A. POLICY
The purpose of the Alvernia University Pandemic Influenza Response Plan – Facilities and Campus Operations is to provide organized, comprehensive guidelines for an effective response to an influenza pandemic that helps ensure the health, safety, and well-being of the Alvernia University Facilities and Campus Operations (FACO) personnel and the Alvernia University community. This document addresses how Alvernia University FACO personnel will support continuity of operations during a pandemic influenza or other emergency.

B. GENERAL INFORMATION
Seasonal flu, avian flu, swine flu, and pandemic flu are not the same. A pandemic flu can be described as a strain of influenza occurring over a wide geographic area and affecting an exceptionally high proportion of the population. This type of flu is easily transmitted from one human to another. It will most likely be transmitted through touch and the aerosolization of lung and nasal fluids, i.e. coughing and sneezing. The factors that separate a pandemic flu from ordinary flu are the level of virulence and number of persons infected. During a pandemic flu, it is likely that about one-third of the population may be infected at any one time.

It is known that pandemic flu normally begins with a strain of flu that primarily occurs in animals, and is transmitted to humans through animal contact. The progression from an animal flu to a pandemic flu occurs when the flu virus mutates to a strain that can be transmitted from one human to another. Once the flu virus mutates to a human-to-human transmissible variety, the flu may spread rapidly in the human population in terms of numbers and geography.

The Avian (or Bird) Flu has received considerable media attention. It is important to note that, at this time, Avian Flu is rarely being transmitted from human-to-human; it is mainly contracted by humans who have had close contact with infected birds through the improper handling/cooking of infected birds or poultry. Avian Flu is not a pandemic flu, because there has been no sustained human-to-human transmission of the disease. However, the concern is that Avian Flu (or H5N1) could evolve into a virus capable of sustained human-to-human transmission.

Novel H1N1 is a new influenza virus causing illness in people. This new virus was first detected in people in the United States in April 2009. Other countries, including Mexico and Canada, have reported people sick with this particular strain of virus. This virus is spreading from person-to-person, probably in much the same way that regular seasonal influenza viruses spread. This virus was originally referred to as “swine flu” because laboratory testing showed that many of the genes in this new virus were very similar to influenza viruses that normally occur in pigs in North America. But further study has shown that this new virus is very different from what normally circulates in North American pigs. It has two genes from flu viruses that normally circulate in pigs in Europe and Asia as well as avian (bird) genes and human genes.

With seasonal flu, it is known that seasons vary in terms of timing, duration and severity. Seasonal influenza can cause mild to severe illness, and at times can lead to death. Each year, in the United States, on average 36,000 people die from flu-related complications and more than 200,000 people are hospitalized from flu-related causes. Of those hospitalized, 20,000 are children younger than 5 years old. Over 90% of deaths and about 60 percent of hospitalization occur in people older than 65.
The Centers for Disease Control (CDC) recommends the use of the drugs oseltamivir (Tamiflu) or zanamivir (Relenza) for treatment of influenza infections because both oseltamivir and zanamivir have been shown to reduce the severity and duration of cases of illnesses caused by typical seasonal strains of influenza. Oseltamivir is also recommended as an adjunct to influenza vaccine programs for the prevention of influenza.

The guidance in the following sections provides a systematic approach for minimizing the risk of this disease at Alvernia University. The primary goal of the Alvernia University – FACO Pandemic Influenza Response Plan is to promote the safety and well-being of Alvernia students, faculty, visitors and staff by:

1. Protecting Alvernia FACO workers who will need to keep the campus running; and
2. Providing support for the essential services that must be maintained.

C. WHO PANDEMIC PHASES

Reference: www.cdc.gov/flu/pandemic/phases.htm

The World Health Organization’s global influenza preparedness plan defines stages of a pandemic as consisting of the following six phases. Phases 1 and 2 comprise the “interpandemic period”, phases 3, 4, and 5 are considered the “pandemic alert period”, and phase 6 is the “pandemic period.”

Phase 1: No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.

Phase 2: No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

Phase 3: Human infections(s) with a new subtype but no human-to-human spread, or at most rare instances of spread to a close contact.

Phase 4: Small cluster(s) with limited human-to-human transmission but spread is highly localized, suggesting that the virus is not well adapted to humans.

Phase 5: Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly better adapted to humans but may not yet be fully transmissible (substantial pandemic risk).

