



Benchling

An Electronic Laboratory Notebook

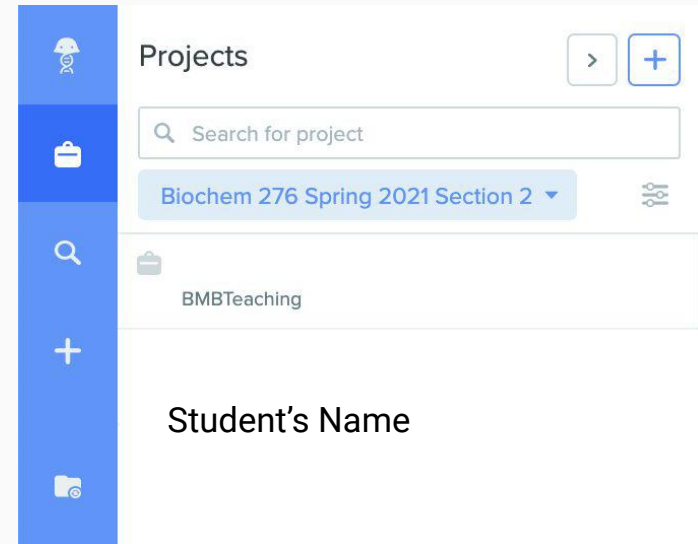
Guide to use in Biochemistry 421 at UMass Amherst

(~ 5 min)

Before completing this guide,
review "[Benchling Basics](#)" or be familiar with Benchling

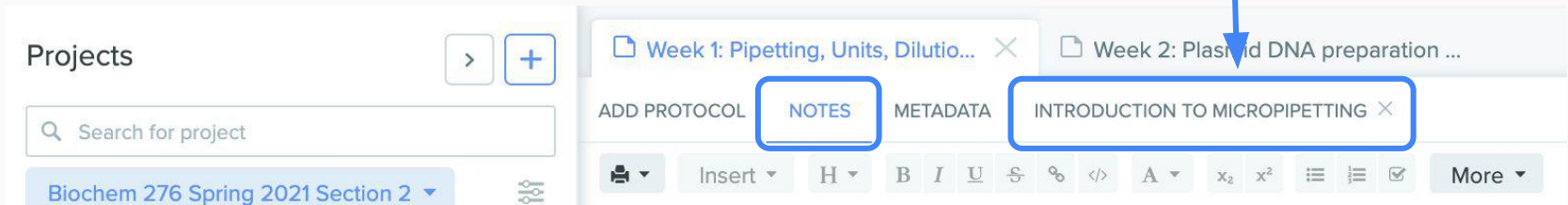
Class Organization in Benchling

- BMB Teaching has a Benchling account
 - You see a Project Folder for your class and section
- Each student has a project folder in their section titled with their name
 - Professors and TAs (“Admins”) have access to student folders for easy feedback and grading
- Each week has an entry with protocols and sections for students to enter data



Weekly Entries

- Each weekly experiment has an entry
 - Student data should be entered in the **Notes** section
 - Tables with cells to fill in, highlighted questions to be answered
 - **Protocols** can be found in another tab in the entry
 - Some entries may have multiple protocols



The screenshot displays a digital lab notebook interface. On the left, a 'Projects' sidebar contains a search bar and a dropdown menu for 'Biochem 276 Spring 2021 Section 2'. The main workspace shows two tabs: 'Week 1: Pipetting, Units, Dilutio...' and 'Week 2: Plasmid DNA preparation ...'. Below the tabs, a navigation bar includes 'ADD PROTOCOL', 'NOTES', and 'METADATA'. A protocol titled 'INTRODUCTION TO MICROPIPETTING' is open, and a blue arrow points from the 'Protocols' bullet point in the text above to this protocol tab. Below the navigation bar is a rich text editor with various formatting options like bold, italic, underline, and text color.

The Notes Section - For your data

- Everything typed into Benchling is **AUTOMATICALLY SAVED**
 - Admins (TAs) have access to every student's folder for grading!
 - Feedback will be given in the Notes section where you filled in your data
- Example Entry:

Pipetting Skills Exercise Micropipettors

Micropipetting Exercises:

Each student should individually perform the pipetting exercise detailed in the attached protocol, and fill in the tables below

Part 1. In a typical assay, there would be multiple components that need to be added to a tube. In this simulation all of the "solutions" will be water. However, use a clean tip for pipetting each solution to best mimic a typical enzyme reaction.

Table 1

	A	B	C	
1	Sample	Theoretical Volume	Measured Volume	
2	Tube A	20.0 μ L		
☰				

Enter data in empty cells

Other questions that need to be answered may be numbered, highlighted, or require fill-in-the-blank!

Collapse table

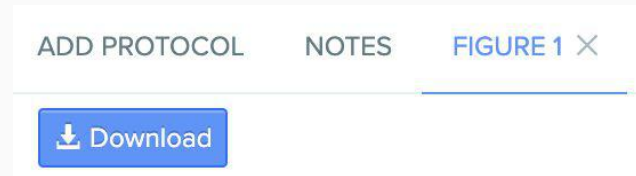
Download table data as CSV

The Notes Section

- Images or files added to the Notes section can be opened in a separate tab



- The previewed file will appear in the top panel with any other tabs associated with the entry



The Protocol Section

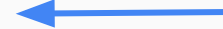
The purpose
and summary
of the lab
experiment



Introduction

Materials

Materials
required for
the
experiment



Detailed
experimental
procedure



Procedure

Questions or Comments?

Fill out our **Google Form** to provide feedback:

forms.gle/92Q9vp6jYzSB8Z9j6

Benchling **FAQ**:

docs.google.com/document/d/1DkSHnZ6FX8L4fORjmYm_omzotnJHzjTa587kfqtsiT0/edit?usp=sharing

Benchling Feedback

Please provide feedback so we can improve these guides.

* Required

What is your role? (Check all that apply) *

- Undergraduate Student
- Graduate Student
- TA
- Professor
- Researcher
- Other: _____

What University do you attend? *

- UMass Amherst
- Other: _____