

## INFOTECH NEWSLETTER STUDENTS

### Workshops for Students:

Please register at: <http://www.saud.ku.edu/train>

Date	Time	Workshops	Location
Aug. 29 (T)	4-5 pm	Introduction to Illustrator	305 Marvin
Aug. 30 (Wed)	6-7 pm	Introduction to 3dsMax/ Viz	305 Marvin
Sept. 4 (M)	6-7 pm	Introduction to Premiere	305 Marvin
Sept. 5 (T)	4-5 pm	Intermediate Illustrator	305 Marvin
Sept. 6 (Wed)	1130-1 pm	Introduction to AutoCAD	305 Marvin
Sept. 6 (Wed)	6-7 pm	Intermediate Max/ Viz	305 Marvin
Sept. 7 (R)	6-7 pm	Introduction to InDesign	305 Marvin
Sept. 11 (M)	6-7 pm	Intermediate Premiere	305 Marvin
Sept. 12 (T)	4-5 pm	Introduction to Architectural Desktop	305 Marvin
Sept. 13 (Wed)	1130-1 pm	Intermediate AutoCAD	305 Marvin
Sept. 14 (R)	6-7 pm	Intermediate InDesign	305 Marvin
Sept. 19 (T)	4-5 pm	Intermediate Architectural Desktop	305 Marvin
Sept. 21 (R)	6-7 pm	Introduction to Photoshop	305 Marvin
Sept 25 (M)	6-7 pm	Introduction to SketchUp	305 Marvin

**Note:** As always, if any of the scheduled workshops will not work for you, you may sign up for one-on-one instruction. Please visit room 222 Marvin to make an appointment with a student tutor.

### Studio Highlight: ARCE 681

Pew Cushion Absorption Coefficients  
by: Bryan Fingland, Lauren, and Dylan Morgan



from l to r: Bryan Fingland, Lauren, Ronse and Dylan Morgan

Consulting services regarding the acoustical properties of pew cushions were provided in completion of our ARCE 681 course. We have determined average coefficients of absorption both per square foot of seating area and per linear foot of pew cushions in various churches. The study spaces used to determine the coefficients of absorption include the First Methodist Church in Topeka, Kansas, the Nativity of Mary Church in Independence, Missouri, and St. Joseph's Church in Wathena, Kansas.

Acoustic measurements were analyzed to obtain average reverberation times for each space both with and without pew cushions. It was also necessary to gather other information about each of the spaces to complete the analysis. This included determining the square feet of the seating areas, measuring the exact dimensions of the pew cushions, and finding the volume of each space. Three-dimensional models were constructed in either the EASE or AutoCAD software, and the volume of each space was found using the program in which the model was built.

After acquiring all the necessary measurements and data, the reverberation times for each space were determined from the impulse responses and/or sound decay measurements. Softwares used for

see [Highlight](#) page 2b...

## INFOTECH NEWSLETTER FACULTY AND STAFF

### Workshops for Faculty and Staff:

Please register at: <http://www.saud.ku.edu/train>

Date	Time	Workshops	Location
Aug. 31 (R)	Noon - 1 pm	How to Remotely Access Your Personal SAUD Files, Project Server and Global Exchange Files	305 Marvin
Sept. 7 (R)	1130 am-1 pm	Introduction to Powerpoint	305 Marvin
Sept. 11 (M)	1-2 pm	Introduction to SAUD Computer Services	305 Marvin
Sept. 22 (F)	3-4 pm	Introduction to Photoshop	305 Marvin
Sept 26 (T)	1-2 pm	Introduction to InDesign	305 Marvin

**Note:** As always, if any of the scheduled workshops will not work for you, you may contact Bev to set up a schedule for a one-on-one training.

### Faculty FAQs:

**Q** Why are other people using the HOME domain when logging into their computer, while I use the SAUD domain when I log in?

**A** We are currently working on synchronizing your KU email and windows logins by way of the HOME domain. Henry has to individually visit each faculty and staff to get this done. In the meantime, you may still use the old domain (SAUD) unless notified otherwise.

**Q** What is the code to get inside the SAUD computer labs?

**A** Please visit room 222 to obtain the code for lab access.

**Q** How long can I checkout equipments?

**A** You may checkout most equipments for only a week while card readers may only be checked out for a few hours.

### Featured Video: Notebook Computer

Below is a URL link that might help you figure out which notebook computer you could buy based on your needs and budget

<http://newsletters.businessweek.com/c.asp?id=624064&c=a09336589b9cb4d2&l=17>

### Electronic Reserves:

You may submit readings to be posted on Electronic Reserves for the Fall Semester.

