

**Department of Civil and Environmental Laboratory**

**North Dakota State University**

**Rules of Use Agreements**

**Adopted by faculty November 20, 2020**

Dear Lab Users,

Laboratories are environments where great innovation and groundbreaking research take place. However, labs such as those in the Department of Civil and Environmental Engineering, can also become locations that place individuals in unsafe conditions if proper chemical hygiene, biosafety, mechanical, and electrical lab safety rules are not followed. This is true for all labs, and of even greater importance in multi-user laboratories where you may not be aware of the breadth of all of the research being implemented.

The overall goal of this “Rules of Use Agreement” is to ensure all users of the lab have a safe operational environment and follow/meet all university policies with respect to lab safety (including overall laboratory safety and items specific to chemical, bio-, mechanical, and electrical use and safety).

By signing this agreement, you (the user) agree to abide by all operational processes put in place to assure a safe user environment within the laboratories for which you have use approval. This document is divided into sections: 1) chemical, 2) bio, and 3) mechanical/electrical. There is a signature line after each section. You, the user, are required to read and sign all sections that relate to the laboratory environment in which you work.

Each student must fill out a use agreement sheet for each lab in which she/he works. The first line of the use agreement sheet has a spot to write in the lab information n (e.g., CIE 214). Please fill this in for each sheet you sign.

**As a reminder: Each lab user is responsible for his/her own personal safety and the general safety of co-workers. Please think safety and act safely before you work in the lab!**

**The Rules of Use will be posted on the front door of each laboratory by the Laboratory Director. If you have any questions while working in a lab, please ask the Laboratory Director for direction and/or clarification.**

If a student separates from a lab, and then come back after some time – this form will need to be signed again.

## Rules of Use – Laboratories that contain/use chemicals

LAB NAME (e.g., CIE 214) ( \_\_\_\_\_ )

### Rules of Use

1. Each student is required to sign in and sign out of each laboratory working session. A BINDER containing the sign in/sign out sheets is located by the front door of the lab.
2. Each student is required to wear long pants and closed toe shoes while in the lab.
3. All users must and will wear appropriate PPE at all times while in the laboratory. This includes at a minimum safety glasses, lab coat, and gloves (gloves if physically working on research). The only time it is acceptable not to have on gloves is if you are sitting at a computer typing in data.
4. Each student must and will have his/her own pair of safety glasses and laboratory coat.
5. Each student must and will wear PPE beyond that listed in #3 for any research requiring additional PPE. For example, if you are working with nanomaterials, you must and will wear the appropriate respirator.
6. Each student must and will make sure the lab is locked when he/she leaves if no other personnel are present.
7. Each student is responsible for knowing the specific of the chemicals he/she is working with, be familiar with the SDS, be aware of where the SDS is located within the laboratory, and place SDS sheets in the SDS binder for any new chemical purchased.
8. Each student is responsible for cleaning his/her work area immediately after use/before leaving the lab. If you use a common piece of equipment (e.g., analytical balance), it is your responsibility to clean said equipment immediately after it use.
9. No student is allowed to have any food and/or drink in the lab. Also, no food/drink may be stored in any of the refrigerators within the lab.
10. Each student is responsible for working with his/her respective Principal Investigator (major advisor) or Instructional Supervisor to ensure that the hazardous waste he/she generates is always labeled, stored, and prepared for disposal in a safe, compliant, and environmentally responsible manner. Each student is required and responsible for knowing and following all of the NDSU hazardous use/disposal requirements at all times. This includes ALWAYS having hazardous waste properly labeled and stored within the lab.
11. Each student is responsible for properly discarding sharps.
12. Each student is responsible for properly discarding nanomaterials.
13. Each student is responsible for properly discarding all chemicals/solutions.
14. Each student is responsible for reading, understanding, and following the NDSU Chemical Safety Hygiene Plan.
15. Each student (and/or the research group of the faculty advisor) is required/responsible for maintaining SOPs for experiments/processes. A SOP template can be found at: [https://www.ndsu.edu/fileadmin/policesafety/docs/chem\\_sop\\_ndsu.pdf](https://www.ndsu.edu/fileadmin/policesafety/docs/chem_sop_ndsu.pdf)
16. Each student ordering chemicals must and will update the chemical inventory spreadsheet for your research group. Each research group is required to update the faculty member in charge of the lab monthly on chemical use (i.e., update the chemical spreadsheet for your advisor's research group. Please obtain this spreadsheet from your advisor), and/or each time a new chemical is purchase or a current chemical is disposed of.

