



Campus Fee Advisory Committee Meeting

November 21, 2025

2:00 p.m. - 3:00 p.m.

AGENDA

1. Roll-Call
2. Review of Submitted Fee Requests
  - a. [Department of Biology](#) (David Lent, Professor)
    - i. BIOL 1A (Increase from \$15.00 to \$30.00)
    - ii. BIOL 10 (Increase from \$5.00 to \$8.00)
    - iii. BIOL 12 (Increase from \$15.00 to \$30.00)
    - iv. BIOL 67 A (Increase from \$25.00 to \$40.00)
3. [Dog Days fee](#)
  - i. Continue formal discussion about the Dog Days fee
4. Campus Fee Advisory Committee [Website](#)
  - a. [Course Fee Request Process](#)
5. Next Meeting
  - a. January 23, 2026 at 2:00 p.m.
    - i. Effective Term for approved fees Fall 2026



**Campus Fee Advisory Committee Meeting**

**November 21, 2025**

**2:00 p.m. - 3:00 p.m.**

**MINUTES**

Attendees:

• Phong Yang, <i>VP of Student Affairs and Enrollment Management, Chair (non-voting member)</i>	<input type="checkbox"/> Present <input checked="" type="checkbox"/> Not Present
• Camalah Saleh, <i>ASI President</i>	<input type="checkbox"/> Present <input checked="" type="checkbox"/> Not Present
<i>ASI President Proxy: Syuzanna Kovalenko, ASI Chief of Staff</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Maris Prado, <i>ASI Executive Vice President</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Dayanara Guzman, <i>Vice President of Finance</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Alya Hassan, <i>Health &amp; Human Services RBA</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Torrance Carpenter, <i>Student Representative</i>	<input type="checkbox"/> Present <input checked="" type="checkbox"/> Not Present
• Dr. Amber Crowell, <i>Faculty, Academic Senate Representative</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• John Fugatt, <i>Assistant Vice President of Financial Services</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Dr. Bernadette Muscat, <i>Dean of Undergraduate Studies, Academic Affairs Representative</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Terree Stevenson, <i>Dean of Students</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present
• Dr. Amy Allen, <i>Associate Dean of Student Involvement (Ex-Officio, non-voting member)</i>	<input checked="" type="checkbox"/> Present <input type="checkbox"/> Not Present

Dean Stevenson is today's meeting facilitator.

1. Roll-Call (Please see above)

*Absent:* Phong Yang, VP of Student Affairs and Enrollment Management, Chair (non-voting member) and Torrance Carpenter, Student Representative

*Also in attendance:* Juana Gonzalez (Minutes), David Lent (Professor, Department of Biology), Ken Ternate (Senior Coordinator, Dog Days).

2. Review of Submitted Fee Requests

a. Biology Department (Professor David Lent)

i. BIOL 10 (Increase from \$5.00 to \$8.00)

• Proxy: Suzy, ASI Chief of Staff		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Maris Prado, ASI Executive Vice President		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dayanara Guzman, Vice President of Finance		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Alya Hassan, Health & Human Services RBA		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dr. Amber Crowell, Faculty, Academic Senate Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• John Fugatt, Assistant Vice President of Financial Services		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dr. Bernadette Muscat, Dean of Undergraduate Studies, Academic Affairs Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain

7 Committee members voted in favor of this fee increase Dr. Amber Crowell, Faculty, Academic Senate Representative motions to approve fee increase and John Fugatt, AVP Financial Services seconds the motion. Motion passes.

ii. BIOL 12 (Increase from \$15.00 to \$30.00)

• Proxy: Suzy, ASI Chief of Staff		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Maris Prado, ASI Executive Vice President		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dayanara Guzman, Vice President of Finance		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Alya Hassan, Health & Human Services RBA		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dr. Amber Crowell, Faculty, Academic Senate Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• John Fugatt, Assistant Vice President of Financial Services		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dr. Bernadette Muscat, Dean of Undergraduate Studies, Academic Affairs Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain

7 Committee members voted in favor of this fee increase John Fugatt, AVP Financial Services motions to approve fee increase and Dr. Amber Crowell, Faculty, Academic Senate Representative seconds the motion. Motion passes.

iii. BIOL 1A (Increase from \$15.00 to \$30.00)

• Proxy: Suzy, ASI Chief of Staff		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Maris Prado, ASI Executive Vice President		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dayanara Guzman, Vice President of Finance		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Alya Hassan, Health & Human Services RBA		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain

• Dr. Amber Crowell, Faculty, Academic Senate Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• John Fugatt, Assistant Vice President of Financial Services		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain
• Dr. Bernadette Muscat, Dean of Undergraduate Studies, Academic Affairs Representative		
<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> Abstain

7 Committee members voted in favor of this fee increase John Fugatt, AVP Financial Services motions to approve fee increase and Dr. Amber Crowell, Faculty, Academic Senate Representative seconds the motion. Motion passes.

- iv. BIOL 67 A (Withdrew at this time by Professor David Lent, will revisit with Biology Department)

### 3. Dog Days fee

- i. Continue formal discussion about the Dog Days fee (Ken Ternate, Presenter)

Mr. Ternate shared with the committee information and data to support discussions on Dog Days fee. Shared with the committee that we are not voting today, this is for formal discussion purposes only.

### 4. Next Meeting: Special Meeting to discuss Dog Days Fee.

- a. December 12, 2025 at 1:30 p.m.

The meeting adjourned at 2:53 p.m.

Minutes taken by:

Juana Gonzalez, Administrative Assistant

## 25-26

To be considered for the \_\_\_\_ academic year, fee requests must be submitted to Joy Goto, Associate Dean by \_\_\_\_\_. Please submit original paper copies to the Dean's office.

- with a copy to

Check one:      New fee:      Change to existing fee: ☒      Withdraw Fee:

Current fee: \$ 5.00

New Fee: Spring 2026 \$ 8.00

Subject – course number fee should be attached to:

Subject Area	Catalog #	Course ID
BIOL	10	

Other method to charge—e.g. plan, program, student group: \_\_\_\_\_

List any additional course(s) to be charged: \_\_\_\_\_

**Please attach a brief impact statement addressing all of the following for the proposed new or revised fee:**

1. Describe how the fee will be assessed—e.g. all students, students in a specific unit/program/major.
2. Provide a 5-year history of all fees assessed within the academic program/major of the proposed new or revised program/course fee. **If this is a new fee please provide a brief statement of course objectives.**
3. Specify how many students the proposed program/course fee will affect by student classification—i.e. undergraduate, graduate, or professional—and by student level—e.g. freshmen, juniors, etc.  
Please describe the direct benefit to students in terms of enhancing or enriching the student learning experience. Provide a budget that details the expected annual revenue from the fee and the expenses that the fee will cover. If this is a current fee, please include how the current revenue is being utilized.
4. If the fee is not approved what would be the expected impact on students, and what alternative means to the proposed fee have been explored for achieving the desired outcome.

**Attach additional documentation as needed.**

### Peoplesoft Chartfield Information:

Unit Budget Analyst: Nancy Gomez Ext: 8-5469

Department: Biology Telephone: 8-3966

Dept. Contact: David Lent Email: dlent@csufresno.edu

Dept Chair signature: Karine Gousset  
Karine.Gousset@univ-lyon1.fr 0035 11 42 34 600

Dean Signature: \_\_\_\_\_

AVP Accounting: *[Signature]*

**For Fee Withdrawal Only Department Chair and Dean Signature Required**

To be completed, if approved by Fee Committee:

Date of Committee action:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Department of Biology Lab Fee Request and Justification

1. The Department of Biology is requesting to revise fees for four courses. These courses are BIOL 10, BIOL 12, BIOL 67A and BIOL 1A. These revised fees will be assessed to students in these four courses.
2. Table includes the first and last year of the 5-year history of assessed fees and reflects no changes in fees over the last 5 years. The cost of many materials have substantially increased during this timeframe, especially for plastic laboratory consumables. Over the same period, increased expenses have also been incurred from the gradual implementation of new activities, particularly in BIOL 1A lab.

2019 Laboratory Fees			2024 Laboratory Fees		
Course	Subclass#	Fee	Course	Subclass#	Fee
Biol 10	24102	\$ 5.00	Biol 10	24102	\$ 5.00
Biol 12	24104	\$ 15.00	Biol 12	24104	\$ 15.00
Biol 67A	24107	\$ 25.00	Biol 67A	24107	\$ 25.00
Biol 1A	24108	\$ 15.00	Biol 1A	24108	\$ 15.00

3. All courses affect undergraduate students. These are lower-division courses and primarily comprise freshman and sophomores. BIOL 67A frequently has students from all grade levels enrolled, as it is a course required for several health-related careers. All of these courses serve a large number of students across Colleges, Schools, and majors as G.E. or other requirements. BIOL 1A is a core course for the biology B.S. degree. The average enrollment per year for BIOL 10 is 2000. The average enrollment per year for BIOL 12 is 144. The average enrollment per year for BIOL 1A is 528. The average enrollment per year for BIOL 67A is 285. For all courses, the assessed fees are necessary to provide a learning experience that matches what is found at comparable institutions and prepares them to be competitive in the job market upon graduation. These assessed fees provide a direct benefit to students by providing them with hands-on opportunities using modern laboratory approaches that are critical for future success.
  - a. Summary of fee requests (see lab fee cost breakdown spreadsheet for details for BIO 10, 12 & 1A)
    - i. **Biol 10:** Total per-student expenses are currently approximately \$4 pre-tax, however to ensure students continue to be competitive and provide them with innovative, inquiry-based labs, newly proposed activities will cost around \$2.50 (see 'New Biol 10 materials proposed' sheet). We are recommending a new fee of \$8 (it is currently \$5) to meet current and planned expenses.

- ii. **Biol 12:** Total per-student expenses are currently approximately \$29 pre-tax, in large part due to expensive dissection specimens. A few of these have increased dramatically in price in the last year, namely, starfish (1 used per 2 students), frogs (1 per 2 students) and rats (1 per 4). Further reducing starfish and frog use to 1 per 4 students would save ~\$8/student to the detriment of pedagogy/hands-on learning. To maintain this course experience and our ability to prepare students as-is, we are recommending an increase in this fee to **\$30** (it is currently \$15).
  - iii. **Biol 1A:** Total per-student expenses are currently about \$25 pre-tax. To stay cutting-edge and build foundational lab skills, we are recommending an increase in this fee to **\$30** (current fee is \$15) to provide a buffer against increasing costs/inflation and to permit keeping up with changing tools that students will need to learn to use to stay competitive.
  - iv. **BIOL 67A:** Total per-student expenses are currently approximately \$28 per student, but this cost has come by sacrificing student preparedness. The necessary specimens and supplies have increased in cost significantly. Currently, costs are kept down by increasing the number of students that share lab materials (currently, 3 to 4 students per lab specimen). Additionally, costs are kept down by using less optimal materials and specimens that minimize depth of learning and result in the lack of hands-on experience working with developed anatomical systems. Historically, for best pedagogical practice, we use one lab specimen per 2 students to give greater depth and help ensure that each student is able to learn the material. To best prepare students for their careers, including those planning to enter the healthcare field, we recommend an increase to **\$40** (current fee is \$25) to ensure best pedagogy.
4. The lab fees for these courses have not changed since their inception. As costs have been rising, we have compromised, but we have now reached an untenable position where our students are on the verge of not being provided with the learning experiences and essential skill development expected in a biology lab course. This will put them at a disadvantage in the future. If these fees are not approved, we risk disenfranchising our students and potentially losing them to other universities or programs. There are no other sources of funding that we can rely on, as these courses require a reliable revenue stream for consistent and regular stability. We believe that these modest increases will allow us to provide the necessary experience for our students and best prepare them for their future careers.



Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total (ordering) qty. ne	Approximate course co	Notes (include 'reusable' n	Product Link
<b>Lab 1: Introduction to Science</b>											
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	2 slides	\$0.25		~14 packs	\$244.86		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	2	\$0.09		2 cases	\$90		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Lens paper	Fisher	11-996	\$18.17/pack of 12		0.03			\$18.17		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	(DI water) Barnes droppers	VWR	470123-892	\$89.40/pack of 36			(included under 'commonly used items'		\$89	Dropper bulbs deteriorate ov	<a href="https://us.vwr.com/store/catalog/product.jsp?">https://us.vwr.com/store/catalog/product.jsp?</a>
	Prepared Elodea wet mount slid	VWR	470177-458	\$5.99/each	1	0.05	Accounts for broken/lost slides (72 + extra		\$431.28	Reusable; prone to breakage	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	1000-mL plastic beakers (cover	Fisher	14-955-111F	\$90.36/case of 100		N/A		6	\$90.36	Reusable	<a href="https://www.fishersci.com/shop/products/tri-c">https://www.fishersci.com/shop/products/tri-c</a>
	8" Carolina culture dish	Carolina	741006		21.9	N/A		3	\$65.70	Reusable	<a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	VWR® Dissecting Forceps, Mex	VWR	82027-388	\$68.70/pack of 12 or \$6.11 ea.		N/A		6	\$23	Reusable	<a href="https://us.vwr.com/store/product/4526503/vw">https://us.vwr.com/store/product/4526503/vw</a>
	Glass slide recycling containers	Fisher	13-359-20B	\$74.85/each		N/A		3	\$224.55	Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	Elodea stems	VWR	470325-296	\$8.76/pack of 6		0.05	Assumes ~50 leaves/stem	At least 18 stems	\$26.28	Usually supplied by Greenhc	<a href="https://us.vwr.com/store/product/30332765/w">https://us.vwr.com/store/product/30332765/w</a>
<b>Lab 2: Scientific Thinking</b>											
	Stopwatches	Amazon		\$7/ea.		0.04		12	\$84.00	Occasionally stop working/r	<a href="https://www.amazon.com/hz/mobile/mission?">https://www.amazon.com/hz/mobile/mission?</a>
	Modeling clay	Amazon		\$7.50 per 2 lbs		0.01		2 lbs	\$7.50		<a href="https://www.amazon.com/Crayola-Modeling-Non">https://www.amazon.com/Crayola-Modeling-Non</a>
	Samara seeds			\$10/200		0.01		~320 seeds		2 orders (of 200 seeds)	<a href="https://www.etsy.com/listing/1789430934/extra-li">https://www.etsy.com/listing/1789430934/extra-li</a>
	Labeling tape (yellow, 0.5in)	Fisher	15901158	\$81.29/case of 6	1cm	0.03		3 rolls/half a case			<a href="https://www.fishersci.com/shop/products/colored">https://www.fishersci.com/shop/products/colored</a>
	20 in. floor fans w/tilt	Tractor Supply		\$49.99/ea.		N/A		12	\$648	Reusable	<a href="https://www.tractorsupply.com/tsc/product/vr">https://www.tractorsupply.com/tsc/product/vr</a>
	Support stand	Fisher	01-257-566		\$43.07	N/A		12	\$558.18	Reusable	<a href="https://www.fishersci.com/shop/products/sup">https://www.fishersci.com/shop/products/sup</a>
	1/2" electrical metallic tubing, 10	Home Depot		\$5.98 per 10'		N/A		12	\$77.76	Reusable	<a href="https://www.homedepot.com/p/1-2-in-x-10-ft-E">https://www.homedepot.com/p/1-2-in-x-10-ft-E</a>
	8-2 AWG copper water tubing cl	Amazon		\$7/ea.		N/A		12	\$90.72	Reusable	<a href="https://www.amazon.com/Sigma-Electric-ProC">https://www.amazon.com/Sigma-Electric-ProC</a>
	three-prong extension clamp (fir	Amazon (Eisco brand)		13.69/ea.		N/A		12		Reusable	<a href="https://www.amazon.com/TOPINCN-Finger-Adj">https://www.amazon.com/TOPINCN-Finger-Adj</a>
	meter sticks	Fisher	S32051	\$6.87/each		N/A		12		Reusable	<a href="https://www.fishersci.com/shop/products/soli">https://www.fishersci.com/shop/products/soli</a>
<b>Lab 3: Cell Structure &amp; Function</b>											
	(~300mL) Lugol's iodine	Carolina	872797	\$6.95/1 liter	0.1mL	\$0.02		~1/3 liter	18.98		<a href="https://www.carolina.com/specialty-chemicals-">https://www.carolina.com/specialty-chemicals-</a>
	Lens paper	Fisher	11-996	\$18.17/pack of 12		0.03		12	\$18.17		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	5 slides	\$0.60		~35 packs	\$617.05		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	5	\$0.23		5 cases	\$225		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Razor blades	Carolina	626931	13.44/pack of 100		0.0008		6			<a href="https://www.carolina.com/dissecting-scalpels-1">https://www.carolina.com/dissecting-scalpels-1</a>
	Flat toothpicks	Amazon		\$8.85/2,250 (3 pk. of	1	\$0.00					<a href="https://www.amazon.com/Diamond-Flat-Tooth">https://www.amazon.com/Diamond-Flat-Tooth</a>
	2 bags of potatoes			\$4-6 for 10 lbs.		0.008					(grocery item)
	Prepared hair slides (various)	VWR		Ranges from \$5-\$15		\$0.10	Accounts for broken/missing slic	40/room-->120 total		Reusable; prone to breakage	
	Prepared oral smear slides	Carolina	294354	\$5.89/ea		0.03	Accounts for broken/lost slides (	72	\$424.08	Reusable	<a href="https://www.carolina.com/prokaryote-slides/ac">https://www.carolina.com/prokaryote-slides/ac</a>
	(DI water) Barnes droppers	VWR	470123-892	\$89.40/pack of 36			(included under 'commonly used items'	18	\$89	Dropper bulbs deteriorate ov	<a href="https://us.vwr.com/store/catalog/product.jsp?">https://us.vwr.com/store/catalog/product.jsp?</a>
	(Methylcellulose) droppers	VWR	470123-892	\$89.40/pack of 36			(included under 'commonly used items'	6	\$89.40	Dropper bulbs deteriorate ov	<a href="https://us.vwr.com/store/catalog/product.jsp?">https://us.vwr.com/store/catalog/product.jsp?</a>
	2% methylcellulose solution (~2	VWR	TS18231-1000 (St	\$39.16/100g		0.0016			\$39.16		<a href="https://www.avantorsciences.com/us/en/product">https://www.avantorsciences.com/us/en/product</a>
	Filamentous green algae	Carolina	151321	\$11.35/container		0.03				Usually supplied by Greenhc	<a href="https://www.carolina.com/algae/spirogyra-livin">https://www.carolina.com/algae/spirogyra-livin</a>
	Elodea stems	VWR	470325-296	\$8.76/pack of 6		0.05	Assumes ~50 leaves/stem			Usually supplied by Greenhc	<a href="https://us.vwr.com/store/product/30332765/w">https://us.vwr.com/store/product/30332765/w</a>
	8" Carolina culture dish	Carolina	741006		21.9	N/A		6	\$131.40	Reusable	<a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	50-mL glass beakers	Fisher	FB10050	\$33.09/pk. of 12		N/A				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	150-mL glass beakers	Fisher	FB100150	\$37.29/pk. of 12		N/A				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	3-mL Plastic disposable transfer	VWR	414004-017	\$12.82/pk. of 500		N/A (negligible)				Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	VWR® Dissecting Forceps, Mex	VWR	82027-388	\$68.70/pack of 12 or \$6.11 ea.		N/A				Reusable	<a href="https://us.vwr.com/store/product/4526503/vw">https://us.vwr.com/store/product/4526503/vw</a>
	Six 16 oz. screw-cap specimen	Carolina	715614	\$24.08/pack of 12		N/A				Reusable	<a href="https://www.carolina.com/lab-dishes/specimer">https://www.carolina.com/lab-dishes/specimer</a>
	4" Carolina culture dish	Carolina	741004	\$12.97/each		N/A				Reusable	<a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	Blunt scissors	VWR	82027-588	131.62/pk. of 10		N/A				Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	Cutting boards	Amazon		\$9.88/each		N/A		1/room-->3 total		Reusable	<a href="https://www.amazon.com/Fatberware-Nonslip-">https://www.amazon.com/Fatberware-Nonslip-</a>
	Paring knives	Amazon		\$20.73/3 pack		N/A		1/room-->3 total		Reusable	<a href="https://www.amazon.com/Dexter-Russell-S104">https://www.amazon.com/Dexter-Russell-S104</a>
	VWR® Dissecting Forceps, Fin	VWR	82027-408	\$10.56/each		N/A		1/room-->3 total		Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	3.5-gal. Sharps Container, Chir	Fisher	22-730-470	\$66.74/10 pack		N/A				Last several semesters	<a href="https://www.fishersci.com/shop/products/shar">https://www.fishersci.com/shop/products/shar</a>
	Animal cell model (Staco)	SchoolSpecialty		\$612.52		N/A					<a href="https://www.schoolspecialty.com/staco-deluxe">https://www.schoolspecialty.com/staco-deluxe</a>
	Plant cell model (Staco)	Carolina	568048	\$991.09		N/A					<a href="https://www.carolina.com/plant-models/plant-c">https://www.carolina.com/plant-models/plant-c</a>
<b>Lab 4: Photosynthesis</b>											
	Razor blades	Carolina	626931	13.44/pack of 100		0.0008		6	0.8		<a href="https://www.carolina.com/dissecting-scalpels-1">https://www.carolina.com/dissecting-scalpels-1</a>
	Potassium bicarbonate (to make	Fisher	S25475A	\$14.07/500g bottle		0.01			10		<a href="https://www.fishersci.com/shop/products/poti">https://www.fishersci.com/shop/products/poti</a>
	1.5-mL microfuge tubes	Fisher	05-408-129	\$19.95/pack of 500		0.04			40		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Nitrile gloves	Fisher	19177521, 191775	\$14.18/250-pack		0.11			110		<a href="https://www.fishersci.com/store1/mylist">https://www.fishersci.com/store1/mylist</a>
	Acetone	Fisher	A949-4	\$22.23/4 liter bottle		0.02			20		<a href="https://www.fishersci.com/shop/products/acet">https://www.fishersci.com/shop/products/acet</a>
	Petroleum ether	Fisher	E139S-4	\$79.65/4 liter bottle		0.008			8	Used in 1:10 ratio with aceto	<a href="https://www.fishersci.com/shop/products/petr">https://www.fishersci.com/shop/products/petr</a>
	95% Ethanol	VWR	V1105HC	88.06/5-gal. cubitainer		N/A (negligible)					<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	(~2500mL) Lugol's Iodine	Carolina	872797	\$6.95/1 liter	2.5 mL	\$0.14			\$140.00		
	1-gal. plastic jugs for 0.4% KHC	VWR	16085-010	\$258.20/case of 60		N/A (negligible)				Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>



Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total (ordering) qty. ne	Approximate course co	Notes (include 'reusable' n	Product Link
Lab 5: DNA Extraction	500-ml flip-top squirt bottles	VWR	16151-832	\$83.09/case of 24		(included under 'commonly used items')		1 case		\$83.09 Reusable; need occasional r	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	#7 one-hole rubber stoppers	Fisher	14-135L	\$180.47/pack of 15		N/A (negligible)				Reusable	<a href="https://www.fishersci.com/shop/products/one">https://www.fishersci.com/shop/products/one</a>
	Polypropylene pans (microfuge/	Fisher	<a href="#">13-361-15</a>	\$210.11/case of 6						Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	100x15mm petri dishes for displ	Fisher	<a href="#">FB0875713</a>	65.9/case of 500		N/A (negligible - used for demo)					<a href="https://www.fishersci.com/shop/products/petr">https://www.fishersci.com/shop/products/petr</a>
	Cytiva Whatman 3MM chromatic	Fisher	05-716-3A	\$87.53/each (1 reel) ~17CM		\$0.15			\$150.00		<a href="https://www.fishersci.com/shop/products/wha">https://www.fishersci.com/shop/products/wha</a>
	1L flip top dispensing bottle (for	Fisher	02-992-583	\$246.99/case of 66		N/A				Reusable	<a href="https://www.fishersci.com/shop/products/qor">https://www.fishersci.com/shop/products/qor</a>
	4L Erlenmeyer flasks for collecti	Fisher	50-955-7573	491.04/case of 4		N/A				Reusable	<a href="https://www.fishersci.com/shop/products/400">https://www.fishersci.com/shop/products/400</a>
	Round toothpicks for pigment of Amazon			\$6/2000		0.003			3		<a href="https://www.amazon.com/Bamboo-Wooden-To">https://www.amazon.com/Bamboo-Wooden-To</a>
	50-mL beakers	Fisher	02-540G	\$22.83/pack of 12	N/A (re-used)	N/A (negligible)	3 needed	22.83	\$22.83	Reusable	<a href="https://www.fishersci.com/shop/products/low">https://www.fishersci.com/shop/products/low</a>
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	N/A (demo)	N/A (negligible)					<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	N/A (demo)	N/A (negligible)					<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Blunt scissors	VWR	82027-588	131.62/pk. of 10		N/A				Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	25x150mm test tubes for bubbl	Fisher	14-961-34	\$152.10/case of 500		0.3	\$0.10		\$100.00		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	250-mL Erlenmeyer flasks	Fisher	FB500250	\$37.84/pack of 12	N/A (demo)	N/A (negligible)				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Corks that fit 25x150mm tubes	?	?			N/A				Reusable	
	100-mL beakers for leaf starch t	Fisher	FB100100	\$35.48/pack of 12	N/A (demo)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	400-mL beakers for leaf starch t	Fisher	FB101400	\$108.68/pack of 12	N/A (demo)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	glass boiling beads	Amazon		\$7.29/500 pcs	N/A (demo)	N/A				Reusable	<a href="https://www.amazon.com/uxcell-Solid-Boiling-5">https://www.amazon.com/uxcell-Solid-Boiling-5</a>
	Strainers for collecting boiling br	Amazon		\$6/2 pk.	N/A (demo)	N/A				Reusable	<a href="https://www.amazon.com/Harewy-Strainer-Sta">https://www.amazon.com/Harewy-Strainer-Sta</a>
	Crucible tongs	Fisher	15-200	\$16.60/ea.; 1 per roo	N/A (demo use)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Hot plates	Fisher	<a href="#">07-770-108</a>	\$395.77/ea.	N/A (demo use)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/pyrc">https://www.fishersci.com/shop/products/pyrc</a>
	480mL Amber Boston Round bc	Fisher	FB02911743	\$56.24/case of 12	N/A (demo use)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/amt">https://www.fishersci.com/shop/products/amt</a>
	64mm powder funnels for solvet	Fisher	<a href="#">10-348A</a>	\$83.46/pack of 12	N/A (demo use)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	Bei-Art 30cmx20cmx13cm steril	VWR	62662-401	\$234.59/case of 6		N/A				Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	150mm powder funnels for etha	Fisher	4252-0150	\$51.61/pack of 4	N/A (demo use)	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	250-mL wash bottles	Fisher	03-409-10D	\$43.60/pack of 4		N/A (negligible)				Reusable; need replacemen	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	Half meter sticks for bubble gen	Fisher	S15985	\$2.18/ea.	N/A	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/half">https://www.fishersci.com/shop/products/half</a>
	Desk lamps for bubble gen. acti	Amazon		\$9.99/ea.	N/A	N/A				Reusable	<a href="https://www.amazon.com/Simple-Designs-Hor">https://www.amazon.com/Simple-Designs-Hor</a>
	LED bulbs for bubble gen. activi	Amazon		\$13.97/6 pack	N/A	0.1				Needs occasional replaceme	<a href="https://www.amazon.com/Bioluz-LED-Replacen">https://www.amazon.com/Bioluz-LED-Replacen</a>
	Ring stands for bubble gen. acti	Fisher	4SSC15	\$11.39/ea.	N/A	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/gsc">https://www.fishersci.com/shop/products/gsc</a>
	three-prong extension clamp (fir	Amazon (Eisco brand)		13.69/ea.		N/A		12		Reusable	<a href="https://www.amazon.com/TOPINCN-Finger-Adj">https://www.amazon.com/TOPINCN-Finger-Adj</a>
	Plant growth lamp	Amazon		\$34.99/ea	N/A	N/A				Reusable	<a href="https://www.amazon.com/Lights-Spectrum-Ind">https://www.amazon.com/Lights-Spectrum-Ind</a>
	Geranium plants			\$9.84/ea						Usually supplied by Greenhouse	
	Variegated leaf Coleus plants	VWR		\$9.84/ea						Usually supplied by Greenhouse	
	Cutting boards	Amazon		\$4.99/ea					\$15	Reusable	<a href="https://www.amazon.com/Farberware-Reversib">https://www.amazon.com/Farberware-Reversib</a>
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A			\$9	Reusable	<a href="https://www.carolina.com/lab-rulers/ruler-whit">https://www.carolina.com/lab-rulers/ruler-whit</a>
	Fisherbrand Redi-tips, 1-200uL	Fisher	02-707-500	\$161.40/pack of 100	N/A (pigment pre	N/A			\$161		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	80mm powder funnel for refilling	VWR	414004-270	\$81.30/pack of 12	N/A	N/A			\$81	Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	Plastiklips for clipping foil piece	Amazon		\$11.85/pack of 500						Reusable	<a href="https://www.amazon.com/Plastiklips-Medium-7">https://www.amazon.com/Plastiklips-Medium-7</a>
	Aluminum foil (for covering leav	Fisher	01-213-104	\$14.52/ea		N/A (negligible)			\$14.52		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
Lab 6: Cell Cycle, Mitosis, Meiosis	Giant DNA Model (Denoyer-Ge	VWR	470004-756	\$1,090.62	N/A (demo use)	N/A					
	Raw wheat germ (~1,000g or thi	Sprouts Farmer's Market		\$2.99/bag	1g	0.009		~3 340g bags	\$9		<a href="https://shop.sprouts.com/store/sprouts/s7ke-r">https://shop.sprouts.com/store/sprouts/s7ke-r</a>
	Electronic balances (Ohaus OH	<a href="#">scalesgalc</a> OHA-SPX222		\$359.64/ea	N/A	N/A		12	\$4,316	Reusable	<a href="https://www.scalesgalore.com/product/Ohaus-">https://www.scalesgalore.com/product/Ohaus-</a>
	5.5"x5.5" weighing dishes	Fisher	08-732-115	\$50.29/case of 500	N/A	N/A		12	\$50.29	Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Tongue depressors for handling	Amazon		\$29.99/3 packs of 500		N/A (group use; negligible)		12	\$29.99	Reusable	<a href="https://www.amazon.com/ForPro-110392-Non-">https://www.amazon.com/ForPro-110392-Non-</a>
	30mm half-racks for holding DN	VWR	5972-0030	\$17.25/ea		N/A		24	\$414	Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	25x150mm test tubes for bubbl	Fisher	14-961-34	\$152.10/case of 500		0.3	\$0.10		\$100.00		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Glass slide recycling containers	Fisher	13-359-20B	\$74.85/each		N/A		3	\$224.55	Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	10" glass stirring rods	Fisher	11380D	\$91.67/case of 72		N/A		24	\$91.67	Prone to breakage but reusable	
	50-mL Nalgene graduated cylind	Fisher	36620050	\$17.87/ea		N/A		24	\$428.88	Reusable	
	(SDS) Barnes droppers	VWR	470123-892	\$89.40/pack of 36		(included under 'commonly used items')		24	\$89	Dropper bulbs deteriorate ov	<a href="https://us.vwr.com/store/catalog/product.jsp?">https://us.vwr.com/store/catalog/product.jsp?</a>
	Sodium Dodecyl Sulfate	VWR	SS0650-500G	\$33.73/500g		0.015		24 Barnes droppers cont	\$5		<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	5 liters 95% Ethanol	VWR	V1105HC	88.06/5-gal. cubitainer		0.07		1	\$23.26		<a href="https://www.avantorsciences.com/us/en/product">https://www.avantorsciences.com/us/en/product</a>
	4L Erlenmeyer flasks for collecti	Fisher	50-955-7573	491.04/case of 4		N/A		3		Reusable	<a href="https://www.fishersci.com/shop/products/400">https://www.fishersci.com/shop/products/400</a>
	Chromosome model (Somso)	Carolina	561705	\$789.75/ea	N/A	N/A		3	2,369.25	Reusable	<a href="https://www.carolina.com/cell-models/somso-">https://www.carolina.com/cell-models/somso-</a>
	Animal mitosis model set (Som	Carolina	561624	1152.8/ea	N/A	N/A		3	3,458.40	Reusable	<a href="https://www.carolina.com/cell-models/somso-i">https://www.carolina.com/cell-models/somso-i</a>
	Grassfrog life history museum n	VWR	470000-278	\$428.09/ea	N/A	N/A		3	1,284.27	Reusable	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	Onion root tip mitosis slides	Carolina	302396	\$9.35/ea	N/A	0.05	Accounts for broken/lost slides (	78	729.3	Reusable; prone to breakag	<a href="https://www.carolina.com/mitosis-meiosis-mic">https://www.carolina.com/mitosis-meiosis-mic</a>
	Lens paper	Fisher	11-996	\$18.17/pack of 12		0.03		12	\$18.17		<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	White chalk	VWR	66-2012	\$1.40/pack of 12		0.03		27	\$37.80		<a href="https://www.avantorsciences.com/us/en/searc">https://www.avantorsciences.com/us/en/searc</a>
	8" Carolina culture dish	Carolina	741006	21.9		N/A		15	\$328.50	Reusable	<a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	Half meter sticks	Fisher	S15985	\$2.18/ea.	N/A	N/A				Reusable	<a href="https://www.fishersci.com/shop/products/half">https://www.fishersci.com/shop/products/half</a>



Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total (ordering) qty.	# Reusable	Approximate course co Notes (include 'reusable' if n Product Link)
Lab 7: Diffusion and Water Balance	Round craft beads for making r	Amazon		\$2.89/450pcs.	N/A	N/A (negligible)				Reusable <a href="https://www.amazon.com/BeadTin-Crystal-Clas">https://www.amazon.com/BeadTin-Crystal-Clas</a>
	Fishing wire for making magneti	Amazon		\$6.99/75ft.	N/A	N/A (negligible)				Reusable <a href="https://www.amazon.com/Invisible-Balloons-Dr">https://www.amazon.com/Invisible-Balloons-Dr</a>
	Magnets for making magnetic cl	Amazon		\$16.99/62pcs	N/A	N/A				Reusable <a href="https://www.amazon.com/dp/B07L7XK1N3/ref">https://www.amazon.com/dp/B07L7XK1N3/ref</a>
Lab 7: Diffusion and Water Balance	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	N/A (demo)	N/A (negligible)		3 packs		\$52.89 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	N/A (demo)	N/A (negligible)		3 cases		\$135 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Polypropylene pans (slide disca	Fisher	13-361-15	\$210.11/case of 6					Reusable	<a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	Lens paper	Fisher	11-996	\$18.17/pack of 12		0.03			12	\$18.17 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Spectrum RC dialysis tubing for	Fisher	08-670-246	\$531.36/100 ft. roll	~0.25 in.	0.11		3 rolls (1 per room)		1,594.08 <a href="https://www.fishersci.com/shop/products/086">https://www.fishersci.com/shop/products/086</a>
	Dialysis tubing clips	Fisher	08-670-11A	\$275.48/pack of 10	N/A (demo)	N/A		6 (2 per room)		\$275.48 <a href="https://www.fishersci.com/shop/products/sper">https://www.fishersci.com/shop/products/sper</a>
	(DI water) Barnes droppers	VWR	470123-892	\$89.40/pack of 36	N/A (demo)	(included under 'commonly used items')		6 (2 per room)		\$89 Dropper bulbs deteriorate ov <a href="https://us.vwr.com/store/catalog/product.jsp?r">https://us.vwr.com/store/catalog/product.jsp?r</a>
	(3% NaCl) Barnes droppers	VWR	470123-892	\$89.40/pack of 36	N/A (demo)	(included under 'commonly used items')		6 (2 per room)		\$89 Dropper bulbs deteriorate ov <a href="https://us.vwr.com/store/catalog/product.jsp?r">https://us.vwr.com/store/catalog/product.jsp?r</a>
	60 qt. ice chests	ULINE	H-7736	\$102/ea	N/A	N/A		3 (1 per room)		\$306 <a href="https://www.uline.com/Product/Detail/H-7736/">https://www.uline.com/Product/Detail/H-7736/</a>
	8" Carolina culture dish	Carolina	741006		21.9	N/A			3	\$65.70 Reusable <a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	pancake syrup diluted 1:1 with v (grocery item)			\$3/1000mL		0.01		3 bottles		\$9.00
	Blunt scissors	VWR	82027-588	\$131.62/pk. of 10		N/A			3	\$39.49 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Electronic balances (Ohaus OH. scalesgalc	OHA-SPX222	\$359.64/ea	N/A	N/A				12	\$4,316 Reusable <a href="https://www.scalesgalore.com/product/Ohaus">https://www.scalesgalore.com/product/Ohaus</a>
	5.5"x5.5" weighing dishes	Fisher	08-732-115	\$50.29/case of 500	N/A	N/A			12	\$50.29 Reusable <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	~160-180 lbs. of potatoes for di (grocery item)			\$4.6 for 10 lbs.		0.09				\$96 (grocery item)
	Paring knives	Amazon		\$20.73/3 pack		N/A	Also used in Cell Structure lab	4/room-->12 total		\$82.92 Reusable <a href="https://www.amazon.com/Dexter-Russell-S104">https://www.amazon.com/Dexter-Russell-S104</a>
	Cutting boards	Amazon		\$9.88/each		N/A	Also used in Cell Structure lab	4/room-->12 total		Reusable <a href="https://www.amazon.com/Farberware-Nonslip">https://www.amazon.com/Farberware-Nonslip</a>
	18x150 test tubes	Fisher	14-961-32	\$48.46/case of 500	1-2 tubes/studen	0.15		1,500 (3 cases)		\$145.38 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Test tube discard bins (large na	Fisher	13-359-20B	\$74.85/each		N/A			3	\$224.55 Reusable <a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	20mm half-racks	Fisher	14809118	\$144.51/case of 8	1/group of 3	N/A			24	\$433.53 Reusable <a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	7.5mm (#3) cork borers with pus	Amazon		\$18.89/set (each set	1/group of 3	N/A			12	\$226.68 Reusable <a href="https://www.amazon.com/Piece-Cork-Borer-Set">https://www.amazon.com/Piece-Cork-Borer-Set</a>
	500-ml flip-top squirt bottles	VWR	16151-832	\$83.09/case of 24		(included under 'commonly used items')		48 (2 cases)		\$166.18 Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	~1kg NaCl, solid (for making 1% Fisher	BP358-10	\$69.57/10kg pail			0.007		~1kg		\$70 <a href="https://www.fishersci.com/shop/products/sodi">https://www.fishersci.com/shop/products/sodi</a>
	4 liters clear soda (grocery item)			\$2.00/2L bottle		0.004		4 liters		\$4
	1-gal. plastic jugs for 1%, 2%, 3	VWR	16085-010	\$258.20/case of 60		N/A (negligible)				Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A				\$9 Reusable <a href="https://www.carolina.com/lab-rulers/ruler-white">https://www.carolina.com/lab-rulers/ruler-white</a>
	Eloдея stems	VWR	470325-296	\$8.76/pack of 6		0.05	Assumes ~50 leaves/stem			Usually supplied by Greenhc <a href="https://us.vwr.com/store/product/30332765/w">https://us.vwr.com/store/product/30332765/w</a>
	VWR® Dissecting Forceps, Mer	VWR	82027-388	\$68.70/pack of 12 or \$6.11 ea.		N/A			6	\$23 Reusable <a href="https://us.vwr.com/store/product/4526503/vw">https://us.vwr.com/store/product/4526503/vw</a>
	Wax markers for labeling test tu	Amazon		\$8.39/pack of 12		0.017		24 (2 packs)		\$16.78 <a href="https://www.amazon.com/SHARPIE-Peel-Off-M">https://www.amazon.com/SHARPIE-Peel-Off-M</a>
	6L water baths	Fisher		\$674.05/ea		N/A			6	\$4,044.30 Reusable <a href="https://www.fishersci.com/shop/products/lse-e">https://www.fishersci.com/shop/products/lse-e</a>
1000-mL plastic beakers (cover	Fisher	14-955-111F	\$90.36/case of 100		N/A	Also used in Lab 1 (Intro to Scie		6	\$90.36 Reusable <a href="https://www.fishersci.com/shop/products/tri-c">https://www.fishersci.com/shop/products/tri-c</a>	
80mm powder funnel for refilling	VWR	414004-270	\$81.30/pack of 12	N/A	N/A	Also used in Lab 4 (Photosynthe		6	\$81 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>	
Lab 8: Adaptations	Ammonium oxalate monohydrat	Fisher	A679-500	\$74.59/ea		0.04	Used to make ~8 liters of 1% ar ~80 grams			\$74.59 <a href="https://www.fishersci.com/shop/products/amr">https://www.fishersci.com/shop/products/amr</a>
	Calcium chloride	Fisher	C77-500	\$338.68/ea		0.03	Used to make ~1 liter of 5% calcium chloride solution-->~			\$338.68 <a href="https://www.fishersci.com/shop/products/calc">https://www.fishersci.com/shop/products/calc</a>
	500-ml flip-top squirt bottles	VWR	16151-832	\$83.09/case of 24		(included under 'commonly used items')	1 case		\$83.09 Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>	
	(5% calcium chloride) Barnes dr	VWR	470123-892	\$89.40/pack of 36		(included under 'commonly used items')		12	\$89 Dropper bulbs deteriorate ov <a href="https://us.vwr.com/store/catalog/product.jsp?r">https://us.vwr.com/store/catalog/product.jsp?r</a>	
	4L Erlenmeyer flasks for collecti	Fisher	50-955-7573	\$91.04/case of 4		N/A			Reusable <a href="https://www.fishersci.com/shop/products/400">https://www.fishersci.com/shop/products/400</a>	
	Wax markers for labeling test tu	Amazon		\$8.39/pack of 12		0.017		24 (2 packs)		\$16.78
	20mm half-racks	Fisher	14809118	\$144.51/case of 8	1/group of 3	N/A			24	\$433.53 Reusable <a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	16x150 test tubes	Fisher	14-961-31	\$70.12/case of 1000	~2 tubes/student	0.14		~1,500 (~1.5 cases)		\$140.24 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Test tube discard bins (large na	Fisher	13-359-20B	\$74.85/each		N/A			3	\$224.55 Reusable <a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A				\$9 Reusable
	80mm powder funnel for refilling	VWR	414004-270	\$81.30/pack of 12	N/A	N/A	Also used in Lab 4 (Photosynthe		6	\$81 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	8" Carolina culture dish	Carolina	741006		21.9	N/A			6	\$131.40 Reusable <a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	Seed dispersal Riker Mount	VWR	470006-964	\$1.96/each		N/A			3	\$155.88 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Various plants/plant cuttings									
	Laminated life cycles photos	(self-made)								
Lab 9: Ecological Interactions	4" Carolina culture dish	Carolina	741004	\$12.97/each		N/A				Reusable <a href="https://www.carolina.com/lab-dishes/culture-di">https://www.carolina.com/lab-dishes/culture-di</a>
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	N/A	Negligible (demo)		1 pack		\$17.63 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	N/A	Negligible (demo)		1 case		\$45 <a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	(DI water) Barnes droppers	VWR	470123-892	\$89.40/pack of 36		(included under 'commonly used items')			12	\$89 Dropper bulbs deteriorate ov <a href="https://us.vwr.com/store/catalog/product.jsp?r">https://us.vwr.com/store/catalog/product.jsp?r</a>
	VWR® Dissecting Forceps, Mer	VWR	82027-388	\$68.70/pack of 12 or \$6.11 ea.		N/A			6	\$23 Reusable <a href="https://us.vwr.com/store/product/4526503/vw">https://us.vwr.com/store/product/4526503/vw</a>
	1000-mL plastic beakers (cover	Fisher	14-955-111F	\$90.36/case of 100		N/A			6	\$90.36 Reusable <a href="https://www.fishersci.com/shop/products/tri-c">https://www.fishersci.com/shop/products/tri-c</a>
	Polypropylene pans (slide disca	Fisher	13-361-15	\$210.11/case of 6		N/A				\$210.11 Reusable <a href="https://www.fishersci.com/shop/products/nalg">https://www.fishersci.com/shop/products/nalg</a>
	3-mL Plastic disposable transfer	VWR	414004-017	\$12.82/pk. of 500		N/A (negligible)				Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Sponge gemmules prepared slic	VWR	470181-496	\$7.01/ea		N/A (demo)			3	\$21.03 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Taenia scolex prepared slide	VWR	470176-916	\$9.11/ea		N/A (demo)			3	\$27.33 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Honey bee worker leg composit	VWR	470181-646	\$8.63/ea		N/A (demo)			3	\$25.89 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Trichinella spiralis, Encapsulate	VWR	470176-926	\$6.28/ea		N/A (demo)			3	\$18.84 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Clam Slide (Glochidia Sp.)	VWR	470182-336	\$10.13/ea		N/A (demo)			3	\$30.39 Reusable <a href="https://www.avantorsciences.com/us/en/prodi">https://www.avantorsciences.com/us/en/prodi</a>
	Various preserved specimens a (from Department collections)									

Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total (ordering) qty. ne	Approximate course co	Notes (include 'reusable' n	Product Link
Commonly used lab items											
	SoftCIDE Hand Soap, pump bot	Fisher	14-379-29	\$14.96/ea		0.09		6	\$89.76		<a href="https://www.fishersci.com/shop/products/soft">https://www.fishersci.com/shop/products/soft</a>
	Adhesive bandages	VWR	CBD4018	\$5.23/pack of 100		0.016		3	\$15.69		<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	Versa-Clean cleaning solution	Fisher	18-200-700	\$78.38/4 liter bottle		0.039		1 bottle	\$78.38		<a href="https://www.fishersci.com/shop/products/vers">https://www.fishersci.com/shop/products/vers</a>
	Dynalon Quick Mist HDPE Spra	Fisher	03-438-12B	\$365.28/case of 24		0.365		24 bottles		Reusable; need occasional r	<a href="https://www.fishersci.com/shop/products/quic">https://www.fishersci.com/shop/products/quic</a>
	Safety glasses	Fisher	19-130-2089	\$1.57/ea	N/A	N/A			\$122	Reusable	<a href="https://www.fishersci.com/shop/products/fish">https://www.fishersci.com/shop/products/fish</a>
	Goggle sanitizer cabinet	Fisher	S81791	\$601.83/ea	N/A	N/A			\$1,505	Reusable	<a href="https://www.fishersci.com/shop/products/uv-s">https://www.fishersci.com/shop/products/uv-s</a>
	Labeling tape (yellow, 0.5in)	Fisher	1590115B	\$81.29/case of 6		0.03		3 rolls/half a case			<a href="https://www.fishersci.com/shop/products/colored">https://www.fishersci.com/shop/products/colored</a>
	Barnes droppers for DI water, 2' VWR		470123-892	\$89.40/pack of 36		\$0.05			\$89	Dropper bulbs deteriorate o	<a href="https://us.vwr.com/store/catalog/product.jsp?i">https://us.vwr.com/store/catalog/product.jsp?i</a>
	Scotch Heavy Duty Dispenser C	Amazon	C25	\$57.15/ea		N/A			\$171		<a href="https://www.amazon.com/Scotch-Heavy-Duty-J">https://www.amazon.com/Scotch-Heavy-Duty-J</a>
	1-gallon waste containers for re: ULIN	ULINE	S-10747	\$34.80/case of 12		0.009		1/4 case	\$34.80		<a href="https://www.uline.com/Product/Detail/S-10747">https://www.uline.com/Product/Detail/S-10747</a>
	500-ml flip-top squirt bottles	VWR	16151-832	\$83.09/case of 24		0.03		1 case	\$83.09	Reusable; need occasional r	<a href="https://www.avantorsciences.com/us/en/prod">https://www.avantorsciences.com/us/en/prod</a>
	Rubbermaid Microfiber cloths, 1	Amazon		\$12.98/pack of 24		0.013			\$12.98	Reusable; need occasional r	<a href="https://www.amazon.com/Rubbermaid-Microfil">https://www.amazon.com/Rubbermaid-Microfil</a>
						\$ 3.99					



BIOL 10 (additional)

Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on "cost per student"	Total (order) qty. ne	Approximate course ci	Notes [include "reusable" if product Link]
Biological Molecules	13x100mm glass test tubes	Fisher	14-961-27	\$34.92/case of 1000	25 per group of :	\$0.31		~8.5 cases	\$314.28	<a href="https://www.fishersci.com/shop/products/fisherbrand-di">https://www.fishersci.com/shop/products/fisherbrand-di</a>
	Wax markers for labeling test tu	Amazon		\$8.39/pack of 12		0.017		2 packs	\$8.39	<a href="https://www.amazon.com/SHARPIE-Peel-Off-Marker-Grea">https://www.amazon.com/SHARPIE-Peel-Off-Marker-Grea</a>
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A			\$18 Reusable	<a href="https://www.carolina.com/lab-rulers/ruler-white-vinyl-pac">https://www.carolina.com/lab-rulers/ruler-white-vinyl-pac</a>
	Barnes droppers for Biuret, Ben VWR		470123-892	\$89.40/pack of 36	(included under 'commonly used items')			1 pack	\$89 Dropper bulbs deteriorate o	<a href="https://us.vwr.com/store/catalog/product.jsp?catalog_nu">https://us.vwr.com/store/catalog/product.jsp?catalog_nu</a>
	Biuret reagent	Carolina	848215	\$45.08/4L	~1mL per studer	0.045		1 4L bottle	\$45.08	<a href="https://www.carolina.com/specialty-chemicals-b-c/biuret-re">https://www.carolina.com/specialty-chemicals-b-c/biuret-re</a>
	Benedict's reagent, qualitative	Carolina	847113	\$37.95/3.8 L	~1mL per studer	0.038		1 3.8L bottle	\$37.95	<a href="https://www.carolina.com/specialty-chemicals-b-c/benedic">https://www.carolina.com/specialty-chemicals-b-c/benedic</a>
	Lugol's Iodine (to make 20% fin	Carolina	872795	\$24.65/500 mL	~0.2mL per stud-	0.01		1 500ml bottle	\$24.65	<a href="https://www.carolina.com/specialty-chemicals-d-l/lugel-s">https://www.carolina.com/specialty-chemicals-d-l/lugel-s</a>
	Sudan IV	Carolina	892980	\$94.05/25g bottle	0.004g	0.014		1 25g bottle (~1g used/s)	\$94.05	<a href="https://www.carolina.com/specialty-chemicals-s/sudan-iv">https://www.carolina.com/specialty-chemicals-s/sudan-iv</a>
	240-mL flip-top bottles for DI wa	Fisher	02-991-617	\$116.32/case of 48		\$0.12		1 case (12 bottles neede	\$116.32 Reusable; need occasional i	<a href="https://www.fishersci.com/shop/products/qoropak-flip-top">https://www.fishersci.com/shop/products/qoropak-flip-top</a>
	13mm tube racks	ThermoFis	5970-0413PK	\$35.76/ea or \$189.1;	N/A	\$0.57		24 needed	\$247.16 Reusable (one-time cost)	<a href="https://www.thermofisher.com/order/catalog/product/59">https://www.thermofisher.com/order/catalog/product/59</a>
	Polypropylene pans (test tube r	Fisher	13-361-15	\$210.11/case of 6	(included under 'commonly used items')				\$210.11 Reusable	<a href="https://www.fishersci.com/shop/products/nalgene-autocl">https://www.fishersci.com/shop/products/nalgene-autocl</a>
	1-gallon waste containers for re	ULINE	S-10747	\$34.80/case of 12		\$0.04		1 case	\$34.80	<a href="https://www.uline.com/Product/Detail/S-10747/Jugs/Ujil">https://www.uline.com/Product/Detail/S-10747/Jugs/Ujil</a>
	150mm powder funnels for wast	Fisher	4252-0150	\$51.61/pack of 4	N/A (demo use)	N/A			Reusable	<a href="https://www.fishersci.com/shop/products/nalgene-polypri">https://www.fishersci.com/shop/products/nalgene-polypri</a>
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	N/A (demo use)	N/A		1 pack	\$17.63	<a href="https://www.fishersci.com/shop/products/fisherbrand-sc">https://www.fishersci.com/shop/products/fisherbrand-sc</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	N/A (demo use)	N/A		3 packs (~1/3 case)	\$45	<a href="https://www.fishersci.com/shop/products/fisherbrand-un">https://www.fishersci.com/shop/products/fisherbrand-un</a>
	60-mL flip-top bottles for Lugol'	Fisher	16151-824	\$95.49/case of 48	1 per group of 3	\$0.05		1 case (24 bottles neede	\$95.49 Reusable (one-time cost)	<a href="https://www.fishersci.com/shop/products/qoropak-flip-top">https://www.fishersci.com/shop/products/qoropak-flip-top</a>
	#3 Cork stoppers for Sudan IV t	Fisher	07-782F	\$56.64/pack of 500		0.003		1 pack (24 needed)	\$56.64 Reusable; need occasional i	<a href="https://www.fishersci.com/shop/products/cork-stoppers-i">https://www.fishersci.com/shop/products/cork-stoppers-i</a>
	soluble starch	Fisher	DF0178-17-7 (Difc	\$112.88/500g bottle		N/A (negligible)		1 bottle	\$112.88	<a href="https://www.fishersci.com/shop/products/tbd-bbl-dfco-medu">https://www.fishersci.com/shop/products/tbd-bbl-dfco-medu</a>
	Dextrose (D-Glucose)	Fisher	D16-3	\$33.72/3kg		N/A (negligible)	15g needed	1 kg bottle	\$33.72	<a href="https://www.fishersci.com/shop/products/dextrose-d-gluc">https://www.fishersci.com/shop/products/dextrose-d-gluc</a>
	Onions, 3 lbs.	(grocery item)		~\$3		\$0.00				
vegetable oil, 48 oz. (x2)	(grocery item)			\$8.74	0.009					
various drinks for macromolecu	(grocery item)		~\$60		0.06					
Investigating Photosynthesis and Cellular Respiration with Algae Beads	Algae beads ( <i>Chlorella vulgaris</i> )	Algae Research Supply		\$32.50/bottle of 200		0.33	~1,440 beads/semester	~8 bottles of 200	~\$330 (includes shipping and tax)	<a href="https://algaeresearchsupply.com/collections/all/products">https://algaeresearchsupply.com/collections/all/products</a>
	CO2 indicator solution, 10x (50	Algae Research Supply		\$25.95/ea		0.2076	~8/semester	8	\$207.60	<a href="https://algaeresearchsupply.com/collections/all/products">https://algaeresearchsupply.com/collections/all/products</a>
	17x100mm culture tubes with cr	VWR	60818-689	\$200.70/case of 1000		0.034	~168/semester	1 case	\$201	<a href="https://www.avantorsciences.com/us/en/product/467337">https://www.avantorsciences.com/us/en/product/467337</a>
	3-mL Plastic disposable transfe	VWR	414004-017	\$12.82/pk. of 500		0.0015	~60/semester		Reusable	<a href="https://www.avantorsciences.com/us/en/product/475885">https://www.avantorsciences.com/us/en/product/475885</a>
	Ring stands	Fisher	4SSC15	\$11.39/ea		N/A (reusable)	~4 for entire room/lab		\$182.24 Reusable	<a href="https://www.fishersci.com/shop/products/gsc-cast-iron-s">https://www.fishersci.com/shop/products/gsc-cast-iron-s</a>
	three-prong extension clamp	Amazon (Eisco brand)		13.69/ea.		N/A (have)		12	Reusable	<a href="https://www.amazon.com/TOPINCH-Finger-Adjustable-Ex">https://www.amazon.com/TOPINCH-Finger-Adjustable-Ex</a>
	Polyethylene cuvette stoppers	Fisher	14-385-999	\$119.21/pack of 100	N/A (50 shared)	0.05	~400 needed	1 pack	\$119.21 Reusable, but degrade over	<a href="https://www.fishersci.com/shop/products/fisherbrand-di">https://www.fishersci.com/shop/products/fisherbrand-di</a>
	Aluminum foil (for 'dark' treatme	Fisher	01-213-104	\$14.52/ea		N/A (negligible)			\$14.52	<a href="https://www.fishersci.com/shop/products/fisherbrand-al">https://www.fishersci.com/shop/products/fisherbrand-al</a>
	6L water baths	Fisher		\$674.05/ea		N/A (have)		2	\$4,044.30 Reusable	<a href="https://www.fishersci.com/shop/products/fse-digital-wate">https://www.fishersci.com/shop/products/fse-digital-wate</a>
	Desk lamps	Amazon		\$9.99/ea.	N/A	N/A (have)		24	\$240 Reusable	<a href="https://www.amazon.com/Simple-Designs-Home-LD1003">https://www.amazon.com/Simple-Designs-Home-LD1003</a>
	LED bulbs	Amazon		\$13.97/6 pack	N/A	0.056	Need at least 24 bulbs (4 packs of 6)		\$55.88 Needs occasional replacem	<a href="https://www.amazon.com/Bioluz-LED-Replacement-Non-C">https://www.amazon.com/Bioluz-LED-Replacement-Non-C</a>
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A (have)			\$9 Reusable	<a href="https://www.carolina.com/lab-rulers/ruler-white-vinyl-pac">https://www.carolina.com/lab-rulers/ruler-white-vinyl-pac</a>
	Westcott Clear Flexible Acrylic I	VWR	500024-316	\$4.03/ea	N/A	N/A	24 needed		\$97 Reusable	<a href="https://www.avantorsciences.com/us/en/product/708164">https://www.avantorsciences.com/us/en/product/708164</a>
	Stopwatches	Amazon		\$7/ea.	(included in 'commonly used lab items')			9	\$63.00 Occasionally stop working/h	<a href="https://www.amazon.com/hz/mobile/mision?p=zHDBP9">https://www.amazon.com/hz/mobile/mision?p=zHDBP9</a>
	Colored LED flashlights	Amazon		\$20/set of 4 colors (blue, green, red, w	0.06			3 sets needed	\$60.00 Reusable	<a href="https://www.amazon.com/gp/product/B07VLMZ9VW/ref">https://www.amazon.com/gp/product/B07VLMZ9VW/ref</a>
	Elodea stems	VWR	470325-296	\$8.76/pack of 6		0.07	Assumes ~50 leaves/stem	At least 18 stems	\$26.28 Usually supplied by Greenhc	<a href="https://us.vwr.com/store/product/30332765/ward-s-live-e">https://us.vwr.com/store/product/30332765/ward-s-live-e</a>
	Viable pea seeds (Alaska Gree	VWR	470007-180	\$6.68/1 lb. bag		0.0067	~1 lb. used/semester		\$6.68	<a href="https://www.avantorsciences.com/us/en/product/187887">https://www.avantorsciences.com/us/en/product/187887</a>
	Aquatic snails	Carolina		\$46.74/pack of 18		0.047	Price includes shipping+tax	1 pack	\$47 Usually supplied by Greenhc	<a href="https://www.carolina.com/mollusks/stc-living-shipment-a">https://www.carolina.com/mollusks/stc-living-shipment-a</a>
	4" Carolina culture dish	Carolina	741004	\$12.97/each		N/A		3	\$51.88 Reusable	<a href="https://www.carolina.com/lab-dishes/culture-dish-carolin">https://www.carolina.com/lab-dishes/culture-dish-carolin</a>
	50-mL conical tubes	Fisher	14-959-49A	\$106.04/case of 500		0.005	24/semester			<a href="https://www.fishersci.com/shop/products/falcon-50ml-co">https://www.fishersci.com/shop/products/falcon-50ml-co</a>
pipette tips, 100-1000 uL (blue)	Fisher	02-707-507	\$31.87/pack of 1000	1	0.032		1 pack	\$31.87	<a href="https://www.fishersci.com/shop/products/fisherbrand-re">https://www.fishersci.com/shop/products/fisherbrand-re</a>	
Plant growth lamp	Amazon		\$34.99/ea	N/A	N/A			Reusable	<a href="https://www.amazon.com/Lights-Spectrum-Indoor-5-1-Eve">https://www.amazon.com/Lights-Spectrum-Indoor-5-1-Eve</a>	
Modifications to Cell Structure/Function lab	Amoeba proteus prepared slide	VWR	470177-492	\$5.39		\$0.39	Accounts for broken/missing slid	72	Reusable; prone to breakage	
	(Removal of prepared hair slides)					-0.1				
						\$ 2.47				

**COURSE FEE REQUEST FORM | AY 25-26**

This form is to be used to request new or change course fees.

To be considered for the \_\_\_\_ academic year, fee requests must be submitted to Joy Goto, Associate Dean by \_\_\_\_\_. Please submit original paper copies to the Dean's office.