Brief guidelines:

1. For readings to be posted on E-Reserves, either the Hatch Reading Room, or KU Libraries must own the book or journal.
2. All items to be scanned should be given to Dan Rolf in Room 405 Marvin. (Do not drop off items to be scanned in the Reading Room)
3. Please include a copy of the syllabus or reading list.
4. When submitting articles photocopied from books please include a copy of the title page (preferably with the LC call number).
5. Items scanned from previous semesters are archived, so they will not need to be re-scanned. Just make a note of which readings have been used in previous semesters. If all (or most) of the readings for a course taught in a previous semester are going to be the same, the course website can be reposted. (Readings can be added, or subtracted from the site if need be.)
6. Complete Reserve Request Form

The sooner we get the readings the better. There will undoubtedly be a rush at the beginning of the semester. So, the quicker we get the materials, the easier it will be to ensure that your readings will be available on time.

Visit this link to see the complete E-Res procedures:

<http://www.lib.ku.edu/reserves/eres/coursereservesfaculty.shtml>

If you have any questions or concerns please do not hesitate to contact Dan Rolf at: 4-3027.

# Common Info

## Webmail

Access to webmail is no longer available since the 1st of June because the vendor for this product no longer provides upgrades and support.

An alternative to webmail are the following:

- Outlook Web Access

<http://owa.ku.edu>

- Kyou portal

<http://students.ku.edu> or <http://staff.ku.edu> or <http://faculty.ku.edu>

If you have questions, please contact the IT Help Desk at 864-0200 or [question@ku.edu](mailto:question@ku.edu).

## Global Exchange Gone

The Global Exchange has now been de-activated for good. Access to files saved from last semester are available for restore by visiting room 222 Marvin.

## Software upgrades

- AutoCAD 2007
- AutoCAD Architectural Desktop 2007
- Autodesk VIZ 2007
- Revit Building 9

## Director's Take:

by: Steve Riedl

Greetings everyone!! I hope that all of you had a great summer break. As usual, there are many changes that have taken place over the summer and I wanted to take a moment to go over a few of them.

First, you may notice that both 119 Snow and 305 Marvin hall computer labs have been upgraded to the new Dual Core Intel CPUs and both labs also have new 19" LCD monitors.

The Bridge Lab has gained two replacement scanners that are networked and a new HP 5500 plotter that is considerably faster than the HP 800 series plotters that we currently own. The HP755 will be replaced by one of the HP 800s and the other HP 800 may be available for 24 hour plotting.

As per usual, lots of the software has

been upgraded and some has been removed. As we move through the semester, there may be some additions or deletions, but nothing that is considered the core of the applications that we use on a daily basis.

The heat problem in 119 Snow is finally being addressed and I hope it will be resolved soon. As for now, it is extremely hot in the space and there are workers that are moving in and out of there as they see fit. We are trying to keep the room on limited use for the first few weeks so that the workers can get the job done. The resolution was to install a supplemental air unit that is supposed to keep the room at 76 degrees by itself. Additionally, we will have some control over the thermostat so that we can regulate the temperature.

Finally, you may have heard that I have taken another position outside of the university. I have enjoyed the last several years at my current position as IT Director for your school. We have made incredible progress over the last 7 years and I hope to see that progress continue as you move forward with a new Director. The people at the school are of course the greatest asset and I will miss the many friendships that I have developed over the years. I ask each of you to consider the transition period as I leave and the new Director is hired. During this semester, please understand that there may be changes, or longer periods of time for resolutions as Henry and Beverly absorb a host of new responsibilities. Change is both good and unstoppable. I wish you all the best in the future that you forge each day as members of one of the finest schools at the University of Kansas, and in my opinion the country.

## Highlight

continued from page 1a

data analysis were: Smart Acoustic Tools Analysis and EASERA.

The resulting average reverberation times with and without pew cushions in each space were determined by installing different types of pews and pew cushions in each space. While open-cell foam was used for the pew cushions in each space, velour fabric was used for the covering of the pews only in the Nativity of Mary space. This different type of fabric may affect the absorptive properties of the pew cushions.

Each space has a different ratio of actual pew cushion area to seating area. Since pew cushions add absorption, the space with the lowest ratio of pew cushion area

to seating area should have the lowest absorption coefficients when the absorption coefficient is reported based on a per square foot of seating area basis. This was clearly seen in the data for the Nativity of Mary space, which has both the lowest ratio of actual pew cushion area to seating area and the lowest absorption coefficients per square foot of seating area. Since the First Methodist space and the St. Joseph's space have similar pew cushion widths, 1.17 feet and 1.19 feet respectively, their coefficients of absorption are closer when on a per linear foot of pew cushion basis than on a per square foot of seating area basis. It follows that the Nativity of Mary has the highest absorption coefficients per linear foot since it has the widest pew cushion.



