Environmentally Speaking

A Newsletter by Environmental Safety Division

Winter, January 2008 **Volume 1, Issue 1**

In This Issue:

What's New at ESD?
A New Design for the Newsletter

The Environmental Safety Division needed a new look or design for its newsletter. It is viewed electronically by people, therefore, it needed to be easier and cleaner for the reader.

After viewing other newsletters, it soon became obvious that the new design had to be simple, or less cluttered looking. Hence, the new look.

Please feel free to let us know if something needs to be added or deleted. We are in the beginning stage of a new electronic newsletter, so, please let us know via our website (www.esd.uga.edu) if there is an irritating element in the new design.

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Bachelor's Degree in Microbiology Offered on Griffin Campus

Contributed by Faye Chatman, UGA Griffin Campus
via Bill Favaloro, Outlying Coordinator

Do you want to earn a bachelor's degree in microbiology? Do you want to pursue a career in a science-related field? Do you plan to pursue graduate study in the biological sciences or to enroll in medical school or pharmacy school?

Do you want to fulfill these goals "right here in your own backyard"—without having to move to Athens or commute into downtown Atlanta?

The good news is that you can do so: a UGA degree is closer than you think! The University of Georgia offers an undergraduate degree-completion program at its Griffin Campus designed to give you the background you need to achieve these goals.

About the Program

The University of Georgia's Franklin College of Arts & Sciences launched its Bachelor of Science (BS) degree in Microbiology on the Griffin Campus in Fall 2007.

The BS degree with a major in Microbiology is a liberal arts degree with the major course work concentrated in the biological sciences. The major course work of this degree prepares students for a number of careers and for advanced studies. A bachelor's degree in

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New Food Code Regulations Now Enforced

By Beth Maples

The State of Georgia has officially adopted the FDA Food Code Regulations. Enforcement began on December 1, 2007. The new inspection form will now display not only the number of points earned, but the corresponding letter grade as well. Food establishments on campus have worked hard to learn and implement the new regulations, which went from 36 to 152 pages.

The Environmental Safety Division thanks everyone for their hard work!

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microbiology provides students a solid foundation for professional programs in veterinary medicine, dentistry, medicine, pharmacy, etc., as well as for advanced degrees in the biological sciences, for example, Master of Science (MS) and Doctor of Philosophy (PhD) degrees.

The UGA Griffin Campus

The B.S. degree in Microbiology was designed to provide residents of Spalding County and the surrounding area interested in earning a bachelor's degree that emphasizes the biological sciences the opportunity to achieve that goal.

The University of Georgia is proud to offer this BS degree-completion program at its Griffin Campus, located in Griffin, Georgia, about 40 miles south of Atlanta. Originally established in 1888 as the Georgia Experiment Station, the UGA Griffin Campus is now a world-renowned research facility. Students in the BS in Microbiology degree program at the UGA Griffin Campus will have ample opportunities to benefit from the practical experiences that can be provided by the research environment of the Griffin Campus, where students will have a unique opportunity to combine classroom instruction with research experiences.

The Griffin Campus features modern classrooms and laboratories as well as the newest instructional technology systems for both on-site and distance learning. The campus's instructional facilities will be further enhanced when the Student Learning Center opens in Spring Semester 2009. Students choose the UGA Griffin Campus because they recognize the quality and value of a UGA degree, and they desire the atmosphere of a small college that offers the advantages of small class sizes while at the same time providing the benefits of a major public research university.

Who should apply?

This degree program is a superb choice for students interested in a career of a science-related field or those planning to seek admission to professional programs in medicine, pharmacy, dentistry, veterinary medicine, etc., or to graduate programs in the biological sciences.

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Driver Improvement Program

Classes will be held two days: February 5th and 6th from 8:30 until 12:30 noon at the Training and Development Center.

You can reduce your car insurance by 10%; therefore, sign up for the course. It's fun!!!

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Fire Extinguisher Classes Held at ESD FIRST Bldg.

Fire Extinguisher classes will be held at the FIRST Building on Jan. 23rd, Feb 6 and March 5 from 10:00am until 11:30am.

If you don't know how to use a fire extinguisher, now is the time to learn. It is needed when playing or working. You never know when you'll be called upon to stop a fire or prevent one.

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A major in Microbiology offers an excellent background for a variety of careers and advanced training. The career opportunities to choose from as a microbiologist will depend on the level of education and training one receives. A baccalaureate degree in microbiology will help individuals qualify for many technical, research, and clinical positions.