In addition to the paper copy, please forward electronic copies to:

- \_\_\_\_\_ with a copy to \_\_\_\_\_
- **SUBJECT:** Proposed FALL \_\_\_\_\_ Course Fee

Check one:      New fee:      Change to existing fee: ☒      Withdraw Fee:

Current fee:      \$ 15.00

New Fee:      Spring 2026      \$ 30.00  
Effective Term

Subject – course number fee should be attached to:

BIOL      12  
Subject Area      Catalog #      Course ID

-or-

Other method to charge—e.g. plan, program, student group: \_\_\_\_\_

List any additional course(s) to be charged: \_\_\_\_\_

Please attach a brief impact statement addressing all of the following for the proposed new or revised fee:

1. Describe how the fee will be assessed—e.g. all students, students in a specific unit/program/major.
2. Provide a 5-year history of all fees assessed within the academic program/major of the proposed new or revised program/course fee. **If this is a new fee please provide a brief statement of course objectives.**
3. Specify how many students the proposed program/course fee will affect by student classification—i.e. undergraduate, graduate, or professional—and by student level—e.g. freshmen, juniors, etc.  
 Please describe the direct benefit to students in terms of enhancing or enriching the student learning experience. Provide a budget that details the expected annual revenue from the fee and the expenses that the fee will cover. If this is a current fee, please include how the current revenue is being utilized.
4. If the fee is not approved what would be the expected impact on students, and what alternative means to the proposed fee have been explored for achieving the desired outcome.

**Attach additional documentation as needed.**

Peoplesoft Chartfield Information:

Unit Budget Analyst:      Nancy Gomez      Ext:      8-5469

Department:      Biology      Telephone:      8-3966

Dept. Contact:      David Lent      Email:      dlent@csufresno.edu

Dept Chair signature: Karine Gousset  
Karine Gousset, Nov 5, 2025 11:43:54 PST

Dean Signature: [Signature]  
David Lent, Nov 5, 2025 11:43:54 PST

AVP Accounting: [Signature]

**For Fee Withdrawal Only Department Chair and Dean Signature Required**

To be completed, if approved by Fee Committee:

Date of Committee action: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_



## AY 25-26

To be considered for the \_\_\_\_ academic year, fee requests must be submitted to Joy Goto, Associate Dean by \_\_\_\_\_. Please submit original paper copies to the Dean's office.

- with a copy to \_\_\_\_\_

- **SUBJECT:** Proposed FALL \_\_\_\_\_ Course Fee

Check one:	New fee:	Change to existing fee:	<input checked="" type="checkbox"/>	Withdraw Fee:
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Current fee: \$ 15.00

New Fee: Spring 2026 \$ 30.00  
Effective Term

**Subject – course number fee should be attached to:**

BIOL	1A	
Subject Area	Catalog #	Course ID

-of-

Other method to charge—e.g. plan, program, student group: \_\_\_\_\_

List any additional course(s) to be charged: \_\_\_\_\_

**Please attach a brief impact statement addressing all of the following for the proposed new or revised fee:**

1. Describe how the fee will be assessed—e.g. all students, students in a specific unit/program/major.
2. Provide a 5-year history of all fees assessed within the academic program/major of the proposed new or revised program/course fee. **If this is a new fee please provide a brief statement of course objectives.**
3. Specify how many students the proposed program/course fee will affect by student classification—i.e. undergraduate, graduate, or professional—and by student level—e.g. freshmen, juniors, etc.  
Please describe the direct benefit to students in terms of enhancing or enriching the student learning experience. Provide a budget that details the expected annual revenue from the fee and the expenses that the fee will cover. If this is a current fee, please include how the current revenue is being utilized.
4. If the fee is not approved what would be the expected impact on students, and what alternative means to the proposed fee have been explored for achieving the desired outcome.

**Attach additional documentation as needed.**

Peoplesoft Chartfield Information:

Unit Budget Analyst: Nancy Gomez Ext: 8-5469

Department: Biology Telephone: 8-3966

Dept. Contact: David Lent Email: dlent@csufresno.edu

Dept Chair signature: Karine Goussset  
Karine Goussset, Dept Chair, 2015-2016

Dean Signature: \_\_\_\_\_

AVP Accounting: WV Hunt

**For Fee Withdrawal Only Department Chair and Dean Signature Required**

To be completed, if approved by Fee Committee:

Date of Committee action:

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

## Department of Biology Lab Fee Request and Justification

1. The Department of Biology is requesting to revise fees for four courses. These courses are BIOL 10, BIOL 12, BIOL 67A and BIOL 1A. These revised fees will be assessed to students in these four courses.
2. Table includes the first and last year of the 5-year history of assessed fees and reflects no changes in fees over the last 5 years. The cost of many materials have substantially increased during this timeframe, especially for plastic laboratory consumables. Over the same period, increased expenses have also been incurred from the gradual implementation of new activities, particularly in BIOL 1A lab.

2019 Laboratory Fees			2024 Laboratory Fees		
Course	Subclass#	Fee	Course	Subclass#	Fee
Biol 10	24102	\$ 5.00	Biol 10	24102	\$ 5.00
Biol 12	24104	\$ 15.00	Biol 12	24104	\$ 15.00
Biol 67A	24107	\$ 25.00	Biol 67A	24107	\$ 25.00
Biol 1A	24108	\$ 15.00	Biol 1A	24108	\$ 15.00

3. All courses affect undergraduate students. These are lower-division courses and primarily comprise freshman and sophomores. BIOL 67A frequently has students from all grade levels enrolled, as it is a course required for several health-related careers. All of these courses serve a large number of students across Colleges, Schools, and majors as G.E. or other requirements. BIOL 1A is a core course for the biology B.S. degree. The average enrollment per year for BIOL 10 is 2000. The average enrollment per year for BIOL 12 is 144. The average enrollment per year for BIOL 1A is 528. The average enrollment per year for BIOL 67A is 285. For all courses, the assessed fees are necessary to provide a learning experience that matches what is found at comparable institutions and prepares them to be competitive in the job market upon graduation. These assessed fees provide a direct benefit to students by providing them with hands-on opportunities using modern laboratory approaches that are critical for future success.
  - a. Summary of fee requests (see lab fee cost breakdown spreadsheet for details for BIO 10, 12 & 1A)
    - i. **Biol 10:** Total per-student expenses are currently approximately \$4 pre-tax, however to ensure students continue to be competitive and provide them with innovative, inquiry-based labs, newly proposed activities will cost around \$2.50 (see 'New Biol 10 materials proposed' sheet). We are recommending a new fee of **\$8** (it is currently \$5) to meet current and planned expenses.



- ii. **Biol 12:** Total per-student expenses are currently approximately \$29 pre-tax, in large part due to expensive dissection specimens. A few of these have increased dramatically in price in the last year, namely, starfish (1 used per 2 students), frogs (1 per 2 students) and rats (1 per 4). Further reducing starfish and frog use to 1 per 4 students would save ~\$8/student to the detriment of pedagogy/hands-on learning. To maintain this course experience and our ability to prepare students as-is, we are recommending an increase in this fee to **\$30** (it is currently \$15).
  - iii. **Biol 1A:** Total per-student expenses are currently about \$25 pre-tax. To stay cutting-edge and build foundational lab skills, we are recommending an increase in this fee to **\$30** (current fee is \$15) to provide a buffer against increasing costs/inflation and to permit keeping up with changing tools that students will need to learn to use to stay competitive.
  - iv. **BIOL 67A:** Total per-student expenses are currently approximately \$28 per student, but this cost has come by sacrificing student preparedness. The necessary specimens and supplies have increased in cost significantly. Currently, costs are kept down by increasing the number of students that share lab materials (currently, 3 to 4 students per lab specimen). Additionally, costs are kept down by using less optimal materials and specimens that minimize depth of learning and result in the lack of hands-on experience working with developed anatomical systems. Historically, for best pedagogical practice, we use one lab specimen per 2 students to give greater depth and help ensure that each student is able to learn the material. To best prepare students for their careers, including those planning to enter the healthcare field, we recommend an increase to **\$40** (current fee is \$25) to ensure best pedagogy.
4. The lab fees for these courses have not changed since their inception. As costs have been rising, we have compromised, but we have now reached an untenable position where our students are on the verge of not being provided with the learning experiences and essential skill development expected in a biology lab course. This will put them at a disadvantage in the future. If these fees are not approved, we risk disenfranchising our students and potentially losing them to other universities or programs. There are no other sources of funding that we can rely on, as these courses require a reliable revenue stream for consistent and regular stability. We believe that these modest increases will allow us to provide the necessary experience for our students and best prepare them for their future careers.



