFIC STRATEGIC FRAMEWORK:

Act in a manner consistent with the strategies and goals contained in the University's Pacific Strategic Framework, role-modelling and promoting Pacific values, equity and diversity principles and cultural safety practices.

10. HEALTH & SAFETY:

Act and work in a manner compliant with current health and safety at work legislation and University procedures, frameworks and guidelines. Role model safe behaviour and practices, share the responsibility to prevent harm and contribute to a safe campus and work environment, including raising workplace health and safety concerns for self, students, visitors and other staff.

11. SUSTAINABILITY:

Act in a manner consistent with the University's sustainability commitments; role-modelling sustainable practices, with a particular emphasis on minimising the environmental impact of day-to-day activities.