A crash course in grad school

New Tigers crowd in for orientation.

Graduate students move through Jesse Hall Monday morning as they browse booths at a resource fair after an orientation meeting. Classes begin next Monday.

By Janese Silvey

Monday, August 16, 2010

They’re here for different reasons, but the students starting graduate-level coursework at the University of Missouri can expect to share similar fates this year — hard work, frustration and rewards.
That was the message Graduate School Dean George Justice handed hundreds of new students at Jesse Auditorium today as part of their orientation program.

“Graduate school is not refuge from life — rather, it’s life intensified,” he said, adding that students can expect to be “youthful geniuses and lowly apprentices at the same time.”

The MU Graduate School has roughly 7,500 students pursuing master’s or doctoral degrees. The new graduate students enrolled this year represent 71 countries and 49 states.

The university did not have an estimate of how many new students would be enrolled when classes start next week, but officials said they expected record or near-record enrollment of new students.

About 500 students were registered for today’s orientation.

Hella Hapkemeyer opted to study at MU from Germany because it offered her a teaching assistantship in German studies. She said she planned to take Justice’s advice: Work hard, but don’t take anything too seriously.

But she also admitted she’s terrrified at the idea of teaching. She’s not alone: Students said they’re experiencing a mix of excitement and fear.

“I’m terrified but really excited to have the opportunity,” said Tammy Reall, who’s returning to academia after taking a 12-year hiatus to raise children.

Reall has an undergraduate degree in horticulture from Brigham Young University and worked in landscaping until her first child was born. Now a single mom, she’s finding herself returning to school in hopes of providing for her kids.

Reall is pursuing a doctorate in entomology — the study of insects — much to the delight of her three sons.

“They say they’re junior entomologists,” she said. “I’m going to have the best bug collection.”

Chris Owens is pursuing advanced studies in physics after earning his bachelor’s degree at Truman State University last year. The field requires upper-level studies, he said, but he’s a little worried about the “sheer amount of work you have to do.”

A slate of current graduate students also doled out advice during the program. Mohammad Sherafati, who’s pursuing a doctorate in physics, encouraged new graduate students to talk to advisers and speak up if they’re not interested in a particular research field. He also urged students to get involved in clubs within their fields and consider attending extracurricular conferences and events as part of the job.

Chancellor Brady Deaton told students to think of their broader mission, to help facilitate research and learning not only on campus but in society.
“You’re in for a great treat at this Jeffersonian university,” he said.

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MU tries again with corncob idea

Technology improves storage of natural gas.

By Janese Silvey

Monday, August 16, 2010

The University of Missouri is taking another stab at commercializing a corncob carbon technology after an agreement with a Wyoming firm fell through last year.

A Texas-based startup, Nanos Gas Systems, now has a year to study the economic feasibility of using the technology to transport absorbed natural gas from offshore wells to the marketplace.

MU researchers have spent years developing a way to produce high-surface-area carbon from ground corncobs. They found that corncob carbon briquettes are capable of storing natural gas at lower pressures and in greater quantity than current technologies allow.

Early last year, the university thought it had found a company willing to take that technology to the marketplace by producing the carbon and lower-pressure fuel tanks that would be more efficient than current cylindrical natural gas tanks. Under that agreement, ANG Containment & Delivery Systems Inc. promised to build the initial plant in Missouri, hiring more than 50 employees within five years.

Within several months, though, the company defaulted on its payments, nullifying the contract, said Brett Maland, licensing assistant with MU’s Office of Technology Management and Industry Relations.

Galen Suppes — a chemical engineering professor who leads the research team with MU physics Professor Peter Pfeifer — said the company lacked a feasible business plan. “When it got to the nitty-gritty detail, the company lost money,” he said. “You need to make sure you have a way to manufacture it. It’s one thing to make something in a laboratory; it’s another thing to make it in a big production facility.”

Before agreeing to invest in the technology, Nanos Gas Systems is studying the costs and competitiveness first. The idea is to come up with a more efficient way to transport natural gas using activated carbon that comes from corncobs from oil operations already getting natural gas out of the ground to pipelines, production plants or other consumers. It’s a slightly different application using the same initial technology, Suppes said.
Initial results from other feasibility studies show the technology is strongly competitive with the alternatives, such as liquefying natural gas, he said.

“There are a lot of applications for this carbon,” Maland said. “It still — particularly after this additional research — could potentially be very attractive to the motor vehicle marketplace.”

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JEFFERSON CITY — Better use of technology and raising the number of college graduates highlighted the agenda for a meeting of higher education leaders in Missouri.

The Governor's Summit on Higher Education is scheduled to open Tuesday afternoon in Jefferson City. The meeting will bring together presidents, chancellors and governing board members from the state's two- and four-year public colleges.

Gov. Jay Nixon, his budget director and other officials are scheduled to speak.

Topics include ways to use technology to change teaching methods and ideas for meeting a goal of increasing the number of Americans with diplomas from 39 percent to 60 percent.