Advantages of an Electronic Lab Notebook using OneNote and the Microsoft Surface Go

Why Electronic Lab Notebooks?

With the ‘innovative use of digital learning technologies in curriculum delivery and assessment’ and an estimated 77% of jobs requiring technological skills by 2020 (IBIS Global eLearning Investment Review), it is crucial that our students are exposed to the latest technology not only in the actual unit content, but also in the way the content is being delivered.

Electronic Lab Notebooks:

- Improve data accessibility, acquisition and presentation
- Are used for professional practice in research laboratories
- Move towards a paperless work environment

Advantages

- Structured lab report templates (easier for students to complete and focus is on the chemical content not formatting of their lab reports)
- Lab manuals are more interactive and informative (instructions provided not just in text format, but also in diagrams, photos and videos)
- Provides opportunities for collaborative learning
- Full text search across notes, sections & notebooks
- Reports contain sketched diagrams of experimental set-up, photos and videos of chemical reactions
• More information is recorded about each experiment
• Improved engagement during laboratory classes!
• Surface Go stylus pen ideal for drawings, sketches and writing chemical equations
• Ability to perform data analysis in the lab as data is collected using Microsoft Excel
• Lab instructions can be changed on the go
• Marking is more interactive by providing oral feedback not just written feedback
• Students can receive feedback immediately in the lab

Preparation for Use
• Development of structured Electronic Lab Notebook templates
• Provide students with sufficient opportunities to develop familiarity with OneNote and the Microsoft Surface Go

Resources
OneNote training and Electronic Lab Notebook resources are available on the ECU SuperLabs Learning Intranet.

Kind thanks to Dr Magdalena Wajrak for providing the above example images and advantages to electronic lab notebooks.