The chalkboards of Bryan Hall
Magnetism offers a low-tech, low-cost way to teach electrical circuits

They say there's a lot of chemistry in the book "The Bridges of Madison County." But it can't compare to the magnetism in the chalkboards of Bryan Hall. In 1992, Paul Discher, computer technician in the Department of Electrical Engineering, discovered this voyageable physics property in the chalkboards of Bryan, Lepata and Campus II halls while he was pondering a way to demonstrate electrical circuit networks to engineering students. Discher, who is in charge of teaching and research equipment for the electrical engineering (EE) department, wanted to find a better way to demonstrate electrical circuits for professors who teach "EE 280," a network class required for many non-EE majors.

Demonstrating networks had been a cumbersome and daunting task for EE faculty members. R. Martin Arthur, Ph.D., Ronald S. Indeck, Ph.D., and Robert R. Krchnavek, Ph.D. They had to spend time drawing the circuitry on the chalkboard then arranging a table-top demonstration only to discover that the demonstration, although correctly connected, did not obviously resemble the drawn diagram, nor was it visible to students in the lecture. Neither of those methods offered the professors intuitive presentations, mobility or versatility during lectures. Many faculty agreed that there was a need to breathe "conceptual life" into the process of teaching the principles of electrical networks, particularly to non-EE majors.

Indeck and Krchnavek wrote up a series of classroom demonstration procedures and probable lists of equipment necessary to illustrate concepts presented in a course like "EE 280." After approval by the undergraduate committee and department chair, this proposal was turned over to Discher for implementation. Choosing commercially available classroom demonstration equipment could easily have run up a bill in the thousands of dollars and presented solutions that lie flat on a table, thus not readily in view.

Discher wondered whether components could be attached to a chalkboard. For some time he'd been using magnets to hold notes to students and professors on the chalkboard. Before he could employ this idea for a demonstration solution, I had to see if all of the chalkboards would propose using were magnetic. I tested all of the chalkboards in the School of Engineering and found they were magnetic. I just took it from there. In the 1970s, manufacturers of chalkboards switched from slate to laminated composites with cork backings; sand-blushed between the two is magnetic material.

"All types of national media will be here; Washington University's name will be everywhere," said Phil Godfrey, assistant professor, demonstration for the athletes to Sunday morning church services at Graham Chapel. From the morning the first athletes arrive June 25 until the last leave July 10, Washington University will be home to the Olympic Village.

The hospitality rooms will be open from 7 a.m. to 11 p.m. and volunteers will be needed on campus and at other festival locations.

The 24 members of the Current Student Experience Cluster (CSEC) are learning what it feels like to "walk in the shoes" of students at Washington University. By listening to current students relate their experiences on campus, cluster members hope they can make that walk more comfortable.

The CSEC is one of three clusters that has grown out of the University Management Team, a group of about 75 managers from the central administration, also called the Central Fiscal Unit (CFU), and deans from the schools. This cluster's mission, as well as that of the Administrative Services Cluster and the Admission-Financial Aid Cluster, is to find ways to provide better services to students and faculty at less cost. Meeting bi-weekly, the year-old CSEC in the process of identifying areas that students believe need improvement and is recommending changes to the management team, team, team, and suggesting that cluster recommendations already have been implemented. The group is made up of representatives from most of 15 major administrative offices and students.

"The charge from the management team was to understand better the experiences of current students by 'walking in their shoes' and 'telling to what they have to say," said Karen Levin Coburn, associate dean for student development and CSEC coordinat. "We are making recommendations to improve that experience in the context of the management team's goals of improving services while reducing costs and working seamlessly across organizational lines.

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Nitric oxide nabbed as the culprit of whooping cough

T he School of Medicine has received a $1.5 million grant from the National Institute of Neurological Disorders and Stroke to establish an Experimental Neonatal Brain Disorders Center.