17. All SDS binders must be in plain view next to the main door of the lab. These must be readily available to any visitor/emergency personnel as they enter the lab.
18. Each student using the laboratory MUST MAKE SURE he/she washes his/her hands prior to leaving the lab, even if gloves were worn while working in the lab.
19. Each student is responsible for reading/understanding, and abiding by the NDSU Chemical Hygiene Plan  
([https://www.ndsu.edu/fileadmin/policesafety/docs/chem\\_2009NDSUChemPlan.pdf](https://www.ndsu.edu/fileadmin/policesafety/docs/chem_2009NDSUChemPlan.pdf))
20. Each student is responsible for completing all required laboratory safety training prior to any work in the lab. The student must provide Jan Lofberg (NDSU CEE) copies of all training certificates. Student should check with Jan Lofberg and his/her advisor to determine which training is required prior to working in the lab.

### **What to Do in Cases of Injury or Incident**

If you as a lab user injure yourself or if there is an incident:

1. If it is a serious/life-threatening injury/incident, immediately call 911 and then the NDSU Safety Office (1-7759). If possible, also contact your immediate supervisor.
2. If it is not a life-threatening injury/incident, contact the NDSU Safety Office (1-7759), your immediate supervisor, and the lab manager.
3. An incident report should be filled out and submitted to the safety office within 24 hrs.
  - a. Employee Incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>
  - b. Non-employee incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>

### **Violations of Rules of Use Agreement**

Laboratory safety is everyone's responsibility. Violation of the operating rules of the lab puts everyone in potential danger. Thus, first time violations will result in a warning to the student (copied to the advisor/supervisor). Second violations will result in the loss of lab privileges for one week (and a potential request to repeat safety training depending on the violation). Repeated violations will result in the loss of lab privilege for an extended period of time (one month or greater depending on the severity of the violation), the repeat of all safety training, and extensive in-lab re-training (in consultation with the student's advisor/supervisor).

These stipulations are being put in place to cultivate a safety culture within the labs in which you work and to ensure that all personnel using these labs have a safe environment in which to conduct his/her research.

### **Implementation of the Rules of Use Agreement**

This agreement goes into effect immediately upon the signing by the student and student's advisor and submission of the form to the laboratory(ies) director(s).

I have read and agree to the terms and responsibilities stated in the Rules of Use Agreement.

Signature of student

Date

Printed name of student

By signing below, you are affirming that you have read this agreement, have spoken to your students about proper laboratory protocols, and agree to ensure your students follow all laboratory protocols.

Signature of student's advisor/supervisor

Date

Printed name of faculty

## **Rules of Use – Laboratories that involve mechanical and electrical work**

**LAB NAME** (e.g., CIE 108) ( \_\_\_\_\_ )

### **Rules of Use**

The following general safety rules apply to all users of labs that focus on mechanical and electrical type work. Please review and observe all of these rules. If you notice something that appears unsafe, inform the lab supervisor/director immediately. Ask questions if you do not understand how to perform a job safely or how to operate tools or equipment safely.

### **Pedestrians**

1. Floor may be slippery. Walk carefully and watch out for any potential hazards. Running on the job, except emergencies, is prohibited.
2. Observe and obey all danger and warning signs and devices.
3. Watch out for protruding objects, steps, offsets, recessed areas, or slick spots.

### **Lab Personal Safety and Protection**

1. No food/drink in lab.
2. Hard hats and gloves must be worn when working in the lab. Only clothes, footwear, and gloves in good repair should be worn on the job.
3. Do not attempt to lift an object that is too heavy. Test the load first. If it is too heavy, get the facility management to help or (if possible) divide the load into smaller, lighter loads.
4. Safety glasses, goggles, or face shields must be worn where eye hazards are present.
5. Where foot and toe hazards are present, safety shoes should be worn. No slippers in the lab.
6. In high noise areas, hearing protection should be worn.
7. Appropriate protective breathing masks, particulate masks, or self-contained breathing apparatus will be worn where dust, mist, or vapors are present. See your chapter or team advisor for proper equipment and instructions.

### **Machinery and Tools**

1. Use only those machines and tools which you have been authorized and taught how to operate.
2. Make sure all safety guards are in place before any machine is operated.
3. Never operate equipment that is not in perfect working order. Examples of issues to beware of: broken insulation on electrical wires, emitting smoke, fumes, or sparks, making excessive or unusual noise, etc. If you notice a piece of equipment with an issue, please a warning tag on it and immediately notify the lab supervisor.
4. Never operate a machine, switch, or valve that has a “warning” tag on it. Check with the lab supervisor on the repair status of the machine. Switch, or valve.
5. Never attempt to repair electrical equipment unless you have been authorized and trained to do so. Report any malfunctions or damaged electrical cords to your supervisor.
6. Do not disturb or distract someone who is operating tools or equipment.
7. Do not wear loose clothing while operating equipment.
8. Do not wear rings, wristwatches, neck chains, and other jewelry when working with or around equipment.

