Applied Microbiology
&
Biotechnology Laboratory

"sustainable is attainable"

Standard Operating Procedure

AMBL-001-A

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Requesting Use of the Environmental Engineering Laboratory and Laboratory Services

SOP SUMMARY

This SOP describes the procedure for requesting the use of space and services from the environmental engineering laboratory and the policies and procedure for laboratory access.

ENVIRONMENTAL HEALTH AND SAFETY

Hazards Assessment: Although this procedure does not contain hazards, the potential for chemical and occasional biological hazard does exist. Submitting a request for the use of the environmental engineering laboratory initiates procedures that ensures everyone conducting work in the laboratory is fully authorized to enter the laboratory space as defined in this SOP.

Safety Equipment and Engineering Controls: This procedure does not require the use of safety equipment or engineering controls.

Personal Protective Equipment (PPE): This procedure does not require the use of PPE.

Analysis-derived Wastes and Disposal:

Waste Generated	Hazardous (Y / N)	Disposal
This procedure does not generate wastes.	N	None

PROCEDURE DESCRIPTION

1.0 Introduction and Applicability

The Environmental Engineering Laboratory consists of 3 adjoining laboratory rooms that support instructional, project and research activities. In addition to requesting the use of physical space, equipment and supplies maintained within these facilities, laboratory services may also be requested.

Laboratory spaces and services are available first and foremost to support the faculty and students of the Civil Engineering, Construction Management and Environmental Engineering Department, and students working in collaboration with either the department's faculty or students. Non-departmental faculty and students may request the use of the Environmental Engineering Laboratories and its services on a fee basis.

Laboratory space, its equipment and supplies, and the services that can be provided are not limitless. As the number of users increase, the ability to approve requests and schedule the use of space and equipment becomes more difficult. Submitting a request does not guarantee that your request can be approved. Planning as far in advance as possible is highly recommended.

The procedures and polices described herein are considered applicable to all individuals and organizations requesting the use of and performing work in the Environmental Engineering Laboratories or requesting lab its services.

2.0 Definitions for Terms and Abbreviations Used

The following definitions are considered policies under this SOP.

a. AMBL. Applied Microbiology and Biotechnology Laboratory

b. Authorized User or User. An Authorized user is any individual authorized to use the laboratory space, equipment or services, either by having initiated a request as an individual or under a group or organization. A group or organization requesting use must identify all individual users. While students defined in Section 4.2.c are authorized users, their access outside of class time is limited. Authorization to use the laboratory is only assigned to individuals after they have satisfactorily fulfilled requirements of the laboratory use request and all institutional and local safety training requirements.

c. Building Manager. The staff member designated to manage all aspects related to the operation and maintenance of the Engineering Building.

d. Institution/institutional. Northern Arizona University is the institution and institutional refers to Northern Arizona University's policies, procedures, systems and individuals having an official standing with the institution of Northern Arizona University.

e. Laboratory. Laboratory refers to the Environmental Engineering Laboratory including its equipment and supplies.

f. Laboratory Access. Laboratory access refers to entering the laboratory space. Authorized laboratory access is only granted to an authorized user or individuals having a predetermined need for access. Unauthorized access occurs when an individual enters the laboratory without access authorization and is considered a violation of the Site-specific Chemical Hygiene Plan for the Environmental Engineering Laboratory, referred to as the Laboratory Safety Standard.

g. Laboratory Director. The Laboratory Director is a faculty member having oversight of the overall operation and administration of the laboratory. In the absence of a faculty member serving in this role, the department Chair becomes the Laboratory Director.

h. Laboratory Manager. The Laboratory Manager is a faculty or staff member responsible for the day-to-day operation of the laboratory. In the absence of a Laboratory Manager, the Laboratory Director fulfills these responsibilities to the extent possible.

i. Laboratory Steward. The Laboratory Steward is a faculty member who has a significant enough number of laboratory activities underway such that their access authorization requires that they also have access to the chemical storage closet. There may be more than one Laboratory Stewards as just defined. The Laboratory Steward is not expected to assist either the Laboratory Manager or the Laboratory Director with their obligations, other than providing and supervising access to chemicals for their own research or project team members.