Phase 6: Pandemic: increased and sustained transmission in general population.
D. ALVERNIA UNIVERSITY EMERGENCY CONDITIONS LEVELS

Reference: Alvernia University Crisis Management Plan (current revision)

In order to provide warnings and a comprehensive means to disseminate information, Emergency situations will be assigned a condition by color. "Emergency Conditions" increase as the risk of the threat increases; response would be as follows:

**BLUE (Level 1 - low/guarded):** Protective measures. Essential personnel will be called in as needed.

**YELLOW (Level 2 - elevated):** Refer to Emergency Guidelines & Procedures manual. Personnel will remain present on campus until relieved by Management and/or call in all essential personnel.

**RED (Level 3 - high/severe):** Implement Crisis Management Plan. Immediate response to call in and/or personnel will remain present on campus until relieved by Management.

Management includes the Vice President of Finance and Administration, the Director of Facilities Planning and Construction Management, the Director of Facilities and Campus Operations and the Vice President for Student Life.

E. CAVEATS

1. A pandemic influenza will result in the rapid spread or infection throughout the world.
2. The pandemic influenza will occur in multiple waves.
3. Each wave may last from six to eight weeks.
4. The pandemic influenza attack rate will likely be 30% or higher among the University population. Illness rates will likely be higher with school-aged children and middle aged adults and the elderly.
5. Of those who become ill with influenza, the hospitalization rate may be as high as 8% and a mortality rate as high as 1%, possibly higher.
6. Some persons will become infected but not develop clinically significant symptoms. Symptoms may not develop until 2-7 days after being infected.
7. The number of ill requiring medical care will overwhelm the local health care system.
8. The number of fatalities will overwhelm the medical examiners’ office, hospital morgues, and funeral homes.
9. The demand for home care and social services will increase dramatically and will not be available.
10. Vaccines will not be available for 4-6 months following the emergence of a novel strain of influenza. Other prophylactic drugs, e.g. Tamiflu, may not be fully effective against a pandemic influenza.
11. Absenteeism may be up to 40% (or higher in certain professions).
12. There is likely to be a significant disruption of public and privately owned critical
infrastructure including transportation, businesses, utilities, public safety, and communications.

13. The implementation of isolation and quarantine will be the decision of the federal or state government.

14. Recommended travel restrictions will come forth from the federal and state government.

15. For the purpose of this plan, two scenarios will be assumed:
   a. Most students have gone home except for those who cannot or chose not to travel home. This will consist of approximately 100-200 students housed on campus.
   b. Students are virtually all here and we are advised to shelter in-place, i.e., no gatherings including classrooms, dining halls, etc. This will consist of 600-1000 students and/or staff housed on campus.

F. CRITICAL CONTROL STRATEGIES

1. Prevention

The importance of practical, common sense approaches to controlling the spread of any communicable disease are also basic to preventing cases of influenza. Each University employee and student needs to take responsibility for his/her own personal health and to be cognizant of basic health practices important for the control of the transmission of any infectious disease, such as:

- Wash hands frequently;
- Avoid sharing utensils, water bottles, towels and bedding without first washing these items with soap and hot water;
- Clean surfaces soiled with body fluids with a household disinfectant, such as bleach and wear gloves while cleaning.
- Keep the immune system strong with regular exercise, good diet, sufficient sleep, and plenty of water,
- Cover nose and mouth when sneezing or coughing and avoid spitting.
- Stay home and do not come to work, attend classes, or attend public events when sick, particularly when a fever is present and there are respiratory symptoms, such as coughing.
- If symptoms compatible with influenza develop, contact a health care provider.

FACO personnel, while it is not mandatory, are encouraged to seek annual immunization against influenza to reduce the risk of illness and possible co-infection with seasonal and novel influenza strains. The flu vaccine appropriate for the current influenza season usually becomes available in September-October every year, and may be obtained from regular health care providers or from special “flu shot” clinics held at clinics, pharmacies, supermarkets, and shopping malls. The Alvernia University Health & Wellness Center also provides seasonal flu vaccinations starting in September each year.