The three-year grant will enable researchers in many departments at the School of Medicine and St. Louis Children's Hospital to determine the utility of the newer infrared spectroscopy also has the potential of probing glucose metabolism in newborn infants in the fourth component of the grant. The PET scan also will be used to examine blood flow to the brain in some newborn infants. The valence obtained from the PET studies will be compared to parallel values obtained using an infrared spectrometer. The spectrometer also has the potential of providing blood flow information in newborn infants, but it has not been extensively validated. The planned study will allow physicians to use a proven technique (PET) to determine the utility of the newer infrared technology. In the future, this technique may enable neonatologists to rapidly diagnose sick newborns with metabolic problems to the brain.

In the last project of the grant, faculty in the departments of Neurology, Radiology and Biostatistics will use newly developed computer analysis techniques to determine if serial ultrasound images can predict in utero bleeding in the brain of the newborn. The research is expected to be developed later in the decade.

As part of the Washington University Perinatal Project, second-year medical student Damita Karsan, left, and instructor Nancy Cooksey, R.N., discuss breastfeeding methods with Tasha Benjamin at St. Louis Regional Medical Center. The perinatal project pairs medical students with high-risk pregnant mothers.

Nutritional brain disorders center to be established

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factor in its rulings, she said she has found that other factors come into play as well — the views the justices’ colleagues hold, internal bickering and procedures, to name a few.

"The past can serve to set or constrain," she said.

"Through the study, I hope to bring to the court under greater theoretical focus, and move away from this liberal- and conservative dichotomy; to study policy at its generation and to bring more attention to theory and fact."

She said she gives the court high marks for its work.

"I think the Supreme Court tries really hard to do its job. It’s a very difficult job. The majority of the court have been of an incredibly high caliber, regardless of the motives of the various presidents who appointed them. Not all of them, but most of them. For the most part, I think they have really tried to do their jobs, but the court makes mistakes."

Still, Epstein proposes one major change involving the third branch of the federal government. She favors requiring

"I interviewed Justice Rehnquist when he was still an associate justice and I was doing my dissertation. I had brought with me a lot of charts and graphs and data on how all the justices voted, whether they thought it was a liberal or conservative decision, on a number of issues.

"The Supreme Court came out to get me, I was going over all these graphs and data, and he wanted to know what was in them. He was very much intrigued by all this data I had. Later, at a point in my interview, he told me that he was really interested in political science, but he left the field because he hated politics. I think that he had made a mistake, that the numbers I had brought in, but at the same time numbers were a turnoff to him."

An interview with O’Connor, Epstein said, shed some light on how the justices view their place in the political process.

"I especially went to talk with her about the role special interest groups play in the Supreme Court. I was tentative about speaking with her, because you never know about how the justices feel about their institutional roles, whether they think it’s just about putting on a black robe and taking into account societal values and pressures.

"But when I asked her whether she was surprised at the role such groups play when she was first appointed to the court, she said, ‘Of course I wasn’t surprised, we are a political institution.’ It really struck me that she would say that so matter-of-factly."

She said Ameri
can politics should care more about the third branch of the federal government.

"The average American doesn’t know anything about the Supreme Court. According to a Washington Post poll, more people know about Judge Wapner from ‘The People’s Court’ than the Chief Justice Rehnquist of the Supreme Court. I think people should know there are nine justices — start with the basics. That they hold jobs for life, that they don’t elect them. They should know that the only time they have input into who sits on the Supreme Court is after a two-thirds majority vote to confirm new justices by the Senate."

"There’s nothing like leaving a classroom after a great session. I can be smiling after a great session for a week."

"Some days I get in a rut with my research, and I think, ‘What am I doing? Is what I’m doing going to make a difference in the classroom? Am I teaching what I believe is important?’ I think the teacher-versus-researcher debate represents a false dichotomy. I would not be a good teacher if I was not a good researcher, and my teaching informs my research."

"I think the important work I have as a scholar is defined largely by how I teach my students. I love the idea of holding a great session, and that the important work I have as a scholar is defined largely by how I teach my students. I love the idea of holding a great session, and that's a really happy ending to things."

"My specialty is in the area of an incredibly high caliber, regardless of the motives of the various presidents who appointed them. Not all of them, but most of them. For the most part, I think they have really tried to do their jobs, but the court makes mistakes."