j. Primary Contact. A principal investigator or individual user otherwise identified as the person through whom the Laboratory Manager or Laboratory Director directs communications concerning the use of the laboratory, and the work being conducted in the laboratory or the services being provided by the laboratory.

k. SOP or Standard Operating Procedure. An SOP provides specific instructions regarding a policy, process, or procedure that are applicable to this laboratory. The intent of an SOP is to provide information that ensures all individuals performing a procedure, following a process, or adhering to a policy will be able to do so in the same way. In addition to providing step-by-step procedural

instructions, many SOPs contain environmental health and safety information that extends this laboratory's site-specific chemical hygiene plan and local safety training program.

l. Supervising Faculty. A supervising faculty is a department faculty member who is a principal investigator or supervisor of students performing work in the laboratory. This includes faculty teaching courses that are regularly scheduled in the laboratory and faculty teaching a course not regularly scheduled in the laboratory but having students who are authorized users under a laboratory request directly related to a required or optional course activity.

m. Visitor(s). Any person who does not have access to the laboratory is not considered an authorized user may enter the laboratory only as a visitor. A visitor is an individual or group of individuals that must be accompanied by the Department Chair, Laboratory Director, Laboratory Manager, a supervising faculty member, or a professional employee of NAU carrying out the regular duties of their job. A visitor cannot handle or use any equipment in the laboratory, take any equipment or supplies from the laboratory, or otherwise perform any work in the laboratory.

3.0 Requesting Use of Laboratory and its Services

Requesting the use of the laboratory or its services is not a guarantee that your request to use the lab will be approved or that it's services will be available. Depending on the nature of the project and the hazards associated with a request to use the lab, authorization to use the lab can take several weeks. It is recommended that before you submit your request that you read this SOP in its entirety and prepare as much of the planning documentation as possible in advance.

3.1 Procedure for Requesting Use of Laboratory and Access

a. The request to use and access the laboratory begins with submitting a Rapid Request – Project Initiation Form. This form simply provides the initial notification to laboratory personnel that a request to use the laboratory has been submitted. This form may be completed and submitted from the following location:

   https://www.ceias.nau.edu/cecmee/enelab/cas/RapidRequestForm.html

b. The project leader or PI completes and submits the Rapid Request Form to the laboratory no less than 3 weeks prior to when you intend to start work. Enter information into the form's fields as follows.

   1) Select whether this request is for a New Project or a New Task under an existing project.

2) Enter your first and last name. Doing so implies that you are the project lead or the principle investigator and you will be considered the main contact.

3) Enter your email address.

4) Enter a name for the project to which the work is related. When the work is part of a course requirement, also enter the class number and name.

5) Enter the name of the Faculty Supervisor or Course Instructor. This is the person who is responsible for supervising your work. If the work is part of a course not otherwise scheduled to use the environmental engineering laboratory, the course instructor's name is entered here.

6) Source of Funding or account number used for this project or course. Enter an account or speed chart number, or describe the funding source. For example, a capstone project or other project related to a class not otherwise scheduled to use the environmental engineering laboratory may simply enter, Department Funding.

7) Enter the planned Start Date the planned.

8) Enter the planned End Date for the work to be done.

9) Enter the Project, New Task or Course Objective. This should provide a brief description that is able to communicate the objective you expect to achieve from the work that will be done.

10) Enter the number of project team members. You will be contacted to provide the name and user ids of all individuals who will participate on this project or task and be entering the lab. Each person's safety training status will be verified.

11) Select the primary service being requested. Only one service may be requested at a time and this will most frequently be for the use of laboratory project space. Additional needs will be determined after the rapid request has been submitted and you are contacted for additional information.

c. Once the form is submitted either the Laboratory Manager or Laboratory Director will contact the faculty sponsor or course instructor, and the project's leader to discuss the request and begin the process of determining what additional information is needed, whether there is adequate laboratory space and resources to support the activity, and ensure that all project individuals are identified and that their safety training is completed.

d. Note that you will also be required to provide a planning document (e.g., a project plan, study plan, work plan, sampling and analysis plan, experimental plan, etc.) that provides more detail about the proposed

activity planned. The planning document is retained in a project binder that remains in the lab must provide the following information.