Environmental controls and personal hygiene are also important. Heavily used public surfaces such as door handles, counters, work stations and public reception, registration, and waiting areas in all University departments are wiped clean with disinfectant on a regular schedule. Having hand sanitizer dispensers and disposable paper tissues easily accessible in such areas can potentially help reduce the risk of disease transmission. Good hand hygiene and covering coughs and sneezes (respiratory etiquette) will contribute to reducing environmental contamination and person to person transmission.
2. Protection
FACO staff who may be called upon to provide operational support services to the University in case of a future pandemic influenza will receive training in the requirements for personal protection, necessary respiratory protection, and respirator fit testing.

G. CLEANING AND DISINFECTION PROCEDURES

1. Seasonal and Novel H1N1 Flu
   a. Establish a regular schedule for frequent cleaning of commonly touched surfaces, including: doorknobs, handrails, elevator buttons, desks, chairs, sofas, tables, counters, and surfaces in cafeterias, meeting rooms, and offices.
   b. Provide disposable wipes so that commonly used surfaces can be wiped down prior to each use. These surfaces include: chairs, remote controls, keyboards, headphones shared in language laboratories, and telephone receivers and touchtone pads in common areas.
   c. Encourage staff, faculty, and students to frequently clean their living and work spaces. Students living together should regularly clean frequently used surfaces.
   d. Routinely clean surfaces and items that people frequently touch with their hands with cleaning agents that are normally used in these areas.

   The CDC currently does not recommend additional disinfection beyond routine cleaning.

2. Avian Flu
   a. The flu virus is inactivated by a number of disinfectants, including:
      • Phenolic disinfectants
      • Quaternary ammonia compounds
      • Peroxide-containing compounds
      • Sodium hypochlorite (house bleach)
      • Alcohol
      • Other germicides with a tuberculocidal claim on the label
      • Look on the container label for assurance of effectiveness against flu/avian flu
   b. Follow the manufacturers’ recommendations for the use/dilution, contact time, and handling of disinfectants.
   c. In addition to cleaning of floors and other surfaces, special attention should be given to frequently touched surfaces (ie. television controls, doorknobs, commodes)
   d. To avoid possible aerosolization of virus, damp, rather than dry dusting or sweeping should be performed whenever possible. Dust horizontal surfaces by moistening a cloth with a small amount of disinfectant.
   e. During wet cleaning, cleaning solutions and equipment become contaminated; clean less contaminated areas first and change cleaning solutions, cleaning cloths, and mop heads frequently.
   f. It is recommended to use one bucket for cleaning solution and one for rinsing (double bucket method).
   g. Equipment used for cleaning and disinfecting must be cleaned and dried after each use. Mop heads should be laundered daily and dried thoroughly before storage or reuse.
h. If carpeted areas are used, use a vacuum cleaner with high-efficiency particulate air (HEPA) filtration.

i. Keep areas around patient free of unnecessary supplies and equipment.

j. Do not spray rooms with disinfectant. This is potentially dangerous and has no proven disease control benefit.

k. Specific Cleaning Procedures:

- Dishes and Eating Utensils – Food service employees should wear gloves when handling potentially contaminated eating utensils and dishes (used by a known or suspected infected host). Effective decontamination of non-disposable items is achieved by washing in a properly functioning dishwasher at recommended temperatures and quantities of detergent. Disposable items can be discarded as ordinary refuse.

- Linens and Laundry – Clothing, bedding and towels should not be shaken or otherwise handled in a manner that may generate aerosols. Bag securely before removing from and potentially contaminated areas. Laundry may be washed in standard washing machine using warm water and detergent. Bleach may be added. Personnel handling potentially contaminated laundry should wear disposable gloves when handling potentially contaminated laundry.

- Carpeting and Cloth Furnishings – Use a HEPA vacuum, followed by wet vacuuming with disinfectant. It may be difficult or impossible to disinfect cloth furnishings.

- Visibly or Known Contaminated, Non-Porous Surfaces – Select an EPA-registered disinfectant and apply in accordance with manufacturer’s recommendations, including recommended contact time.

- Potentially Contaminated, Non-Porous Surfaces (i.e., telephones, door knobs, window sills, toilets, floors, etc.) – Wipe generously with an EPA-registered disinfectant.

l. Areas and items known or likely to be contaminated should be disinfected at least daily.

H. DISPOSAL OF BIOHAZARDOUS WASTE

In the event of a pandemic, there will be an increase of biohazardous waste material produced as a result of cleaning procedures. Per federal, state, and local regulations, it is essential to properly store, manage, and dispose of this material. All biohazardous wastes for Alvernia University are collected, labeled, packaged, and stored in the “cold room” that is located in Room 3003 in the O’Pake Science Center. Currently, these materials are disposed of on a monthly basis (every fourth week) per the regulations. During a pandemic, it may be necessary to increase the frequency of the biohazardous waste pick-ups as needed – possibly increasing to a biweekly or even weekly event. This can be arranged by contacting the waste vendor.