Some of these positions include:

(1) Research assistant, providing technical support to conduct research working in a team with other scientists and a research director;
(2) Food, industrial or environmental microbiologists and quality assurance technologists**,** working in industry, hospitals, or the government;
(3) Sales or technical representative, providing information about pharmaceuticals and other medical or scientific products to prospective customers;
(4) Clinical and veterinary microbiologists and medical technologists.

In addition to these laboratory and technical jobs, there are several other career paths one can take with bachelor's degree in microbiology. Combining microbiology with another discipline, such as education, business, or journalism, provides an even wider range of career options, including regulatory affairs, scientific sales, science writing for the general public, public relations, public policy, or teaching in high school. The demand for educated workers in careers related to the biological sciences is expected to grow substantially in the coming years.

Whom Should I Contact for Further Information?

Ms. **Faye Chatman,** Program Coordinator, Franklin College of Arts & Sciences, UGA Griffin Campus
Suite 127 Flynt Bldg.; 1109 Experiment St.; Griffin, GA 30223-1731
Phone: (770) 229-3015 or 3016; Fax: (770) 229-3399
griffin@franklin.uga.edu
Website Information:
http://www.franklin.uga.edu/griffin/degree_program/index.htm

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(CSHEMA) Newsletter Award of Excellence

The ESD newsletter has been submitted to CSHEMA for the award's competition they hold each year just for newsletters.

ESD staff, you deserve recognition for your commitment to safety.

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Be Prepared for Chematix!

The Chematix Waste Module is being rapidly deployed throughout labs on the UGA campus. Over 20 buildings are currently using Chematix to prepare hazardous chemical waste for pick up by our waste facility personnel. Chemistry, Pharmacy and Life Sciences are all due to come online during the first quarter of '08. If your location is not yet online with Chematix, there are a few steps that you can take to make the switch go smoothly. First, be sure that you have your UGA picture I.D. For more info go to http://www.uga.edu/ugacard/. Second, you must have a UGA MyID username and password. This is the same username and password that you use to check your UGA email and view paycheck information. To obtain your UGA MyID go to https://www.myweb.uga.edu/myid/. Next, make sure that your Responsible Management of Hazardous Waste online training is up to date. To update go to http://www.esd.uga.edu/hazmat/training/index.asp. Have all of this information handy when you are scheduled for Chematix training. This will speed up the switch over process and ensure that you have proper access to the system. Thanks and we'll see you in the labs!

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RAD DAWG NEWS

By Jody Jacobs, Radiation Safety Manager

The next series of radiation safety training classes begins on Wednesday, February 6, 2008. These classes are available to all UGA faculty, staff, and students.

The classes are offered at Training and Development. To view all class schedules or register, you can visit the T&D website at https://busfin1.busfin.uga.edu/human_resources/courses/fulldesc.cfm

The schedule for radiation safety classes is as follows:

Date/Time	Description	Class Code
February 6, 2008 1:15 - 4:30pm	Module 0 Orientation	162008W-01
February 13, 2008 1:15 - 4:30pm	Module 1 Basic Radiation Principles	162108W-01
February 20, 2008 1:15 - 4:30pm	Module 2 Safety and Radiation	162208W-01
February 27, 2008 1:15 - 4:30pm	Module 3 UGA Site Specific Procedures	162308W-01

Calibration of Portable Radiation Survey Instruments

The radiation safety staff provides a free annual calibration service for most brands of portable radiation survey instruments that use GM type detectors. Instruments are calibrated by exposing the detector to a source of radiation and evaluating the response. The instrument response is checked at two points on each scale (20% and 80%) against a known standard. Adjustments are made (when necessary) such that the final readings are within 10% of the actual value. If you need to use our calibration services, please contact John Pyle at 542-7628 to schedule the pick-up. Turn around time is typically less than one week for a standard calibration and he will pick-up and deliver instruments on the main campus. Please be advised that we are not a repair shop; inoperable or damaged instruments will need to be repaired by a qualified vendor before they can be calibrated.

"GM" is an abbreviation for Geiger Muller and is used to describe the most commonly used type of radiation detector. It is named for Hans Geiger who is credited with inventing the device in 1908, and Walther Muller who assisted with additional developments in 1928. This is the origin of the term "Geiger counter".

A GM detector is a pressurized, gas-filled tube with an electrode inside. An electrical voltage is applied between the wall of the tube and the electrode. When radiation passes through the tube it causes ionization, resulting in a brief flow of electrons from the negatively charged tube wall to the positively charged electrode. The rate of electrical pulses counted is used to measure the intensity of the radiation field.

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Helpful Tips for Hazardous Waste Removal

By: Jeff Shirey

In the course of placing blue tags or Chematix labels on your hazardous waste containers for disposal, there are several things you can do, and several things you should avoid, to insure that the process is as smooth as possible.