1) Page 1 - Cover Page
    a) Project title.
    b) Final or Draft Revision Date when this plan is completed
    c) Names and contact information for all individuals performing project work and whether they will be entering the laboratory space.
    d) Project Dates. This identifies the overall project's start and ending dates that will encompass all planned activities conducted under the project.
2) Page 2 – Project Summary and Outcomes.
    a) One or two paragraphs that explain why this project is needed or the problem that it is trying to solve, and how this work will advance information or a solution.
    b) A numbered bullet list that describes the project's specific objectives or outcomes that are to be achieved.
3) Page 3 with additional pages as needed – Objectives and Approach. Each objective and its approach are presented separately.
    a) Objective statement – this is single sentence statement of the objective
    b) Approach Summary – provide a brief summary of the basic approach planned to achieve this objective
    c) Indicate whether this objective and its approach require the use of the environmental engineering lab or any of its services.
    d) Date when this approach's activity is planned to start.
    e) Date when this approach's activity is planned to be finished. This date should include enough time to clean-up the work spaces used and remove all waste materials generated.
    f) Detailed description of the approach's laboratory and field activities that are planned. This includes identifying the following information.
        - Types of samples (matrix) to be collected or otherwise received, handled, or stored, and sample storage requirements. Reference the procedures to be used or developed as separate SOP documents and provide copies of each.

- The parameters that you will be determining (for each sample matrix) and reference the methods of analysis or measurement that will be used or developed as separate SOPs and provide copies of each.
- Identify the specific laboratory and field equipment, laboratory supplies and chemicals that are needed for this approach's activities.

4) New Page with additional pages as needed – Hazards Assessment.
   a) Identify all hazards associated with each of your samples, methods performed, and equipment to be used for all project activities.
   b) A complete set of Safety Data Sheets (SDS) are included in an appendix.
   c) When appropriate, a copy of all equipment and instrument operating manuals are included in an appendix.
   d) Identify all safety protocols, first aid and emergency response procedures that are associated with conducting this work in the lab and when applicable, for any work that is conducted in the field.
5) New Page with additional pages as needed – Wastes and Waste Disposal. Identify all non-hazardous and hazardous wastes that your activities will generate and their waste disposal requirements.
6) New Page with additional pages as needed – Training Requirements. Identify all training that has been completed and that must be completed in order to perform the work correctly and safely. This includes any specialized training for using equipment and instrumentation. Also describe how training not already completed will be obtained.

An academic course or training workshop may use the course syllabus or workshop agenda with a schedule and laboratory activity assignment sheets, and a laboratory manual if available, as the planning documentation.

A copy of each planning document shall be kept in the laboratory so hazards associated with a project's activities can be communicated to other laboratory users.

e. Once the request has been approved and all safety and project planning requirements have been completed, access to the laboratory will be granted for conducting only those activities described in the project planning documentation. Should project activities change or need to be modified, a New Task for an existing project must be submitted.

f. Projects that need to extend their originally planned activities must notify the Laboratory Manager or Laboratory Director as soon as possible so that necessary arrangements can be made should this change impact the scheduling of other projects. If not done, it may be possible that another project has already been scheduled and you will be required to either cease work or be relocated elsewhere in the lab.

g. Reoccurring courses, workshops or other reoccurring activities having some consistency need only to submit a request and planning documentation once. When changes or updates to the activities occur, only these changes need to be communicated to the Laboratory Manager or Laboratory Director so that the original request information may be updated to reflect the current request.

h. A reoccurring course must submit an updated course roster during the week prior to the beginning of the semester and if the roster changes it is again submitted after the roster has been finalized. The course roster is used to add all individuals enrolled in the course into the SciShield system for tracking and verifying institutional safety training requirements.

i. A new reoccurring student competition activity must develop a standardized project plan template that includes instructions for how to update the competition's project-specific information each year. While the intent of this approach is to minimize the turnaround time for getting the student team members authorized to access and work in the lab, the updates must still contain the current year's competition information so that the appropriate sampling, analysis, hazardous waste and safety procedures can be identified and verified. A long-standing reoccurring student competition activity can simply update and submit their existing standardized project plan template.

k. Submitting a project document can be done either by emailing the both the Laboratory Manager and the Laboratory Director or by uploading the document using the following online tool.