Lab Topic/Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total (semester) qty. not	Approximate course use	Notes (include 'reusable' in Product Link)
Introduction to Lab and Microscope	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	1 per student	0.12		1 pack	\$17.63	<a href="https://www.fishersci.com/shop/products/fisherbrand-economy-plain-glass-microscope-slides/12550A3#">https://www.fishersci.com/shop/products/fisherbrand-economy-plain-glass-microscope-slides/12550A3#</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	1 per student	0.045		1 case	\$45	<a href="https://www.fishersci.com/shop/products/fisherbrand-unbreakable-cover-slips/12547#?keyword=cover%2">https://www.fishersci.com/shop/products/fisherbrand-unbreakable-cover-slips/12547#?keyword=cover%2</a>
	Slide discard bins (large nalgene)	Fisher	13-359-208	\$74.85/each		N/A		3	\$224.55	Reusable <a href="https://www.fishersci.com/shop/products/nalgene-large-polypropylene-sterilizing-pans/p-4520928#?keyw">https://www.fishersci.com/shop/products/nalgene-large-polypropylene-sterilizing-pans/p-4520928#?keyw</a>
	1000-mL plastic beakers (cover)	Fisher	14-955-111F	\$90.36/case of 100		N/A		6	\$90.36	Reusable <a href="https://www.fishersci.com/shop/products/tri-cornered-polypropylene-beakers-5/14955111F?search#jack">https://www.fishersci.com/shop/products/tri-cornered-polypropylene-beakers-5/14955111F?search#jack</a>
	Methylene Blue (for making ~1:1 Carolina)		875684	\$22/25g bottle	N/A	0.012		1 gram (1 25gram bottle)	\$22.00	<a href="https://www.carolina.com/specialty-chemicals-m-o/methylene-blue-powder-laboratory-grade-25-g/875684">https://www.carolina.com/specialty-chemicals-m-o/methylene-blue-powder-laboratory-grade-25-g/875684</a>
	95% Ethanol (for making ~130m VWR)	V1105HC		88.06/5-gal. cubitain	N/A	N/A (negligible)		Negligible (30 mL needed for semester)		<a href="https://www.avantorsciences.com/us/en/product/4542412/ethanol-95-kopitec-meets-analytical-specificati">https://www.avantorsciences.com/us/en/product/4542412/ethanol-95-kopitec-meets-analytical-specificati</a>
	Cross-colored threads slide	VWR	470176-898	\$5.14/ea		0.05	Accounts for broken/lost slides (	12	\$61.68	Reusable; prone to breakage <a href="https://www.avantorsciences.com/us/en/product/8871044/cross-colored-threads-slide">https://www.avantorsciences.com/us/en/product/8871044/cross-colored-threads-slide</a>
Mitosis	Chromosome model (Somso)	Carolina	561705	\$789.75/ea	N/A	N/A		3	2,369.25	Reusable <a href="https://www.carolina.com/cell-models/somso-chromosome-model/561705.pr?question=chromosome+mo">https://www.carolina.com/cell-models/somso-chromosome-model/561705.pr?question=chromosome+mo</a>
	Animal mitosis model set (Soms)	Carolina	561624	1152.8/ea	N/A	N/A		3	3,458.40	Reusable <a href="https://www.carolina.com/cell-models/somso-animal-mitosis-model-set/561624.pr?question=mitosis+mo">https://www.carolina.com/cell-models/somso-animal-mitosis-model-set/561624.pr?question=mitosis+mo</a>
	Grassfrog life history museum m	VWR	470000-278	\$428.09/ea	N/A	N/A		3	1,284.27	Reusable <a href="https://www.avantorsciences.com/us/en/product/8876139/wards-grassfrog-life-history-museum-mount">https://www.avantorsciences.com/us/en/product/8876139/wards-grassfrog-life-history-museum-mount</a>
	Onion root tip mitosis slides	Carolina	302396	\$9.35/ea	N/A	0.1	Accounts for broken/lost slides (	12	112.2	Reusable; prone to breakage <a href="https://www.carolina.com/mitosis-meiosis-microscope-slides/onion-mitosis-slide-1s-10-m-hematoxylin/30">https://www.carolina.com/mitosis-meiosis-microscope-slides/onion-mitosis-slide-1s-10-m-hematoxylin/30</a>
	Lens paper	Fisher	11-996	\$18.17/pack of 12		0.03		12	\$18.17	<a href="https://www.fishersci.com/shop/products/fisherbrand-lens-paper-3/11996#?keyword=11-996">https://www.fishersci.com/shop/products/fisherbrand-lens-paper-3/11996#?keyword=11-996</a>
	White chalk	VWR	66-2012	\$1.40/pack of 12		0.03		27	\$37.80	<a href="https://www.avantorsciences.com/us/en/search/white%20chalk">https://www.avantorsciences.com/us/en/search/white%20chalk</a>
	8" Carolina culture dish	Carolina	741006		21.9	N/A		15	\$328.50	Reusable <a href="https://www.carolina.com/lab-dishes/culture-dish-carolina-8-in-1500-ml/741006.pr">https://www.carolina.com/lab-dishes/culture-dish-carolina-8-in-1500-ml/741006.pr</a>
	Half meter sticks	Fisher	S15985	\$2.18/ea	N/A	N/A				Reusable <a href="https://www.fishersci.com/shop/products/half-meter-stick/S15985#?keyword=half%20meter%20stick">https://www.fishersci.com/shop/products/half-meter-stick/S15985#?keyword=half%20meter%20stick</a>
	Round craft beads for making m	Amazon		\$2.89/450pcs.	N/A	N/A (negligible)				Reusable <a href="https://www.amazon.com/BeadTin-Crystal-Clear-Transparent-Faceted/dp/B00QSG9Z4Z/ref=pr_1_7?crid=3">https://www.amazon.com/BeadTin-Crystal-Clear-Transparent-Faceted/dp/B00QSG9Z4Z/ref=pr_1_7?crid=3</a>
	Fishing wire for making magneti	Amazon		\$6.99/755ft.	N/A	N/A (negligible)				Reusable <a href="https://www.amazon.com/Invisible-Balloons-Decorations-Bracelets-Necklaces/dp/B0D3X9RKF2/ref=pr_1_1">https://www.amazon.com/Invisible-Balloons-Decorations-Bracelets-Necklaces/dp/B0D3X9RKF2/ref=pr_1_1</a>
Magnets for making magnetic ch	Amazon		\$16.99/62pcs	N/A	N/A				Reusable <a href="https://www.amazon.com/dp/B07L7XX1N3/ref=sym_ad_onsite_desktop_0?ie=UTF8&amp;pd_rd_plhdr=1&amp;ref=a">https://www.amazon.com/dp/B07L7XX1N3/ref=sym_ad_onsite_desktop_0?ie=UTF8&amp;pd_rd_plhdr=1&amp;ref=a</a>	
Sponges and Jellyfish	Budding Hydra, Living	Carolina	132804	\$14.80/class 30		0.21		1	\$14.80	<a href="https://www.carolina.com/invertebrates/budding-hydra-living/132804.pr?question=hydra">https://www.carolina.com/invertebrates/budding-hydra-living/132804.pr?question=hydra</a>
	Green Hydra, Living	Carolina	132810	\$17.25/class 30		0.24		1	\$17.25	<a href="https://www.carolina.com/invertebrates/green-hydra-living/132810.pr?question=green+hydra">https://www.carolina.com/invertebrates/green-hydra-living/132810.pr?question=green+hydra</a>
	Green and Brown Mixed Hydra, l	Carolina	132814	15.15/class 30		0.21		1	\$15.15	<a href="https://www.fishersci.com/shop/products/colored-label-tape-6-fin-wide-60yds-long/15901158?search#jack">https://www.fishersci.com/shop/products/colored-label-tape-6-fin-wide-60yds-long/15901158?search#jack</a>
	Glass depression slides	VWR	470235-728	15.82/pack of 12		0.01	Accounts for broken/lost slides (	2	\$32	Reusable <a href="https://www.avantorsciences.com/us/en/product/8875820/glass-depression-slides">https://www.avantorsciences.com/us/en/product/8875820/glass-depression-slides</a>
	Sponges Riker Mount	VWR	470126-634	95.96/ea		Negligible (demo)		1	\$95.96	Reusable <a href="https://www.avantorsciences.com/us/en/product/8888538/sponges-riker-mount">https://www.avantorsciences.com/us/en/product/8888538/sponges-riker-mount</a>
	Preserved jellyfish	Carolina	224192	\$5.65/ea		Negligible (demo)		1	\$5.65	<a href="https://www.carolina.com/preserved-other-animals/formalin-preserved-common-jellyfish-axella-extra-large">https://www.carolina.com/preserved-other-animals/formalin-preserved-common-jellyfish-axella-extra-large</a>
	Various preserved specimens	Dept. Collections								
Worms (Flatworms, Earthworms, Roundworms)	Earthworm Anatomy Museum M	VWR	470000-284	\$546.18	N/A	N/A (demo)		1	\$546.18	Reusable <a href="https://www.avantorsciences.com/us/en/product/8872782/wards-earthworm-anatomy-museum-mount">https://www.avantorsciences.com/us/en/product/8872782/wards-earthworm-anatomy-museum-mount</a>
	Earthworm dissection charts	Nasco	SB51998	\$10.95/ea	1 per 4 students	N/A (reusable)		6	\$65.70	Reusable <a href="https://www.nascoeducation.com/earthworm-dissection-chart-sb51998.html">https://www.nascoeducation.com/earthworm-dissection-chart-sb51998.html</a>
	Preserved earthworms	VWR	470000-882	\$49.56/pack of 100	1 per 2 students	0.25	~\$0.50 per earthworm	1	\$49.56	<a href="https://www.avantorsciences.com/us/en/product/8872802/preserved-earthworms">https://www.avantorsciences.com/us/en/product/8872802/preserved-earthworms</a>
	Vinegar eels, living	Carolina	133266	\$12.20/class of 30	1 per 3 students	0.14		1	\$12.20	<a href="https://www.carolina.com/invertebrates/vinegar-eel-turbatrix-aeti-living/133266.pr?question=vinegar+eel">https://www.carolina.com/invertebrates/vinegar-eel-turbatrix-aeti-living/133266.pr?question=vinegar+eel</a>
	Brown planaria, living	Carolina	132954	\$14.20/class 30	1 per student	0.48		3	\$42.60	<a href="https://www.carolina.com/invertebrates/brown-planaria-living/132954.pr?question=planaria">https://www.carolina.com/invertebrates/brown-planaria-living/132954.pr?question=planaria</a>
	Various preserved specimens	Dept. Collections								
	250-mL wash bottles	Fisher	03-409-10D	\$43.60/pack of 4	N/A (demo use)	N/A				Reusable <a href="https://www.fishersci.com/shop/products/nalgene-unitary-kdpe-wash-bottles/0340910D#?keyword=wash%2">https://www.fishersci.com/shop/products/nalgene-unitary-kdpe-wash-bottles/0340910D#?keyword=wash%2</a>
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	1 per 3 students	0.04		1 pack	\$17.63	<a href="https://www.fishersci.com/shop/products/fisherbrand-economy-plain-glass-microscope-slides/12550A3#">https://www.fishersci.com/shop/products/fisherbrand-economy-plain-glass-microscope-slides/12550A3#</a>
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	1 per 3 students	0.015		3 cases	\$135	<a href="https://www.fishersci.com/shop/products/fisherbrand-unbreakable-cover-slips/12547#?keyword=cover%2">https://www.fishersci.com/shop/products/fisherbrand-unbreakable-cover-slips/12547#?keyword=cover%2</a>
	Slide discard bins (large nalgene)	Fisher	13-359-208	\$74.85/each		N/A		3	\$224.55	Reusable <a href="https://www.fishersci.com/shop/products/nalgene-large-polypropylene-sterilizing-pans/p-4520928#?keyw">https://www.fishersci.com/shop/products/nalgene-large-polypropylene-sterilizing-pans/p-4520928#?keyw</a>
Snails, Clams and Squid	18 jumbo squid for dissection	(grocery item)		\$4.99/lb	1 per 4 students	\$1.17	~\$4.66 per squid		\$84	
	preserved long neck clam for di	VWR	470001-328	\$26.36/pack of 10	1 per 2 students	1.32	~\$2.64 per clam	4 jars of 10	\$105.44	
	Squid Anatomy Museum Mount	Carolina	262033D	\$410/ea	N/A (demo)	N/A			\$410.00	Reusable
	Squid dissection charts	Nasco	SB51999	\$10.95/ea	1 per 4 students	N/A (reusable)		6	\$65.70	
	Various preserved specimens	Dept. Collections								
Crawfish, Crabs, Insects & Spiders	Preserved crayfish, 4-6"	VWR	470000-536	\$225.99/pack of 100	1 per 2 students	\$1.13	~\$2.26 per crayfish	1 pail of 100	\$226	
	Preserved grasshopper	VWR	470343-550	\$69.08/pail of 100	1 per 2 students	\$0.35	~\$0.70 per grasshopper	1 pail of 100	\$69.08	<a href="https://www.avantorsciences.com/us/en/product/40370285/wards-preserved-hubber-grasshopper">https://www.avantorsciences.com/us/en/product/40370285/wards-preserved-hubber-grasshopper</a>
	27-Piece Invertebrate Embedme	VWR	470200-114	375.96/ea	N/A (demo)	N/A			375.96	Reusable
	Various preserved specimens	Dept. Collections								
Sea Stars and Early Chordates	Preserved starfish, 5-8"	VWR	470001-436	\$75.96/Pack of 10	1 per 2 students	\$3.80	~\$7.60 per starfish (price has in	4 pails of 10	\$304	<a href="https://www.avantorsciences.com/us/en/product/8888806/preserved-starfish">https://www.avantorsciences.com/us/en/product/8888806/preserved-starfish</a>
	Starfish Anatomy Museum Mour	VWR	470000-306	\$550.98/ea	N/A				\$550.98	Reusable <a href="https://www.avantorsciences.com/us/en/product/8888809/wards-starfish-anatomy-museum-mount">https://www.avantorsciences.com/us/en/product/8888809/wards-starfish-anatomy-museum-mount</a>
	Various preserved specimens	Dept. Collections								
Sharks and Bony Fishes	Preserved perch, 7-9"	Anatomy V A-110023		\$18.99/pack of 10	1 per 2 students	0.95	~\$1.90 per perch	4 packs of 10	\$75.96	<a href="https://anatomywarehouse.com/anatomy-lab-perch-specimen-7-9-inches-vacuum-packed-a-111099">https://anatomywarehouse.com/anatomy-lab-perch-specimen-7-9-inches-vacuum-packed-a-111099</a>
	Perch Anatomy Museum Mount	VWR		?						<a href="https://www.google.com/url?sa=t&amp;source=web&amp;rct=j&amp;opi=89978449&amp;url=https://us.vwr.com/store/produc">https://www.google.com/url?sa=t&amp;source=web&amp;rct=j&amp;opi=89978449&amp;url=https://us.vwr.com/store/produc</a>
	Various preserved specimens	Dept. Collections								
Amphibians and Reptiles	Ward's Pure Preserved Grassfro	VWR	470225-278	\$390.99/pail of 50	1 per 2 students	\$3.91	~\$7.82 per grassfrog (price has	1 pail of 50	\$390.99	<a href="https://www.avantorsciences.com/us/en/product/17565827/wards-pure-preserved-grassfrogs">https://www.avantorsciences.com/us/en/product/17565827/wards-pure-preserved-grassfrogs</a>
	Various preserved specimens	Dept. Collections								
Birds	Ward's Pure Preserved Pigeons	VWR	470314-614	\$168.99/pail of 10	1 per 4 students	\$4.22	~\$16.90 per pigeon	4 pails of 10	\$675.96	<a href="https://www.avantorsciences.com/us/en/product/26744609/wards-pure-preserved-pigeons">https://www.avantorsciences.com/us/en/product/26744609/wards-pure-preserved-pigeons</a>
	Various preserved specimens ar	Dept. Collections								
Mammals	Ward's® Pure Preserved™ Rats	VWR	470218-578	\$117.99/pack of 10	1 per 4 students	\$2.95	~\$11.80 per rat (~59% price incre	4 pails of 10	\$472	<a href="https://www.avantorsciences.com/us/en/product/17565824/wards-pure-preserved-rats-plain">https://www.avantorsciences.com/us/en/product/17565824/wards-pure-preserved-rats-plain</a>
	Various preserved specimens ar	Dept. Collections								
Commonly used lab items	SoftCIDE Hand Soap, pump bott	Fisher	14-379-29	\$14.96/ea		0.21		1	\$14.96	<a href="https://www.fishersci.com/shop/products/softcide-na-plain-hand-soap-bag-in-a-box-carton-refill-27-oz-798">https://www.fishersci.com/shop/products/softcide-na-plain-hand-soap-bag-in-a-box-carton-refill-27-oz-798</a>
	Adhesive bandages	VWR	CBD4018	\$5.23/pack of 100		0.05		1	\$5.23	<a href="https://www.avantorsciences.com/us/en/product/8071483/fabric-bandages-also-national-distribution-and">https://www.avantorsciences.com/us/en/product/8071483/fabric-bandages-also-national-distribution-and</a>

Lab Topic/Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes on 'cost per student'	Total individual qty. per	Approximate course co	Notes include 'reusable' or 'Product Link'
	Versa-Clean cleaning solution	Fisher	18-200-700	\$78.38/4 liter bottle		0.14		1 bottle	\$78.38	<a href="https://www.fishersci.com/shop/products/versa-clean-pharmaceutical-production-multi-purpose-cleaner/">https://www.fishersci.com/shop/products/versa-clean-pharmaceutical-production-multi-purpose-cleaner/</a>
	Dynalok Quick Mist HDPE Spray	Fisher	03-438-12B	\$365.28/case of 24		1.27		6 bottles		Reusable; need occasional r <a href="https://www.fishersci.com/shop/products/quick-mist-hdpe-sprayer-bottles-2/0343812B#?keyword=quick">https://www.fishersci.com/shop/products/quick-mist-hdpe-sprayer-bottles-2/0343812B#?keyword=quick</a>
	2" I-Pins (Dissection needles)	VWR	214500	\$21.98/box of 375		0.06			\$21.98	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/8882060/t-pins">https://www.avantorsciences.com/us/en/product/8882060/t-pins</a>
	4.5" straight scissors, fine tip (fc VWR		82027-578	\$5.48/ea		0.91		12	\$65.76	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/4527621/vwr-dissecting-scissors-sharp-tip-4-5sCat(Num">https://www.avantorsciences.com/us/en/product/4527621/vwr-dissecting-scissors-sharp-tip-4-5sCat(Num</a>
	Dissecting Forceps with Curved VWR		89259-946	\$114.51/pack of 12		1.59		12	\$114.51	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/12551352/vwr-dissecting-forceps-with-guide-pin?isCat">https://www.avantorsciences.com/us/en/product/12551352/vwr-dissecting-forceps-with-guide-pin?isCat</a>
	Dissecting Forceps with Straigh VWR		89259-944	\$68.70/pack of 12		0.95		12	\$68.70	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/12551352/vwr-dissecting-forceps-with-guide-pin?isCat">https://www.avantorsciences.com/us/en/product/12551352/vwr-dissecting-forceps-with-guide-pin?isCat</a>
	Teasing Needle (straight)	VWR	470152-804	\$22.58/pack of 12		0.31		12	\$22.58	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/8889827/dissecting-needles">https://www.avantorsciences.com/us/en/product/8889827/dissecting-needles</a>
	Teasing Needle (Bent)	VWR	470018-900	\$1.59/ea		0.27		12	\$19.08	Reusable; need occasional r <a href="https://www.avantorsciences.com/us/en/product/8889827/dissecting-needles">https://www.avantorsciences.com/us/en/product/8889827/dissecting-needles</a>
	Microflex XCEED Nitrile gloves	VWR		\$143.22/case of 10pk (2,500 gloves)		\$1.03	Each student uses ~9 pairs/sem	~half a case (~1,152 glo	\$143.22	<a href="https://www.fishersci.com/shop/products/microflex-ceed-powder-free-nitrile-examination-gloves-5/1917">https://www.fishersci.com/shop/products/microflex-ceed-powder-free-nitrile-examination-gloves-5/1917</a>
	Fisherbrand™ Autoclavable BioFisher		14828248	\$73.09/case of 100		\$0.09		~9 bags used per series	\$73.09	<a href="https://www.fishersci.com/store1/mylist">https://www.fishersci.com/store1/mylist</a>
						28.662				



## Department of Biology Lab Fee Request and Justification

1. The Department of Biology is requesting to revise fees for four courses. These courses are BIOL 10, BIOL 12, BIOL 67A and BIOL 1A. These revised fees will be assessed to students in these four courses.
2. Table includes the first and last year of the 5-year history of assessed fees and reflects no changes in fees over the last 5 years. The cost of many materials have substantially increased during this timeframe, especially for plastic laboratory consumables. Over the same period, increased expenses have also been incurred from the gradual implementation of new activities, particularly in BIOL 1A lab.

2019 Laboratory Fees			2024 Laboratory Fees		
Course	Subclass#	Fee	Course	Subclass#	Fee
Biol 10	24102	\$ 5.00	Biol 10	24102	\$ 5.00
Biol 12	24104	\$ 15.00	Biol 12	24104	\$ 15.00
Biol 67A	24107	\$ 25.00	Biol 67A	24107	\$ 25.00
Biol 1A	24108	\$ 15.00	Biol 1A	24108	\$ 15.00

3. All courses affect undergraduate students. These are lower-division courses and primarily comprise freshman and sophomores. BIOL 67A frequently has students from all grade levels enrolled, as it is a course required for several health-related careers. All of these courses serve a large number of students across Colleges, Schools, and majors as G.E. or other requirements. BIOL 1A is a core course for the biology B.S. degree. The average enrollment per year for BIOL 10 is 2000. The average enrollment per year for BIOL 12 is 144. The average enrollment per year for BIOL 1A is 528. The average enrollment per year for BIOL 67A is 285. For all courses, the assessed fees are necessary to provide a learning experience that matches what is found at comparable institutions and prepares them to be competitive in the job market upon graduation. These assessed fees provide a direct benefit to students by providing them with hands-on opportunities using modern laboratory approaches that are critical for future success.
  - a. Summary of fee requests (see lab fee cost breakdown spreadsheet for details for BIO 10, 12 & 1A)
    - i. **Biol 10:** Total per-student expenses are currently approximately \$4 pre-tax, however to ensure students continue to be competitive and provide them with innovative, inquiry-based labs, newly proposed activities will cost around \$2.50 (see 'New Biol 10 materials proposed' sheet). We are recommending a new fee of **\$8** (it is currently \$5) to meet current and planned expenses.

