POSTGRADUATE AWARD:

Teaching and Learning in Higher Education

Observation form

Is this observation: (please tick)

You being observed by your mentor? ☑ You observing an experienced colleague? ☐

Part 1 Pre Observation **To be completed by the observee**	
Observee's name Natércia Das Neves Rodrigues	**Observee's department** Chemistry
Observer's name Russ Kitson	**Observer's department** Chemistry (Mentor) Peer Adviser
Module Title CH155 Chemistry Laboratory and Assessed work Practical **Session Title** Laser Interferometry	**Date** 17/11/2016 **Time** 10:30 – 16:30 **Venue** 3rd Floor UG Laboratory (Chemistry Building)
Level Undergraduate **Year** First	**Nature of session** Lecture Seminar Tutorial (Practical) (Demonstration) (Lab work) Other Please provide details

Learning outcomes

Please detail the learning outcomes for the session

- Obtain practical skills with optics and lasers
- Understanding properties of light as both a wave and a particle (photon)
- Application to spectroscopy and quantum chemistry
- Understanding the relevance of statistical results/ averaging data.

What areas of your teaching would you find most useful to receive feedback on for this session?

- Do I interfere too much / too little with their work?
- Do I cover an appropriate amount of theory?
- Any other comments / feedback is appreciated.

Part 2 Post observation
To be completed by the observee

What went well during the observation?

The session went very well overall, from my perspective. The group was interested, engaged and seemed to enjoy the experiment. Given that this tends to be an experiment that puts them a little outside their comfort zone, it was good to see they gave it a chance and were willing to learn from it.

Were there any issues/challenges? How did you manage them?

Some problems arose when trying to explain some maths to one of the students. I struggled to explain something that I quite simply got so used to that I forgot the maths behind it. I tried to use alternate approaches and explain in different ways and the student seemed to understand it in the end.

Part 3 Post observation
To be completed by the observer

Please provide feedback on the areas identified by the observee (see above)

Nat gave the students sufficient time to attempt the set up of their own accord and then provided guidance and a steer towards the correct method if they needed it.

The appropriate theory content and level was used - pitched perfectly for year 1 undergraduates. Only suggestion for next time is to remember how you ended up relating

Please comment on the following aspects of the session the maths problem to the students.

Planning, organisation and structure.

Consider aspects such as; clarity of structure, context, links with previous sessions, learning outcomes and how these were communicated to the students.

Fairly complicated lab protocol, but the students get plenty from it when Nat discusses it with them. The experiment links well with theory from A-level physics, but it is accessible for students without this knowledge as Nat takes them through the whole theory.

Discussions with students post-experiment gave a clear indication that the desired learning outcomes have been achieved.

Delivery

Consider aspects such as; selection of appropriate methods and approaches, presentation, engagement, pace, timing, use of language and the choice of learning resources.

Nat used an excellent approach of alternating discussion and implementation sessions. A short talk on the theory, with interaction with the students and scope for exploring their knowledge + understanding was followed by the group putting their ideas and the new concepts into practice. The session was well paced and the feedback from the students was very good.

Content (if suitably qualified to comment)

Consider aspects such as; content pitched at correct level, currency, accuracy use of examples.

Building on the A-level concepts of constructive/destructive interference to introduce the basics of lasers and optics as well as wave/particle duality. The experiment is well thought out and the students get a lot out of it. Nat has made a significant contribution to the refinement of the experiment in the past 2 years.

Student engagement and interaction

Consider aspects such as; use of questioning, determining student comprehension, management of student interactions/questions, rapport, consideration of student diversity.

This is where Nat excels as a demonstrator. She quickly establishes an excellent rapport with the group of students and takes them through the experiment with very good time management but in a friendly manner. She is a superb demonstrator who is determined to see the students learn the theory and enjoy the experiment. Excellent use of questioning and adaptation of style and approach depending on the student.

Overall style and ambience

Consider aspects such as; creating an appropriate learning environment, enthusiasm, confidence.

Excellent job! Created a welcoming learning environment and taught with exceptional enthusiasm and confidence. I consider Nat to be one of our very best demonstrators and a natural teacher.

Part 4 Identifying next steps for the postgraduate student
To be completed jointly by the observer and observee

Recommendations and agreed actions

Consider the ways in which you can build on the strengths of this session and learn from any challenges that arose.

As was mentioned earlier, the main problem had to do with struggling to explain maths elements essential for this activity. The plan of action to improve on this would be not only to make sure I am, myself, 100% comfortable with these concepts but also draw on what students say and especially pay attention to how they teach each other - and use that myself in sessions.

Support

Is any additional support needed to address these recommendations? Where you will that support come from? (Consider more experienced colleagues, peers and the educational literature.)

No additional support would be needed for this specific exercise, but the importance of continued improvement, including learning from more experienced peers, is always advised.

Observee	**Observer**
Name NATÉRCIA DAS NEVES RODRIGUES	**Name** Dr Russ Kitson
Signature Natércia das Neves Rodrigues	**Signature**
Date 18/11/2016	**Date** 18/11/2016