   EnE Lab Document Uploader (nau.edu)

3.2 Procedure for Requesting Laboratory Services

Additional services that are routinely performed by the laboratory are generally identified and agreed upon during one or more meetings between the laboratory and project personnel during the planning stages of the project. These services are documented and retained as part of the project's administrative file.

A request for services that are not considered routinely performed by the laboratory may be initiated by submitting Rapid Request Form with the Fee-based Services selected.

4.0 Laboratory Access Policy

The environmental engineering laboratory not only presents known chemical hazards because of the routine use and storage of chemicals throughout the laboratory, but can also present a variety of ever-changing chemical and/or other hazards depending on the nature of the course, project or research activities being conducted. This makes it difficult for individual users to be fully aware at all times of the hazards that may exist.

For the above reason, access to the laboratory is controlled and only granted based on having official standing with Northern Arizona University and a legitimate or demonstrated need to use the laboratory, or to perform work in the laboratory that is associated with the legitimate duties for an official institutional function, or the need to enter the laboratory for emergency response. With only a few exceptions, anyone entering the lab to conduct work must also have complete all of the required safety training (see SOP 002A).

Doors that provide access to the laboratory are to remain closed and locked at all times to prevent unauthorized persons from entering. In addition to security concerns, laboratories are designed to maintain a negative air pressure with regard to adjacent spaces so that air flows into the laboratory so that that transport of chemical vapors outside of the laboratory may be minimized in the event of an accidental spillage. Proper balance of this airflow condition requires that the laboratory doors remain closed.

Laboratory access doors should not be propped open.

4.1 Laboratory Access Granted by Official Institutional Function

a. Access is granted to all personnel who must enter to perform the regular duties of their job. This includes personnel with Engineering Programs, Environmental Health and Safety, Facility Services and the NAU Police Department. These personnel generally already have the credentials to access many buildings and rooms across campus, including this lab.

b. Access is granted to either NAU staff not otherwise included in 4.1a above or non-NAU personnel, such as contractors or service technicians, to perform service work within the laboratory on a case-by-case basis. These personnel generally do not have the credentials to access the lab and must obtain this ability either through NAU Facility Services (*i.e.*, contract personnel) or through a supervising faculty member, the Laboratory Manager, the Laboratory Director or the Department Chair (*i.e.*, service technicians). In the case of NAU staff performing service work and who are not otherwise included in 4.1a above, these personnel may be granted direct access to perform their work under a Rapid Request for lab access submitted by either a supervising faculty member, the Laboratory Manager, the Laboratory Director or the Department Chair.

c. Access is granted to visitors who are accompanied by the Department Chair, Laboratory Director, Laboratory Manager, a supervising faculty member, or an individual identified in 4.1a while carrying out the regular duties of their NAU job. The person accompanying the visitors becomes fully responsible for the behavior and safety of the visitors, and as such should at a minimum seek guidance from either the Laboratory Manager or Laboratory Director on laboratory-specific safety considerations.

4.2 Laboratory Access Granted by a Pre -established Legitimate Need

a. Access is granted to the Laboratory Manager, and the Laboratory Director. They are required to fulfill all of the required safety training (see SOP 002A).

b. Access is granted to faculty (and teaching assistants) who are teaching a course that is scheduled to meet in Room 245 for the duration of time needed to prepare, teach and clean-up after the course has completed. They are required to fulfill all of the required safety training (see SOP 002A).

c. Students enrolled in a course are granted neither card nor key access to the laboratory. Access for students enrolled in a class that is scheduled to meet in Room 245 is provided for the duration of the semester. The door to room 245 is equipped with a door bell that is used to alert the teacher or others already in the lab that another student is at the door waiting to be let in. They are required to fulfill all of the required safety training (see SOP 002A).

