Biohazard Certificate BIOSAFETY COMMITTEE

INSTRUCTIONS FOR:

(2) BIOHAZARD CERTIFICATE APPLICATION FORM - TEACHING

General Instructions

Biohazard certificates are issued to Course Instructors and give authorization to conduct *teaching projects* utilizing biohazardous materials. Certificates are issued by individual *course*, not by micro-organism, or laboratory room. Teaching use of biohazardous materials may not commence until approval has been granted by the StFX Biosafety Committee.

Laboratories are inspected to ensure that facilities meet appropriate biosafety level containment requirements as defined by the Public Health Agency of Canada's *Laboratory Biosafety Guidelines.* Facility inspections **do not** constitute permission to use biohazardous materials.

Instructors who wish to ***store*** biohazardous materials for future use require a current Biohazard Certificate.

Forms must be completed in full and submitted to the Biosafety Officer* (L. Graham). *Incomplete forms will impede the review process and delay issuance of the permit.

Please note that if boxes on forms are insufficient in size, append additional information on separate pages. Numbers below refer to numbered items on The Biohazard Certificate Application form.

1. **PROJECT NUMBER.** **Please leave blank.** Project numbers shall be assigned by the StFX Biosafety Committee.

2. **COURSE NAME.** Indicate course name and course number (as listed in the StFX Academic Calendar), indicate whether the course is offered in 1 term (i.e. fall, winter, intersession, summer) or is full year (Sept. - April).

3. **PERSONNEL ASSOCIATED WITH THIS COURSE**

The course instructor must be a member of faculty or professional staff. Only 1 person may serve as instructor for a team-taught course, additional instructors are named as **Associates.**

Associates include faculty members and Laboratory Instructors.

Emergency contact(s) must be available to attend to after-hours problems. Emergency contacts will be registered with Campus Community Security who are the first responders to campus incidents. All contact numbers will be kept confidential.

Additional Staff. List all persons (i.e., post-doctoral fellows, graduate students, teaching assistants, technicians) who will be working with the biohazardous materials. Append a class list as well as the names of student laboratory demonstrators.

4. **SUMMARY OF COURSE**

Describe the course such that persons who are not expert in the field can evaluate the project.

5. BIOHAZARDOUS AGENTS OR MATERIALS SUMMARY.

Risk Groups and Containment Levels. Information pertaining to risk groups and containment levels may be obtained from the StFX Biosafety Manual, the Public Health Agency of Canada Canadian biosafety Standard, 2nd edition, 2015, < https://www.canada.ca/en/public-health/services/canadian-biosafety-standards-guidelines/second edition.html >, Canadian Biosafety Handbook, 2nd edition, 2016, < https://www.canada.ca/en/public-health/services/canadian-biosafety-standards-guidelines/handbook-second-edition.html >, the Canadian Food Inspection Agency (aquatic animal pathogens, non-indigenous and emerging animal disease pathogens) < http://www.inspection.gc.ca/animals/biohazard-containment-and-safety/eng/1300121579431/1315776600051 >, pathogen safety data sheets < https://www.canada.ca/en/public-health/services/laboratory-biosafety-biosecurity/pathogen-safety-data-sheets-risk-assessment.html>, and suppliers such as American Type Culture Collection < www.ATCC.org >.

Microorganisms. *Microorganisms:* specify genus and species; *Type*: specify bacteria, virus, etc.; *Pathogenic to:* specify all that apply - human, animal (indicate type), and/or plant (indicate type); *Risk Group:* specify the risk group as determined by the Public Health Agency of Canada *Canadian Biosafety Standards and Guidelines* or The Canadian Food Inspection Agency Containment Standards. *Proposed Containment Level:* indicate the proposed containment level at which the work will be conducted. *Source*: indicate origin/source of agent.

Cell Cultures. *Cell type:* indicate species; *Primary or Established:* indicate whether it is a new cell line or an established one; *Known Pathogens:* if the cell line is known to be infected with pathogens, indicate which pathogens; *Risk Group:* specify the risk group; *Proposed Containment Level:* indicate containment level. Note that all human cell lines are considered to be a minimum of Risk Group 2 in Canada. *Source*: indicate origin/source of cell line.

Biological Toxins. *Toxin:* specify the name of the toxin; *Source:* indicate from where the material was obtained; *Risk Group:* specify the risk group; *Proposed Containment Level:* indicate containment level.

Human Source Material. *Substance:* indicate the type of material (organ, blood, bone, etc); *Source:* indicate from where the material was obtained; *Risk Group:* specify the risk group; *Proposed Containment Level:* indicate containment level.

Recombinant DNA. *Host organism:* specify the name of the host; *Vector:* indicate the corresponding vector; *Gene(s):* indicate the source of the genes to be cloned or expressed; *Risk Group:* specify the risk group; *Proposed Containment Level:* indicate containment level. Refer to NIH Guidelines <http://www4.od.nih.gov/oba/rac/guidelines/guidelines.html>.

6. LOCATION OF COURSE

6.1 Campus sites

Building. Indicate building address and name. **Room Number.** Indicate each room in which the biohazardous material is used or stored. Use a separate line for each room number.

