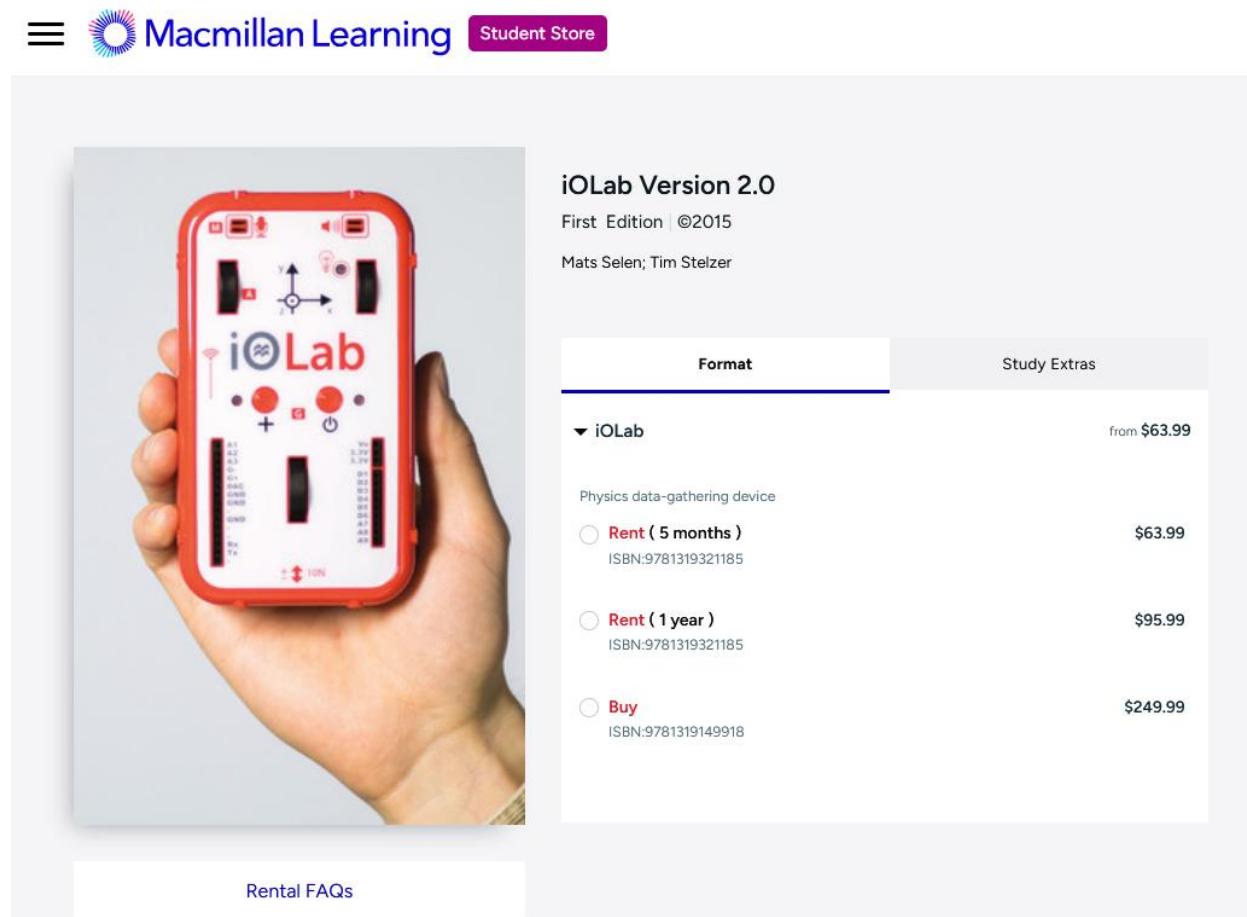


## PHY 134.L69 Lab Syllabus

Welcome to the PHY 134 Lab! This lab class is an asynchronous course, the so-called “online lab”. It is perhaps better described by the phase “at home” laboratory. You will purchase an ioLab device as part of a lab kit and use these items to perform all your experiments. Following each experiment you will submit a lab report through Brightspace and take a quiz testing your understanding of the material for the lab.

### ioLab Device

Macmillan publishing distributes the ioLab device, which interfaces a variety of sensors with your computer. Each student should purchase their own ioLab from Macmillan (or rent, or borrow).