Still, Epstein proposes one major change involving the third branch of the federal government. She favors requiring

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Films

Thursday, Feb. 24

7 and 9 p.m. Filmboard Foreign Series. "Lecture (1987) [VHS]," in French with English subtitles. Room 100 Brown Hall. Call 935-4926 one hour prior to showtime. Cost: $3.

Friday, Feb. 25

7 and 9:30 p.m. Filmboard Feature Series. "Zulu" (1964, 208 min.), in French with English subtitles. Also Feb. 26, same time, and Feb. 27 at 9:30 p.m.) Room 100 Brown Hall. Call 935-4926 one hour prior to showtime. Cost: $3.

Tuesday, March 1

7 p.m. Japanese Film Series. "Termo" (1954). In German with English subtitles. Also March 3, same time. Room 100 Brown Hall. Call 935-4926 one hour prior to showtime. Cost: $3.

Wednesday, March 2

7 and 9 p.m. Filmboard Foreign Series. "Triumph of the Wolf" (1936, 158 min.), in German with English subtitles. Also March 3, same time. Room 100 Brown Hall. Call 935-4926 one hour prior to showtime. Cost: $3.

Friday, March 4

7 and 9:30 p.m. Filmboard Feature Series. "Blissful Mornings" (1966, 113 min.), in English with English subtitles. Also March 5, same time. Room 100 Brown Hall. Call 935-4926 one hour prior to showtime. Cost: $3.

Lectures

Thursday, Feb. 24


6 p.m. School of Medicine public screening. "The Value of a Balance" in a 15-minute video addressing the value of anxiety screening. Opening remarks by Theodore J. Ciceri, assoc. vice chancellor and assoc. dir. for student affairs. Wolf Hall, 4960 Children's Place.

Friday, Feb. 25

9:15 a.m. Pediatric Grand Rounds. "Mental Health Screening by Pediatricians," Richard E. Mattison, Blanche F. Ittleson Associate Prof. of Child Psychiatry and director, Division of Child Psychology, Clayton Aud., 4960 Children's Place. 454-7711.


11 a.m.-12:30 p.m. University College Saturday Series: The Invertebrate Species Act: A Biological Perspective. Barbara A. Schaal, assoc. prof., dept. of biology, Genetics, and prof. and chair, Dept. of Biology and Biological Sciences, Room 423 McDonnell Medical Sciences Bldg.

Saturday, Feb. 26


11 a.m.-12:30 p.m. University College Saturday Series: The Invertebrate Species Act: A Biological Perspective. Barbara A. Schaal, assoc. prof., dept. of biology, Genetics, and prof. and chair, Dept. of Biology and Biological Sciences, Room 423 McDonnell Medical Sciences Bldg.

Monday, Feb. 28


4 p.m. Biomedical engineering seminar. "Three-dimensional Microscopy at Washington University," Angela Congelton, assoc. prof. of biomedical engineering, Biomedical Computer Laboratory, Room 101 Copplens II Bldg. 935-6164.


4 p.m. Immunology seminar. "Protein Tryptic Phosphatases Involved in Lympho- cytosis and the Cell Cycle," Arthur H. Gold, prof., Dept. of Microbiological and Molecular Biology and prof. of Pathology, Third Floor Aud., St. Louis. Call 935-5385 one hour prior to showtime. Cost: $3.


Saturday, March 3


4 p.m. Earth and planetary sciences colloquium. "Oxidative Stress and Genes: How Important is Reading Books With Pictures?" Catherine E. Snow, prof. of geosciences and astrobiology, Graduate School of Education, Cambridge, Mass. Room 140 Eichbaum. 935-6797.

Friday, March 4


4 p.m. Assembly Series lecture/demonstra- tion. "Matching the External and Internal Environment," John Zorn's 12-piece improvisational ensemble, will perform avant garde jazz with a strong sense of form and improvisation. Room 410 Eichbaum Hall. 935-6612.

Exhibitions

"The Near Distance: James McGarrell's "It's an Art," St. Louis. Ruwitch will talk about his work and its reception in the art world. Wednesday, March 2.

"Bob Roberts" (1992). (Also March 5, same time.) Room 100 Brown Hall. Cost: $3.

