

**COLLEGE OF SCIENCE
DEPARTMENT CHAIRS' MEETING
April 23, 2007**

PRESENT:	Biological Sciences	Dr. Brooks Burr
	Chemistry & Biochemistry	Dr. Lori Vermeulen for Dr. Kinsel
	Computer Science	Dr. Mehdi Zargham
	Geology	Dr. Steve Esling
	Mathematics	Dr. Andrew Earnest
	Microbiology	Dr. Douglas Fix
	Physics	Dr. Vivak Malhotra for Dr. Migone
	Plant Biology	Dr. Stephen Ebbs
	Zoology	Dr. William Muhlach
	Dean's Office	Dr. James Tyrrell, Interim Dean
		Dr. Lori Vermeulen, Interim Associate Dean
		Mr. George Cotton, Constituent Development Officer
		Ms. Linda Martin, Assistant Dean

Welcome: George Cotton was welcomed to his first Chairs' meeting as the new College of Science Constituent Development Officer.

Dean's Search: Dr. Tyrrell reported that he has received no further word on the Dean's Search.

RAMP Proposal: Dr. Vermeulen followed up on the RAMP proposal that will request additional GTA positions and undergraduate assistantships to help at-risk students in introductory level science courses. The \$2.2 million proposal includes a 10% increase of stipends. She distributed a handout which details new GTA positions needed by course and by semester, and which also breaks down by course, enrollment, and %DFW for targeted courses.

Math & Science Partnerships & IBHE: Dr. Vermeulen noted that the proposal she is preparing (due 4/30) is for the first phase – a planning phase – of a new master's degree program which plans to take current elementary teachers and make them highly qualified in areas such as environmental science and nanotechnology.

Faculty Salary Increases: No solicitation sheets have been received yet for tenure track (TT) faculty. The 3% increase will be on the May 1 payroll; back pay will not show up until June 1. Non-tenure track (NTT) faculty fall into two categories: 1) NTT faculty on > 0.75% appointment for the last two fiscal years will receive a 3% across-the-board increase; and 2) NTT faculty on 100% FTE appointment for the last five (5) years will be converted to a continuing appointment. They will receive a 3% increase + \$100/mo. increase in salary beyond the 3% in the 1st year, an additional \$100/mo in the 2nd year, and an additional \$100/mo in the 3rd year.

Non Tenure Track (NTT) Workshops: Chairs must attend one of two NTT workshops to be held on Tuesday, 4/24, 2:30-4:30 p.m., University Museum Auditorium; or Wednesday, 4/25, 10 a.m. – 12 noon, Student Health Center Auditorium.

Tenure Track Review: All tenure track reviews have been completed for the College and final, signed reports must be to the faculty by May 1.

Merit Salary: Merit salary recommendations must be submitted to the Dean's Office prior to May 15.

NT Servers: The Dean's Office has been notified of servers in the College that appear to be running an obsolete and insecure operating system, Windows NT 4.0. The IT Security Team has requested that an action plan be implemented to replace or upgrade the systems.

Faculty Assignments: Faculty assignments for AY 2007-2008 must be signed and copies provided to the faculty by May 15.

NY Times Article: Dr. Tyrrell distributed an article entitled “Laws Limit Options When a Student Is Mentally Ill” and emphasized that federal privacy and antidiscrimination laws restrict how universities can deal with students who have mental health problems. Faculty should contact appropriate University officials to deal with students rather than try to handle it themselves.

Mathematics: Dr. Andrew Earnest was fourth in a series of departmental presentations. Although many large universities break the Mathematics department into separate entities for “pure” math, applied math, and statistics, at SIUC it is combined (and does not include faculty doing research in Math Education who are located in the Department of Curriculum & Instruction in COEHS). Although Mathematics at SIUC seems relatively large, with 30 continuing faculty and eight NTT faculty, it is considerably smaller than most of our Southern @ 150 peer institutions and all of our Southern @ 150 aspirational peers. The Department has successfully hired one new TT faculty member for 2007-2008 and another search is currently in progress. Between FY91 and FY93, Mathematics lost a number of faculty lines, but has managed to stay relatively stable with continuing faculty since FY93, although NTT lines have been lost during this time.