Description of Use. Indicate whether it is a laboratory equipment room, greenhouse, animal facility, etc.

Shared space. Indicate if the areas where biohazardous materials are used and/or stored are shared with other University personnel. If the area is under the control of another Principal Investigator (PI) or instructor, then their signature is required. If the area is a communal area such as an equipment room then the Departmental Chair's or Director's signature is required.

6.2 Storage Locations

Building. Indicate the building name and address.

Room Number. Indicate each room in which the biohazardous material is stored.

Location within room. Indicate the nature of the storage (-80C freezer; liquid nitrogen dewar, etc) and the security measures in place to prevent unauthorized access.

7. LOCATION OF BIOCONTAINMENT CABINETS. Indicate location of the biocontainment cabinets by room, the model and serial number, date of last certification, and the responsible party.

Building. Indicate building name. **Room Number.** Indicate each room in which the biohazardous material is used or stored. Use a separate line for each room number.

Model and serial number. Indicate the model and serial number as shown on the manufacturer's name plate.

Date of last certification. Indicate the date of last certification as recorded on the certificate posted on the cabinet.

Person Responsible. Indicate the person responsible for maintenance and repair of the cabinet.

Phone Number. Indicate the extension / phone number at which the responsible person can be reached.

8. STEAM STERILIZERS (AUTOCLAVES). Indicate the location, last inspection date, responsible party, and biological indicator verification information.

Building. Indicate building name. **Room Number.** Indicate each room in which the biohazardous material is used or stored. Use a separate line for each room number.

Frequency of Biological Indicator Verification. Indicate how often the sterilizer is tested for effective decontamination.

Location of cycle and verification records. Indicate the building and room number where records are stored.

Person Responsible. Indicate the person responsible for maintenance, repair, sterilization verification, and record keeping for the sterilizer.

9. EXPERIMENTAL PROCEDURES AND LOCAL RISK ASSESSMENT. List all of the procedures in which biohazardous materials will be used, i.e., culture of microorganism; culture of animal cell line; infection assay (bacterial infection of animal cell culture). For each procedure listed, attach a step by step standard operating protocol. For each step indicate how the biohazard will be handled safely. Include quantities of biohazardous materials to be used. Include specific equipment, practices and personal protective equipment which will minimize risk of exposure or release of the biohazardous materials. Aerosols are of special concern; examples of procedures that produce aerosols include centrifugation, homogenization, sonication, grinding, blending, pipetting, intranasal inoculation, handling lyophilized material, spattering, transferring cultures etc. Indicate any use of sharps and how personnel shall be protected from sharps injuries.

10. PERSONAL PROTECTIVE EQUIPMENT. Specify any use of personal protective equipment, e.g., gloves, goggles, lab clothing, etc. and the method of decontamination.

11. EMERGENCY RESPONSE PLANS. Describe strategies to be implemented in the event of a spill, fire, medical emergency, loss of power or occurrence which threatens safety and health and requires immediate action. Information found in the StFX Biosafety Manual may be used as a template for these plans, but

individual plans must be amended to accommodate facility specific conditions.

12. **DECONTAMINATION AND WASTE MANAGEMENT PROTOCOLS.** Indicate specific methods of decontamination for (i) reusable contaminated materials, (ii) disposable contaminated materials, and (iii) waste materials. Reusable materials include, but are not limited to cultures (liquid, solid), disposable equipment and contaminated debris. If using steam sterilization, indicate time and temperature cycles. If using disinfectant, indicate the name of the disinfectant and kill times. If the course generates mixed waste, i.e., biohazardous material mixed with radiosotopes, or hazardous materials, indicate how this waste will be handled..

13. **TRANSPORTATION ON SITE.** Describe how the material will be transported between room and/or buildings through public spaces. Include means of packaging, e.g, sealed plastic containers and means of transport, e.g., walking, using a cart, using a university vehicle.

14. **IMPORT/EXPORT.** Indicate if you intend to import or export biohazardous materials per the requirements of the Public Health Agency of Canada and/or the Canadian Food Inspection Agency. Note that for many biohazardous materials, a permit is required from both agencies. Certain substances, primarily but not exclusively RG 3 and RG 4 materials, require an export permit.

TRANSFER. Principal Investigators may be asked for culture strains by colleagues at the University or at other facilities. All transfers of biohazardous materials must be approved by the Biosafety Committee. Material Transfer Agreements are required for all transfers of biohazardous materials whether to a colleague or to an external agency. Material Transfer Agreements are generated by the Research Services Group.

15. **SECURITY.** Describe how the biohazardous materials will be secured from unauthorized use and theft. Describe how the work areas will be secured from unauthorized access.

INVENTORY RECORDKEEPING AND CONTROL. Describe the method of recordkeeping, e.g., computer database, card file, etc. and where it is located. Describe how inventory is controlled, e.g., authorized persons only inputting data, password protection, etc.

16. **COURSE INSTRUCTOR CERTIFICATION.** Applications must be signed by all parties. Unsigned applications will not be processed.