"Little Shop of Horrors" (1986). (Also Feb. 26, same time, and Feb. 27 at 9:30 p.m.) Room 100 Brown Hall. Cost: $3.


"Multiplex Se-
Performances

Friday, Feb. 25
8 p.m. Zelt Theatre Arts Dept. presentation, "Bad Blood," written by Griselda Olson. Author and activist on women's health and population issues; and Rod, a top male proponent of gay and human rights and University of Chicago, 5:30 p.m., Field House.

Thursday, Feb. 24
7:30 p.m. Feminist Reading Group Discussion, Susan sheriff's book, "No Longer Patient." Feminist Ethics and Health Care, Workshop, Women's Bldg. Lounge. 935-5102.

Friday, Feb. 25
8 p.m. Poetry reading. Chinese-American poet Marilyn Chin will read from her works. A bookingsigning will follow. Edison Theatre. 935-5576.

Friday, March 4
4 p.m. Retirement options presentation. "Investment Options for Faculty and Staff." John C. Strohmeier, instructor and chief executive officer, TIAA-CREF. Presentation will be held in the WU Chapter of the American Association of University Professors. May Aud., Sunken Court.

Saturday, March 5
9:30 a.m.-4:30 p.m. Thirteen four-on-four volleyball tournament for students and starting at 9 a.m. The tournament will be held in the University's Assembly Series and Thomas Merrick, World Bank senior population adviser; a discussion of the role of the United States and the individual in population decision making. Hartmann; sponsored by Population Institute, President Werner Fornos; and various universities. Cost: $20 per person and $10 for the seminar, which is free and open to the public. Call 721-0861.

Saturday, March 5
8 p.m. SRCH concert. "The Tempest." Drama Studio, Room 308 Mallinckrodt, $10 for the general public; $10 for advanced students, faculty and staff. For more information, call 935-4620.

Sunday, March 6
8 p.m.-noon. Fine Arts calligraphy workshop. Bring supplies and samples for the general public; $5 for students, faculty and staff. For more information, call 935-6543.

Sports

Men's Basketball
Last Week: Washington 85, Brandeis 80; Washington, 77 New York University (NYU) 71.

This Week: Saturday, Feb. 26, vs. Chicago, 7:30 p.m., Field House.
Season Record: 17-7 (10 UAA)

Although the Bears held the advantage from the University Athletic Association (UAA) race, they remain in the hunt for an NCAA Division III playoff berth. The Bears dropped another game of the 4-6 in the final 10 minutes, sinking 14 of 18 free throws. Sophomore guard Gene Nolan, Chicago, who led the Bears with 54-55, outscored the Violets 2-6 in the final 10 minutes, dropping 9 of 14 free throws and added his league-leading free throw percentage to .951. In addition, he broke the school record for three-point field goals in a season, Westinghouse five free throws for a total season of 78.

Women's Basketball
Last Week: Washington 70, Brandeis 40; Washington 60, NYU 55.

This Week: Saturday, Feb. 26, vs. University of Chicago, 5:30 p.m., Field House.
Season Record: 21-3 (12-1 in UAA)

In a winner-take-all climax Sunday, the Bears defeated NYU 60-55. Senior Guard Sarah Goldman, Tucson, Ariz., came a 14-point deficit against NYU, this year's league champion. The Bears who trailed 65-51, outscored the Violets 26-6 in the final 10 minutes, dropping 9 of 14 free throws and added his league-leading free throw percentage to .951. In addition, he broke the school record for three-point field goals in a season, Washington University's Assembly Series and Thomas Merrick, World Bank senior population adviser; a discussion of the role of the United States and the individual in population decision making. Hartmann; sponsored by Population Institute, President Werner Fornos; and various universities. Cost: $20 per person and $10 for the seminar, which is free and open to the public. Call 721-0861.