- ii. **Biol 12:** Total per-student expenses are currently approximately \$29 pre-tax, in large part due to expensive dissection specimens. A few of these have increased dramatically in price in the last year, namely, starfish (1 used per 2 students), frogs (1 per 2 students) and rats (1 per 4). Further reducing starfish and frog use to 1 per 4 students would save ~\$8/student to the detriment of pedagogy/hands-on learning. To maintain this course experience and our ability to prepare students as-is, we are recommending an increase in this fee to **\$30** (it is currently \$15).
  - iii. **Biol 1A:** Total per-student expenses are currently about \$25 pre-tax. To stay cutting-edge and build foundational lab skills, we are recommending an increase in this fee to **\$30** (current fee is \$15) to provide a buffer against increasing costs/inflation and to permit keeping up with changing tools that students will need to learn to use to stay competitive.
  - iv. **BIOL 67A:** Total per-student expenses are currently approximately \$28 per student, but this cost has come by sacrificing student preparedness. The necessary specimens and supplies have increased in cost significantly. Currently, costs are kept down by increasing the number of students that share lab materials (currently, 3 to 4 students per lab specimen). Additionally, costs are kept down by using less optimal materials and specimens that minimize depth of learning and result in the lack of hands-on experience working with developed anatomical systems. Historically, for best pedagogical practice, we use one lab specimen per 2 students to give greater depth and help ensure that each student is able to learn the material. To best prepare students for their careers, including those planning to enter the healthcare field, we recommend an increase to **\$40** (current fee is \$25) to ensure best pedagogy.
4. The lab fees for these courses have not changed since their inception. As costs have been rising, we have compromised, but we have now reached an untenable position where our students are on the verge of not being provided with the learning experiences and essential skill development expected in a biology lab course. This will put them at a disadvantage in the future. If these fees are not approved, we risk disenfranchising our students and potentially losing them to other universities or programs. There are no other sources of funding that we can rely on, as these courses require a reliable revenue stream for consistent and regular stability. We believe that these modest increases will allow us to provide the necessary experience for our students and best prepare them for their future careers.



Nancy Gomez &lt;ngomez@mail.fresnostate.edu&gt;

**Re: Biology Course Fee Requests**

1 message

David Lent &lt;dlent@csufresno.edu&gt;

Wed, Oct 22, 2025 at 12:26 PM

To: Nancy Gomez &lt;ngomez@csufresno.edu&gt;

Cc: Karine Gousset &lt;kgousset@csufresno.edu&gt;

Nancy

Here is some additional information for 1A. I also added the email from a vendor regarding tariffs.

*Tetrahymena* gene expression activity that we implemented in the past; its expense resulted in it being discontinued. We planned on bringing it back once our course fee increase request was approved. Here is a quick breakdown of this activity's cost per student (the items below total ~\$4.77):

Item	Cost per student (USD)
RNA Microprep kit	1.85
cDNA synthesis kit	2
SYBR Green qPCR Master Mix	0.11
RNase Away	0.37
Agarose	0.05
100bp ladder	0.03
6x loading dye	0.01
15-ml conical tubes	0.07
0.2-ml PCR tubes, sterile	0.01
Ingredients for NEFF media	0.01
pipette tips, 1-200 uL (yellow)	0.09
pipette tips, 100-1000 uL (blue)	0.042
TAE Buffer	0.01
95% Ethanol	0.019
Gloves	0.1



BIOL 1A

Lab Section	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student	Notes	Reusability	Notes
Lab 1: Experimental Design, Lab Fundamentals and Diffusion									
	Amido Black dye (for making 5mg/ml) Fisher	AAA1137414		\$14.05/25g bottle		\$0.01	~4g used/semester	1 bottle	\$244.88
	Amber straight sided glass jar with scr 1.4 lbf	12547		\$1.11/ea	N/A (re-used)	N/A (negligible)		20 jars	\$22 Reusable, but degrade over time
	100x15mm petri dishes	Fisher	F80875713	\$6.59/case of 500		0.06	~120 plates used/semester	1 case of 500	\$65.90
	Granulated agar	Fisher	8P9744500	\$8.51/500g bottle		\$0.02	30 grams used/semester	1 500g bottle	\$85
	3-mL Plastic disposable transfer pipet VWR	414004-017		\$12.82/pk. of 500		N/A (negligible)			Reusable
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A			\$9 Reusable
	Polypropylene pans (agar plate discard) Fisher	13-361-15		\$210.11/case of 6		N/A	(included under 'commonly used items')		\$210.11 Reusable
	1.5-mL microfuge tubes	Fisher	05-408-129	\$19.95/pack of 500		0.07	~450 used/semester	1 pack of 500	\$19.95
	13mm tube racks	ThermoFisher	5970-0413PK	\$35.76/ea or \$211.41/N/A		N/A	(included under 'commonly used items')		\$247.16 Reusable
	13x100mm glass test tubes	Fisher	14-961-27	\$34.92/case of 1000	N/A (re-used)	N/A (negligible)	10 needed for entire lab	34.92	\$34.92
	50-mL beakers	Fisher	02-540G	\$22.85/pack of 12	N/A (re-used)	N/A (negligible)	10 needed for entire lab	22.83	\$22.83 Reusable
	pipette tips, 1-200 uL (yellow)	Fisher	02-707-500	\$28.58/pack of 1000		0.03		1 pack	\$28.58
	pipette tips, 100-1000 uL (blue)	Fisher	02-707-507	\$31.87/pack of 1000		0.03		1 pack	\$31.87
Lab 2: Introduction to Microscopy and Tetrahymena									
	Letter 'e' slide	VWR	470177-892	\$3.43/ea		\$0.01		30	\$102.40 Reusable, prone to breakage
	Cross-colored threads slide	VWR	470176-898	\$5.14/ea		0.02	Accounts for broken/lost slides	30	\$154.20 Reusable, prone to breakage
	2% methylcellulose solution (~100 mL)	VWR	TS18231-1000 (S)	\$39.16/100g		0.003			\$39.16
	1.5-mL microfuge tubes	Fisher	05-408-129	\$19.95/pack of 500		0.008	~50 used/semester	1 pack of 500	\$19.95
	Yeast extract	Fisher	07-422-500	\$31.16/500g		0.0006	2.5g needed (to prepare 1L NE)	1 500g bottle	\$31.16
	Protease peptone	VWR	RM6394-500G	\$170.15/500g		0.003	2.5g needed (to prepare 1L NE)	1 500g bottle	\$170.15
	Dextrose (D-Glucose)	Fisher	D16-3	\$33.72/3kg		0.0002	5g needed (to prepare 1L NEFF)	1 kg bottle	\$33.72
	Ferric chloride hexahydrate	Fisher	188-100	\$34.21/100g		N/A (negligible)	0.027g needed (prepares ~3L NE)	1 100g bottle	\$34.21
	2L Corning PYREX bottle for NEFF m	Fisher	06-414-1E	\$22.73/2L bottle	N/A (re-used)	N/A (negligible)			\$22.73
	250mL Erlenmeyer flasks	Fisher	FB500250	\$37.84/pack of 12	N/A	N/A (negligible)	(For Tetrahymena culture prep)		Reusable
	500-mL Erlenmeyer flasks	Fisher	FB501500	\$39.35/pack of 6	N/A	N/A (negligible)	(For Tetrahymena culture prep)		Reusable
	Prepared and unprepared slides	Carolina	294354	\$18.89/ea		0.03	Accounts for broken/lost slides	30	\$176.70 Reusable, prone to breakage
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144		0.12		2 packs	\$35.26
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000		\$0.05		3 packs (~1/3 case)	\$45
	Microfuge tube racks	Cole-Parmer	UX-44001-51	\$17.30/pack of 5	1 per group of 3	(included under 'commonly used items')		3 packs	\$86.50
	(DI water) BARNES droppers	VWR	470173-842	\$89.40/pack of 36		(included under 'commonly used items')		1 pack	\$89 Dropper bulbs deteriorate over time
	VWR® Dissecting Forceps, Medium T	VWR	8202-4388	\$68.70/pack of 12 or \$6.11/ea		N/A		2	\$69 Reusable
	8" Carolina culture dish	Carolina	741006		21.9	N/A		1	\$21.90 Reusable
	Elodea stems	VWR	470375-246	\$8.76/pack of 6		0.07	Assumes ~50 leaves/item	At least 12 stems	\$26.28 Usually supplied by Greenhouse
	Test tube discard bins (large nalgene)	Fisher	13-359-208	\$74.85/each		(included under 'commonly used items')		1	\$224.55 Reusable
	1000-mL plastic beakers (cover slip pr	Fisher	14-955-111F	\$90.36/case of 100		N/A		1	\$90.36 Reusable
	pipette tips, 1-200 uL (yellow)	Fisher	02-707-500	\$28.58/pack of 1000		0.06	For creating Tetrahymena wet m	1 pack	\$28.58
Lab 3: Biological Molecules									
	13x100mm glass test tubes	Fisher	14-961-27	\$34.92/case of 1000	25 per group of 1	\$0.29		~2.5 cases	\$104.76
	Vvax markers for labeling test tubes	Amazon		\$8.39/pack of 12		0.03		1 pack	\$8.39
	6" white vinyl rulers	Carolina	702601	\$8.82/pack of 12	N/A	N/A			\$9 Reusable
	Barnes droppers for Biuret, Benedict's	VWR	470173-842	\$89.40/pack of 36		(included under 'commonly used items')		1 pack	\$89 Dropper bulbs deteriorate over time
	Biuret reagent	Carolina	848215	\$45.08/4L	~1mL per student	0.01		1 4L bottle (~1/4 used ea	\$45.08
	Benedict's reagent, qualitative	Carolina	847113	\$37.95/3.8 L	~1mL per student	0.01		1 3.8L bottle (~1/4 used	\$37.95
	Lugol's Iodine (to make 20% final solu	Carolina	872795	24.65/500 mL	~0.2mL per stud	0.01		1 500mL bottle (~1/4 use	\$24.65
	Sudan IV	Carolina	892980	\$94.05/25g bottle	0.004g	0.014		1 25g bottle (~1g used/s	\$94.05
	240-mL flip-top bottles for DI water, 3"	Fisher	02-891-617	\$116.32/case of 48		(included under 'commonly used items')		1 case (10 bottles neede	\$116.32
	13mm tube racks	ThermoFisher	5970-0413PK	\$35.76/ea or \$211.41/N/A		N/A	(included under 'commonly used items')	9	\$247.16 Reusable
	Polypropylene pans (test tube discard)	Fisher	13-361-15	\$210.11/case of 6		N/A	(included under 'commonly used items')		\$210.11 Reusable
	1-gallon waste containers for reagent	ULINE	S-10747	\$34.80/case of 12		(included under 'commonly used items')		1/4 case (~3 containers)	\$34.80
	150mm powder funnels for waste cont	Fisher	4252-0150	\$51.61/pack of 4	N/A (demo use)	N/A			Reusable
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	N/A (demo use)	N/A		1 pack	\$17.63
	Plastic disposable cover slips	Fisher	12547	\$44.92/case of 1000	N/A (demo use)	N/A		3 packs (~1/3 case)	\$45
	60-mL flip-top bottles for Lugol's Iodin	Fisher	16151-824	\$95.49/case of 48	1 per group of 3	(included under 'commonly used items')		1 case (12 bottles neede	\$95.49
	Cutting boards	Amazon		\$4.99/ea	1 (demo use)				\$5 Reusable
	Razor blades	Carolina	626931	\$13.44/pack of 100		N/A (demo use, negligible)		1	Reusable
	Polypropylene pans (slide discard bin)	Fisher	13-361-15	\$210.11/case of 6		N/A			Reusable
	#3 Cork stoppers for Sudan IV test	Fisher	07-782E	\$56.64/pack of 500	N/A (B shared)	0.003		1 pack (B needed)	\$56.64
	soluble starch	Fisher	OF0178-17-7 (Difc	\$112.88/500g bottle		N/A (negligible)		1 bottle	\$112.88
	Dextrose (D-Glucose)	Fisher	D16-3	\$33.72/3kg		N/A (negligible)	15g needed	1 kg bottle	\$33.72
	Putators, 10 lbs.	(grocery item)		~\$5		\$0.02			
	Onions, 3 lbs.	(grocery item)		~\$3		\$0.01			
	vegetable oil, 48 oz	(grocery item)			\$4.37	\$0.017			
	various drinks for macromolecule test	(grocery item)		~\$30		0.11			
Lab 4: Enzymes									
	1.5mL polystyrene cuvettes	Fisher	14-955-127	\$54.54/case of 500		1.45	~666 needed total	~7 boxes of 100	\$381.78
	Polyethylene cuvette stoppers	Fisher	14-385-999	\$119.21/pack of 100	N/A (50 shared)	0.023	~50 needed	1 pack	\$119.21 Reusable, but degrade over time
	Polyethylene cuvette holders	Fisher	14-385-939	\$31.05/pack of 5		N/A (reusable)	11 needed	3 packs	\$93.15
	pipette tips, 100-1000 uL (blue)	Fisher	02-707-507	\$31.87/pack of 1000	3	0.1	~800 needed	1 pack	\$31.87
	Bio-Rad Biofuel Enzyme Kit (refill)	Bio-Rad	16650361 DU	\$98.67/kit		\$1.24	~\$30 shipping cost	3 kits	~\$326
	15-mL centrifuge tubes	VWR	89039-666	\$75.42/case of 500	N/A (~150 shared)	0.086		1 case	\$75
	Discard bin for cuvettes (large nalgene)	Fisher	13-359-208	\$74.85/each		(included under 'commonly used items')		1	\$224.55 Reusable
	Small polypropylene pans for used ho	Fisher	13-361-15	\$210.11/case of 6		(included under 'commonly used items')			Reusable
	/Ymo Rashing Bead Lysts Tours	/Ymo Resr	S6003-50	\$117.40/pack of 50		0.89	Can be re-used 3-4 times (~		Reusable
	Cutting boards	Amazon		\$4.99/ea					\$15 Reusable
	Razor blades	Carolina	626931	\$13.44/pack of 100		0.002		4 razors	
	Electronic balances (Ohaus OMA-SPX	scalesgals	OHA-SPX222	\$359.64/ea	N/A	N/A		4	\$1,439 Reusable
	Genesys 30 spec machine	Fisher	14-380-442	\$3781.62/ea	N/A	N/A		5 machines	\$18,908.10 Reusable
	7mL weighing dishes	Fisher	08-732-112	\$21.18/pack of 500		N/A (negligible)		4 weigh boats	\$21.18 Reusable
	Scotch Heavy Duty Dispenser C25	Amazon	C25	\$47.15/ea		N/A		2	\$14
	6"x18" Discard jars for contaminated r	Thomas sr	F17130-0018	\$173.41/ea		N/A		5 needed (one-time cost)	\$867.05 Reusable
	4" Carolina culture dish	Carolina	741004	\$12.97/each		N/A		4	\$51.88 Reusable
	150-mL glass beakers	Fisher	FB100150	\$37.29/pk. of 12		N/A		9	\$37.29 Reusable
	Mushrooms, various	(grocery item)		~\$30 for beach, button, shiitake and k		0.11			
	Microfuge tube racks	Cole-Parmer	UX-44001-51	\$17.30/pack of 5	1 per group of 3	N/A (reusable)		3 packs	\$86.50
	1.5-mL microfuge tubes	Fisher	05-408-129	\$19.95/pack of 500		0.014	~90	1 pack of 500	\$19.95
Lab 5: Chemotaxis and Bioconvection (CURE Week 1)									
	Plain glass microscope slides	Fisher	12-550-A3	\$17.63/pack of 144	1	0.12		2 packs	\$35.26
	Microfuge tube racks	Cole-Parmer	UX-44001-51	\$17.30/pack of 5	1 per group of 3	N/A (reusable)		3 packs	\$86.50