The screenshot shows the Macmillan Learning website with the navigation bar "Macmillan Learning" and "Student Store". The main content is for the "iOLab Version 2.0" product. The product image shows a red handheld device with a screen displaying a graphical user interface for experiments. The right side of the page contains product details and a purchase table.

**iOLab Version 2.0**

First Edition | ©2015  
Mats Selen; Tim Stelzer

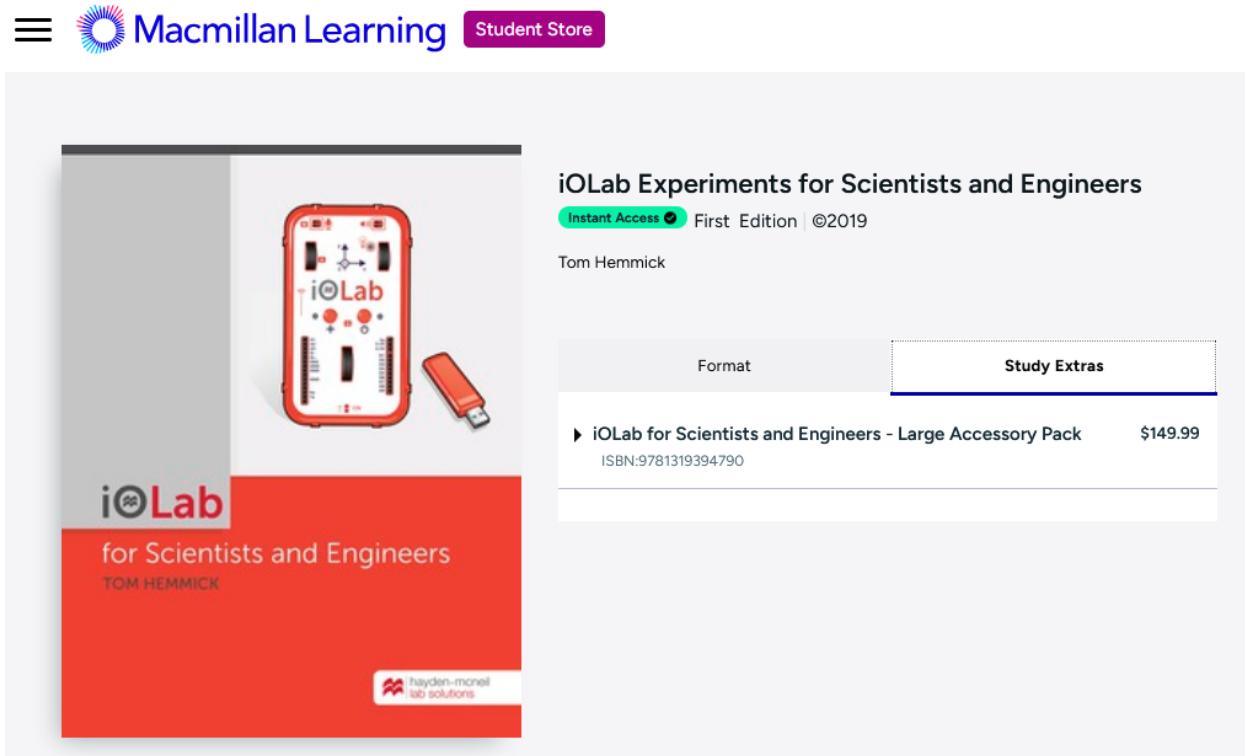
Format	Study Extras
<b>iOLab</b> Physics data-gathering device <input type="radio"/> <b>Rent (5 months)</b> \$63.99 ISBN:9781319321185	from \$63.99
<input type="radio"/> <b>Rent (1 year)</b> \$95.99 ISBN:9781319321185	\$95.99
<input type="radio"/> <b>Buy</b> \$249.99 ISBN:9781319149918	\$249.99

[Rental FAQs](#)

(Prices appearing in this screenshot are from January 2026 and may not be up to date.) This device will serve all your needs for PHY 133.L69 and PHY 134.L69.