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Sports

Men's Basketball
Last Week: at Southern Illinois University (SIU)-Carbondale Saluki Open — 18-team non-scorer meeting Team

In what has already been a record-shattering season for the Bear tracksters, another major milestone was passed and four first-year marks — fell at Saturday's 18-team SIU-Saluki Open. Seven of the new additions to the Bear record book came on the women's side. Record setters were first-year student Carrie Wards, Hindustan, Ill., (.935 in the 5-meter hurdles); senior Tirzah Wilson, Bemis Harbor, Mich., .(67.69 in the 55); sophomore Julie Jackson-Paris, Wood-Ridge, N.J., 17.16 in the (800); Aliecey Bloomberg, Oterton, Ohio, (.50114" in the high jump); and Adrienne Vang, Lower Marson, Pa., (321/4" in the triple jump). First-year student Keith Liu, Southhampton, Pa., received the only men's record that day by running a 4:25.83 mile.

Men and Women's Swimming/Diving
This Week: at UAA Championships — Men: 5th of 8 teams; Women: 4th of 8 teams

This Week: Ide
Season Record: Men-7:2, Women-6:1

Competing in the ultra-competitive UAA Conference, the Bears had four individuals and one relay foursome earned all-UAA status by finishing in the top three in each event.

Senior Jason Coryell, Marion, Ind., placed third in both the 100- and 200-yard butterfly events, a pair of championship finals. Coryell finished second in the 100-yard butterfly with a time of 1:53.72 and in the 200-yard relay quartet of first-year Jason Price, Tucson, Ariz., first-year student Chris Brown, Wood-Ridge, Mont., first-year Chris Manos, Westfield, N.J., and senior Dave Cuneo, Springfield, Pa., placed third with a Washington University Record. 7:07.58.

Cobra explores art of musical improvisation

Members of John Zorn’s musical improvisational group Cobra will give a performance in The Arts Quad on March 4 in Steinberg Hall Auditorium. Their talk, "The Art of Musical Improvisation," is part of the University’s Assembly Series and is free and open to the public.

The three-person lecture/demonstration will feature Anthony Coleman on piano, David Shea on turntables and Zenra Pakko on flute. Cobra, a 12-piece ensemble, is considered a jazz orchestra as well as a musical game, in which the musicians improve according to rules constructed by the conductor. While its concept is nearly impossible to grasp outside the actual performance, it is an attempt to create "an entire genre of music and form based upon improvisation."

Cobra, based in New York City, will play their first concert at Mayor’s Marshall's March 4 in Steinberg Hall Auditorium as part of its first nation. Cobra's music is available through Metrix ($7 with Washington University ID, $13 without) or KWUR Radio. For more information, call 935-5925.

Cobra is supported by the University’s Assembly Series, W Kurio Radio and Student Union. For more information on the lecture/demonstration, call 935-4620.

Gay couple to deliver sexual awareness talk

Bob and Rod Jackson-Paris will give the Sexual Awareness keynote at 11 a.m. Wednesday, March 2, in Graham Chapel. Their lecture, "The True to Yourself," is part of the University’s Assembly Series and is free and open to the public.

They also will sign books from 1:30 to 2 p.m. March 2 in the Women’s Building Lobby, Bob, a superstar bodybuilder who has won the Mr. America and Mr. Universe titles; and Rod, a top male model featured in fashion and sports wear magazines, have become outspoken proponents of gay and human rights and role models for alternative lifestyles that work since their marriage in 1989.

They have been featured on "The Oprah Winfrey Show," "Donahue" and the "Joan Rivers Show," and have appeared on the autobiography, "Straight From the Heart," which is being published this spring. The lecture is co-sponsored by the Assembly Series, Office of Student Activities and the Office of Student Union Services Committee. For more information, call 935-4620.
City restricts parking on Lindell Boulevard and in Forest Park

The city of St. Louis plans to severely restrict parking on Lindell Boulevard and in Forest Park starting March 1 and to limit parking in the northwest area of Forest Park some time after May 1. Parking facilities along Lindell and through Friday "day" signs will be installed on the south side of Lindell Boulevard from University Circle to Delhallaire in March. The signs will extend the current parking restriction west to Skinker Boulevard.

Signs that read "One Hour Parking Only 8 a.m. to 5 p.m. Monday through Friday" will be installed on the north side of Lindell Boulevard from University Circle to Delhallaire in March. The signs will extend the current parking restriction west to Skinker Boulevard.