D. Access is granted to the instructors of a workshop scheduled to meet in Room 245 for the duration of time needed to prepare, teach and clean-up after the course has completed. Workshop participants are granted neither card nor key access to the laboratory, and their access must be controlled by the workshop instructors. They are required to fulfill all of the required safety training (see SOP 002A).

4.3 Access Granted by Request and Demonstrated Need

a. Access is granted to faculty who are conducting or supervising approved student projects for the duration of the activity described on the laboratory Rapid Request form. They are required to fulfill all of the required safety training (see SOP 002A).

b. Access is granted to an authorized user for the duration of the activity described on the laboratory use request form.

c. Access is granted to faculty (and teaching assistants) who are teaching a course that is not scheduled to meet in Room 245 but who have requested use of the laboratory for the duration of the activities specified

on the Rapid Request Form. They are required to fulfill all of the required safety training (see SOP 002A).

d. Students enrolled in a course scheduled to meet in Room 245 can request individual access by submitting a separate Rapid Request Form. Depending on the access need, card access may be granted for discreet periods of use (never for the duration of the semester) or by remotely unlocking the door for a short (10 minutes) period of time as prearranged to provide entry.

e. Students enrolled in a course that is not scheduled to meet in Room 245 but will perform activities in the laboratory are granted neither card nor key access to the laboratory. Access must be controlled and supervised by the course instructor or teaching assistant defined in 4.3.c. They are required to fulfill all of the required safety training (see SOP 002A).

4.4 Access Conditions, Restrictions and Revoking Access

a. Access is granted on the condition that the appropriate and necessary safety training has been completed before any work in the laboratory can be performed. The exceptions to this are for the access granted under 4.1.

b. Access to the laboratory can only be approved either individually or jointly by the Laboratory Manager and Laboratory Director. Their role in the laboratory is such that they are most familiar with the projects that are being conducted or being planned, as well as the laboratory-specific safety issues associated with these projects.

c. Authorized users who are not listed in 4.1c or who are not a course instructor or course teaching assistant cannot allow anyone who is not a current authorized user to enter the lab.

d. Authorized users who are listed in 4.1c, 4.3a and 4.3c can only allow an unauthorized user into the lab as a visitor and must accompany them at all times with the full responsibility for their safety and behavior as stated in 4.1c. An unauthorized user having the intent to perform work or take equipment or supplies from the laboratory are not to be provided access and doing so is a violation of laboratory policy. These individuals are to be redirected to either the Laboratory Manager or the Laboratory Director.

e. Access is not granted to chemical storage areas. All access to these areas must be coordinated with and supervised by the Laboratory Manager, Laboratory Director or Laboratory Steward.

f. Access will generally be automatically revoked once the end of the activity requiring the use of the lab has concluded. This includes the ending of activity related to projects, scheduled courses and workshops, unless an extension is required to complete clean-up.

g. Revoking access to the laboratory is a change of access status that is initiated either by the Laboratory Manager or by a Supervising Faculty member or course instructor in consultation with the Laboratory Manager.

   1. The Laboratory Manager or the Supervising Faculty Member or course instructor must inform the user, or users, about this change of access status. In most cases, access revocation must be accompanied and supported by one or more Incident Reports (see SOP 002G).

   2. Access is revoked, regardless of need, when specified violations of this policy or the laboratory safety standard (SOP 002A) or other unsafe laboratory practices occur. Safety violations that can trigger laboratory access to be revoked as described in the laboratory Safety Standard, and must be documented using an Incident Reporting Form (SOP 002G).

   3. Supervising faculty may request that any individual working in the laboratory under their supervision have access revoked when there is a reason to suspect that the individual might create a potentially unsafe situation for themselves or others. This must be supported by an Incident Reporting Form documenting the safety violation leading to this conclusion. This request is made to both the Laboratory Manager and the Laboratory Director.

