

Tips to Save Money While Running a SEA-PHAGES Course

This document contains a list of faculty-submitted tips to try and keep costs down when running a SEA-PHAGES course. There is also a forum for discussing this in the Faculty Lounge at seaphages.org: <http://seaphages.org/forums/topic/129/>. You are encouraged to submit additional tips there, or ask questions about these tips.

List of cost-saving tips

- Scale down enrichments: use 50 mL conical tubes with pipet tips
 - 50 mL conical tube, two P200 pipet tips per enrichment for aeration
- Conical tubes can be re-washed and autoclaved on the liquid cycle; these are great for aliquotting individual reagents like phage buffer
- Baffled flasks: purchase glass if you can so that these are reusable, OR use regular glass flasks with pipet tips for aeration
- EM can be a huge cost. Several ideas to mitigate this:
 - Collaborate with another institution
 - If your university has office of undergraduate research, apply for a travel fund for a EM field trip to a microscopy facility
 - Talk to other universities or local biotech companies
 - Facilities that contract to industry may offer discounts to academic institutions
 - ScienceExchange: universities/companies; www.scienceexchange.com hosts organizations that offer services at discount rates
 - Consider getting trained as a microscopist at a nearby EM facility, then you can get a discounted rate by doing the EM on your own
- Chemglass/Celltreat and “Off label” vendors-contact reps and tell them what you’re doing; you may get additional educational support discounts

- You can use low cost microcentrifuge tubes for dilutions; save Eppendorf “brand name” for DNA isolation OR spin at lower speeds (may need to be spun for longer times)
- Generic filters are OK if sample is low in particulates; enrichments require name brand
- Grow all starter and liquid cultures using CB/CHX, students plate with regular L-agar to decrease amount of supplements used
- Automatic pipet fillers are expensive; Mechanical pipet fillers: https://us.vwr.com/store/catalog/product.jsp?product_id=4758323
- Bioinformatics considerations: Speak with IT about software requirements and if they will charge you for software support
- Promega 50% discount for Wizard genomic DNA kit-order through them directly
- Aliquot individual reagents in small batches; if one student’s reagents become contaminated throw them away without compromising the rest of the class
- Restriction enzymes: go to NEB and request educational support; yearly allotment of free reagents per school
- Hardy Diagnostics is a reasonable supplier for growth media
- You can buy premixed formulations or make your own media piecemeal
- Sterile centrifuge tubes: autoclave in old pipet tip boxes or plastic beakers covered in foil; ask research labs for old tip boxes that they would otherwise throw away
- P200 tip is the most commonly used tip. Recommend aerosol barrier tips, but if you really need to trim costs, use P200 barrier tips only
- Departmental rebates for appliances (refrigerators etc)