The current waste vendor information as of September 2009 is:

Stericycle, Inc.
P.O. Box 9001590
Louisville, KY 40290-1590
Account/Site Number: 8170033001
Schedule & Pick-up Information: (877) 245-5360 option 2
Billing & Payment Information: (877) 245-5360 option 1
General Customer Service: (866) 783-7422

Contact Kevin Burns (Director of Science Laboratory Services & Safety) at Alvernia University for assistance with biohazardous materials. His contact information is:
Office: Room 3217 in O’Pake Science Center
Office phone: (610) 790-2865
Cell phone: (570) 237-6415
Email: kevin.burns@alvernia.edu

As a Best Management Practice, it is recommended that all waste, including wipes, paper towels, cloths, etc., generated from cleaning and disinfecting procedures be treated as biohazardous material.

I. ESSENTIAL, ALTERNATE AND STANDBY PERSONNEL

1. In general, if employees’ job duties affect the security, safety, or physical operation of the University (including providing services to students), they may be employed in a position that is considered "essential" during a pandemic influenza outbreak or any other emergency.

2. Department heads are familiar with the commitments and requirements of their areas of responsibility within the University and are uniquely positioned to make the decision as to who needs to work as an "essential person" during these times.

3. In addition to Essential employees, several employees may be designated as “Alternate employees” and will serve as backup to Essential employees.

4. Certain employees may be designated as “Standby employees”. Standby employees are not designated as either essential or alternate.

5. In accordance with the Alvernia University Disaster Preparedness and University State of Emergency policy, employees who have been designated as Essential, Alternate, or Standby will be notified in writing of their status on an annual basis. Designations can be changed at any time depending if the need arises.

J. ORGANIZATIONAL CHART (FACILITIES AND CAMPUS OPERATIONS)
K. RESPONSIBILITIES

In the event of a pandemic influenza outbreak,

1. The Director of Facilities Planning and Construction Management is responsible for
   a. Interfacing with external contacts

2. The Director of Facilities is responsible for
   a. Coordinating facilities requests
   b. Responding to internal campus needs
   c. Responding to external campus needs
   d. Identifying department functions and identifying essential personnel
   e. Ensuring power, water supply, and sanitary services are operable for critical campus facilities to the extent possible

3. Maintenance personnel are responsible for
   a. Providing building operations for the University

4. Housekeeping personnel are responsible for
   a. Providing cleanup, disinfection and waste removal (other than medical or biological waste) to affected public areas only across campus
   b. Providing building and housekeeping operations for the University

5. Grounds personnel are responsible for
   a. Providing normal duties depending on time of year

6. Switchboard / Mailroom personnel are responsible for
   a. Ensuring that telephones are functioning properly to the extent feasible
   b. Answering switchboard and routing calls to appropriate departments and personnel

7. Facilities shuttle drivers are responsible for
   a. Providing emergency transportation as needed

8. The Environmental Health & Safety Manager is responsible for
   a. Coordinating with the Director of Science Laboratory Services and Safety for handling of medical waste
   b. Preparing Personal Protective Equipment and Respiratory Protection Safety Plans
   c. Assessing PPE needs and assisting with obtaining necessary stock. PPE may include N95 respirators, gloves, and safety glasses/goggles
   d. Fit testing of essential personnel who are required to wear N95 respirators
   e. Distributing PPE to personnel
   f. Training essential personnel in pandemic flu awareness, proper hygiene and disinfection practices, proper care and use of Personal Protective Equipment (PPE) and awareness of the Alvernia University Personal Protective Equipment and Respiratory Protection Safety Plans.

L. REVIEW
This plan will be reviewed at least annually and updated as necessary.
M. REFERENCES
1. Centers for Disease Control and Prevention (CDC)
   1600 Clifton Rd, Atlanta, GA 30333
   www.cdc.gov/flu/pandemic
2. World Health Organization (WHO)
3. Alvernia University Crisis Management Plan
   Version: April 2012
4. Alvernia University Disaster Preparedness and State of Emergency Policy
   Version: September 2009