9. All grinding wheels operate at dangerous speeds. Operator shall see that the wheel turns freely and is properly mounted before operating. All guards and eye shields must be in place and operational.
10. All the compress gas tankers should be chained, kept upright, and stored safely in a proper cart away from any possible collisions and fires. The protective valve cap must be in place before any compressed gas cylinder is moved.

### **Electrical Maintenance**

1. Unplug all the connected wires from electrical outlets when complete jobs.
2. Do not replace or repair any electrical wires, machines, or fuses. Do not plug in any electrical device that is missing a ground prong. Report them to the lab supervisor or Jan.
3. Make sure the work area is dry and reasonably clean.
4. If any chemicals are in the work area, they should be removed, especially if they are flammable.

### **Housekeeping**

1. Do not block aisles, passage ways, and exits. Unhindered access to all safety equipment (i.e., fire extinguisher, eye wash, electrical panels, etc.) must be maintained at all times.
2. Keep all chemicals, solvents, cleaners, etc., in clearly marked safety containers and stored in their proper places. Keep the safety data sheet in the lab safety data sheet folder in the front of the lab.
3. If you are injured on the job (no matter how small), treat the injuries using the first aid kit in the lab and notify the lab supervisor immediately.
4. Each student is responsible for completing all required laboratory safety training prior to any work in the lab. The student must provide Jan Lofberg (NDSU CEE) copies of all training certificates. Student should check with Jan Lofberg and his/her advisor to determine which training is required prior to working in the lab.

### **What to Do in Cases of Injury or Incident**

If you as a lab user injure yourself or if there is an incident:

1. If it is a serious/life-threatening injury/incident, immediately call 911 and then the NDSU Safety Office (1-7759). If possible, also contact your immediate supervisor.
2. If it is not a life-threatening injury/incident, contact the NDSU Safety Office (1-7759), your immediate supervisor, and the lab manager.
3. An incident report should be filled out and submitted to the safety office within 24 hrs.
  - c. Employee Incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>
  - d. Non-employee incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>

### **Violations of Rules of Use Agreement**

Laboratory safety is everyone's responsibility. Violation of the operating rules of the lab puts everyone in potential danger. Thus, first time violations will result in a warning to the student (copied to the advisor/supervisor). Second violations will result in the loss of lab privileges for one week (and a potential request to repeat safety training depending on the violation). Repeated violations will result in the loss of lab privilege for an extended period of time (one month or greater depending on the severity of the violation), the repeat of all safety training, and extensive in-lab re-training (in consultation with the student's advisor/supervisor).

These stipulations are being put in place to cultivate a safety culture within the labs in which you work and to ensure that all personnel using these labs have a safe environment in which to conduct his/her research.

### **Implementation of the Rules of Use Agreement**

This agreement goes into effect immediately upon the signing by the student and student's advisor and submission of the form to the laboratory(ies) director(s).

I have read and agree to the terms and responsibilities stated in the Rules of Use Agreement.

Signature of student

Date

Printed name of student

By signing below, you are affirming that you have read this agreement, have spoken to your students about proper laboratory protocols, and agree to ensure your students follow all laboratory protocols.

Signature of student's advisor/supervisor

Date

Printed name of faculty

## Rules of Use – Laboratories that are bio-related

LAB NAME (e.g., CIE 214) ( \_\_\_\_\_ )