*Pews and pew cushions in St. Joseph's Church located in Wathena, KS*

In conclusion, based on all the analyzed data, the average coefficients of absorption for pew cushions reported in this study provide a reasonable estimate of how the addition of pew cushions will decrease the reverberation times in spaces with hard pews.

## Acoustical Recommendations and Solutions for the Gymnasium and Cafeteria at Hillcrest Elementary School

by: Philip Conway, Andy Miller and Tyler Waldorf

The current space at Hillcrest Elementary School is used as a multipurpose room, as this is one of the larger rooms in the school. Physical education classes, lunch, school programs, assemblies, and special evening programs take place in the gymnasium/cafeteria, all of which are directed by various faculty members. After having met with several of these faculty members, we have deduced that there are three main issues that are of greatest concern:

- 1) space limitations,
- 2) acoustical quality, and
- 3) the sound system.

The size of the space has created capacity limitations for many of its uses. In general, it is



*from l to r: Philip Conway, Andy Miller, Tyler Waldorf*

quite small for an adequate gymnasium space, especially with all of the equipment that is required for many of the physical education classes. Also, with the number of students currently enrolled at Hillcrest Elementary in comparison to the number of seats available as a cafeteria setting, it is necessary to have several lunch periods in order to properly accommodate all of the students at lunch. On average, there are usually 120 to 140 students per lunch period with a maximum of around 170 students. This is a large number for such a small space. It is also our understanding that school programs, assemblies, and evening events are often divided amongst grade levels or activity in order to fit everyone into the gymnasium while trying to observe fire codes. Also, when a local performance group, such as a high school band, performs in the gymnasium, there is often too little space to accommodate a large audience once the group has set up for their performance.

Due to the number of uses of the space, it is difficult to adapt a room for optimum acoustic qualities across the board, as each intended use usually requires different acoustical needs. The majority of the materials in the room are hard surfaces, except for the thin carpet-like material placed along the top of the walls, ceiling beams, and former stage partition. All of these hard surfaces allow for a very acoustically reflective room - making it difficult to conduct the classes or meetings, maintain a reasonable noise level during lunch periods, and have an adequate space for performances.

There have been several concerns expressed that the amount of noise generated during these lunch periods as a result of all of the clanking is not only distracting, but makes it difficult for

faculty to relay information to the students. As for meetings that take place in the gymnasium, the space needs to be adequate for speech purposes, with little reverberation. Concern was also expressed in regard to music performances that occasionally take place in the gymnasium. For example, when a piano is accompanying a group of performers, the sound generated from the piano is lost, especially in the back of the room.

One of the largest complaints is directly related to the out-dated sound system, or lack thereof, that is currently installed in the room. The main mixer and amplifier are located in the former stage area - what is now the faculty break lounge. John Bowman, the school's music teacher, expressed his concerns in that, the sound is obviously impossible to control from the gym area. There are two microphone plugs installed at the edge of the stage, but again, there are no level controls in a convenient and accessible location. We also have been told that during performances, especially the talent show, there is inadequate equipment to accommodate the different acts. As a result, microphones must be held up to portable CD players in order to have any audible sound at all. Though the two installed speakers on either side of the stage operate, Mr. Bowman explained that he often times transports computer speakers from his classroom to the gymnasium, again for convenience purposes.



*Hillcrest Elementary School Gymnasium/ Cafeteria*

Several measurements of the space were conducted to determine the reverberation time of the space. Generally speaking, the reverberation time is the amount of time it takes a sound impulse to decay to an inaudible level. In order to determine the reverberation time in the space, an impulse response was conducted using two different methods: a sinusoidal wave sweep, and a maximum length sequence. The idea behind an impulse response, regardless of the method, is that the room is energized with sound for a period of time. The noise source is then abruptly stopped, allowing the noise to decay naturally. In order to measure the reverberation time as accurately as possible, three different microphone positions were used. The first microphone was located at half court in the

center of the room. Microphone position two was at the center of the base line along the west wall. Finally, the third microphone was placed on the half court line against the south wall.

In addition to determining the reverberation time, we were also concerned with determining the speech intelligibility of the space. This is crucial, especially in a school setting, for emergency announcements. The STI, or Speech Transmission Index, was found at each microphone position. When conducting the STI measurements, a sound pressure level of 70 dBA one meter from the sound source was used. This is the relative equivalent to a woman's voice between raised and shouting, or a man's voice just slightly raised.

Based on all the data gathered, we recommend that the existing thin, carpet-like material be removed from the wall and ceiling beams. This material provides minimal absorption as a material and from conversations with faculty has little aesthetic appeal. There is a more effective way to provide greater sound absorption with a different amount and type of material.

In order to reduce the reverberation time, two-inch thick fiber glass wall board should be installed. Reflections predominantly occur between parallel surfaces. Therefore, absorption is needed on the ceiling and north and south walls of the building.