"A No Parking sign also will be in- stalled on the west side of Lindell at the intersection of Grand Drive and Lindell Boulevard at University Circle.

Regulations will be limited to three hours Monday through Friday on both sides of the following driveways in Forest Park: Grand Drive from Delhallaire Boulevard west to Forsyth Avenue; Forsyth Avenue from Skinker Boulevard to Grand Drive and Lagoon Drive; Lagoon Drive to Delhallaire Avenue. Parking will be prohibited on the frontage of all traffic islands at the intersection of Grand Drive and Lagoon Drive and the cut-off to University Circle.

Gary Sparks, director of the Transportation Department, said parking is available on campus and motorists will be able to purchase parking permits on a prorated basis.

"We've been keeping a daily count of the number of parking permits on the street in front of Brookings and in the new garage," Sparks said. "There have been between 400 and 500 parking permits purchased so far.

Sparks said it would be most cost-effec- tive to purchase parking permits for $30 in March and April and only permits for the first couple weeks in May.

The University will be asking the new students to try finding their ways around campus," Sparks said. "We produce a lot of written and verbal infor mation, but we have to delay information, because we have to wait until the students have the information when they need it!"

In response, the CSEC recommended that administrative and academic offices review the content, timing and effectiveness of the materials they send to students. The cluster also recommended sending reminders to commuter students to improve essential services to commuter mail services and a re-evaluation of the use of student mailboxes and their accessibility.

"Basically, there have been three different kinds of questions," Godfrey said. "There have been simple changes that made a big difference, like opening a number of gates and solving some of the parking problems. There have been system-wide changes across campus that have helped the service training program for staff to improve the way students are treated at service points. And there are organizational changes — more areas working across organizational lines. Since we’ve been beginning to see.

More recently, the CSEC has been investigating the specific needs of international and transfer students and presented its recommendations to the management team Feb. 21 at the St. Louis University Campus Council at the Baker-Boulevard at University Circle.

Cluster members decided to tackle the importance of providing security for athletes during the festival, said William Tacy, cluster co-chair. "At games, we try to ask. The groups concentrated on non- academic, athletic activi- ties. They’re encouraging directly from the students who were so excited," said Shirley Baker, dean of University libraries and information services. "We had some international students, non-military, non-Greek, non-Creek, off-campus residents, female, minority, students. We tried to think of all the defin- ing characteristics of students. We talk to them about our campus, what we think about students, but to have them in the same room with us, talking, openly, was eye-opening."

Baker and Coburn said they were not surprised by the outcome of the focus group discussions, but were surprised by the depth of feeling and understanding of the topics.

"In the non-academic realm, students said they felt some University employees could be more empathic, approachable and helpful. "We learned that it was very important for students to feel that they were being well-served," Baker said. "How they were treated was often as important as the result." Based on this input, administrative and academic offices that serve students more concentrated their efforts to stay open during the lunch hour. As a result of the cluster’s input, all staff will participate in service training programs to improve interaction with students and coordin- ate services with other departments.

"We learned that students don’t think about services the way we do," Coburn said. "We think of these things along organi- zational lines. Students integrate their service and academic experiences. En- counters with professors, financial aid, the registrar office, other offices all come together as a single experience."

Students, especially commuter students, expressed a need to feel more of a part of the Washington University community and to feel a closer relationship with the students, faculty and staff. In response, the cluster recommended a University-wide orientation process that involves faculty and administra- tors and provides opportunities for small group activities. In addition the CSEC rec- ommended that a program includes a Common 101 orientation program, barbecue, social events and two activities that students act as coordinators and provide priority for other students. In addition, the cluster recom- mended a more expanded processwide orientation process and involving faculty and administrators and providing more opportunity for small group activities.

In the focus groups, students also recom- mended a better communication between administrative and academic offices and the student body. "It was very interesting to new students trying to find their way around campus," Coburn said. "We produce a lot of written and verbal infor mation, but they have no idea what they have in the information when they need it!"