   4) Course instructors may request access of any individual enrolled in their course to be revoked when that individual has access otherwise granted if there is reason to believe that the individual might create a potentially unsafe situation for themselves or others. This must be supported by an Incident Reporting Form documenting the safety violations leading to this conclusion. This request is made to both the Laboratory Manager and the Laboratory Director.

   5. The Laboratory Manager, or Laboratory Director when there is no Laboratory Manager, processes this change of access status.

h. Course instructors may exclude any individual enrolled in their class from accessing the laboratory if there are documented incidents to support that decision. In these cases, which are rare, the course instructor must coordinate this action with both the Laboratory Manager and the Laboratory Director.

4.5 Access and Working when a Class is in Session

a. A course regularly scheduled in room 245 is considered to be concurrently scheduled for room 242. These two rooms are joined and form the instructional and student projects laboratory spaces.

b. It is the instructor's prerogative to restrict access to these rooms during their regularly scheduled class time. Unless explicit permission has

been granted by the instructor of the regularly scheduled course, individual users and visitors may neither access nor work in either room 245 or 242 while a course is in session. Neither the Laboratory Manager, Laboratory Director nor Supervising Faculty members can grant this permission.

c. All individual users should plan their work to be conducted at times that do not overlap with those times when a class session is being conducted.

d. Individual users having been granted explicit permission by a course instructor to work in room 245/242 during any part of the time a class is in session, must do so in a manner that does not interfere with the activities of the course.

    1. Permission to work during a regularly scheduled class session is a privilege that the instructor has granted and is not a right. The instructor may ask individual users not enrolled in the course to leave at any time.

    2. Users must not perform any procedure that unnecessarily interferes with the lecture or the lab activities conducted in the course. Although working quietly and avoiding using equipment that is being used by the class is generally adequate, it is up to the instructor to decide what constitutes an interference.

    3. Users must not perform procedures that could potentially create a hazard either to themselves or others – this includes conducting a routine procedure where being distracted by what is going on in the class could cause a chemical or liquid spill onto the laboratory bench or floor.

    4. Users working in the lab when a class is in session must also remain aware of potential hazards that may be created by students in the class who may be performing a procedure for the first time. Depending on the nature of the potential hazard, reporting this to the instructor is generally sufficient.

e. Instructors who have granted an individual user permission to work in the laboratory during the time when their course is in session do not assume a supervisory role over this user nor do they become directly responsible for the safety of that user. However, in regard to being responsible for their own students' safety, instructors must maintain an awareness of the work that an individual user is conducting. Potential hazards or distractions and interferences that can create a hazardous situation must be quickly identified and eliminated.

    1. The instructor has full discretion to decide what constitutes a potential hazard to themselves and their students.

2. Depending on the nature of the potential hazard, either discussing this with the individual user or asking the user to cease the activity creating the potential hazard is generally sufficient.
3. When repeated actions occur that interfere with the conduct of a class or that distracts students who are conducting laboratory procedures involving potential hazards, the instructor can request individual users perpetrating the action to leave the laboratory.
4. Incidents of this later type are to be reported as described in AMBL SOP 002G.

5.0 Project Completion and Close-out

Once a project's activities have concluded, the users are responsible for cleaning up the laboratory space. This includes making sure that all chemicals used are returned to chemical storage and that all wastes generated are properly disposed.

The project lead must schedule a close-out interview with the Laboratory Manager before the specified end date of the project's activities. This interview will more clearly identify any cleanup responsibilities that are the sole responsibility of the project's personnel and any cleanup responsibilities that will be shared by the laboratory personnel.

Any cleanup that was identified as the project's responsibility that has been left for laboratory personnel to complete, will be charged to the project's account according to the time and the hourly rate of the individual or individuals who perform the cleanup. This is not however, the preferred option for ensuring the laboratory space used has been cleaned up and both parties should communicate with one another if this situation is anticipated.

6.0 Laboratory Services

The Environmental Engineering Laboratory provides a variety of standard services that are considered part of the overall management of all activities occurring in the laboratory. Additional services are also available either based on the availability of laboratory personnel to provide those services or based on a fee for providing a service.