The following is a list of do's and don'ts to assist you in labeling your lab waste containers:

DO:

- Use rubber bands (size #64) or glassine bags to affix the tag to the container.
- Be sure to include accurate contact info on all forms and tags.
- Replace any tags that have been contaminated or defaced.
- Be sure to sign each tag.
- Place one tag on EVERY container to be picked-up.
- Be sure that all percentages on tags equal to 100%.
- Include container size NOT amount in container.
- Be sure that all writing on tag is legible.

DON'T

- Use tape to affix tag to container.
- Seal glassine bag containing the tag.
- Use chemical formulas or abbreviations.
- Cover original label unless the container no longer contains that substance.
- Use an incompatible lid for container.

There are also times when researchers are removing large numbers of containers from laboratories,

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Waste Management Practices in the Lab

(A message worth repeating)

By: Brian K. Adams, Hazardous Materials Facility Coordinator

Are you in compliance with the hazardous waste management rules and regulations? If you were subject to a surprise hazardous waste compliance audit, would problems or potential violations be found? With ever increasing pressure from the Environmental Protection Agency (EPA) to inspect colleges and universities for hazardous waste compliance it is always a good idea to review the following guidelines:

Containers must be in good condition. Containers used to accumulate hazardous waste must be in good condition (e.g., no severe rusting or apparent structural defects). A container that begins to leak must immediately have its contents transferred to another container.

Waste must be compatible with container. The waste placed in the container must be compatible with it. Acidic or basic wastes will destroy metal drums, and some organic solvents will dissolve the materials in certain plastic containers.

Containers must be kept closed. A container holding hazardous waste must always be kept closed during accumulation, except when it is necessary to add or remove waste. *This is one of the most commonly cited violations during regulatory compliance audits.*

Manage containers to avoid releases. At accumulation areas, containers must not be stored or handled in a manner that may cause them to rupture or leak. Do not completely fill containers, always leave approximately two inches of head space for expansion. Do not allow containers to freeze as they may become damaged during the thawing process.

Incompatibles separated. Incompatible wastes or incompatible wastes and materials, must not be placed in the same container if the placement could lead to a hazardous chemical reaction.

Weekly inspections conducted. To ensure that accumulation areas are kept in good condition, RCRA regulations require these areas to be inspected weekly. Areas where containers are stored must be inspected for leaks and deterioration caused by corrosion or other factors. Inspection records should be maintained on site for at least three years from the date of inspection. http://www.esd.uga.edu/hazmat/pub/sataccum.pdf

Marking requirements during accumulation. The date upon which each period of accumulation begins must be clearly marked on each container and must be visible for inspection. Additionally, while being accumulated on-site, each container must be clearly marked with the words "Hazardous Waste" or with other words that identify their contents.

Employees trained. Generators of hazardous waste are required to receive hazardous waste management training. Persons who must be trained include those who are involved with or are occupationally exposed to hazardous waste. This training must be reviewed annually and is available online at: http://www.esd.uga.edu/hazmat/training.htm

The continued success of our waste management program here at the University of Georgia largely depends on you, the generator. If you need assistance please contact our staff at (706) 369-5706 or visit us online at http://www.esd.uga.edu/hazmat/.

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...Helpful Tips…(cont)

often called “lab cleanouts”. Before you begin filling out large numbers of tags, please call Hazmat at 369-5706, and we will come to your lab to examine the containers and determine which containers will require tagging. Many times we can reduce the tagging work substantially and cut down on wasted labor.

We also try to recycle containers as much as possible. If you would like to reuse your container, you will need to place the researcher name, building and room number prominently on the container in permanent marker. Be sure to write your request for your old containers on your next inventory, and we will bring them back when we revisit your lab. When the container is no longer deemed safe by the ESD staff, we will dispose of it. You can purchase new containers at Central Research Stores, 542-2411, or the vendor of your choosing. The catalog number for a 5 gallon carboy is 721850. As always we will provide 55 gallon drums at no charge.

If you have any questions regarding hazardous materials please call 369-5706, and we will be happy to answer your questions.

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Fire Safety 2008
Smoke Alarms

By Tori Outlaw

It is unbelievably scary to think of fires. They are far more common than most people realize. Somewhere in the U.S., every seventeen seconds, a fire company is responding to a fire. That means that there are almost two million fires a year.

About every two and one half hours, a civilian dies in a fire. In 2005 fire claimed the lives of 3,675 people. Slightly more than eighty percent of these occurred in home fires. Most of these happen in the winter. January is the peak month. February comes in second and December is third.