In response, the CSEC recommended that administrative and academic offices review the content, timing and effectiveness of the materials they send to students. The cluster also recommended sending reminders to commuter students to improve general services to commuter mail services and a re-evaluation of the use of student mailboxes and their accessibility.

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For The Record
Alumnus Alvin Goldfarb commits challenging grant to arts and sciences

Civic leader Alvin Goldfarb has committed a $928,000 challenge grant to arts and sciences at Washington University. Chancellor William H. Danforth has announced that Goldfarb, an alumnus of the John M. Olin School of Business, is an alumnus of the John M. Olin School of Business.

Goldfarb graduated from the School of Social Work. The Jeanette Goldfarb Plant Growth Facility is named in her memory. She is a director of the Jewish Federation of St. Louis and is a past campaign chairman of the Jewish Federation and a past chairman of the Israel Emergency Fund. The building that houses the B'nai B'rith Student Union, named for her late husband, was named the Alvin and Jeanette Goldfarb Student Union.

The auditorium seats 150 and will be used by all arts and sciences departments, as well as the public relations office, for a variety of special events, from fashion shows and fashion shows to public relations events.

Guidelines for submitting copy:
Send your full name, complete title, department, phone number and e-mail address, along with a typed version of your story and a reference to an online article or article submitted for The Record.

For more information, call Sanford at 939-5293.


John C. Morris, M.D., associate professor of obstetrics, gynecology and women's health, received a grant from the American College of Obstetricians and Gynecologists. The grant is to support a study of the role of estrogen in the prevention of osteoporosis.

Michael J. Sirlin, Ph.D., professor of physics and astronomy, received a grant from the National Science Foundation to study the properties of black holes.

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**Demonstration kits distributed to area high school physics teachers**

Junior High School physics students as well. With chalkboard magnetism as his springboard, Discher developed a teaching kit that, for a few dollars an unit, illustrates principles of electrical circuits with "petty cash, rather than thousands of dollars."

The foundation of the kit (total price: approximately $5) is an ordinary video box, which costs just $7. Discher added four 7-pound-pull magnets (40 cents each) two connecting terminals (51 cents), a 9 volt battery (56 cents), plugs, clips, screws and tape costing less than a dollar, and salvaged interconnections wires and bare copper wire to make a magnetic model resistor. Four rows make a magnetic model circuit that clings to a chalkboard and illustrates principles of electrical circuits. This is the classic piece of test equipment that can be used either in a lecture or in the lab, and it doesn't cost much.

Demonstration kits distributed to area high school physics teachers—page 4

**Personalities & News**

**Hilltop Campus**

The following is a list of positions available on the Hilltop Campus. Information regarding these positions can be obtained in the Office of Human Resources located at 940168.

**Administrative Secretary**

490162. Medical Alumni and Development. Requirements: Three or more years administrative office experience; some college, bachelor's degree preferred; typing 50 wpm with accuracy; working knowledge of word processing and all computer skills; familiarity with Medical Alumni and Development. Good English command of English, ability to deal with multiple assignments and organize work to meet deadlines; ability to deal directly, accurately and responsibly with public on the telephone, in person and special events; ability to work well with colleagues in promoting a team environment; attention to detail. Clerical tests required. 

**Administrative Assistant**

490175. George Warren Brown School of Social Work. Requirements: Some college; typing 45 wpm with accuracy; personal computer proficiency, including word processing, spreadsheet and database software; knowledge of funding guidelines that apply to the preparation of proposals; ability to coordinate, set up, and attend appointments; above average knowledge of English grammar and spelling; ability to perform clerical work efficiently. Clerical tests required.

**Secretary**

490176. University College. Requirements: Some college, associate degree preferred; typing 40 wpm with accuracy; ability to handle multiple tasks and establish priorities under pressure; ability to meet public in a pleasant and courteous manner; requires some hand deliveries of correspondence and packages across campus. Clerical tests required.

**Technical Sales Specialist**

490177. Campus Stores. Requirements: Some college, bachelor's degree preferred; excellent knowledge of personal computers and popular software; experience using a variety of microcomputer peripherals, such as monitors and printers; ability to typewrite rapidly and use system components; must be able to work in a retail environment and to work independently. Clerical tests required.