### Rules of Use

1. Each student is required to sign in and sign out of each equipment usage laboratory working session. A laboratory logbook is available for each major instrument in the laboratory.
2. Each student is required to wear long pants and closed toe shoes while in the lab.
3. All users must and will wear appropriate PPE at all times while in the laboratory. This includes at a minimum safety glasses, lab coat, and gloves (gloves if physically working on research). The only time it is acceptable not to have on gloves is if you are sitting at a computer typing in data.
4. Each student must and will have his/her own pair of safety glasses and laboratory coat.
5. Each student must and will wear PPE beyond that listed in #3 for any research requiring additional PPE. For example, if you are working with nanomaterials, you must and will wear the appropriate respirator.
6. Each student must and will make sure the lab is locked when he/she leaves if no other personnel are present.
7. Each student is responsible for knowing the specific of the chemicals he/she is working with, be familiar with the SDS, be aware of where the SDS is located within the laboratory, and place SDS sheets in the SDS binder for any new chemical purchased.
8. Each student is responsible for cleaning his/her work area immediately after use/before leaving the lab. If you use a common piece of equipment (e.g., analytical balance), it is your responsibility to clean said equipment immediately after it use.
9. No student is allowed to have any food and/or drink in the lab. Also, no food/drink may be stored in any of the refrigerators within the lab.
10. Each student is responsible for working with his/her respective Principal Investigator (major advisor) or Instructional Supervisor to ensure that the hazardous waste he/she generates is always labeled, stored, and prepared for disposal in a safe, compliant, and environmentally responsible manner. Each student is required and responsible for knowing and following all of the NDSU hazardous use/disposal requirements at all times. This includes ALWAYS having hazardous waste properly labeled and stored within the lab.
11. Each student is responsible for properly discarding sharps.
12. Each student is responsible for properly discarding nanomaterials.
13. Each student is responsible for properly discarding Biohazards (liquids, sharps and others).
14. Each student is responsible for properly discarding all chemicals/solutions.
15. Each student is responsible for reading, understanding, and following the NDSU Chemical Safety Hygiene Plan.
16. Each student (and/or the research group of the faculty advisor) is required/responsible for maintaining SOPs for experiments/processes. A SOP template can be found at: [https://www.ndsu.edu/fileadmin/policesafety/docs/chem\\_sop\\_ndsu.pdf](https://www.ndsu.edu/fileadmin/policesafety/docs/chem_sop_ndsu.pdf)
17. Each student user must update the inventory of chemicals, reagents and biological materials that are multiuser materials. The same is true for glassware etc that is multiuser.
18. All SDS binders must be in plain view in the laboratory. These must be readily available to any visitor/emergency personnel as they enter the lab.



19. Each student using the laboratory is responsible for taking the proper steps as required by NDSU safety office for removal of the filled Biohazard containers.
21. Each student using the laboratory MUST MAKE SURE he/she washes his/her hands prior to leaving the laboratory, even if gloves were worn during laboratory work.
22. Each student is responsible for reading/understanding, and abiding by the NDSU Biosafety Manual ([https://www.ndsu.edu/fileadmin/policesafety/docs/bio\\_Biosafety\\_Manual.pdf](https://www.ndsu.edu/fileadmin/policesafety/docs/bio_Biosafety_Manual.pdf)).
23. Each student is responsible for completing all required laboratory safety training prior to any work in the lab. The student must provide Jan Lofberg (NDSU CEE) copies of all training certificates. Student should check with Jan Lofberg and his/her advisor to determine which training is required prior to working in the lab.

### **What to Do in Cases of Injury or Incident**

If you as a lab user injure yourself or if there is an incident:

4. If it is a serious/life-threatening injury/incident, immediately call 911 and then the NDSU Safety Office (1-7759). If possible, also contact your immediate supervisor.
5. If it is not a life-threatening injury/incident, contact the NDSU Safety Office (1-7759), your immediate supervisor, and the lab manager.
6. An incident report should be filled out and submitted to the safety office within 24 hrs.
  - e. Employee Incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>
  - f. Non-employee incident report: <https://www.ndsu.edu/fileadmin/vpfa/forms/UPSO-IncidentReport.pdf>

### **Violations of Rules of Use Agreement**

Laboratory safety is everyone's responsibility. Violation of the operating rules of the lab puts everyone in potential danger. Thus, first time violations will result in a warning to the student (copied to the advisor/supervisor). Second violations will result in the loss of lab privileges for one week (and a potential request to repeat safety training depending on the violation). Repeated violations will result in the loss of lab privilege for an extended period of time (one month or greater depending on the severity of the violation), the repeat of all safety training, and extensive in-lab re-training (in consultation with the student's advisor/supervisor).

These stipulations are being put in place to cultivate a safety culture within bio-related laboratories with the CEE and to ensure that all personnel using these laboratories have a safe environment in which to conduct his/her research.

### **Implementation of the Rules of Use Agreement**

This agreement goes into effect immediately upon the signing by the student and student's advisor and submission of the form to the laboratory(ies) director(s).

I have read and agree to the terms and responsibilities stated in the Rules of Use Agreement.

Signature of student

Date

Printed name of student

By signing below, you are affirming that you have read this agreement, have spoken to your students about proper laboratory protocols, and agree to ensure your students follow all laboratory protocols.

Signature of student's advisor/supervisor

Date

Printed name of faculty