Research Funding: Dr. Earnest notes that grant funding has not been as much a part of the culture of mathematics since grant funding is not as essential to doing mathematics research as in other disciplines; there are less funding sources for math; and some faculty don’t recognize the benefits of grant funding. However, five Mathematics faculty currently have individual investigator NSF awards, including two new faculty funded for the first time this past year, and one is part of a large educational project funded by NSF. This is the largest number of grant awards held in the Department in recent memory. Other Department faculty are receiving funding through Math & Science Partnerships, ROE grants, and state grants for mathematics education. NSF is the largest source for mathematical research funding, along with defense department agencies (AFOSR, NSA, ONR) in narrowly targeted areas. For defense funding, however, faculty must be U.S. citizens or permanent residents. The Department has started to explore research interactions with life science faculty, and the Department was able to hire a mathematical biologist under the FHI.

Math currently has 90 undergraduate majors in degree programs in three colleges: COS (21), a small number in COLA (2-3), COEHS (46), and 21 students who are double majors in Mathematics and other fields, such as Computer Science, Physics, Finance, and Engineering.

Graduate enrollment is currently 39, with 22 in the master’s program and 17 in the doctoral program. The number of students in the PhD program has steadily increased and is the highest that it has been in the past 10 years.

The Department has a large service mission and generated 22,582 credit hours in FY06.

Current teaching collaborations include:

- Special sections for calculus and pre-calculus for Engineering students. Students earn four credit hours for seven contact hours. Engineering hires undergraduate leaders to work on a 1:10 ratio with students. Faculty teaching the course must be “on board” with the concept which is similar to Supplemental Instruction (SI).
- MATH 107 and 108 were among the first targeted courses for SI, but there is no firm evidence that students with SI were doing better.
- MATH 113 was established when the Core Curriculum was being set up for students who needed the Core math requirement but whose major did not require additional math courses. The course presents a survey of various topics on application of mathematics in society. The course is large lecture format and serves about 700 students/semester. About 10 years ago, the course was restructured from three lectures/week to two large lectures/week + one recitation (~30/section). SI was added as well. The success rate in this course is high.
- Teaching Excellence in Mathematics and Science (TEMS) program is currently providing scholarship support to eight Mathematics majors in the COEHS degree program. The program was

funded as a RAMP project, but it was not funded at 100% so 10 years later some things proposed have still not been realized. Elementary Education majors have a four-course sequence in mathematics that integrates content and pedagogy, and faculty in both Colleges collaborate to deliver the courses.

New initiatives include:

- MATH 108 – One section is being monitored this semester as a variation on the Math Emporium at Virginia Tech. Under the VT model students go to a giant computer lab and work through modules and the curriculum in a self-paced tutorial. There are TA's and faculty there to help one-on-one, in small groups, or conduct tutorial workshops.

This experimental section being monitored is an attempt to integrate the VT model with a traditional classroom setting. Two days/week students attend a lecture in a technology-enhanced classroom where the instructor can get into the tutorial programs and do a few samples. One day the entire class meets together in a computer lab environment, and the fourth hour of class is devoted to small groups. Lisa Peden and the SI program have provided good support to students in the computer labs—very similar to peer mentors.

Dan Mussa is teaching this semester. Another instructor will teach two sections this summer, and three sections will be taught in the fall in an attempt to begin to collect some assessment data and see if this model works.

Successful ventures include:

- Math Learning Center in the COS Study Lounge in Neckers. Undergraduate and graduate students provide free walk-in tutoring (4-9 p.m.) on any introductory level math courses (through 250, 251). The Neckers atrium atmosphere is open, welcoming, and is set up to be a non-threatening environment. Students may drop in for help with one problem or spend the evening getting assistance. The study area is not restricted to College of Science students. An hourly head count reports over 100 students/night use the study lounge and its related services. New lighting has been added and tables and chairs ordered to expand the area into the west side of the atrium. Dr. Earnest indicated that it would be nice to have continuous support and stable funding for the tutors.

Dr. Steve Esling volunteered to discuss Geology at the next scheduled Department Chairs' meeting.