**Oiler**

490179. Falcon Oil Plant. Requirements: High school graduate; skill in the use of tools and equipment; general understanding of power plant machinery; a history of dependability and punctuality; a high degree of responsibility and willingness to follow instructions; one year's experience as a helper in a plant or comparable industry; flexible work schedule. Apply online at Hilltop or campus locations. Clerical tests required.

**Medical Campus**

The following is a partial list of positions available at the School of Medicine. Employers who wish to submit a position for consideration must contact the Human Resources Department of the medical school at 940162. This is a powerful learning experience for all those who wish to participate and develop skills in medical terminology, diagnosis, procedures.

**Administrative Secretary**

490525-R. Surgery. Requirements: Bachelor's degree in math, computer science, data processing or related field; one to two years related experience; knowledge of WordPerfect, spreadsheets, Lotus, DCE and UNIX; ability to use PC graphics packages for production of presentations; quality graphics and familiarity with large data base management.

**Medical Research Technician**

490581-R. Pathology. Requirements: Bachelor's degree in cell and molecular biology and/or biochemistry; one to two years lab experience; ability to work independently; ability to interpret or search out skill requirements; experience in specific area.

**Human Resources Associate, Recruitment.**

490605-R. Administration. Requirements: Bachelor's degree or equivalent experience in human resources, business or behavioral sciences or life sciences; good verbal communication skills; ability to interview candidates, screen applications and make written recommendations. Extensive clerical skills required.

**Compensation Specialist**

490607-R. Administration. Requirements: Bachelor's degree or equivalent experience in compensation and benefits; excellent and flexible computer skills; familiarity with WorldPerfect or similar word processing software.

Discher's revolution led to a new, low tech, inexpensive and exciting way to teach electrical circuits not just to Wash- }

— Joe Fitzpatrick

**Medical Research Technician**

490583-R. Psychiatry. Requirements: Bachelor's degree or equivalent or three years medical experience; must have a medical degree; must be licensed to practice medicine in the state of Missouri; must have at least one year of experience with Microsoft WordPerfect; ability to handle multiple assignments and organize work to meet deadlines; ability to deal directly, accurately and responsibly with public on the telephone, in person and special events; ability to work well with colleagues in promoting a team environment; attention to detail. Clerical tests required.

**Medical Technician**

490586-R. Social Work. Requirements: Bachelor's degree in social work or ACSW licensed clinical social worker; ability to identify the critical unit to work within; will be doing assessments and intervention in family therapy.

**Medical Secretary II**

490552-R. Surgery. Requirements: High school graduate or equivalent; some college useful, three years experience in doctor's office in academic setting with patient contact; knowledge of medical terminology; word processing and data entry skills; typing 60 wpm.

**Statistical Data Analyst**

490580-R. Psychology. Requirements: Bachelor's degree in mathematics, computer science, data processing or related field; one to two years related experience; knowledge of WordPerfect, spreadsheets, Lotus, DCE and UNIX; ability to use computer graphics packages for production of presentations; quality graphics and familiarity with large data base management.

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**Social Worker MSW**

490425-R. Social Work. Schedule: Part-time, 20 hours per week. Requirements: Master's in social work or ACSW licensed clinical social worker; ability to identify the critical unit to work within; will be doing assessments and intervention in family therapy.

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**Medical Research Technician**

490581-R. Pathology. Requirements: Bachelor's degree in cell and molecular biology and/or biochemistry; one to two years lab experience; ability to work independently; knowledge of data base construction; tissue culture; protein purification, DNA and RNA analyses skills.

**Developmental Specialist:**

490501-R. Development. Requirements: Bachelor's degree, good communication skills; familiarity with VMS system management experience; VMS system programming experience; knowledge of QA/FTP/TV/IBM; compatible PC programming skills in C or C++; Resume required.

**Medical Technologist:**

490169. Technical Sales Specialist. Requirements: Some college, bachelor's degree preferred; ability to handle multiple tasks and establish priorities under pressure; ability to meet public in a pleasant and courteous manner; requires some hand deliveries of correspondence and packages across campus. Clerical tests required.

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