6.1 Standard Services

Certain services are provided to all users and are considered part of the laboratory's routine management.

a. Site-specific training on laboratory safety and hazard communication. This training is in addition to the require safety training to be taken on-line through the NAU Environmental Health and Safety office. The OSHA Lab Standard 29 CFR 1910.1450 requires that these trainings be

completed before individuals preform work in the laboratory. As activities in the laboratory change, updates to the site-specific training are communicated to all users.

b. Safety performance review. A review of whether the safety protocols associated with specific procedures or activities are being followed may be requested or may be conducted unannounced. The findings and required corrective actions resulting from this review will be communicated (to the user) with a requirement that the user communicates (to the Laboratory Manager) the corrective actions that have been taken. Method performance concerns that are identified during a requested or unannounced safety performance review are handled as described in section 6.1.c.

c. Method performance review. A review of whether specific laboratory or field methods and procedures are being followed, including all or part of sampling, use of equipment and supplies, reagent preparation, and good laboratory work practices (GLWPs) may be requested or may be conducted unannounced. The findings and recommended corrective actions resulting from this review will be communicated (to the user). Required corrective actions will be communicated when findings indicate that equipment or supplies may be damaged or when the ability of other users to perform their work is impinged on. Performing methods and procedures correctly so that usable environmental data are generated is the sole responsibility of the user. Safety concerns that are identified during a requested or unannounced method performance review will be handled as described in section 6.1.b.

d. Ordering supplies. The control and inventory of chemicals and supplies that are brought into and used in the laboratory is an important aspect of managing the laboratory and its safe use. It is required that users request the laboratory to assist with ordering all laboratory supplies and chemicals. This allows for the opportunity to check the laboratory's inventory for existing supplies and chemicals and to avoid unnecessary purchases. Rush orders will not be processed, so plan in advance. Assistance with ordering specialty equipment and supplies will be provided when possible. The procedure for requesting an order is described in a separate SOP.

e. Training on use of equipment. While training on the use of most equipment can be done briefly in conjunction with the instructions provided by the equipment's instruction manual, certain equipment require formal training before use.

f. Equipment and Supplies Check-out. Although users will generally use equipment and supplies in the laboratory, there are occasions when equipment and supplies are needed to conduct field activities. The laboratory requires that any use of the laboratory's equipment or supplies in the field be checked-out and then checked-in when the use

of these equipment and supplies is no longer needed. Damage, loss and condition of equipment and supplies will be evaluated upon check-in. If warranted, charges for damaged, lost or unclean equipment and supplies will be charged to the account provided on the Rapid Request Form for the cost of repair, replacement or clean-up. The procedure for checking out equipment and supplies is described in a separate SOP.

g. Any additional standard service to be provided by the laboratory must be discussed and agreed upon as part of the interview described in 3.1c.

6.2 Availability-based Services

Certain services and training are considered beyond the routine management of the laboratory but may be important for a user's project or experiment success or is required before you can proceed with work, such as training on the equipment that will be used. Providing project- or course-specific training and assistance is the responsibility of either the project supervisor or laboratory course instructor. When neither of these individuals have adequate experience to conduct this training or provide assistance, these services can be provided but are contingent upon the availability of laboratory personnel having enough time included in their work expectations and the adequate expertise for performing the particular service. A request must be submitted for these services to be provided by laboratory personnel.

a. Editorial assistance with preparation of project-specific SOPs.

b. Training on performing sample collection.

c. Training on performing analytical methods.

d. Assistance with experimental design, setup and quality control.

6.3 Fee-based Services

Although users are expected to perform their own work, certain services can be performed by the laboratory at a cost charged to the user and contingent upon laboratory personnel having enough time included in their work expectations and the adequate expertise for performing the particular service.

The Environmental Engineering Laboratory is a member of the Engineering Community Outreach and Research Extension (E-CORE) Service. All fee-based services performed are provided through E-CORE Service and a schedule of fees and laboratory services is available from the Environmental Engineering Laboratory web site.