Gerace Research Centre Analytical Laboratory
Information for Principle Investigators

INTRODUCTION AND AIMS

The Gerace Research Centre Analytical Laboratory has been made possible by a generous grant from The College of the Bahamas. By establishing the Analytical Lab, the GRC hopes to encourage and support increased levels of "on island" research. The lab's facilities and equipment will allow researchers to perform chemical and biological studies requiring specialized instruments in a more sophisticated laboratory setting.

The Analytical Lab is intended for research projects, not for class instruction. Class use of the lab should not be included as part of any field course syllabus. While preference will be given to graduate student and faculty research, upper-level undergraduate research can also be accommodated.

LAB USE POLICY

All research projects utilizing the Analytical Lab are required to operate under an active research permit. For more information regarding the permitting process, please visit: http://geraceresearchcentre.com/packetsandforms.html

Faculty and researchers should request approval for use of the Analytical Lab from the Executive Director or Research Coordinator prior to arrival at the GRC. The lead faculty or researcher is required to act as the project's Principle Investigator (PI).

The PI is accountable for the conduct of all lab users within their group. It is the responsibility of the PI to instruct their users in all necessary lab safety procedures and to ensure that users act in a safe and responsible manner at all times. The GRC is not liable for injuries resulting from improper or unsafe lab usage.

The Analytical Lab Rules are clearly posted within the lab. A copy of the rules is also included on page 3 of this packet. The PI is responsible for making all lab users within their group aware of the rules and for ensuring compliance with the stated rules.

The PI is required to document use of the Analytical Lab in the "Record of Use" logbook (located on the file cabinet next to the refrigerator). One page should be filled out for each research project. Please be sure to list any and all GRC lab equipment used during your stay.

The GRC reserves the right to revoke the lab privileges of any user at any time for any reason. Removal of a lab user is at the absolute discretion of the Executive Director.

LAB EQUIPMENT AND MATERIALS

There is a variety of equipment available for use in the Analytical Lab. A complete list of the available equipment is included on page 4 of this packet. For more detailed information about any of the instruments, please contact the Executive Director (grcss@juno.com) or Research Coordinator (researchGRC@gmail.com). While much of the equipment will be familiar to lab users, certain instruments may require specialized training.

The GRC does not supply consumable materials for users of the Analytical Lab. Users are responsible supplying any consumable materials they may require. This includes gloves, wipes, pipette tips, squeeze bottles, sample bottles/bags/vials, plastic ware, test tubes, slides, centrifuge tubes, labeling tape, markers, weigh boats, scissors, Parafilm, syringes, filters, ice packs, reagent kits, and specialized chemicals. There is a limited supply of glassware available for general use, but specific requirements may necessitate providing your own.

The Analytical Lab does contain ultra-pure water and quantities of certain chemicals available for purchase. Currently, the chemicals available for purchase include hydrochloric acid (HCl), ethanol, and isopropyl alcohol.

MATERIALS AND SAMPLE STORAGE

Upon your departure from the GRC, **any personal lab materials you wish store in the Analytical Lab for future use should be boxed and clearly labeled with your name, academic institution, and date**. Materials requiring refrigerator or freezer storage do not need to be boxed, but should bear the same labeling convention. All stored items should be entered into the 'Storage Registry' logbook. Note that we have limited space for storage, so please pack your materials efficiently. If you have extra materials that you wish to donate to the lab, please notify the Lab Manager or Executive Director. Any materials not properly stored will be discarded or will become communal property for general use in the lab.

LAB CHECKOUT

At the close of your visit, you will be required to complete an Analytical Lab checkout appointment with either the Research Coordinator or Executive Director. The appointment should be scheduled for the day before your departure from the GRC. This will allow for ample time to remedy any issues that may arise. The appointment will include an inspection of your workspace, all equipment used, and any items for storage. The 'Storage Registry' form must be completed at this time.

GRC Analytical Lab Rules

1. Use of the Analytical Lab **MUST** be recorded in the "Record of Use" logbook (located on the file cabinet next to the refrigerator). One page should be filled out for each research project. Please be sure to list any and all GRC lab equipment used during your stay.

2. All Analytical Lab users will conduct themselves in a safe and responsible manner. They will be respectful of other lab users and their work. Please report any accidents or damages to lab property.

3. The Analytical Lab is a shared space. **Users are required to keep their workspace clean and neat for the duration of their project.** This is especially true of the sink area. All glassware and other materials should be washed, dried, and stored in a timely fashion.

4. Food and drink are **NEVER** allowed in the Analytical Lab. Personal items should also be kept to a minimum.

5. Persons not directly participating in an approved research project are **NOT** allowed in the Analytical Laboratory. The lab contains expensive equipment and delicate experiments. **This is not a space for relaxing or socializing.**

6. All samples, chemicals, and other materials placed in the refrigerator or freezer should be clearly labeled with a user's name, institution, and date. Improperly labeled materials will be discarded.

7. Any personal lab materials you wish store in the Analytical Lab for future use should be boxed and clearly labeled with your name, institution, and date. All stored items **MUST** be entered into the 'Storage Registry' logbook (located on the file cabinet next to the refrigerator).

8. Lab users are required to schedule a **"Checkout Appointment"** with either the Research Coordinator or Executive Director prior to departure from the GRC. This appointment will include an inspection of your workspace, all equipment used, and any items for storage.

9. The GRC reserves the right to revoke the lab privileges of any user at any time for any reason. Removal of a lab user is at the absolute discretion of the Executive Director.

Equipment available for use in the GRC Analytical Lab:

Shimadzu Total Organic Carbon Analyzer TOC-5050A (w/ ASI-5000A auto-sampler)
Hach Spectrophotometer Model DR2700
Pharmacia LKB Novaspec II spectrophotometer
Barnstead EasyPure II Water System (18.2 MΩ)
Labnet Digital Dry Bath D1200 (w/ 16mm tube adaptors)
YSI Salinity, Conductivity, and Temperature Probe Model 30
YSI Dissolved Oxygen Probe Model 55
Hanna Bench pH and Temperature Meter Model pH210
LW Scientific LW200 M-Series Epi-Fluorescent LabScope
BioVID Digital Color CCD Microscope Camera
Thermo Multiskan EX Photometric Microplate Absorbance Reader
Eppendorf Mastercycler 384
Fisher Isotemp Incubator (30 to 75°C)
Tuttnauer Table-Top Autoclave Model 2340
Revolutionary Science Saniclave RS-SC-100
MB-2610 Triple Beam Balance
A&D Analytical Balance HR-202i
IKA Vortex 3 (w/ adaptors set)
Glas-Col Multi-Pulse Vortexer
Cimarac Stirring Hot Plate Model SP131325
Barnstead MaxQ 2000 Open-Air Platform Shaker
Thermo Micro-MB Centrifuge
Eppendorf Centrifuge 5810
Frigidaire Commercial Chest Freezer
Frigidaire Refrigerator
BenchMateII Continuously Adjustable Pipette (100 – 1000 μL)
BenchMateII Continuously Adjustable Pipette (10 – 100 μL)
BenchMateII Continuously Adjustable Pipette (0.5 – 10 μL)
TenSette Pipet 19700-10 (1.0 - 10.0 mL in 1.0 mL increments)
HawkEye Handheld Digital Sonar (water depth/temp, air temp)
Fume hood
HCl acid bath
various compound and dissecting microscopes