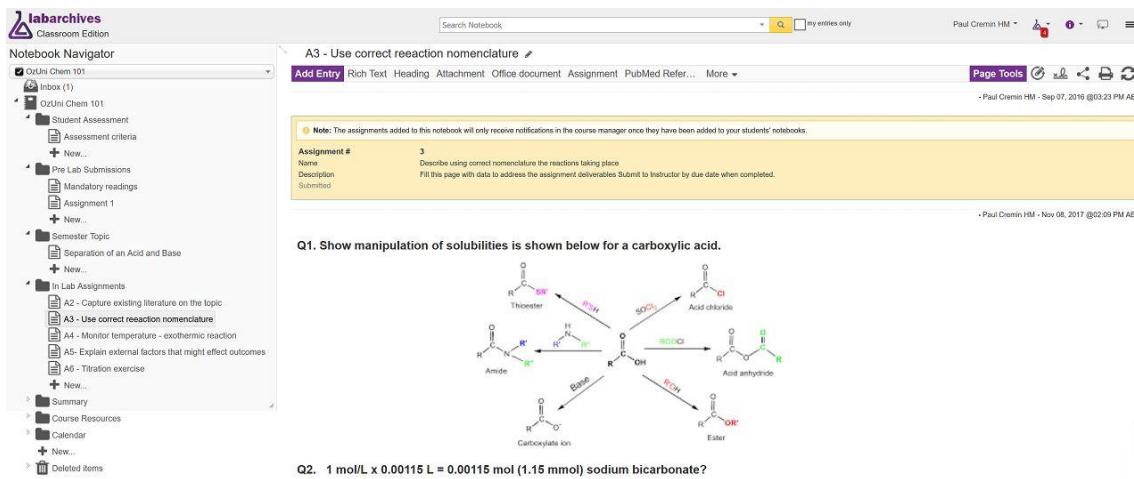


LabArchives is a cloud/web based electronic notebook that has significant capabilities as both the classroom and industry look to migrate from paper processes to electronic. Born out of the requirement for research laboratories to secure their funded work (and subsequent valuable discoveries), LabArchives has been adopted by universities, medical research institutes and biotech companies to comply with today's research regulatory environment.

As a natural progression from that adoption, LabArchives has been engineered to work in the classroom. It means that the burden of dealing with individual physical class assignments and notebooks has been removed and a modern, interactive learning system put in its place. And when students graduate and look to secure a career in research or industry, they're armed with a valuable skillset working with the dominant market solution.

How does it work?

The course controller designs a master notebook to be used in that semester course. It typically has a structure that contains all the course information, required reading materials, protocols, marking rubrics, aspects of the course manual, assignment questions and links to supporting sites or documents.



The screenshot shows the LabArchives Classroom Edition interface. On the left, the 'Notebook Navigator' displays a tree structure of notebooks, with 'OzUni Chem 101' expanded to show 'inbox (1)', 'Student Assessment', 'Pre Lab Submissions', 'In Lab Assignments', 'Summary', 'Course Resources', 'Calendar', and 'Deleted Items'. A specific assignment titled 'A3 - Use correct reaction nomenclature' is selected. The main workspace shows the assignment details: 'Assignment # 3', 'Name', 'Description', and 'Submitted'. Below this, a question asks 'Q1. Show manipulation of solubilities is shown below for a carboxylic acid.' It includes a chemical reaction diagram showing the equilibrium between a carboxylic acid (R-COOH) and its conjugate base (R-COO-). Other products shown include Thioester, Amide, Ester, Acid chloride, and Acid anhydride. At the bottom, a note states 'Q2. 1 mol/L x 0.00115 L = 0.00115 mol (1.15 mmol) sodium bicarbonate?'.

With the press of a button, the master notebook is immediately cloned, and a personal copy is delivered to each student registered in the course. The notebook is designed to look and feel the way an organised course might sit on a student's own computer. The student has access via any type of device, completes the work, captures all of the associated data files and submits through the platform back to the course controller and their associated demonstrators and/or assistants. In the back end, those teachers can mark and return the work with immediate feedback, collect the grades and send them through to the LMS.

Significantly, all work in the notebook is tracked and versioned, all changes, uploads, entries, sharing and editing is captured with a date/time stamp, and either the teacher or student can go back and look at any aspect of the work at any point in the past. This capability is one of the forensic requirements demanded by the rigours of scientific research regulation and separates LabArchives from commonly found generic and free electronic notebooks.

The work cannot be fudged, deleted or lost without leaving an audit trail that can easily be recovered. The system is not tied to specific subject matter nor limits the types of content it can store, and is updateable in real time. So much so that the University of Sydney have decided to rebadge and rename the platform, and install it as the official "University of Sydney eNotebook", available for all faculties to use.

To date in Australia, over 11 thousand students from 9 universities have graduated having used LabArchives in the classroom! To see a quick video of LabArchives in action, click here:

<https://www.youtube.com/watch?v=cMH6vzg1qO0&t=74s>