## iOLab Kit of Parts

In addition to the iOLab, you will need a kit of parts (not merely the device). The kit is known as the “Large Accessory Pack”. This is found on the MacMillan site as a “Study Extra” to Dr Hemmick’s textbook; the web site looks as follows:



The screenshot shows the Macmillan Learning website. At the top, there is a navigation bar with a menu icon, the Macmillan Learning logo, and a "Student Store" button. Below the navigation bar, there is a large image of the "iOLab for Scientists and Engineers" textbook. The book cover is red and features the title "iOLab for Scientists and Engineers" and the author's name "TOM HEMMICK". Below the book image, there is a logo for "hayden-mcneil lab solutions". To the right of the book image, the title "iOLab Experiments for Scientists and Engineers" is displayed, along with the text "Instant Access" and "First Edition | ©2019". Below this, the author's name "Tom Hemmick" is listed. Further down, there are two tabs: "Format" and "Study Extras". The "Study Extras" tab is currently selected, showing a list item: "iOLab for Scientists and Engineers - Large Accessory Pack" with a price of "\$149.99" and the ISBN "9781319394790".

## Set-Up for the ioLab

After you receive the device, follow ALL the instructions found in the “Set up the ioLab” module in the Brightspace page for our class in order to get the device and the lab writeups properly installed. Be particularly careful about the folder into which you installed the lab manuals. If correctly done, you will be able to open the lab manuals inside the ioLab app. If incorrectly done, you will open them in a web browser and equations will not be shown.

## Lab Reports

The expectations for lab report content are discussed in detail in Brightspace. A guiding principle of the lab writeup is to write a **standalone document**. You can be brief, but your document should be sufficient for someone else to:

- Understand what you wanted to prove
- Understand how what you decided to measure
- See what you did measure
- See what you calculated
- REPRODUCE YOUR CALCULATIONS (!!?)
- Understand what you concluded.

Your lab reports will be handed in through the “Turnitin” system. This system compares your report to all other students in your class, all other students from prior classes, and the internet.

**TAs will investigate cases of high plagiarism score. Both the student who copied and the student who was copied from will receive zeroes on the lab report.**

## Lab Quizzes

In addition to the lab report, you must complete a lab quiz, meant to test you on what you did and what you have learned during the lab. Both are due on the same day, but it is suggested to do the lab quiz AFTER the lab report so that you can benefit from having learned something by performing the lab. The quizzes will be posted in Brightspace under the Exams/Quizzes tab. You must complete each lab quiz in one sitting, so make sure to set aside enough time for it.

## Grade Determination

Your lowest quiz and lowest lab score will be dropped. Your course score will be a weighted average of the reports (83.3%) and the quizzes (16.7%). Your grade will be set on the following scale:

	A	A-	B+	B	B-	C+	C	C-	D+	D	F
Percentage	> 92	88-	82-	75-	70-	65-	60-	55-	50-	45-	< 45
	92	87	82	74	69	64	59	54	49		

## Labs

The list of labs includes:

- Orientation (not for credit)
- Electric Field Plotting
- Breadboard
- Ohm's Law
- Kirchhoff's Law
- RC Circuits
- Magnetic Force.
- Magnetic Field.
- Faraday's Law
- RLC Circuit
- Snell's Law
- Diffraction

## Getting Help

Each student is assigned “their TA”. These assignments will be announced via the class Brightspace page. When requesting help, please do the following:

- Write to your TA.
- When appropriate attach a photo of your setup.

## Student Accessibility Support Center

If you have a physical, psychological, medical, or learning disability that may impact your course work, please contact the Student Accessibility Support Center, Stony Brook Union Suite 107, (631) 632-6748, or at [sasc@stonybrook.edu](mailto:sasc@stonybrook.edu). They will determine with you what accommodations are necessary and appropriate. All information and documentation is confidential.

## Academic Integrity

Each student must pursue his or her academic goals honestly and be personally accountable for all submitted work. Representing another person's work as your own is always wrong. Faculty is required to report any suspected instances of academic dishonesty to the Academic Judiciary. Faculty in the Health Sciences Center (School of Health Technology & Management, Nursing, Social Welfare, Dental Medicine) and School of Medicine are required to follow their school-specific procedures. For more comprehensive information on academic integrity, including categories of academic dishonesty please refer to the academic judiciary website at [http://www.stonybrook.edu/commcms/academic\\_integrity/index.html](http://www.stonybrook.edu/commcms/academic_integrity/index.html)

## Critical Incident Management

Stony Brook University expects students to respect the rights, privileges, and property of other people. Faculty are required to report to the Office of University Community Standards any disruptive behavior that interrupts their ability to teach, compromises the safety of the learning environment, or inhibits students' ability to learn. Faculty in the HSC Schools and the School of Medicine are required to follow their school-specific procedures. Further information about most academic matters can be found in the Undergraduate Bulletin, the Undergraduate Class Schedule, and the Faculty-Employee Handbook.