[illegible]



Lab Activity	Item	Vendor	Cat. #	Unit cost	Qty./student	Est. cost per student			
	25mm syringe filters	Fisher	076-7520	\$106.87/case of 50		\$0.01	1/semester		
	Benchtop coolers/crilling racks	Fisher	09-74072	\$154.02/ea		N/A (reusable)	3 needed	Reusable	<a href="https://www.fishersci.com/shop/products/benchtop-coolers/09/74072?keyword=true">https://www.fishersci.com/shop/products/benchtop-coolers/09/74072?keyword=true</a>
	Calcium chloride	Fisher	C77-500	\$338.68/500g		N/A (reusable)	Used to make 100ml of 50 mM CaCl2; also ingredient in	\$338.68	
	Nichrome wire inoculating loops. 24 g	Carolina	703052	\$23.95/pack of 12		N/A (reusable)	At least 10 needed	Reusable; rarely need repla	<a href="https://www.carolina.com/microbiology-supplies/nichrome-wire-loops-24-gauge-pack-of-12/703052.c?quantity=wheel&amp;srsltid=AOL5d3w0t0keww0r0">https://www.carolina.com/microbiology-supplies/nichrome-wire-loops-24-gauge-pack-of-12/703052.c?quantity=wheel&amp;srsltid=AOL5d3w0t0keww0r0</a>
	pipette tips, 100-1000 ul (blue)	Fisher	02-707-507	\$31.87/pack of 1000	4 per group of 3	0.042	~352/semester	1 pack	\$31.87
	pipette tips, 1-200 ul (yellow)	Fisher	02-707-500	\$78.58/pack of 1000		0.01	88/semester	1 pack	\$28.58
	1.5-mL microfuge tubes	Fisher	05-408-129	\$19.95/pack of 500		0.06	~400 used/semester	1 pack of 500	\$19.95
	30mm half-racks	VWR	5972-0030	\$17.25/ea			(included under 'commonly used items')	9	\$155 Reusable
	Microfuge tube racks	Cole-Parmer	UX-44001-S1	\$17.30/pack of 5	1 per group of 3		(included under 'commonly used items')	3 packs	\$86.50
	Microsterilizer (BactiCinerator)	Fisher	22-830-001	\$393.81/ea	2 for room/lab	N/A (reusable)	2 needed		\$787.62
	Parafilm, 2" width	VWR	PM992	\$28.59/6 2m roll	~7cm/student	\$0.03	~1/4 roll needed/semester	1 roll	\$28.59
	LB Broth	Fisher	BP1428-500	\$36.93/500g bottle	For making LB/A	\$0.06	205g/semester		
	Agar	Fisher	BP1423-500	\$52.93/500g bottle	For making LB/A	\$0.05	123g/semester		
	60 qt. ice chest	ULINE	H-7736	\$102/ea		N/A		1	\$102
	Ice buckets with lids	VWR	10146-280	\$54.62/ea		N/A (reusable)			
	Li+ Arabinose	VWR	TCA0515-025G	\$33.56/25g bottle			0.03 ~6g/semester		
	DMSO	Fisher	D128-1	\$19.66/1L bottle		N/A (negligible)	~0.5 mL/semester		
	CryoFreezer boxes	Fisher	03-395-464	\$4.43/ea			(included under 'commonly used items')	10	\$44 Reusable; need replacemen
	Small polypropylene pans for pGLO ex	Fisher	13-361-15	\$71.01/case of 6			(included under 'commonly used items')		Reusable
	Floating tube racks	Amazon		\$15.78/pack of 5		N/A (reusable)	2 packs		\$32 Reusable
	Fisherbrand Autoclavable Biotazard	Fisher	14828248	\$73.09/case of 100			(included under 'commonly used items')	~9 bags used per semester	
	Triglyceride	Fisher	BP9726-500	\$64.01/500g bottle	For making 200n	\$0.00	4g		\$73.09
	Yeast extract	Fisher	BP1422-500	\$31.16/500g	For making 200n	N/A (negligible)	1g	1 500g bottle	\$64.01
	NaCl, solid	Fisher	BP358-10	\$69.57/10kg pail	For making 200n	N/A (negligible)	0.12g		\$31.16
	KCl	Fisher	P217-500	\$13.42/500g pail	For making 200n	N/A (negligible)	9.37g		\$70
	MgCl2 hexahydrate	Fisher	M33-500	\$14.57/500g	For making 200n	N/A (negligible)	0.4068g		\$13.42
	MgSO4 heptahydrate	Fisher	M80-212	\$36.69/500g	For making 200n	N/A (negligible)	0.493g		\$14.57
	PHES free acid	VWR	0488-100G	\$175.36/100g	TB Buffer ingred	\$0.02	~3g needed each semester		\$36.69
	Magnesium chloride tetrahydrate	Fisher	M87-500G	\$48.49/500g	TB Buffer ingred	N/A (negligible)	1.088g		
Commonly used lab items	SoftCIDE Hand Soap, pump bottle	Fisher	14-379-29	\$14.98/ea		0.11		2	\$29.92
	Adhesive bandages	VWR	CBD4018	\$5.23/pack of 100		0.02		1	\$5.23
	Versa-Clean cleaning solution	Fisher	18-200-700	\$78.38/1 liter bottle		0.3		1 bottle	\$78.38
	Microflex XCI 1-D Nitrile gloves	VWR		\$142.27/case of 100 (2-200 gloves)		\$1.03	Each student uses ~9 pairs/sem	~9 bags used per semester	\$142.27
	Fisherbrand Autoclavable Biotazard	Fisher	14828248	\$73.09/case of 100		\$0.09	~9 bags used per semester		\$73.09
	6"x18" Discard jars for contaminated r	Thomas sci	F17130-0018	\$173.41/ea		N/A	5 needed (one-time cost)		\$867.05 Reusable
	2-20 uL micropipettes	Bento Bio		~\$49/ea		\$1.11	Prone to damage/breakage. At	Ordered as needed	~\$405
	100-1000 uL micropipettes	Bento Bio		~\$53/ea		\$1.20	Prone to damage/breakage. At	Ordered as needed	
	Tyvek lab coats, various sizes	Fisher	01-361-10 (A/B/C)	\$141.49/case of 30		\$4.72	9 cases/semester		\$477
	Safety glasses	Fisher	19-130-2089	\$1.57/ea	N/A	N/A			\$1,273.41
	Goggle sanitizer cabinet	Fisher	S81781	\$501.83/ea	N/A	N/A			\$502 Reusable
	Heratherm 194L incubator	Fisher	51-028-065H	\$2887.49/ea	N/A	N/A			\$2,887.49
	Fisherbrand AccuSpin Micro 17 micro	Fisher	13-100-675	\$1804.59/ea	N/A	N/A			\$1,804.59
	Modified GoPro microscope Camera	BackBone Hero7 Pro		\$499/ea	N/A	N/A			\$499.00
	Grat well trays, 78Hx763Wx38D 50 mm VWR		470316-006	\$51.15/pack of 8		N/A (re-used)	13 needed for entire lab	2 packs of 8	\$182.38
	Aluminum foil for autoclaving glasswe	Fisher	01-213-104	\$14.52/ea		0.03	~1/2 roll		\$14.52
	20mm half-racks	Fisher	14809118	\$144.51/case of 8	1/group of 3	N/A		24	\$433.53 Reusable
	KimWipes, 11x21cm	Fisher	06-666A (Part #34	\$5.18/pack, \$310.80/case of 60		0.29	~15 packs used per semester	~15	\$77.70
	Polystyrene serological pipettes, steri	Fisher	13-675-49	\$31.98/case of 200		0.03	~50 used/semester for Tetrahyl	~1/4 case	\$31.98
	Ratons droppers for DI water, 2% meti	VWR	470723-892	\$89.40/pack of 36		\$0.06		12	\$69
	240-mL flip-top bottles	Fisher	02-991-017	\$116.32/case of 48		\$0.05		1/2 case	\$116.32
	Microfuge tube racks	Cole-Parmer	UX-44001-S1	\$17.30/pack of 5	1 per group of 3	N/A (reusable)		3 packs	\$86.50
	13mm tube racks	ThermoFisher	5970-0413PK	\$36.76/ea or \$211.41/N/A			(included under 'commonly used items')	9	\$247.16 Reusable
	Polypropylene pans (agot plate discar	Fisher	13-361-15	\$71.01/case of 6			(included under 'commonly used items')		\$210.11 Reusable
	1-gallon waste containers for reagents; ULINE	S-10747		\$34.80/case of 12		0.03		1/4 case	\$34.80
	60-mL flip-top bottles for Lugol's Iodine	Fisher	16151-824	\$95.49/case of 48	1 per group of 3	\$0.05		1 case (12 bottles needed)	\$95.49
	Test tube discard bins (large algene	Fisher	13-395-208	\$74.85/each			(included under 'commonly used items')	1	\$224.55 Reusable
	Small polypropylene pans for used ho	Fisher	13-361-15	\$210.11/case of 6			(included under 'commonly used items')		Reusable
	250-mL wash bottles	Fisher	03-409-100	\$43.60/pack of 4	1 per group of 3	0.5		3 packs (~12 bottles)	\$63.00 Reusable; need replacemen
	Stopwatches	Amazon		\$7/ea		0.24		4	\$63.00
	Eppendorf 5810R centrifuge water f	Fisher	S81681-E-34-4638	~\$1,000		N/A			Reusable
	Jeio Tech Lab Companion AAM23565	Cole-Parmer	AAM23565U	~\$8,000					Reusable
	Hot plates	Fisher	07-770-108	\$395.77/ea		N/A	1 for entire room/lab		Reusable
	Vortexer	Fisher	02-215-414	\$83.91/ea		N/A	1 for entire room/lab		Reusable
	Labeling tape rainbow pack 0.5 in. w	Fisher	15-901-R	\$71.60/case of 24		0.14	~1 case needed every year		
	6L water baths	Fisher		\$674.05/ea		N/A		6	\$4,044.30 Reusable
	30mm half-racks	VWR	5972-0030	\$17.25/ea		N/A		9	\$155 Reusable
	CryoFreezer boxes	Fisher	03-395-464	\$4.43/ea			0.167 ~10 needed each semester	10	\$44 Reusable; need replacemen
						\$24.53			

## Proposal for Dog Days Orientation Program Fee Increase

**Prepared for:** University Fee Committee

**Prepared by:** New Student and Family Programs

**Date:** November 21, 2025

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### Summary

The Orientation Program fee has remained unchanged at **\$70** for the past **12 years**. During this time, the essential costs of staffing, facilities, technology, supplies, and program enhancements have increased substantially. Additionally, orientation attendance has increased since becoming a required program for all incoming students. To ensure the Orientation Program continues to deliver a high-quality experience for incoming students and their families, we propose a fee increase beginning in the 2026-2027 academic year.

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### Current Situation

- **Current Fee:** \$70 (unchanged since 2013)
  - **Years Since Last Increase:** 12 years
  - **Average U.S. inflation since last increase:** ~2–3% annually
  - **Cumulative Inflation Impact:** ~30–40% increase in costs since last adjustment
- 

### Cost Increases Over 12 Years

Expense Category	2013 Totals	2025 Totals	% Increase
Student Staff	\$64,042	\$148,508	+132%
Student Union Facilities	\$14,820	\$51,860	+250%
Professional Staff Salaries	\$89,700	\$146,124	+63%
Professional Staff Benefits	\$42,737	\$122,307	+186%

Bags and Lanyards	\$7,329	\$12,735	+74%
BARK New Student Handbooks	\$13,026	\$30,470	+134%
Food & Catering	\$89,657	\$182,710	+103%
<b>Total</b>	<b>\$321,311</b>	<b>\$694,714</b>	<b>+116%</b>

*The program's costs have grown by over 121% while revenue has remained flat due to the stagnant \$70 fee. Unlike some of the CSU sister campuses, Fresno State does not have an enrollment deposit (16 CSUs), nor does Dog Days receive any state funding (7 CSUs) to help offset fees and staff salaries.*

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### Proposed Fee Increase

Each of the proposed fee increases would only account for projected inflation for this upcoming year for student staffing, printing, and food costs. The increase would not address related operating expenses such as materials, space reservations, equipment, etc. This proposed increase keeps Dog Days affordable and among the lowest orientation fees in the CSU.

To ensure program sustainability, we propose increasing the Dog Days Program fee to:

- **New Freshmen Fee (2026–2027): \$83**
  - This represents an increase of \$13 (from \$70), or **~19%**.
  - The CSU average freshman orientation cost is \$149; Fresno State would have the 4<sup>th</sup> lowest fee in the CSU.
- **New Transfer Fee (2026–2027): \$83**
  - This represents an increase of \$13 (from \$70), or **~19%**.
  - The CSU average transfer orientation cost is \$123; Fresno State would have the 5<sup>th</sup> lowest fee in the CSU.
- **New Supporter Fee (2026–2027): \$30**
  - This represents an increase of \$5 (from \$25), or **20%**.
  - The CSU average supporter fee is \$57; not all CSUs allow supporters to attend orientation.



The \$13 fee increase would be allocated to the expenses below:

EXPENSE	DESCRIPTION	DIFFERENCE
Student Orientation Staff	Increase of CA minimum wage to \$16.90 per hour for additional 7 Orientation Leaders and 1 Logistical Staff	\$28,748
Breakfast Cost	Increase of 41% for breakfast from 2024 to 2025	\$14,825
Boxed Lunch Cost	Increase of 30% for boxed lunch from 2023 to 2025	\$42,859
BARK Book: New Student Handbook	Increase of 12% from 2024 to 2025	\$2,582

The \$13 student fee increase would generate approximately \$88,400 more revenue to offset the additional \$89,014 expenses outlined in the table above.

#### CSUs with similar student enrollment

Campus	Enrollment	Freshmen Fee	Transfer Fee	Supporter Fee
Sacramento	30,883	\$200	\$200	\$77
Pomona	27,196	\$194	\$87	\$85
<b>Fresno</b>	<b>24,310</b>	<b>\$70</b>	<b>\$70</b>	<b>\$25</b>
San Luis Obispo	22,842	\$190	\$190	\$150
Los Angeles	22,740	\$150	\$110	\$46

## CSU in the Central Valley

Campus	Enrollment	Freshmen Fee	Transfer Fee	Supporter Fee
Bakersfield	10,036	\$150	\$105	Does not allow guests
<b>Fresno</b>	<b>24,310</b>	<b>\$70</b>	<b>\$70</b>	<b>\$25</b>
Stanislaus	9,295	\$75	\$75	\$50

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### Benefits of Fee Increase

- Increase program quality by returning the Orientation Leader to student ratio to pre-pandemic levels of 1 to 15 versus current levels of 1 to 24.
- Cover rising costs of staffing, printing, and catering.
- Reinstate more comprehensive student staff training.
- Ensure financial stability for Dog Days this year, reducing the need for frequent increases.

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### Recommendation

We recommend approval of the proposed fee increase from:

- **\$70 to \$83 for freshmen beginning in the 2026–27 academic year,**
- **\$70 to \$83 for transfer students beginning in the 2026–27 academic year,**
- **\$25 to \$30 for supporters and families beginning in the 2026–27 academic year,**

with a recommended scheduled review every two years to align fees with actual cost increases.

This adjustment is necessary to sustain the Dog Days Orientation Program's quality and ensure that new students and families continue to have a welcoming, supportive, and well-resourced introduction to the university community.