Attention all seniors.....

All BSCI undergraduates that plan to graduate in May, August or December 2008 must take the MFAT exam (this applies to those working on a BS or BA in Biology, or a BS in Conservation, Botany or Zoology). The number of times that the MFAT will be offered is limited; you must register no later than March 11th to sign up for a time. You can pick up a registration form from the board next to 101 CHH or from the main office (256 CHH). Completed forms should be turned in at 256 CHH. If you have any questions, please see Dr. Carlson in room 256 during his office hours: Tuesdays and Thursdays, 9:00-12:00 or call 330-672-3613.

**MFAT TIMES**

<table>
<thead>
<tr>
<th>DAY</th>
<th>DATE</th>
<th>TIME</th>
<th>ROOM</th>
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</thead>
<tbody>
<tr>
<td>TUESDAY</td>
<td>APRIL 8</td>
<td>1:10-4:10 P.M.</td>
<td>ROOM 13 CHH</td>
</tr>
<tr>
<td>TUESDAY</td>
<td>APRIL 8</td>
<td>4:30-7:30 P.M.</td>
<td>ROOM 13 CHH</td>
</tr>
<tr>
<td>WEDNESDAY</td>
<td>APRIL 9</td>
<td>2:15-5:15 P.M.</td>
<td>ROOM 13 CHH</td>
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Summer Classes.....

During the coming summer, the department is offering a variety of required and elective courses for BSCI majors (as well as an array of non-majors classes). These courses offer a chance to progress towards your degree while enrolled in sections that are often smaller than you might encounter during the academic year. Beyond the two freshman majors classes, we also are offering: Cell Biology, Elements of Genetics, General Ecology, Vertebrate Anatomy, Organic Evolution, History of Biology, and Animal Physiology. Summer is also an excellent time to sign up for an internship (BSCI 40192) or individual investigation (BSCI 20196 or 40196). Check the course descriptions for details and requirements for these courses. Easy to read lists of our summer classes can be found on the folder attached to the board outside 101 or by following the link on our home page (www.kent.edu/biology).
Department of Biological Sciences Calendar for Sale!
The calendar features photography from KSU & NEOUCOM faculty and students. Only $12.00! Contact KentBiologyGrads@gmail.com or any Biology Graduate Student Council member. All proceeds benefit BGSC Student Travel Grant Fund.

Fall Schedule
The Fall 2008 schedule is on-line. We are pleased to offer some brand new and interesting special topics courses. These include:

**Introduction to Neurobiology:** To further broaden the undergraduate curriculum, the Biological Sciences Department is offering an introductory course in neurobiology that will lay the foundation for students to take advanced neuroscience courses in the future. Introduction to Neurobiology will cover basic principles in neuroscience from the cellular to systems level. After completion of the course students should have a basic understanding of how the nervous system is organized, how it detects sensory stimuli to create a mental representation of your environment, and output pathways by which the nervous system can control movement, hormone levels, and physiological processes.

**Biological Light Microscopy:** In this course, students will learn about the microscope theory and operation, including wide-field and confocal fluorescence, differential interference contrast and other imaging modes. Hands-on training will cover all stages of the typical microscopy imaging project, from sample preparation to image analysis and presentation.

**Aquatic Ecology**

**Aquatic Ecology Lecture and Aquatic Ecology Lab:** Ohio is a state rich in a variety of aquatic resources. These range from numerous natural lakes, miles of streams and rivers, man-made reservoirs and ponds, and the prized Lake Erie. Understanding these valuable resources is critical to keeping them swimmable, fishable, and drinkable. Aquatic Ecology (formerly offered as Limnology), takes a multidisciplinary look at functioning of lakes and streams. Some questions to be addressed include: Why does a lake become green and smelly? Is acid rain still a problem? Why have the fish died in my stream? How will climate change affect Lake Erie? Are the fish safe to eat? Are zebra mussels bad? The lecture portion of the class will examine the fundamentals needed to examine these questions. The lab offers considerable hands-on experience in the field, including trips to Twin Lakes just north of campus. The Twin Lakes are world-renown because of pioneering work in lake management conducted there, and offer an exciting setting to learn about aquatic ecology. Also, a weekend field trip to Gibraltar Island in Lake Erie will be scheduled for the lab and lecture students, depending on student interest and availability.
The students in **Molecular Systematics and Evolution** will explore the theoretical and operational aspects of Bayesian inference, maximum likelihood, maximum parsimony and neighbor-joining phylogenetic tree building algorithms for analyzing DNA/protein sequences alone, and in combination with morphological/behavioral data, to estimate evolutionary relationships among species and higher taxa. Hypotheses of evolutionary relationship will be used, together with maximum likelihood- and maximum parsimony-based ancestral character state reconstruction methods, to estimate the order and number of morphological, behavioral and molecular changes that occurred in the evolutionary history of the study taxa. The revolutionary ability of modern phylogenetic methods to test historical evolutionary hypotheses will be a central theme of the course.