The primary cause of home fires is cooking. While the overall leading cause of home fire deaths is smoking. During the winter months, fires triggered by the heating equipment also cause deaths. Schools and dormitories also have fires. While deaths are very rare, they do sometimes occur.

There are many ways to stay safe and reduce the risk of fires. Every home should have at least one smoke alarm. Most homes should have several. There should be at least one alarm on every level of the home, including the basement. Extra alarms in the sleeping area are also a good idea. New homes are required to have sleeping area smoke alarms.

The smoke alarms are also required to interconnect the hard-wired alarms. When one goes off, the others will as well. Why are smoke alarms so important? Almost half of all home fires and three-fifths of all fire deaths happen in homes that do not have smoke alarms. One should never consider skimping on this item. That means that every year thousands of people die senselessly when they may well have been prevented by something as small and inexpensive as an alarm. The majority of people who die in a home fire are not in the room in which the fire has started. A fire alarm gives people added time to escape.

Unfortunately, it has been estimated that in about one-third of the homes with smoke alarms, the smoke alarms fail to warn the occupants of a fire because the alarms are not functioning properly. Smoke alarms should be checked and cleaned on a periodic basis to be sure that they are working. The batteries should be changed according to the instructions of the manufacturer. It is recommended that smoke alarms be replaced every ten years, or sooner. New ones should bear the mark of an independent testing laboratory.

In addition to installing and maintaining smoke alarms, one should take care when using portable heaters, fireplaces and woodstoves. Always be in the same room as an operating portable heater and they should not be left on if an individual is sleeping or goes to another room. These units should be kept at least thirty-six inches from anything that is able to burn. Some localities ban portable kerosene heaters, so an individual should check with their local fire department before purchasing this type of heater.

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Next Newsletter

Expect to see the next newsletter around May 2008. This will be the **Spring 2008** newsletter.

Remember, if you need to see a past issue, the most recent issues are archived on our website (www.esd.uga.edu). Go there to read the issue you want; or, run it off; also, you can save it to your computer and read it later.

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New DHS Regulations Apply to Colleges and Universities

By Wes Kolar, UGA Hazmat Response Coordinator

On November 20th of 2007, the US Department of Homeland Security (DHS) published a new Federal law known as the Chemical Facility Anti-terrorism Standard or CFATS for short. The CFATS regulations require all facilities that employ chemical warfare agents and their precursors to report to the DHS under certain conditions that will be outlined below. Reporting is only necessary for CFATS "chemicals of interest" or COI. A complete list of COIs along with instructions for CFATS compliance is located at www.esd.uga.edu/chem/cfats.htm, and is published in the Federal Register under 6CFR27. The CFATS legislation is intend to help the DHS have a more complete view of where bulk quantities of potentially hazardous chemicals are located. All colleges and universities are required to do an initial assessment of the COIs located on campus (referred to as a top screen) before the end of February of this year. The UGA Environmental Safety Division (ESD) will be contacting all departments in the near future with details on what actions they are required to take in order to be in compliance with the new Federal law. CFATS recognizes three potential types of threats associated with chemical warfare agents known as release, theft, and sabotage.

Release refers to the amount of any chemical of interest that is typically stored in an individual building or facility. Under the release threat category, no reporting is necessary unless the amount of any COI commonly housed in a building exceeds the amount listed for release in the COI list. For example, the release threat quantity listed for the COI arsenic trichloride is 15,000 lbs. No reporting of quantities of arsenic trichloride is necessary under the release category unless 15,000 or more lbs. are typically housed in any one building. The lowest quantity for any COI under the release threat category is 1,000 lbs (for arsine). It is therefore unlikely that any initial top screen reporting will have to be done under the release threat category.

Theft refers to the amount of any COI that is known to be missing or stolen from a building. The quantities listed under the theft threat category are much lower than those listed under the release threat category. For example, the theft quantity for arsenic trichloride is only 2.2 lbs. If at any time, 2.2 lbs. or more of arsenic trichloride is known to be missing from any building on campus, *the loss must be immediately reported to the ESD CFATS compliance officer*. The ESD compliance officer will then report the missing quantity to the DHS.

The *sabotage* threat category only refers to facilities that routinely ship large quantities of chemicals off site. UGA does not fall under this category and no reporting under the sabotage threat category is necessary.

While the CFATS regulations are extensive, it is expected that a minimal amount of effort will be required by researchers at UGA to be in full compliance with the new Federal regulations. Every laboratory supervisor that employs hazardous chemicals **is required** to complete the CFATS compliance process by February 29. All comments and questions on the CFATS legislation and implementation of the same should be addressed to the UGA CFATS compliance officer Wes Kolar at wkolar@esd.uga.edu. Your timely assistance in complying with the new law will be greatly appreciated.

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