### Opportunities

Periodically, the department receives notification of job openings, opportunities and internships. We also have positions in our department that are open at various times ranging from student employees to faculty. For undergraduates, internship information can be found on the board across from 201 CHH and in a notebook in the main office (256 Cunningham Hall).

Some of the recent items we have heard about or materials we have gotten --

- **Spring Job and Internship Fair**, Wednesday, April 9th, 12 – 4 p.m. Student Center Ballroom. Open to all students. View more than 80 registered employers at career.kent.edu
  
  Professional attire recommended.

- **Biologists Wanted for Careers with the Federal Government**

  o The Buffalo District, Corps of Engineers is seeking qualified candidates (M.S. preferred) with strong backgrounds in wetland science and aquatic ecology to work in the Regulatory Branch.

  o Applicants should have knowledge and/or experience with the evaluation of aquatic ecosystems, plant identification, and wetland delineation. Strong written and oral communication skills are also required.

  o All positions are civilian positions. Current starting salaries are as follows: GS-7 (Bachelors Degree) - $37,534, GS-9 (Masters Degree) - $45,911. Promotion potential is to a target grade of GS-11 ($55,548). Candidates will be selected at the GS-07 or GS-09
level for these intern positions. With experience and training, candidates will be eligible for promotion to GS-11.

- In order to receive consideration, please submit resume, cover letter, and references to the Corps by March 3, 2008. You must be a U.S. citizen to apply. Application materials should be sent to:

  MR. ALAN SISSELMAN
  REGULATORY BRANCH
  UNITED STATES ARMY CORPS OF ENGINEERS
  1776 NIAGARA STREET
  BUFFALO, NEW YORK  14207-3199

  • For more information on the Buffalo District visit: http://www.lrb.usace.army.mil/
  • For the Regulatory Branch visit: http://www.lrb.usace.army.mil/regulatory/

- ATTENTION SENIORS!
  - The Center for Student Involvement and the Office of Alumni Relations invite you to attend "What's Next? A Guide to Life after Graduation", a fun-filled and informative, FREE conference for all KSU seniors!
  - Saturday, February 23rd from 1PM-6:00PM
  - Kent Student Center, 3rd Floor, Kent Main Campus
  - Check-in begins at 12:30PM inside room 310A/B
  - There will be 3 break-out sessions. Topics to choose from (attendees choose one topic per session) include:
    - 1st Sessions: How to Sell Your Major/Involvement; Interview Tips & Dress; How to Build Good Credit
    - 2nd Sessions: Adjusting to Grad School Panel; Negotiating for a Job; Moving to a New Job Panel
    - 3rd Sessions: Networking; Loans (payback, consolidation); Ongoing connections to KSU
  - The conference ends with an etiquette dinner – only for students who attended afternoon sessions; students may not just attend the etiquette dinner.
  - HOW DO I SIGN-UP?
• RSVP to the Center for Student Involvement, 330-672-2480, by 5:00PM on Tuesday, February 19th.

  o For more information, contact the Center for Student Involvement, 330-672-2480 or the Office of Alumni Relations, 330-672-KENT (5368).

• The Nature Conservancy is hiring a **Stream Restoration Specialist** for our Richmond, VA office. The complete job description is posted online:
http://www.nature.org/careers/dynamic/natureorg/20080208194140.html

  o Directs and coordinates stream restoration projects and assists in wetland restoration projects of the Virginia Aquatic Resources Trust Fund (Trust Fund). The Trust Fund is a partnership between The Nature Conservancy in Virginia (TNC) and the U.S. Army Corps of Engineers (Corps) that provides a form of compensatory mitigation through preservation, restoration, creation or enhancement of wetlands, streams, buffers, or other aquatic resources in Virginia. The Stream Restoration Specialist works collaboratively with the Wetland Restoration Specialist, Land Protection and Stewardship staff from TNC, staff from the Corps, and other organizations and individuals as needed in carrying out duties. Primary responsibilities include determining feasibility of stream restoration and enhancement at project sites, preparing proposals for funding from the Trust Fund, developing and implementing comprehensive mitigation plans, developing scopes of work for requests for proposals for projects, and managing contracts. This position is responsible for Trust Fund program operations and management of Trust Fund budget. May supervise other staff and will provide technical support to protection staff in identifying and assessing potential stream restoration, enhancement and preservation sites that are appropriate as Trust Fund projects and are consistent with the mission of TNC. This position is funded through May 2009 with the possibility of funding beyond that date.

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**MCAT, LSAT, GRE, GMAT, DAT, OAT, PCAT...**

*How would you score on Test Day?*

Take a Free Kaplan Practice Test on the Kent State University campus on **February 23** at 9 AM and find out!

Call 1-800-KAPTEST or visit kaptest.com to sign-up today! And hurry, spaces are limited!
Some of our recent publications.....


10. Shaltouki, A., Freer, M., Mei, Y., and Weyman, C. M., Increased expression of the pro-apoptotic Bcl(2) family member PUMA is required for mitochondrial release of cytochrome C and the apoptosis associated with skeletal myoblast differentiation, Apoptosis, 12 (2007) 2143-2154.